SITE C CLEAN ENERGY PROJECT

VOLUME 5 APPENDIX A07 PART 1

COMMUNITY SUMMARY:
DUNCAN'S FIRST NATION

FINAL REPORT

Prepared for:
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January 2013

Duncan's First Nation

Duncan's First Nation (DFN) has two reserves: #151A, located 52 km west of Peace River in northwestern Alberta, and #151K, located in the McLennon/Reno area, southeast of Peace River. The majority of the population lives on #151A.[1] The two reserves comprise a total area of 2426.1 ha.[2]

According to Aboriginal Affairs and Northern Development Canada, as of December 2012, DFN has a registered population of 269, with 142 members living on DFN reserves.[3] DFN has a Chief and two Councillors, and uses a custom electoral system.[4]

In the 1970s, DFN joined the Lesser Slave Lake Indian Regional Council. But in 1998, DFN transferred to and formed the Western Cree Tribal Council along with Horse Lake First Nations and Sturgeon Lake Cree Nation.[5] DFN is also a member of the Treaty 8 First Nations of Alberta.[6]

Historical Background

DFN are Woodland Cree and are part of the Algonquian Cree linguistic group.[7]

DFN adhered to Treaty 8 on July 1, 1899.[8] Reserves for DFN's use and benefit were surveyed and established in 1905, but the reserves were not confirmed by Order-in-Council until May 3, 1907, for the first eight of the reserves, and June 23, 1925 for the last two reserves.[9]

In the mid-1920s, Canada sought to obtain surrenders of reserve lands belonging to DFN, the Beaver Band, and the Swan River Band, the three Bands in the Lesser Slave Lake Agency.[10] Between 1925 and 1927, negotiations with the Bands were conducted

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[1] Duncan's First Nation. 2012. *Who We Are.* Available at: http://www.duncansfirstnation.com/?page_id=2. Accessed: December 2012 ("Duncan's First Nation, Who We Are").
[2] Aboriginal Affairs and Northern Development Canada (AANDC). 2012. *First Nation Detail, Duncan's First Nation.* Available at: http://pse5-esd5.ainc-inac.gc.ca/FNP/Main/Search/FNMain.aspx?BAND_NUMBER=451&lang=e. Accessed: December 2012 ("AANDC, Duncan's First Nation").
[3] AANDC, Duncan's First Nation.
[4] AANDC, Duncan's First Nation.
[5] Western Cree Tribal Council. 2012. *Welcome to the Western Cree Tribal Council*. Available at: http://www.westerncree.ca/. Accessed: December 2012.
[6] Treaty 8 First Nations of Alberta. 2012. *List of Nations*. Available at: http://treaty8.ca/default.aspx?ID=9&page=List of Nations. Accessed:
[7] Alberta Ministry of Aboriginal Relations (AB MAR). 2010. *Métis Settlements and First Nations in Alberta: Community Profiles.* Available at: http://www.aboriginal.alberta.ca/documents/MetisSettlement_FirstNation_Profile.pdf. Accessed: December 2012 ("AB MAR, Community Profiles") at 28.
[8] Indian Claims Commission (ICC). 1999. *Duncan's First Nation Inquiry, 1928 Surrender Claim*. Available at: http://publications.gc.ca/collections/collection_2009/indianclaims/RC31-56-1999E.pdf. Accessed: December 2012 ("ICC, 1928 Surrender Claim") at 6.
[9] ICC, 1928 Surrender Claim at 8 & 11.
[10] ICC, 1928 Surrender Claim at 34,

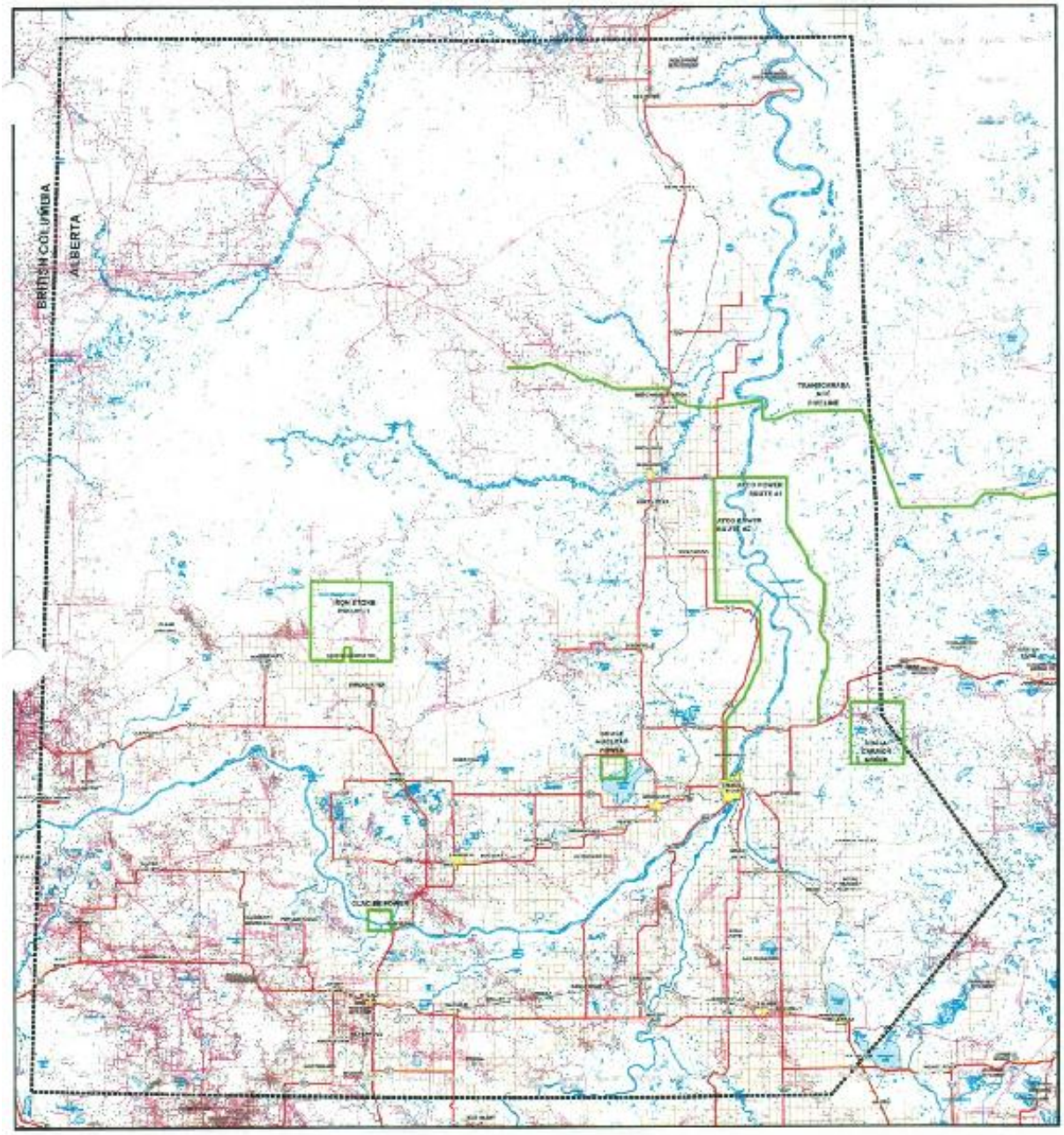
separately.[11] However, at the end of 1927, Canada decided to combine the negotiations. The DFN surrendered IR 151 and IR 151B-151G on September 19, 1928.[12]

A map of the claim area can be found on page 231 of the Indian Claims Commission's decision in Duncan's First Nation Inquiry – 1928 Surrender Claim.[13]

[11] ICC, 1928 Surrender Claim at 49.
[12] ICC, 1928 Surrender Claim at 59.
[13] ICC, 1928 Surrender Claim at 231.

Traditional Territory Map

Duncan's First Nation and British Columbia Hydro and Power Authority. 2010. Duncan's First Nation Traditional Land Use Agreement for Site C Clean Energy Project: Schedule A.



SITE C CLEAN ENERGY PROJECT

VOLUME 5 APPENDIX A07 PART 2

BC HYDRO CONSULTATION SUMMARY: DUNCAN'S FIRST NATION

FINAL REPORT

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Volume 5 Appendix A, Part 2, provides a summary of consultation activities undertaken by BC Hydro with each of the 29 Aboriginal groups listed in Table 9.1 of the EIS, as required pursuant to section 7.2.1 of the EIS Guidelines. This summary describes consultation activities that took place between November 1, 2007 and November 30, 2012, including meetings, phone calls, letters and emails, and consists of a high-level description of "key events" followed by a chronological summary of the consultation process during the above time period.

Volume 5 Appendix A, Part 2, will be updated with new or additional information prior to the submission of the EIS to the Joint Review Panel.

DUNCAN'S FIRST NATION

CONSULTATION SUMMARY

Defined Terms	
"AMEC"	AMEC Earth & Environmental, consultant for BC Hydro
"BCEAO"	Environmental Assessment Office, Province of British Columbia
"CEA Agency"	Canadian Environmental Assessment Agency
"Duncan's"	Duncan's First Nation
"EIS"	Environmental Impact Statement
"GIS"	Geographic Information Systems
"Golder"	Golder Associates Ltd., consultant for BC Hydro
"historical grievances"	Allegations of damages arising from the construction and operation of BC Hydro's existing facilities on the Peace River
"IBA"	Impact Benefit Agreement
"Potential Downstream Changes Report" or "Downstream Report"	Site C Clean Energy Project, *Potential Downstream Changes* (BC Hydro, May 2012)
"the Province"	Province of British Columbia
"Site C" or "the Project"	proposed Site C Clean Energy Project
"*Stage 2 Consultation Agreement*"	Stage 2 – Proposed Site "C" Project Agreement for Consultation and Collaboration between Duncan's First Nation and BC Hydro, dated September 16, 2008

"*Stage 3 Consultation Agreement*"	Site "C" Clean Energy Project Agreement for Consultation and Collaboration between Duncan's First nation and BC Hydro, dated July 12, 2010
"TLUS"	Traditional Land Use Study
"*TLUS Agreement*"	Traditional Land Use Study Agreement for Site C Clean Energy Project between Duncan's First Nation and BC Hydro, dated July 12, 2010

Key events

2007

- November: BC Hydro made initial contact with Duncan's and expressed its commitment to effective consultation with respect to the Project.

2008

- April: BC Hydro wrote to Duncan's advising that it had developed an engagement strategy for the Project and would contact Duncan's in the upcoming weeks to set up an introductory meeting. The letter attached the Stage 1 Summary Report.
- June: BC Hydro met with representatives of Duncan's (Chief, Councillor and staff) for an introductory meeting. Duncan's expressed interest in developing a consultation agreement with BC Hydro, and receiving funding to undertake an independent technical review of reports and studies related to the Project.
- September: BC Hydro and Duncan's finalized and executed a *Stage 2 Consultation Agreement*, which established the principles, process and scope for consultation between BC Hydro and Duncan's for Stage 2 and provided capacity funding to enable Duncan's to participate in the consultation process. The term of the agreement extended until the completion of Stage 2.
- November: BC Hydro participated in a community meeting at the Duncan's reserve which was attended by 10 Elders and Duncan's lands staff. BC Hydro presented introductory information about the Project and responded to questions.

2009

- May: BC Hydro wrote to Duncan's and enclosed materials from the environmental and socio-economic TACs for the purpose of early information sharing

- June: BC Hydro provided Duncan's with a complete set of Stage 1 studies.
- August:
  - BC Hydro met with Duncan's and presented information and sought input regarding baseline studies on hydrology and fish and aquatics. Duncan's advised that water quality was the community's number one concern related to the Project, and requested information on how the Project would affect water quality. BC Hydro explained that sediment might change water quality in some parts of the river due to the turbidity, but that preliminary studies suggested that effects on water quality were unlikely to be of significant concern in the Peace River near Duncan's reserve.
  - BC Hydro met with representatives of Little Red River Cree and Duncan's to present information and seek input with respect to baseline studies on hydrology, fish and aquatics, wildlife, heritage, socio-economic issues, and greenhouse gases.
- September: BC Hydro provided Duncan's with nine wildlife and fish studies completed in Stage 2, and offered to meet with Duncan's to discuss the materials.
- December: BC Hydro met with representatives of Duncan's to discuss the possibility of conducting a TLUS and commencing negotiations with respect to a Stage 3 consultations agreement. BC Hydro tabled a draft Stage 3 consultation agreement, advising that finalization would be contingent upon the Project moving to Stage 3.

2010

- February: BC Hydro met with representatives of Duncan's to provide a Project update, which included a discussion regarding the potential downstream changes resulting from the Project, and a review of the findings of the report, *Stage 2 Review of Potential Downstream Changes from Site C Operations: Preliminary Findings* (October 2009). BC Hydro tabled a capacity funding offer for Stage 3, which Duncan's accepted.
- April: BC Hydro advised Duncan's of the Province's announcement that the Project would move forward to Stage 3, and provided a link to a website containing the Stage 2 Report and 35 appended studies and reports.
- July: BC Hydro and Duncan's finalized and executed a *Stage 3 Consultation Agreement* and a *TLUS Agreement*.
  - The *TLUS Agreement*, dated July 12, 2010, outlined the objectives, methodology,

deliverables and capacity funding for the TLUS.

- The *Stage 3 Consultation Agreement*, dated July 12, 2010, established the principles, process and scope for consultation between BC Hydro and Duncan's for Stage 3, and provided capacity funding to enable Duncan's to participate in the consultation process. The agreement remains in effect until the completion of Stage 3.

2011

- February: BC Hydro met with Duncan's to discuss potential downstream changes resulting from the Project and preparations for carrying out the TLUS. Duncan's provided BC Hydro with its TLUS Research Plan and Data Collection Manual, prepared pursuant to the *TLUS Agreement*.
- March:
  - BC Hydro provided Duncan's with four Stage 2 studies related to fish and aquatics.
  - BC Hydro provided Duncan's with summary documents describing proposed studies for the 2011 field program, and invited feedback and comments. The proposed studies were to be undertaken through the Environmental Program (Fish and Aquatics, Wildlife, Physical Environment), the Heritage Assessment, and the Socio-economic Assessment.
- April: BC Hydro met with representatives of Duncan's to discuss the status of the Project, Duncan's progress on the TLUS, the status of BC Hydro's work to assess potential downstream changes resulting from the Project, and employment opportunities.
- May: BC Hydro met with representatives of Duncan's. BC Hydro provided Duncan's with a hardcopy of the Project Description Report, and provided an update on the status of BC Hydro's work in regard to potential downstream changes resulting from the Project. BC Hydro responded to questions from Duncan's regarding the baseline being used to assess cumulative effects in the environmental assessment.
- August: BC Hydro met with representatives of Duncan's and provided an overview of the Project Description Report. Duncan's expressed the view that a pre-W.A.C. Bennett Dam baseline should be used for the environmental assessment, and would be raising the issues with the regulatory agencies. BC Hydro explained how cumulative effects would be assessed in the environmental assessment process, confirming that BC Hydro would be assessing the potential effects of the Project in

conjunction with other projects in the area, including the Dunvegan project in Alberta. Duncan's indicated that it intended to raise the issue of cumulative effects with the regulatory agencies.

- October/November: BC Hydro and Duncan's met on two occasions to discuss the status of the TLUS.

2012

- January: Duncan's provided BC Hydro with the final version of Duncan's Ethno-historical Review, submitted pursuant to the *TLUS Agreement*. The report contained an overview of the available literature with respect to the land use history of Duncan's First Nation.
- February:
  - BC Hydro wrote to Duncan's to provide an update on BC Hydro's proposed approach to Site C procurement and contracting work.
  - BC Hydro wrote to Duncan's to provide an update on the progress towards completing an updated report regarding potential downstream changes, including an overview of some preliminary study results. BC Hydro offered to meet with Duncan's to review the interim results.
- April:
  - Duncan's provided BC Hydro with the TLUS Methodology Report and the TLUS Community and Public Report, submitted pursuant to the *TLUS Agreement*.
  - BC Hydro advised Duncan's in a meeting on April 24 that it would begin negotiating benefits agreements with B.C. First Nations located in proximity to the Project area, with Duncan's expressing disappointment that BC Hydro had decided not to commence benefit agreement discussions with Alberta First Nations. BC Hydro explained that if Duncan's was unsatisfied with BC Hydro's current direction, then it could write to BC Hydro and outline its understanding of the potential effects of the Project on Duncan's.
  - BC Hydro sent a letter to Duncan's attaching an updated map of the proposed Project footprint and offering access to associated GIS shape file data. The letter attached a memorandum describing the details of the new or amended information.

- May:
  - Duncan's provided BC Hydro with the final version of its Country Food Harvest Survey, and advised that upon submission of the report, it had addressed and completed all the deliverables in the *TLUS Agreement*.
  - BC Hydro provided Duncan's with the Potential Downstream Changes Report (May 2012) and requested input regarding the results. The letter offered to arrange a meeting with BC Hydro's subject matter expert in hydrology to discuss the report's findings. BC Hydro provided Duncan's with funding to undertake an independent technical review of the report, and provide written comments to BC Hydro.
  - BC Hydro met with Duncan's and provided a Project update and presented to Duncan's the results of the Potential Downstream Changes Report. BC Hydro's Senior Engineer and Hydrology Expert reviewed the report's findings:
    - Surface water regime: BC Hydro reported that it was likely the Project would result in greater fluctuation of water levels near the Site C tailrace with effects diminishing further downstream and no fluctuations being observed at the Town of Peace River. BC Hydro indicated that it expected no seasonal change in the timing of water releases.
    - Ice regime: BC Hydro reviewed the expected changes in the ice regime as a result of the Project, explaining that (a) there would be no changes in ice thickness, (b) there would be no change in the timing of ice break-up, (c) there would be a slight delay in ice formation at Shaftesbury, an average of 5 days, and (d) there would be a slight delay in ice front progressions, with an average delay of three days at the Town of Peace River, and greater upstream.
    - Geomorphology and sediment transport: BC Hydro explained that geomorphology referred to the river shape, while the sediment regime referred to the quantity, timing, and mode of transport of particulate matter by river flows. BC Hydro indicated that expected changes in flows as a result of the Project were not expected to influence the bedload transport capacity downstream or have any influence on channel erosion or deposition.

    BC Hydro responded to questions posed by Duncan's regarding the impacts of water fluctuations on fish, the methodology used for the study, and how it had considered the potential cumulative effects of the Dunvegan Hydroelectric Project.
  - BC Hydro wrote to Duncan's regarding the process and rationale for identifying the

proposed Valued Components and spatial boundaries in the draft EIS Guidelines, and expressed interest in receiving feedback from Duncan's.

- June:
  - BC Hydro attended a training session for the First Nations Community Assessment with representatives of Duncan's, Horse Lake First Nation, and Blueberry River First Nations. Big Sky Consulting Ltd., consultant for BC Hydro, presented an overview of the First Nations Community Assessment, and led a workshop session where participants identified information requirements, potential interview participants, and key questions for interviews in different topic areas.
  - BC Hydro sent a Letter of Understanding to engage Duncan's in preparing a Community Baseline Profile Report as part of BC Hydro's preparation of the Socio-economic Assessment. The Letter of Understanding included funding, terms of payment, a work plan and deliverables associated with the Community Baseline Profile Report. Duncan's signed the Letter of Understanding and faxed a copy to BC Hydro on July 4, 2012.
- September: BC Hydro wrote to Duncan's advising that the EIS Guidelines had been issued by the BCEAO and the CEA Agency on September 7. BC Hydro highlighted the areas of the EIS Guidelines that specifically addressed the incorporation of information from Aboriginal groups, and invited Duncan's to provide additional information for BC Hydro's consideration in preparing the EIS. The letter included a specific request for a traditional territory map, as well as requests for information regarding Duncan's current use of lands and resources for hunting fishing and trapping, and other purposes, and information regarding how the Project would affect Duncan's current use of lands and resources, and their exercise of asserted or established Aboriginal rights and treaty rights. BC Hydro followed up in late October and advised that it remained interested in receiving additional information to support the preparation of the EIS.
- October: BC Hydro sent a letter to Duncan's which advised that BC Hydro had updated the Project footprint map for Site C, and provided a link to the updated map and associated shape file data. The letter attached a memorandum outlining the specifics of the new and amended information, which identified, among other things, a reduction in the area of the proposed Site C dam site from 3907 hectares (April 2012) to 2025 hectares (October 2012).
- November:
  - In a teleconference with BC Hydro on November 7, Duncan's suggested deferring a previously contemplated community meeting regarding the potential effects of

the Project on wildlife and fish. As an alternative, Duncan's suggested that BC Hydro provide it with the information, which would then allow Duncan's to engage with its members directly. Duncan's expressed interest in entering into a benefits agreement in relation to the Project. BC Hydro replied that it would need to deal with B.C. First Nations located in the Project area, before discussing opportunities with First Nations in Alberta, but indicated that it could make a general commitment at the level of principle.

- Duncan's emailed BC Hydro and attached the third draft of its Community Baseline Profile Report in support of BC Hydro's Socio-Economic Assessment and pursuant to the Letter of Understanding signed on June 27, 2012. The draft Community Baseline Profile Report contained background information on the Duncan's community and identified several areas of interest for the environmental assessment. Duncan's also attached charts with information on potential Project effects, and the results of a harvest survey (Country Foods Questionnaire Summary) which provided data on household wildlife and fish consumption.

Chronology of events

2007

On November 21, 2007, BC Hydro sent an introductory letter to Duncan's regarding the Project. The letter introduced BC Hydro's senior advisor responsible for First Nations consultation, and expressed BC Hydro's commitment to effective consultation with First Nations should the Project proceed further through BC Hydro's multi-stage decision making process.

2008

On April 10, 2008, BC Hydro sent a letter to Duncan's in follow up to BC Hydro's letter of November 21, 2007. The letter advised that BC Hydro had developed an engagement strategy for the Project and formed a team to consult with First Nations. The letter advised that BC Hydro would contact Duncan's in the upcoming weeks to set up an introductory meeting. The letter attached the Stage 1 Summary Report.

On June 26, 2008, BC Hydro met with representatives of Duncan's (Chief, Councillor, Lands Manager and negotiator). BC Hydro provided introductory information about the Project including a description of proposed environmental studies. Duncan's expressed interest in developing a consultation agreement with BC Hydro, and receiving funding to

undertake an independent technical review of reports and studies related to the Project. Duncan's provided BC Hydro with background information pertaining to the community, and stressed the importance of early community consultations with Elders. BC Hydro provided the following materials: Stage 1 Summary Report; copies of a map of the Site C dam site with reservoir overlay; and an information sheet regarding Stage 2 field studies.

On September 16, 2008, BC Hydro and the Duncan's finalized the *Stage 2 Consultation Agreement*, which established the principles, process and scope for consultation between BC Hydro and Duncan's for Stage 2 and provided capacity funding to enable Duncan's to participate in the consultation process. The *Stage 2 Consultation Agreement* outlined the respective responsibilities of the parties, specifying that BC Hydro would provide Duncan's with necessary information about the Project, that Duncan's would be responsible for providing information about its concerns regarding the Project including potential impacts on section 35(1) rights, and that BC Hydro and Duncan's would be jointly responsible for identifying strategies to avoid, mitigate, manage or accommodate those potential adverse impacts. The agreement also addressed the topics of confidentiality, dispute resolution, and communication between the parties. The term of the agreement extended until the completion of Stage 2.

On October 23, 2008, BC Hydro sent a letter to Duncan's enclosing a capacity funding cheque issued pursuant to the *Stage 2 Consultation Agreement*.

On November 18, 2008, BC Hydro participated in a community meeting at the Duncan's reserve which was attended by 10 Elders and Duncan's lands staff. BC Hydro presented introductory information about the Project and responded to questions on a number of topics including: Historical Grievances; benefits and opportunities associated with the Project; potential impacts to the fish, wildlife, vegetation; potential changes in downstream conditions; coordination and information sharing, cumulative effects; and, the seismic stability of the Project.

<u>2009</u>

On May 6, 2009, BC Hydro sent a letter to Duncan's enclosing materials from the environmental and socio-economic Technical Advisory Committees that took place between September 2008 and February 2009. The materials included information on wildlife, fish and aquatics, land and resource use, recreation and tourism, community services and infrastructure, heritage, and greenhouse gases. BC Hydro advised that it was providing the materials for the purpose of early information sharing, and cautioned that the information should not be relied upon as a forecast of final study results.

On May 12, 2009, BC Hydro mailed a copy of the Stage 1 Completion Report to Duncan's.

On June 2, 2009, BC Hydro sent a letter to Duncan's enclosing a disk containing the complete set of Stage 1 studies, as follows:

- Peace River Fisheries Investigations - Peace River Tributary Spring Spawning Migration, Tributary Summer Juvenile Rearing and Radio Telemetry Studies (2006).
- Peace River Fish and Aquatics Investigations - Peace River Tributary Summer Fish Distribution, Habitat Assessment and Radio Telemetry Studies (2005).
- Peace River Fisheries Investigations - Peace River and Pine River Radio Telemetry Study (2007).
- Peace River Wildlife Studies - Preliminary Inventory of Bat Species in the Peace River Corridor (2005).
- Peace River Wildlife Surveys - Inventory and Habitat Use of Bat Species in the Peace River Corridor (Field Work 2006, Final Report 2009)
- Terrestrial Ecosystem Mapping of the Peace River Study Area: Baseline Inventory Surveys 2007 (Field Work: 2005, 2006, 2007)
- Peace River Wildlife Surveys Summary Report - Winter Baseline Inventory Surveys 2006 (Field Work 2005 - 2006, Final Report 2009)
- Peace River Fisheries and Aquatic Resources Literature Summary (September 2008)
- Small Fish Surveys in the Peace and Halfway Rivers (2006).
- Peace River Wildlife Surveys - Baseline Inventory Surveys (2006).
- Expanded Legend for the Peace River Terrestrial Ecosystem Mapping Project (2007).
- Water Quality, River Sediment, Soil, and Vegetation Samples from the Peace River Watershed (2007).

On August 4, 2009, BC Hydro met with representatives of Duncan's (Chief, technical advisors). BC Hydro presented information and sought input regarding baseline studies on hydrology and fish / aquatics. Duncan's advised that water quality was the community's number one concern related to the Project, and requested information on how the Project would affect water quality. BC Hydro explained that sediment might change water quality in

some parts of the river due to the turbidity, but that preliminary studies suggested this was unlikely to be of significant concern in the Peace River near Duncan's reserve.

On August 13, 2009, BC Hydro met with representatives of Duncan's (Acting Director) and Little Red River Cree (Lands Manager, Acting Director). BC Hydro presented information, sought input and responded to questions regarding baseline studies on hydrology, fish and aquatics, wildlife, heritage, socio-economic issues, and greenhouse gases.

On September 4, 2009, BC Hydro provided Duncan's with the following Stage 2 studies via courier:

- Peace River Fisheries Investigation Peace River and Pine River Radio Telemetry Study 2008.
- Baseline Data Collection - Peace River Watershed Water Quality and Dinosaur Lake Limnology Sampling - 2008.
- Stage 2 Baseline Greenhouse Gas Emissions Report.
- Stage 2 Baseline Vegetation and Wildlife Report.
- Peace River Angling and Recreational-Use Creel Survey Interim Year 1 Report.
- Site C Fisheries Studies - Baseline Peace River Tributaries Fish Use Assessments, Spring and Fall 2008.
- Site C Fisheries Studies - Juvenile Fish and Fish Habitat Inventory of Peace River Tributaries, Summer 2008.
- Mercury Levels in Peace River Fish Tissue – Data Report 2008.
- Site C Fisheries Study Upper Halfway River Watershed Bull Trout Spawning Survey 2008.

BC Hydro offered meet to with Duncan's to discuss the provided materials.

On December 10, 2009, BC Hydro met with representatives of Duncan's (Chief, Lands Director, negotiator). BC Hydro provided a Project update and BC Hydro tabled a draft Stage 3 consultation agreement for review by Duncan's. BC Hydro indicated that finalization of the Stage 3 consultation agreement could only occur after BC Hydro received further direction from the government regarding whether the project would move to Stage 3. The parties discussed the possibility of conducting a TLUS.

2010

On February 23, 2010, BC Hydro met with Duncan's (Chief, Councillor, negotiator). BC Hydro provided an update on the Project, which included a discussion regarding the potential downstream changes resulting from the Project, and a review of the findings of the report, *Stage 2 Review of Potential Downstream Changes from Site C Operations: Preliminary Findings* (October 2009). BC Hydro provided Duncan's with a draft Stage 3 consultation agreement and tabled a capacity funding offer for Stage 3, which Duncan's accepted. The parties also agreed to work together to finalize a budget to conduct a TLUS. BC Hydro sent an email to Duncan's on March 18, 2010, attaching a revised Stage 3 consultation agreement which reflected the parties' understanding with respect to capacity funding.

On March 24, 2010, BC Hydro met with Duncan's (Acting Director, Lands Director) to discuss financial reporting requirements pursuant to the *Stage 2 Consultation Agreement*.

On April 19, 2010, BC Hydro sent an email to Duncan's advising that the Province had announced that the Project would move forward to Stage 3, the Environmental and Regulatory Review Stage. The email also provided a link to the Project website where the final Stage 2 Report and 35 appended studies and reports had been posted.

On June 3, 2010, BC Hydro sent a letter to Duncan's enclosing two capacity funding cheques issued pursuant to the *Stage 2 Consultation Agreement*.

On June 21, 2010, BC Hydro sent a letter to Duncan's advising that Golder had been awarded the contract to conduct the Heritage Assessment for the Project. The letter further advised that Golder would provide a five day heritage training program in Fort St. John in July 2010, and would be looking for Duncan's to identify interested community members to attend this training, with a view to providing employment opportunities to community members.

On July 12, 2010, Duncan's provided BC Hydro with signed copies of the *Stage 3 Consultation Agreement* and the *TLUS Agreement*.

- The *TLUS Agreement*, dated July 12, 2010, outlined the objectives, methodology, deliverables and capacity funding for the TLUS. The methodology for the TLUS involved conducting interviews with 30 to 40 Duncan's members. The agreement provided that Duncan's would prepare and submit the following deliverables to BC Hydro:
    - A proposal outlining the TLUS research design (by August 25, 2010);

- A community newsletter notifying and informing the community of the TLUS (by June 20, 2010);
- Archival research report (by December 10, 2010);
- A summary of the results from the Harvest Survey (by December 10, 2010);
- Maps in hard copy and digital format at a scale of 1:50,000, including a map consolidating all "map biographies", maps for each category of traditional knowledge, use and occupancy identified in the *TLUS Agreement*, and, thematic maps that may be requested by BC Hydro (by January 30, 2011);
- A final methodology report that describes the research methods (by January 30, 2011); and
- A Public Report that can be shared with any regulatory agency (by February 25, 2011).

- The *Stage 3 Consultation Agreement*, dated July 12, 2010, established the principles, process and scope for consultation between BC Hydro and Duncan's for Stage 3, and provided capacity funding to enable Duncan's to participate in the consultation process. The agreement outlined the respective responsibilities of the parties, specifying that BC Hydro would provide Duncan's with necessary information about the Project, that Duncan's would be responsible for providing information about its concerns regarding the Project including potential impacts on section 35(1) rights and that BC Hydro and Duncan's would be jointly responsible for identifying strategies to avoid, mitigate manage or accommodate those potential adverse impacts. The agreement included general funding and as well as funding to support specific deliverables including:
    - Development of a joint consultation work plan;
    - Review of BC Hydro's Potential Downstream Changes Report;
    - Joint community meetings, technical and main table meetings; and,
    - Provision of input on technical and environmental studies.

The agreement also addressed the topics of confidentiality, dispute resolution, funding and payment schedules, and communication between the parties. The agreement remains in effect until the completion of Stage 3, subject to termination by either party upon 90 days written notice.

On July 26, 2010, BC Hydro sent a letter to Duncan's enclosing capacity funding cheques issued pursuant to the *Stage 3 Consultation Agreement* and the *TLUS Agreement*.

On August 4, 2010, AMEC sent an email to Duncan's advising that it had applied for a Heritage Inspection Permit on behalf of BC Hydro to conduct an archaeological impact assessment for the Project (File #10A0284), which aimed to identify archaeological sites that might be affected by the development of the Project. AMEC attached a copy of the application Duncan's reference.

On September 29, 2010, AMEC called Duncan's and advised that the archaeology permit had been approved, and that the field program would commence on October 5, 2010, with participation by field assistants from Duncan's.

On October 4, 2010, BC Hydro sent a letter to Duncan's enclosing a capacity funding cheque issued pursuant to the *Stage 3 Consultation Agreement*.

2011

On February 3, 2011, BC Hydro met with representatives of Duncan's (Chief, Councillor, Lands Director, and Acting Director). The parties discussed the status of the Project, potential downstream changes resulting from the Project, preparations for carrying out the TLUS, and topics of interest for an upcoming community meeting. Duncan's raised Historical Grievances related to the two existing upstream facilities. BC Hydro advised that the Site C Project team did not have a mandate to discuss Historical Grievances, however BC Hydro's Aboriginal Relations and Negotiations team did. Duncan's advised that their people were using the Peace River but its members had concerns about the quality of the fish. BC Hydro asked where Duncan's members did their hunting. The Chief advised that members did not hunt near the community because it was all privately-owned land but rather in the area around Chinchaga. Duncan's noted that information about the Project was included in its community newspaper for September 2010. Duncan's provided BC Hydro with its TLUS Research Plan and Data Collection Manual, prepared pursuant to the *TLUS Agreement*.

On February 17, 2011, Golder sent a letter to Duncan's regarding the 2011 Heritage Assessment field program. Golder indicated that it was currently preparing a request to the Archaeology Branch for an amendment of the existing Heritage Inspection Permit. In anticipation of receiving the permit, Golder was preparing to include potential participation from Duncan's in the field work and analysis. Golder provided the preliminary details and advised that AMEC would be in touch to arrange the sub-consultant agreements and task orders required for the program should Duncan's show interest.

On March 1, 2011, BC Hydro sent an email to Duncan's providing a link to the following Stage 2 fish and aquatics studies:

- Peace River Fisheries Investigation: Peace River and Pine River Radio Telemetry Study 2009.
- Site C Fisheries Studies: Halfway River and Moberly River Fall Mountain Whitefish Migration and Spawning Study 2009.
- Site C Fisheries Studies: Halfway River and Moberly River Summer Fish Survey (2009).
- Site C Fisheries Studies: Peace River Fish Inventory 2009.

BC Hydro also provided the four studies to Duncan's by mail on March 24, 2011.

On March 11, 2011, BC Hydro sent a letter to Duncan's advising that it was engaged in planning for the upcoming field season of environmental work associated with the Project. The letter indicated that, in order to engage Aboriginal groups in discussion of this work, BC Hydro had prepared summary documents that described proposed studies for the 2011 field season. The letter enclosed study outlines and work plan summaries in the following topic areas:

- Environmental Program: Fish and Aquatics;
- Environmental Program: Wildlife;
- Environmental Program: Physical Environment;
- Heritage Assessment; and,
- Socio-economic Assessment.

The purpose of the proposed studies was to characterize baseline environmental conditions. The letter explained that the baseline data would be used to inform the assessment of potential environmental effects associated with the Project. The letter requested input from Duncan's regarding the proposed studies, and explained that they could be changed or revised in scope or timing based on input from the Aboriginal groups.

On April 20, 2011, BC Hydro met with representatives of Duncan's (Chief, Lands Director, Acting Director). The parties discussed the status of the Project, Duncan's progress on the TLUS, the status of BC Hydro's work to assess potential downstream changes resulting from the Project, employment opportunities, and arrangements for an upcoming community meeting. BC Hydro advised that the Project Description Report would likely be submitted to

the BCEAO and CEA Agency at the end of the month and that a copy of the report would be forwarded to Duncan's. BC Hydro provided Duncan's with projections for anticipated labour requirements in connection with the Project. BC Hydro indicated it would be seeking a mandate from government to commence discussions regarding benefit agreements with First Nations, explaining that the results of Duncan's TLUS, together with the results of the Downstream Report, would inform any potential discussions with Duncan's around benefits.

On May 18, 2011, BC Hydro sent a letter to Duncan's advising that BC Hydro had submitted the Project Description Report to the BCEAO and the CEA Agency, and provided a link to the report.

On May 24, 2011, BC Hydro met with representatives of Duncan's (Chief, Lands Director, Acting Director). BC Hydro reviewed requirements for work planning and reporting under the *Stage 3 Consultation Agreement*. BC Hydro provided Duncan's with a hardcopy of the Project Description Report, and provided an update on the status of BC Hydro's work in regard to potential downstream changes resulting from the Project. BC Hydro responded to questions from Duncan's regarding the baseline being used to assess cumulative effects in the environmental assessment. Duncan's expressed the view that changes should be assessed against a pre-W.A.C. Bennett Dam baseline. BC Hydro explained its understanding that the regulatory agencies would consider the present conditions as the baseline, but advised that if Duncan's wished to pursue the issue, it could do so with the regulatory agencies at any time. Duncan's advised that its target date for completing the TLUS was June 10, 2011.

On May 26, 2011, BC Hydro sent a letter to Duncan's advising that BC Hydro had retained Golder to conduct the Socio-economic Assessment for the Project, and that a First Nations Community Assessment would be a component of the Socio-economic Assessment. The letter proposed an approach for the First Nations Community Assessment involving the following five steps:

- develop a Community Assessment work plan for each community;
- gather, compile and validate community baseline data and information through focus groups and interviews;
- identify and confirm community Valued Components through community meetings;
- assess potential Project-related community effects; and,
- identify and evaluate mitigation measures to reduce unwanted effects on, and enhance benefit opportunities to, the community.

The letter advised that typical topics in a community assessment would include: demographics, economic activities, natural resource use, community and social services, housing, public infrastructure and political structure. The letter advised that BC Hydro would like to hire community members to provide research assistance, and would also provide training as necessary. The letter noted that some communities might wish to provide consulting services to BC Hydro, and provided contact information for the person who would be accepting proposals.

On August 22, 2011, Duncan's sent an email to BC Hydro attaching Quarterly Financial Reports, prepared pursuant to the *Stage 3 Consultation Agreement*.

On August 25, 2011, BC Hydro met with representatives of Duncan's (Chief, Lands Director, advisor). BC Hydro provided an overview of the Project Description Report, explaining that the Project would be subject to a harmonized environmental assessment process, and described that process in general terms. Duncan's expressed concern about the cumulative effects of multiple projects in its territory, and stated that a pre-W.A.C. Bennett Dam baseline should be used for assess cumulative effects in the environmental assessment. BC Hydro explained how cumulative effects would be assessed in the environmental assessment process, confirming that BC Hydro would be assessing the potential effects of the Project in conjunction with other projects. BC Hydro noted that *Stage 2 Review of Potential Downstream Changes from Site C Operations: Preliminary Findings* (October 2009) had included scenarios with and without the Dunvegan dam in Alberta. Duncan's indicated that it intended to raise the issue of cumulative effects with the regulatory agencies. BC Hydro provided an update on the status of the BC Hydro's work on potential downstream changes, with Duncan's indicating that the results of that work would be critical in order to understand potential Project effects. Duncan's provided an update on the status of the TLUS, and the parties agreed to commence work on the First Nations Community Assessment once the TLUS was completed. When Duncan's raised the issue of Historical Grievances, BC Hydro explained that the Site C First Nations Engagement Team did not have a mandate to discuss Historical Grievances, but could assist Duncan's if it wished to arrange meetings with BC Hydro's Aboriginal Relations and Negotiations Team and/or with the Province to discuss that issue.

On September 12, 2011, BC Hydro sent a letter to Duncan's, and attached three capacity funding cheques issued pursuant to the *Stage 3 Consultation Agreement*.

On September 30, 2011, BC Hydro sent an email to Duncan's advising that the federal and provincial governments had announced a draft harmonization agreement that would refer the Project to a Joint Review Panel. BC Hydro noted that the regulators would be inviting written public comments on the draft agreement and provided links to the CEA Agency and BCEAO websites.

On October 31, 2011, BC Hydro met via teleconference with Duncan's advisor to discuss the status of the TLUS work. Duncan's advised that a draft had been completed, including mapping information.

On November 22, 2011, BC Hydro met with Duncan's advisor to discuss next steps in completed the TLUS report and maps. Duncan's expressed a commitment to completing all TLUS related reports by December 2011, and BC Hydro agreed to assist Duncan's with producing the maps.

On November 29, 2011, BC Hydro sent an email invitation to Duncan's with information regarding Site C Business Information Sessions, scheduled for November and December 2011.

2012

On January 23, 2012, Duncan's sent an email to BC Hydro attaching the final version of Duncan's Ethno-historical Review in accordance with the deliverables outlined in the *TLUS Agreement*, dated July 12, 2010. The report contained an overview of the available literature and examined the land use history of the Duncan's First Nation beginning from the time of first contact between Aboriginal people and Europeans in the central Peace River region. The report also included an atlas of historical maps and information on the history and identity of the Duncan's First Nation.

On January 27, 2012, BC Hydro met with Duncan's (advisor). BC Hydro provided comments on preliminary drafts of the TLUS Community and Public Report and the TLUS Methodology Report. Duncan's provided a draft table of harvest survey data for BC Hydro's review.

On February 6, 2012, BC Hydro sent an email to Duncan's attaching the following two documents intended to provide an update on BC Hydro's proposed approach to Site C procurement and contracting work:

- Examples of Potential Contracting Work Related to Construction (January 24, 2012)
- Site C Procurement Update for First Nations (January 24, 2012)

The email also provided web links to information presented at the Site C Business Information Session in fall 2011.

On February 10, 2012, BC Hydro sent a letter to Duncan's to provide an update on the progress towards completing an updated report regarding the potential downstream changes expected with the Project. The letter provided an overview of the work carried out to date, a description of the scope of the current analyses, and some preliminary study

results. BC Hydro offered to meet with Duncan's to review the interim results or upon completion of the updated report.

On March 14, 2012, BC Hydro met via teleconference with representatives of Duncan's (negotiator, advisor) to discuss the First Nations Community Assessment. It was confirmed that Duncan's advisor would be coordinating the assessments for Duncan's, Saulteau First Nations, Horse Lake First Nation and Blueberry River First Nations. The parties discussed the capacity and resources that would be needed. Duncan's advisor stated that he had identified staff in each community to work as community researchers and interpreters. Duncan's advisor committed to developing a proposal, including budget, and scope of work for BC Hydro's review.

On March 14, 2012, Management and Solutions in Environmental Science Inc. sent an email to BC Hydro attaching its review of the EIS Guidelines, prepared on behalf of Duncan's, Blueberry River First Nation, Horse Lake First Nation and Saulteau First Nations.

On March 25, 2012, Duncan's advisor sent a memorandum to Duncan's Chief, copying BC Hydro, which provided information about the Socio-economic Assessment for the Project. This memorandum explained that BC Hydro and Golder would be working collaboratively with Duncan's to prepare a First Nations Community Assessment, and described the proposed approach and timeline for that process.

On March 30, 2012, BC Hydro met via teleconference with Duncan's advisor to discuss the First Nations Community Assessment. BC Hydro advised that the community could take a lead role in collecting baseline data, while Golder could provide support with documentation and report drafting. The parties discussed the information requirements and the template for a Community Baseline Profile report provided by BC Hydro.

On April 5, 2012, Duncan's sent emails to BC Hydro attaching the TLUS Methodology Report and the TLUS Community and Public Report, submitted pursuant to the *TLUS Agreement*. The TLUS Methodology Report was to (a) provide an understanding of how Duncan's arrived at the TLUS mapping results, (b) provide a detailed account of the methodological rigour applied in the research design and implementation phases of the project, and (c) to assess and weigh the relative merits and potential deficiencies of the survey data. The TLUS Community and Public Report (or Public Report) was the final deliverable outlined in the *TLUS Agreement* and consisted of a version of the final TLUS that could be shared with any regulatory agency.

On April 10, 2012, BC Hydro sent a letter to Duncan's and attached an updated map of the proposed Project footprint; and offered access to the GIS shape file data used to generate the map.

On April 12, 2012, BC Hydro sent an email to Duncan's attaching a sample of a First Nations Community Assessment, and a template for a Community Baseline Profile, as per Duncan's request.

On April 13, 2012, BC Hydro sent an email to Duncan's and provided links to information regarding transmission line options, worker accommodation options, preliminary impact lines and land use, Highway 29 preferred realignments, outdoor recreation options, and potential use of 85th Avenue industrial lands. BC Hydro requested that Duncan's review the information and indicate to BC Hydro which topics would be of interest for further consultation at upcoming meetings.

On April 23, 2012, BC Hydro sent a letter to Duncan's and attached a capacity funding cheque issued pursuant to the *TLUS Agreement*.

On April 24, 2012, BC Hydro met with representatives of Duncan's (Chief, Lands Director, advisor). BC Hydro advised that the draft EIS Guidelines had been submitted to the BCEAO and CEA Agency, had been reviewed by the Advisory Working Group, and were currently open for public comments until June 1, 2012. BC Hydro requested input from Duncan's regarding topics of interest for consultation at upcoming meetings. BC Hydro advised Duncan's that it would begin negotiating benefits agreements with First Nations located in B.C. and in proximity to the Project area where impacts from the Project were likely to be experienced. Duncan's expressed disappointment that BC Hydro did not intend to commence benefit agreement discussions with First Nations located in Alberta. BC Hydro stated that if Duncan's was unsatisfied with BC Hydro current direction regarding IBA discussions, then it could write to BC Hydro and outline its understanding of the potential effects of the Project on Duncan's.

On May 2, 2012, Duncan's sent an email to BC Hydro and attached the final version of its Country Food Harvest Survey Data Report. Duncan's advised that upon submission of the report, it had addressed and completed all the deliverables in the *TLUS Agreement*. Duncan's also sent a memorandum to BC Hydro advising that it had posted the following reports on a File Transfer Protocol website:

- Ethno-historical Review;
- TLUS Methodology Report;
- TLUS Community and Public Report;
- A series of PDF maps including Bio, Category, Thematic and All Sites maps; and
- Digital files containing site specific data.

Duncan's provided BC Hydro with a link to the website and instructions for accessing the site.

On May 9, 2012, BC Hydro sent a letter to Duncan's which attached the updated Potential Downstream Changes Report, and requested input regarding the results. The letter offered to arrange a meeting with BC Hydro's subject matter expert in hydrology to discuss the report's findings.

On May 14, 2012, BC Hydro sent a letter to Duncan's and attached a capacity funding cheque for Duncan's to undertake an independent review of the Potential Downstream Changes Report, and provide BC Hydro with a written response.

On May 22, 2012, BC Hydro met with representatives of Duncan's (Chief, Councillor, Lands Director, legal counsel, advisor). BC Hydro explained the EIS timeline and environmental assessment process, and answered numerous questions from Duncan's. BC Hydro presented to Duncan's the results of the Potential Downstream Changes Report. BC Hydro's Senior Engineer and Hydrology Expert reviewed the report's findings with respect to expected changes in the surface water regime, the ice regime, and geomorphology and sediment transport, summarized as follows:

- Surface water regime: BC Hydro reported that it was likely the Project would result in greater fluctuation of water levels near the Site C tailrace with effects diminishing further downstream and no fluctuations being observed at the Town of Peace River. BC Hydro indicated that it expected no seasonal change in the timing of water releases.

- Ice regime: BC Hydro reviewed the expected changes in the ice regime as a result of the Project, explaining that (a) there would be no changes in ice thickness, (b) there would be no change in the timing of ice break-up, (c) there would be a slight delay in ice formation at Shaftesbury, an average of 5 days, and (d) there would be a slight delay in ice front progressions, with an average delay of three days at the Town of Peace River, and greater upstream.

- Geomorphology and sediment transport: BC Hydro explained that geomorphology referred to the river shape, while the sediment regime referred to the quantity, timing, and mode of transport of particulate matter by river flows. BC Hydro indicated that expected changes in flows as a result of the Project were not expected to influence the bedload transport capacity downstream or have any influence on channel erosion or deposition.

Duncan's (Lands Manager) advised that the fluctuation of water levels impacted fishing quality and indicated that members were noticing changes in the backwater areas, such as absence of wildlife. Duncan's (advisor) indicated that a slight variation in the river could

affect how fish respond and when they decide to feed. Duncan's asked several questions related to the Dunvegan Hydroelectric Project, including how the two hydroelectric projects might interact, and how Dunvegan was considered as part of BC Hydro's analysis. BC Hydro responded that Dunvegan could continue to operate and would not affect the design of the Project, and that Dunvegan was considered in the ice modeling completed by BC Hydro. Duncan's (Land Manager) indicated Duncan's (Chief) expressed the view that the Project would impact the Peace River, regardless of BC Hydro's study results. Duncan's (Land Manager) suggested that sediments were not coming from the Smokey River as stated by BC Hydro.

On May 22, 2012, BC Hydro met with Duncan's advisor regarding the First Nations Community Assessment. The parties discussed timelines, the budget and reviewed a template for the Community Baseline Profile report.

On May 23, 2012, BC Hydro sent a letter to Duncan's regarding the identification of Valued Components and spatial boundaries for the environmental assessment, and expressed its desire to consult further with Duncan's on these issues. The letter explained the process and rationale used to identify Valued Components in the draft EIS Guidelines, and attached a graphic representation of the Valued Component identification methodology. The letter also explained the process of defining spatial boundaries for each Valued Component. The letter expressed interest in receiving feedback from Duncan's regarding the proposed Valued Components and related spatial boundaries.

On March 24, 2012, BC Hydro sent a letter to Duncan's attaching a capacity funding cheque issued pursuant to the *TLUS Agreement*.

On May 25, 2012, BC Hydro sent a letter to Duncan's advising that BC Hydro had created a secured file transfer website for Aboriginal groups containing commonly requested Site C documents (e.g., environmental reports, maps and presentations). The letter provided a link to the website and access information.

On May 31, 2012, BC Hydro sent a letter to Management and Solutions in Environmental Science Inc. attaching a payment for its technical review of the EIS Guidelines on behalf of Blueberry, Saulteau First Nations, Duncan's First Nation, and Horse Lake First Nation.

On June 4, 2012, Duncan's sent an email to BC Hydro attaching a proposed work plan and budget for the First Nations Community Assessment.

On June 13 and 14, 2012, BC Hydro attended a training session for the First Nations Community Assessment, in Fort St. John, with representatives of Duncan's, Horse Lake First Nation, and Blueberry River First Nations. Big Sky Consulting Ltd., consultant for BC Hydro, presented an overview of the First Nations Community Assessment and led a

workshop session where participants identified information requirements, potential interview participants, and key questions for interviews in different topic areas. Participants discussed a number of topics including: incorporating historical information into the baseline studies, accessing data from consultants hired by BC Hydro, timelines for conducting the baseline research, and scheduling of community workshops and focus groups. Each participant was provided with a binder containing the following documents, among others: community researcher's guide to First Nations community baseline studies; information requirements for the community baseline profile; sample country foods questionnaire; and, a template for the community baseline profile. Researchers for each community received draft secondary baseline data pertaining to their community.

On June 26, 2012, BC Hydro sent a letter to Duncan's advising that BC Hydro had retained Traditions Consulting to review the TLUS reports of various First Nations including Duncan's TLUS. The letter enclosed two reports prepared by Traditions Consulting, one assessing the completeness of the deliverables set out in the *TLUS Agreement*, and another identifying potential information gaps in the TLUS. The letter invited Duncan's to provide any comments on the enclosed reports, any answers to the questions raised in the reports, or, any additional traditional knowledge or TLUS information.

On June 27, 2012, BC Hydro sent a Letter of Understanding to engage it in preparing a Community Baseline Profile Report as part of BC Hydro's preparation of the Socio-economic Assessment. The purpose of the Community Baseline Profile Report was to identify key values and interests that Duncan's wished to have addressed within the environmental assessment for the Project. The Letter of Understanding included funding, terms of payment, a work plan and deliverables associated with the Community Baseline Profile Report, which included a Country Foods Questionnaire Summary. The work plan described an approach in which Duncan's (a) Duncan's would oversee the data/information gathering and draft a report setting out the baseline conditions in the community, and (b) BC Hydro and Golder would use the information to inform the effects assessment. Duncan's agreed to this approach and signed the Letter of Understanding and faxed a copy to BC Hydro on July 4, 2012.

On July 17, 2012, BC Hydro sent an email to Duncan's and attached a link to the Department of Fisheries and Ocean's comments on the Project study boundaries for fish and fish habitat, in response to a request by Duncan's.

On July 23, 2012, Duncan's (advisor) sent an email to BC Hydro and requested a copy of the Electric Systems Operation Review and the Peace Water Use Plan. Duncan's advisor explained that he expected the reports to contain summaries and statements with respect to existing upstream and downstream issues, and would therefore be helpful in separating out the existing range of effects associated with BC Hydro's Peace River operations versus

those that were anticipated or predicted to occur as a result of the Project. BC Hydro provided a link to the Peace Water Use Plan on August 8, 2012, and sent a letter to Duncan's on August 20, 2012, enclosing a disk containing the Report on Electric System Operations Review (July 30, 1994).

On July 30, 2012, BC Hydro sent a letter to Duncan's and attached a capacity funding cheque issued pursuant to the Letter of Understanding, dated June 27, 2012.

On August 6, 2012, Duncan's sent an email to BC Hydro attaching outstanding Quarterly Financial Reports, and a draft work plan and a budget for Stage 3, as required pursuant to the *Stage 3 Consultation Agreement.*

On August 13, 2012, BC Hydro met via teleconference with Duncan's advisor to discuss Duncan's work on the Community Baseline Profile.

On August 27, 2012, BC Hydro sent a letter to Duncan's enclosing a table titled "Preliminary Summary of Construction Phase Workforce" which summarized the timing, type of jobs and number of opportunities that BC Hydro anticipated would be needed to construct the Project. The letter provided a link to secured file transfer website where additional information regarding project opportunities had been posted.

On August 30, 2012, BC Hydro sent a letter to Duncan's and enclosed four capacity funding cheques issued pursuant to the *Stage 3 Consultation Agreement*.

On September 21, 2012, BC Hydro sent a letter to Duncan's advising that the EIS Guidelines had been issued by the CEA Agency and the BCEAO on September 7, and provided a link to where the document was available online. The letter highlighted the areas of the EIS Guidelines that specifically addressed the incorporation of information from Aboriginal groups. The letter requested any additional information such as mapping of traditional territories, traditional knowledge, concerns regarding potential for adverse effects on the various components of the environment as identified by Duncan's, current land use information, including reasonably anticipated future use of lands and resources, current use of lands and resources for hunting, fishing and trapping, and current use of lands and resources for activities other than hunting, fishing and trapping. The letter advised that BC Hydro would like to continue to receive information with respect to any asserted or established Aboriginal rights and treaty rights of the community that may be adversely affected by the Project, and, in particular, information concerning hunting, fishing, and trapping. The letter expressed interest in understanding how the environment was valued by the community for current use of lands and resources for traditional purposes, including activities conducted in the exercise of asserted or established Aboriginal rights and treaty rights, and how current use may be affected by the Project. The letter invited Duncan's to

continue to identify any interests the community may have had with respect to potential social, economic, health and physical and cultural heritage effects of the Project.

On September 26, 2012, BC Hydro met via teleconference with the advisor for Duncan's, Blueberry First Nations, and Horse Lake First Nation, for an update on the First Nations Community Assessments for each community. The advisor committed to assisting BC Hydro in arranging meeting dates with Duncan's to review the potential effects of the Project on wildlife and fish and fish habitat.

On October 5, 2012, BC Hydro sent an email to Duncan's attaching a "save the date" sheet which outlined the dates for Site C Business Sessions to be held in November 2012. BC Hydro explained that the sessions were intended to provide information on procurement strategy and potential contracting opportunities related to the Project.

On October 9, 2012, BC Hydro sent an email to Duncan's, providing a link to the Peace River Valley Ungulates Study Program Report and maps for Duncan's review.

On October 15, 2012, BC Hydro sent an email to Duncan's attaching an invitation to Business Information Sessions scheduled for November 2012, and included a link for registration.

On October 24, 2012, Duncan's sent two emails to BC Hydro and attached a draft Community Baseline Profile Report in support of BC Hydro's Socio-Economic Assessment in accordance with the Letter of Understanding of June 27, 2012.

On October 24, 2012, BC Hydro sent a letter to Duncan's advising the BC Hydro had updated the Project footprint map for Site C. The letter noted that in April 2012, BC Hydro had provided Duncan's with the GIS shape file data and/or a PDF map of the Project footprint. The letter advised that the information had since been updated and provided a link to a secured file transfer website containing the updated map of the Project footprint, and associated shape files. The letter also attached a memorandum outlining the specifics of the new and amended information, which included a reduction in the area of the proposed Site C dam site from 3907 hectares (April 2012) to 2025 hectares (October 2012).

On October 25, 2012, BC Hydro sent a letter to Duncan's in follow up to BC Hydro's letter of September 21, 2012, which had invited Duncan's to provide any relevant information for consideration in preparing the EIS. The letter advised that BC Hydro remained interested in receiving information from Duncan's to support the preparation of the EIS.

On November 7, 2012, BC Hydro met with Duncan's (negotiator) via teleconference. Duncan's suggested deferring a previously contemplated community meeting regarding the potential effects of the Project on wildlife and fish. As an alternative, Duncan's suggested

that BC Hydro provide it with the information, which would then allow Duncan's to engage with its members directly. The negotiator stated that Duncan's was interested in entering into a benefits agreement in relation to the Project. BC Hydro replied that it would need to deal with B.C. First Nations located in the Project area, before discussing opportunities with First Nations in Alberta, but indicated that it could make a general commitment at the level of principle.

On November 14, 2012, BC Hydro sent an email to Duncan's attaching the Site C Jackfish Lake Ungulate Program Work Plan. BC Hydro advised that it had applied to the Province to carry out the ungulate collaring study on the south bank of the Peace River and explained the purpose of the study was to assist in filling a data gap respecting ungulate movement in the area. BC Hydro requested any concerns or questions, and noted that pending approval of its application, there would be an opportunity for First Nations to participate in the work.

On November 15, 2012, BC Hydro sent a letter to Duncan's which sought to address potential gaps in the information exchange between the parties. The letter requested that Duncan's notify BC Hydro of instances where information requested in meetings or consultations to date had not been provided, and committed to following up on outstanding information requests as soon as possible.

On November 27, 2012, Duncan's sent an email to BC Hydro and attached the third draft of the Community Baseline Profile Report in support of BC Hydro's Socio-economic Assessment and pursuant to the Letter of Understanding signed on June 27, 2012. Duncan's draft Community Baseline Profile Report contained background information on the Duncan's community and identified the following areas of interest for the environmental assessment: Historical and Current Use of Lands and Resources for Traditional Purposes, Community Demographics, Services and Infrastructure, and Economics. Duncan's also attached charts with information on potential Project effects and the results of a harvest survey (Country Foods Questionnaire Summary) which provided data on household wildlife and fish consumption.

SITE C CLEAN ENERGY PROJECT

VOLUME 5 APPENDIX A07 PART 2(A)

UPDATED BC HYDRO CONSULTATION SUMMARY: DUNCAN'S FIRST NATION

FINAL REPORT

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July 2013

Volume 5 Appendix A, Part 2, provides a summary of consultation activities undertaken by BC Hydro with each of the 29 Aboriginal groups listed in Table 9.1 of the EIS, as required pursuant to section 7.2.1 of the EIS Guidelines. This summary describes consultation activities that took place between December 1, 2012 and May 31, 2013, including meetings, phone calls, letters and emails.

Volume 5, Appendix A, Part 2 is an update of the summary of consultation activities filed with the EIS on January 25, 2013.

DUNCAN'S FIRST NATION

CONSULTATION SUMMARY

Defined Terms	
"BCEAO"	Environmental Assessment Office, Province of British Columbia
"Big Sky"	Big Sky Consulting Ltd., consultant for BC Hydro
"CEA Agency"	Canadian Environmental Assessment Agency
"Duncan's"	Duncan's First Nation
"EIS"	Environmental Impact Statement
"Golder"	Golder Associates Ltd., consultant for BC Hydro
"historical grievances"	Allegations of damages arising from the construction and operation of BC Hydro's existing facilities on the Peace River
"IBA"	Impact Benefit Agreement
"the Province"	Province of British Columbia
"the Project"	proposed Site C Clean Energy Project
"*Stage 3 Consultation Agreement*"	Site "C" Clean Energy Project Agreement for Consultation and Collaboration between Duncan's First nation and BC Hydro, dated July 12, 2010
"TLUS Report"	Traditional Land Use Study report titled "Duncan's First Nation Traditional Land Use Survey 2011 – Community and Public Report" prepared by Duncan's First Nation dated November 2011.
"VC"	Valued Component

Chronology of events

2012

On December 11, 2012, BC Hydro met with representatives of Duncan's (Chief, Councillor, Lands/Economic Development Director and Advisors) to present an overview on the topics of wildlife resources, vegetation and ecological communities, fish and fish habitat, and to discuss the results of the Duncan's community assessment and other matters. BC Hydro advised that the EIS would be filed with the CEA Agency and the BCEAO on January 25, 2013, and provided an update on the environmental assessment process (public review and BC Hydro response periods). BC Hydro indicated that the next Working Group meeting would be held on February 19, 2013 and that the addendum to the EIS would likely be filed sometime in July, 2013. BC Hydro provided Duncan's with a document prepared by Traditions Consulting Services Ltd. titled "Site C EIS – Response to Questions: Duncan's First Nation" and the document titled "Attachment #2 – Draft EIS Project and Activity Inclusion List".

Duncan's advised that the community assessment exercise had been helpful to the community in understanding what the Project was about and what it meant for the Peace River. Duncan's outlined the community's concerns with respect to fishing on the Peace River and its tributaries. Duncan's advised that its members had asked if anything could be done to counter the silting of the tributaries or drying of the river, such as releasing water periodically, or, alternatively, providing funding for a fisheries restoration plan. BC Hydro noted that the effects described by community members were not related to the Project, and explained that its Aboriginal Relations and Negotiations department dealt with historical grievance issues, separate from Project-related consultation. Duncan's advised that it did not see the effects on fish as a historical grievance issue, but rather as an operational management issue for which engagement was required. BC Hydro suggested that Duncan's consider the process that was available to address historical grievances related to the existing dam facilities, and to submit a letter outlining its concerns and proposals regarding the operation of the existing dam facilities.

Duncan's asked about what it could expect from BC Hydro in terms of tangible opportunities, such as benefits, revenue sharing and employment opportunities, if the Project was approved. BC Hydro indicated that it received a mandate to negotiate IBAs with B.C. First Nations, but not with Alberta First Nations. BC Hydro noted that Duncan's could submit a letter outlining its concerns with respect to the scope of the IBA mandate. Upon receiving the letter, BC Hydro would consider whether a change in approach was warranted, and follow up with the Provincial government as necessary. BC Hydro advised that it was prepared to sit down with Duncan's to discuss procurement opportunities, while acknowledging sensitivities with respect to First Nations in closer proximity to the Project area. Duncan's advised that it had taken a neutral position on the Project to date, but noted that some elders were opposed to the Project. Duncan's advised that it was faced with only impacts and no benefits from the Project, it would consider joining other First Nations in opposition to the Project. BC Hydro reiterated the options

available to Duncan's for expressing its views on the need to expand IBA mandate and engaging in further discussion of procurement opportunities.

BC Hydro (Wildlife Lead) provided an overview presentation on the topic of wildlife resources and vegetation and ecological communities, and answered related questions. BC Hydro explained the approach being taken in the EIS to the assessment of effects on wildlife resources and vegetation and ecological communities. BC Hydro reviewed the preliminary direction of effects for ungulates, furbearers birds, vegetation, ecological communities at risk, and rare plants, and explained related mitigation measures. BC Hydro (Fish/Aquatics Lead) provided an overview presentation respecting fish and fish habitat and answered related questions. BC Hydro explained its approach to predicting changes in fish populations and habitat, reviewed predicted changes in fish populations and potential management measures, and provided information on methyl mercury, including predicted changes in methyl mercury levels in fish in Alberta.

BC Hydro's consultant (Big Sky) attended to discuss the Duncan's community assessment. Big Sky advised that Duncan's summary review table and community assessment report were being shared with the Project technical leads who had integrated the information into the VCs where appropriate. Big Sky explained that BC Hydro's intent was to include the Duncan's community assessment report in one of the appendices of the EIS. Duncan's indicated that the matter of including its community assessment report in the EIS would be discussed at a meeting with Chief and Council on December 13, 2012 and committed to providing a response to BC Hydro. The parties also discussed Duncan's outstanding financial reporting pursuant to the *Stage 3 Consultation Agreement* and Duncan's advised that it was currently working on submitting the reports to BC Hydro.

On December 12, 2012, BC Hydro sent an email to Duncan's inquiring if it was agreeable to making its TLUS Report available to the CEA Agency and the BCEAO as an appendix to the EIS.

On December 13, 2012, BC Hydro sent a letter to Duncan's, providing a link to the following draft EIS Technical Data Reports on a secured file transfer website:

- Aquatic Productivity Reports
- Downstream Ice Technical Data Report
- Contaminated Sites Technical Data Report
- Fluvial Geomorphology and Sediment Transport Technical Data Report
- Microclimate Technical Data Report
- Noise Technical Data Report
- Peace River Valley Ungulates Study Program Technical Data Report
- Water Quality Technical Data Report
- Air Quality Technical Data Report

BC Hydro noted that the reports were in draft form and that edits may be made prior to submission of the EIS.

On December 21, 2012, Duncan's sent an email to BC Hydro, advising that it did not object to its TLUS Report being appended to the Project's EIS, subject to the following two provisos: (1) the 2012 Ethno-Historical Review, the 2011 TLUS Community and Public Report, and the 2011 TLUS Methodology Report be grouped together and attached to the EIS; and (2) the individual map biographies of specific respondents would remain private and confidential

On December 21, 2012, Duncan's sent an email to BC Hydro, attaching the final version of its Community Baseline Profile. Duncan's noted that the attached version of the report was to be appended to the EIS.

2013

On January 23, 2013, BC Hydro sent a letter to Duncan's attaching a capacity funding cheque issued pursuant to the Letter of Understanding dated June 27, 2012. The letter advised that payment was being provided following receipt of the Community Baseline Profile deliverables.

On January 28, 2013, BC Hydro sent a letter to Duncan's, advising that it had submitted the EIS to CEA Agency and the BCEAO. The letter explained that the EIS described the rationale for the Project, identified potential effects and benefits, proposed measures to avoid or mitigate effects and met other information requirements set out in the EIS Guidelines. The letter included links to CEA Agency and the BCEAO's websites containing the complete EIS. In accordance with Section 20.8 of the EIS Guidelines, BC Hydro also attached an Aboriginal Summary, presenting its understanding of asserted or established Aboriginal rights and treaty rights, and other Aboriginal interests potentially impacted by, and concerns with respect to, the Project. This summary also provided BC Hydro's understanding of the potential adverse effects of the Project on those asserted or established Aboriginal rights and treaty rights and interests.

On March 12, 2013, Duncan's sent an email to BC Hydro, providing an update on the status of Duncan's outstanding financial reports pursuant to the *Stage 3 Consultation Agreement*. Duncan's indicated that it would be working on the reports for submission to BC Hydro and requested clarification. BC Hydro responded on March 13, 2013, providing a list of outstanding reports.

On April 5, 2013, BC Hydro sent an email to Duncan's, in follow-up to the outstanding financial reports pursuant to the *Stage 3 Consultation Agreement.*

On May 8, 2013, BC Hydro called Duncan's (Advisor) to touch base on the Project. Duncan's indicated that it would draft a letter setting out its position regarding IBA negotiations, as discussed at the meeting held on December 11, 2012. BC Hydro followed up with an email to Duncan's, attaching a copy of Duncan's Aboriginal Summary to assist in preparing the letter.

On May 19, 2013, Duncan's (Chief) sent a letter to BC Hydro urging BC Hydro to commence IBA negotiations with Duncan's based on the conclusions in the EIS that the Project would have

adverse effects on Duncan's current use of lands and resources as well as impacts on its Section 35(1) rights. Duncan's inquired about the earliest date that the parties could commence negotiations and requested that adequate funding be provided for the negotiations and related legal services.

On May 23, 2013, Duncan's sent an email to BC Hydro, providing an update on its work on preparing the financial reports pursuant to the *Stage 3 Consultation Agreement*. BC Hydro thanked Duncan's for the update and advised that the audited financial statements for the 2011 and 2012 fiscal years were also outstanding.

SITE C CLEAN ENERGY PROJECT

VOLUME 5 APPENDIX A07 PART 3

ABORIGINAL LAND AND RESOURCE USE SUMMARY: DUNCAN'S FIRST NATION

FINAL REPORT

Prepared for:

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Prepared by:

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January 2013

Duncan's First Nation (DFN)

In preparing responses to these questions, a range of publicly available published and unpublished studies were reviewed for information on traditional land and resource use by Duncan's First Nation (DFN) members.[1] The information on current DFN use of lands and resources presented here is derived from the traditional land use study (TLUS) and related studies undertaken for the DFN by Matthew General and funded by B.C. Hydro.[2] DFN also completed a community baseline study.[3] DFN traditional territory is defined as the TLUS Study Area (Figure 1).

The DFN main community is on Duncan's Indian Reserve 151A, located on the north side of the Peace River near Brownvale, Alberta (Figure 2). DFN has a registered population of approximately 269, with approximately 142 living on the main Reserve.[4] DFN has a second Reserve, William McKenzie, located southeast of the town of Peace River. Culturally, the community is of mixed Cree, Dunne-za, and Iroquois/Métis ancestry.[5] Forty-seven (47) individuals from the community were interviewed for the TLUS.

There are no interpretations of the TLUS interviews presented in either the Methodology Report or the Community and Public Report. Some results are presented in the Country Food Harvest Report. DFN also submitted a Community Baseline Report which includes a section on DFN members' views on the potential impacts of the Project.[6]

The main product from the TLUS interviews was the project maps.[7] Forty-four categories of information were collected in the interviews and over 2600 specific references to sites

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[1] The sources consulted for this study are set out in the References.

[2] General, Matthew (2011). Duncan's First Nation Traditional Land Use Survey Community and Public Report, Duncan's First Nation, November 2011; General, Matthew (2012). Duncan's First Nation Traditional Land Use Survey Methodology Report. Duncan's First Nation, January 2012; General, Matthew (2012). Duncan's First Nation Traditional Land Use Survey Maps (13 Maps). Duncan's First Nation and BC Hydro, February 2012; General, Matthew (2012). Duncan's First Nation 2011 Traditional Land Use Survey Country Food Harvest Data. Duncan's First Nation. May 2012; Duncan's First Nation [2012]. "Site C Clean Energy Project - First Nations Community Baseline Profile. Duncan's First Nation Draft Report. Parts I and II" Duncan's First Nation, Submitted 17 and 20 October 2012. (Lead author Matt General, section contributor Audrey Lawrence).

[3] Duncan's First Nation [2012]. "Site C Clean Energy Project - First Nations Community Baseline Profile. Duncan's First Nation Draft Report. Parts I and II" Duncan's First Nation, Submitted 17 and 20 October 2012. (Lead author Matt General, section contributor Audrey Lawrence).

[4] AANDC (2012), First Nations Profiles. http://pse5-esd5.ainc-inac.gc.ca/fnp/Main/Search/FNMain.aspx?BAND_NUMBER=451&lang=eng (accessed December 2012)

[5] For a discussion of the historical background of the DFN see Bouchard and Kennedy Research Consultants (2012). DFN: Ethnohistorical Review. Duncan's First Nation, January 23, 2012.

[6] Duncan's First Nation [2012]. "Site C Clean Energy Project - First Nations Community Baseline Profile."

[7] The scale of the maps (1:2,500,000) makes it difficult to identify locations accurately and sometimes the number of sites depicted where there are overlapping symbols.

where a DFN individual had undertaken an activity were identified.[8] Only ten categories of information, however, were depicted on maps, with an additional three thematic maps being amalgamations of data from some of the ten.[9] All the traditional use sites recorded for the TLUS are depicted on a Hodgepodge Map (Figure 3). Interpretation of locations of DFN activities is based on the ten TLUS Category Maps.

In a review of the TLUS Report, we identified a number of problems, questions and concerns with some of the methodology employed and in the presentation of some of the results.[10] Nonetheless it is our opinion that this TLUS Report and associated Reports provide the best available information relating to current DFN use of lands and resources for traditional activities in the Study Area.

In summary, the TLUS maps depict limited hunting, fishing, and associated activities by DFN members in the Peace River region of British Columbia. No information is presented on trapping.

1. **What is the DFN's current use of lands and resources for hunting, fishing and trapping activities, including the location of the activity, the species targeted, and the traditional uses of the harvested animals within the Current Use of Lands and Resources (Wildlife Resources) and Current Use of Lands and Resources (Fish and Fish Habitat) LAAs and RAAs?**

   Moose represents the most heavily hunted animal with 649 kill sites identified.[11] Twenty-two moose kill sites are depicted within the Current Use of Lands and Resources (Wildlife Resources) LAA and RAA on the Moose Kills Category Map.[12] Two of the moose kill sites are located within the Current Use of Lands and Resources (Wildlife Resources) LAA, one near Hudson"s Hope and one near Taylor. Twenty moose kill sites are depicted in the Current Use of Lands and Resources (Wildlife Resources) RAA including: five on the south side of the Peace River - three north of Moberly Lake, one in the area of the mid-Kiskatinaw River, and one in the area of the mid-Pine River; the other 15 kill sites are on the north side of the Peace River- three on the north side of the Peace River in the area of Farrell Creek and the lower Halfway

[8] The activities recorded are over a time span of "within living memory." (General, Matthew (2012). Duncan's First Nation 2011 TLUS Country Food Harvest Data: 1).

[9] The ten categories were: moose kill sites, elk kill sites, deer kill sites, bird kill sites, bull trout kill sites, walleye kill sites, jackfish/northern pike kill sites, cultural sites, overnight sites, and plant/earth gathering sites. The three thematic maps were mammal kill sites with the three mammal categories, fish kill sites with the three fish categories, and a hodgepodge map which includes all TLUS sites (Figure 2).

[10] Traditions Consulting Services Inc. (2012). The two reports were provided to DFN by BC Hydro. No response to the questions posed has been received from DFN to date.

[11] General, Matthew (2012). Duncan's First Nation 2011 TLUS Country Food Harvest Data: 7.

[12] The maps are deemed to present the best representation of the location of the TLU activities and are relied upon in this analysis.

River, three northeast of Fort St. John, seven south and east of the Doig River Reserve, and two northeast of the Doig River Reserve near the Alberta border.[13]

One hundred and fifty-five (155) deer kill sites were identified in the TLUS, of which two are depicted in the Current Use of Lands and Resources (Wildlife Resources) RAA east of Fort St. John.[14] There are 73 identified elk kill sites of which 2 are depicted in the Wildlife RAA, one north of the east end of Moberly Lake and one east of Moberly Lake.[15] Other mammals noted as being hunted are bear (38 kill sites) and other ungulate (12 kill sites).[16] No information is presented in the TLUS on locations of harvest of the latter two categories.

One hundred and seventy-four (174) bird kill sites were identified, 66 upland birds (grouse, chicken, ptarmigan) and 108 waterfowl (ducks, geese, grebes, cranes).[17] Three unidentified bird kill sites are within the Current Use of Lands and Resources (Wildlife Resources) RAA. Two are located northeast of Fort St. John and one is located on the south side of the Peace River near the Alberta border.[18]

Three hundred and sixty-three (363) fish kill/catch sites were identified in the interviews.[19] Ten fish kill/catch sites are depicted in the Current Use of Lands and Resources (Fish and Fish Habitat) LAA including: three walleye- one on the Peace River east of Hudson"s Hope, one on the Peace River at the Alberta border, and one on the Peace river at Many Islands; one bull trout on the south shore of the Peace River opposite Farrell Creek; and six jackfish- two at the Peace/Moberly confluence, two on the Peace River east of Taylor, one on the Peace River east of the Alberta border, and one at Many Islands.[20] A large number of fish kill/catch sites are depicted on the Peace River in the Current Use of Lands and Resources (Fish and Fish Habitat) RAA in Alberta with a concentration in the area of the Peace River Wildlands.[21]

No information on trapping was presented in the TLUS. The primary use of the mammals, birds and fish hunted or caught was for food.

[13] DFN Moose Kills Category Map.
[14] General, Matthew (2012). Duncan's First Nation 2011 TLUS Country Food Harvest Data: 7; DFN Deer Kills Category Map.
[15] General, Matthew (2012). Duncan's First Nation 2011 TLUS Country Food Harvest Data: 7; DFN Elk Kills Category Map.
[16] General, Matthew (2012). Duncan's First Nation 2011 TLUS Country Food Harvest Data.
[17] General, Matthew (2012). Duncan's First Nation 2011 TLUS Country Food Harvest Data.
[18] DFN Bird Kills Hodgepodge [Thematic] Map.
[19] General, Matthew (2012). Duncan's First Nation 2011 TLUS Country Food Harvest Data: 8.
[20] DFN Bull Trout Kills Category Map, Jackfish/Northern Pike Category Map, Walleye Kills Category Map.
[21] DFN Fish Kills Thematic Map. Peace River Wildlands is an Alberta Provincial Park located in the Peace River valley south and east of Peace River, Alberta (http://albertaparks.ca/media/2962/387.pdf).

2. What is the DFN's current use of lands and resources for activities other than hunting, fishing and trapping including the nature, location and traditional use purpose within the Current Use of Lands and Resources (Wildlife Resources) and Current Use of Lands and Resources (Fish and Fish Habitat) LAAs and RAAs?

Nineteen overnight sites are depicted on the TLUS map in the Current Use of Lands and Resources (Wildlife Resources) LAA or RAA. Six overnight sites are located within the Current Use of Lands and Resources (Wildlife Resources) LAA including: one on the south shore of the Peace River opposite Farrell Creek; two in the area of Taylor; one opposite the mouth of the Beatton River; and two on the Peace River near the Alberta border. Thirteen sites are depicted in the Current Use of Lands and Resources (Wildlife Resources) RAA: three northeast of Fort St. John; three on the Beatton River north of Fort St. John; one on the west side of Charlie Lake; and six on the south side of the Peace River: one at the east end of Moberly Lake, one at the west end of Moberly Lake, one at the mid-Kiskatinaw River/Highway 97 crossing, one southeast of Dawson Creek near the boundary of the Current Use of Lands and Resources (Wildlife Resources) RAA, one east of Taylor, and one west of Taylor. The overnight sites are likely connected with resource harvesting activities.[22]

Three cultural sites are depicted in the Current Use of Lands and Resources (Wildlife Resources) LAA and RAA on the Cultural Sites Map. Two sites are located in the Current Use of Lands and Resources (Wildlife Resources) LAA, one near the mouth of Farrell Creek, and one on the Peace River south of Fort St. John. The third site is located in the Current Use of Lands and Resources (Wildlife Resources) RAA northeast of Fort St. John. The nature of the sites was not identified in the TLUS.[23]

Thirteen plant and earth gathering sites were depicted in the Current Use of Lands and Resources (Wildlife Resources) LAA and RAA.[24] Two are in the Current Use of Lands and Resources (Wildlife Resources) LAA, one east of Halfway River and one on the lower Pine River. The other plant/earth gathering areas are in the Current Use of Lands and Resources (Wildlife Resources) RAA: eight are located on the lower Beatton River east of Fort St. John; and three are located on the south side of the Peace River one in the area of Moberly Lake, one opposite Halfway River, and one on the lower Kiskatinaw River. No identification of material or species gathered at the above locations was provided in the TLUS.[25] In the Harvest Study Report, berries were the only plant food for which information was solicited. Berries identified included: saskatoon, wild

[22] DFN Overnight Sites Thematic Map.

[23] DFN Cultural Sites Thematic Map. The category of cultural sites includes birth sites, old settlements, cache sites, sacred sites, burial places and an 'other' category (TLUS Methodology Report: 56).

[24] Plant and earth gathering sites include berries, food plants, medicine plants, firewood, construction logs, specialty logs, specialty rock, drinking water, and an 'other' category (TLUS Methodology Report: 235).

[25] DFN Plant & Earth Gathering Hodgepodge Map.

raspberries, blueberries, wild strawberries, chokecherries, and high and low bush cranberries.[26]

3. What is your understanding of the exercise of asserted Aboriginal rights or treaty rights by DFN within the Current Use of Lands and Resources (Wildlife Resources) and Current Use of Lands and Resources (Fish and Fish Habitat) LAAs and RAAs?

The DFN, as an adherent to Treaty 8, assert that they collectively hold and exercise treaty and Aboriginal rights in northwestern Alberta, northeastern British Columbia, and the historic Treaty 8 area. The DFN community continues to have ties to the land and relies on the land and resources for their existence.[27] From DFN"s perspective, the TLUS does not reflect the full extent of the current use of the lands and resources, nor the importance of the lands and resources, to the DFN people. The current activities of DFN members in the Current Use of Lands and Resources (Wildlife Resources) and Current Use of Lands and Resources (Fish and Fish Habitat) LAAs and RAAs are viewed by DFN as part of their exercise of asserted Aboriginal rights or treaty rights.

4. Identify past, current and reasonably anticipated future use of lands and resources by DFN members for traditional purposes who may be adversely impacted by the Project within the Current Use of Lands and Resources (Wildlife Resources) and Current Use of Lands and Resources (Fish and Fish Habitat) LAAs and RAAs.

Members of the DFN have in the past, currently, and fully expect in the future to continue to utilize the land and resources within northwestern Alberta and northeastern British Columbia for a range of traditional activities including sustenance, commercial, spiritual and other cultural purposes.[28]

The DFN community has expressed alarm at the increasing pace and scope of development within their traditional territory and how this is impacting upon their utilization of lands and resources. Over the past three years, community members and the DFN Council have stated the need to address the perceived decline in the quantity and quality of lands available for the exercise of their treaty rights at numerous community meetings.[29]

In the TLUS, DFN state that their Reserve in Alberta is surrounded by farm lands necessitating that DFN hunters travel greater distances to less disturbed areas for

[26] General, Matthew (2012). Duncan's First Nation 2011 TLUS Country Food Harvest Data: 3, 4, 9.
[27] General, Matthew (2011). Duncan's First Nation Traditional Land Use Survey Community and Public Report. Duncan's First Nation, November 2011: 3.
[28] DFN TLUS Methodology Report 2012: 7 (sec. 3.1).
[29] DFN TLUS Methodology Report 2012: 12.

hunting and associated activities. These areas are now also at risk due to expanding forestry, mining, conventional and unconventional oil and gas production. DFN is concerned that the Project will further erode their ability to exercise their treaty and Aboriginal rights in the future.[30]

In the Community Baseline report, DFN set out the potential upstream and downstream impacts of the Project on wildlife and wildlife habitat, fish and fish habitat and on DFN fishing and hunting. Within the Current Use of Lands and Resources (Wildlife Resources) LAA and RAA, issues of concern identified by DFN related to hunting include: impact on moose hunting along the Peace River northeast of Hudson's Hope; loss of ungulate habitat on islands, back channels, side channels, and flood plains within the flood zone; and impact on moose and elk hunting within the area encompassed by the upper Halfway River to Hudson's Hope to Moberly Lake to Upper and Lower Pine River watersheds.[31]

Within the Current Use of Lands and Resources (Fish and Fish Habitat) LAA and RAA, issues and areas of concern related to fishing identified by DFN include: impact on walleye fishing on the Peace River downstream of Farrell Creek; impact on bull trout fishing downstream of Hudson's Hope; and impact on fishing in the areas of the Peace River above the proposed dam; the north bank of the Peace River upstream of Taylor bridge; the lower reaches of the Pine River; the confluence of the Beatton-Peace Rivers up to Charlie Lake and upper Beatton River; the Peace River at the British Columbia-Alberta border; the confluence of the Clear-Peace Rivers; Many Islands; and the confluence of the Fourth Creek-Peace River.[32]

5. In the TLUS, is there any information relating to the exercise of asserted or Aboriginal rights outside the Current Use of Lands and Resources (Wildlife Resources) and Current Use of Lands and Resources (Fish and Fish Habitat) LAAs and RAAs?

DFN members exercise their treaty rights throughout their traditional territory. The majority of data collected in the TLUS relates to activities outside the Current Use of Lands and Resources (Wildlife Resources) and Current Use of Lands and Resources (Fish and Fish Habitat) LAAs and RAAs. Generally, the greatest concentrations of activities are in Alberta along the Peace River in the area of the Peace River Wildlands and the DFN main Indian Reserve, and to the north of those two areas on both sides of the Peace River.

The greatest concentration of moose kill sites is depicted in the area of Peace River Wildlands, and to the north of those two areas on both sides of the Peace River in

[30] DFN TLUS Methodology Report 2012: 9.
[31] DFN Community Baseline Report 2012; DFN Community Baseline spreadsheet.
[32] DFN Community Baseline Report 2012; DFN Community Baseline spreadsheet.

Alberta[33] The greatest numbers of deer kill sites are depicted in the area of Peace River Wildlands and north to Cardinal Lake, and east of the town of Peace River.[34] Elk kill sites are more dispersed with the majority depicted north of the Peace River.[35]

The greatest numbers of bird kill sites are in the area of Cardinal Lake, Alberta and in the area of the main DFN Indian Reserve. Other sites are dispersed to the north and to the east of the town of Peace River.[36] Outside of the Current Use of Lands and Resources (Fish and Fish Habitat) RAA, fish/catch kill sites are dispersed generally north and west of the Peace River.[37]

There is a concentration of cultural sites depicted in the area of the main DFN Indian Reserve, along the Peace River in the area of Peace River Wildlands, and dispersed west and north of the main Indian Reserve.[38] The greatest numbers of overnight sites are dispersed north from the area of the Peace River Wildlands.[39]

Plant and earth gathering activities are heavily concentrated on the north side of the Peace River in the area of Peace River Wildlands and north to Cardinal Lake. There are other dispersed sites located mostly to the east, north and west of the area of concentration.[40]

[33] DFN Moose Kills Category Map.
[34] DFN Deer Kills Category Map.
[35] DFN Elk Kills Category Map.
[36] DFN Bird Kills Hodgepodge [Thematic] Map.
[37] DFN Fish Kills Thematic Map.
[38] DFN Cultural Sites Thematic Map.
[39] DFN Overnight Sites Thematic Map.
[40] DFN Plant & Earth Gathering Hodgepodge Map.

Figure 1. Duncan's First Nation Traditional Territory (Duncan's First Nation and British Columbia Hydro and Power Authority (2010). "Traditional Territory Map." Schedule A, Duncan's First Nation Traditional Land Use Agreement for Site C Clean Energy Project, 12 July 2010).

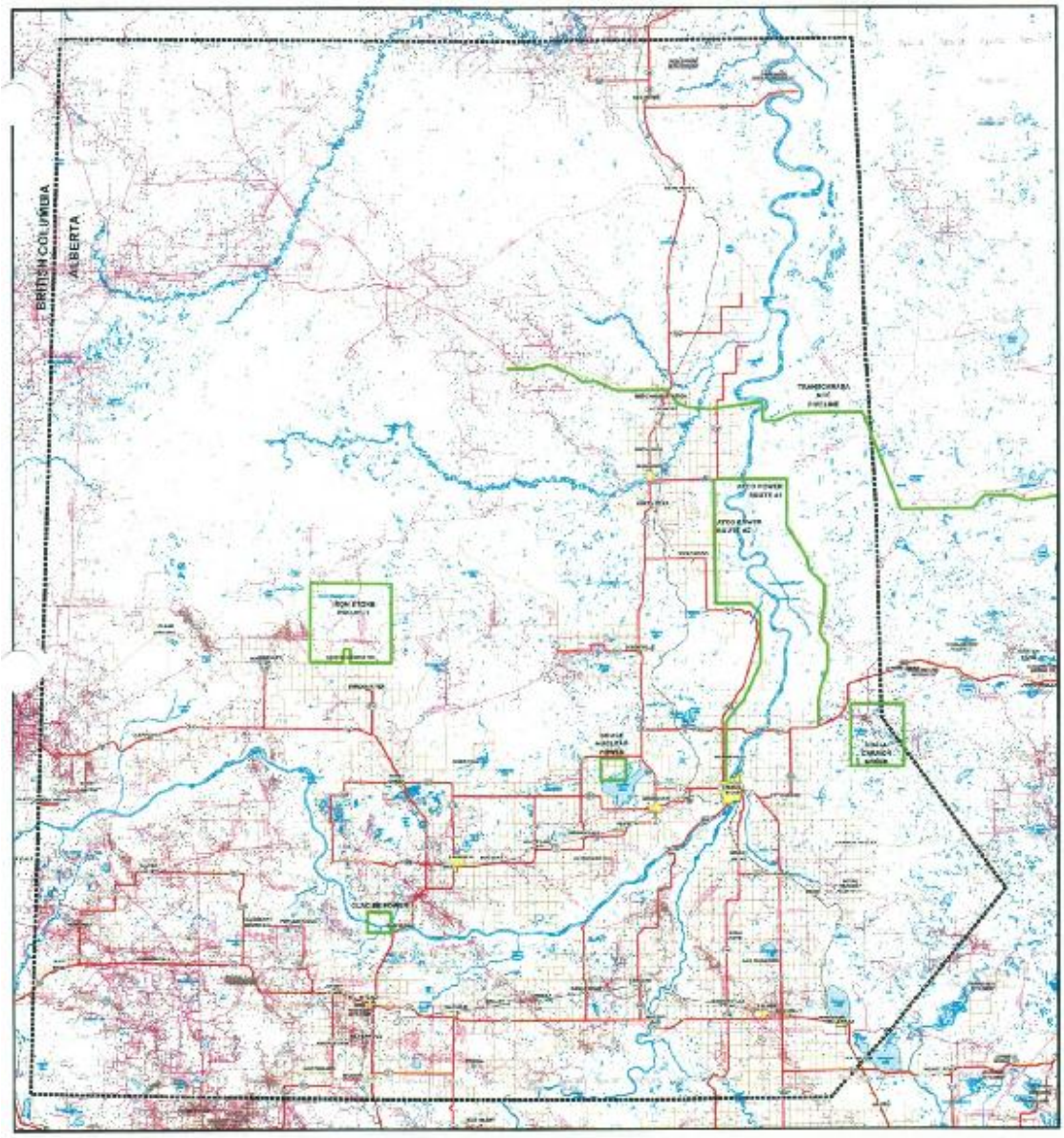


Figure 2. Map depicting the location of the DFN community at DFN Indian Reserve 151 A (Alberta Parks. http://albertaparks.ca/media/2962/387.pdf).

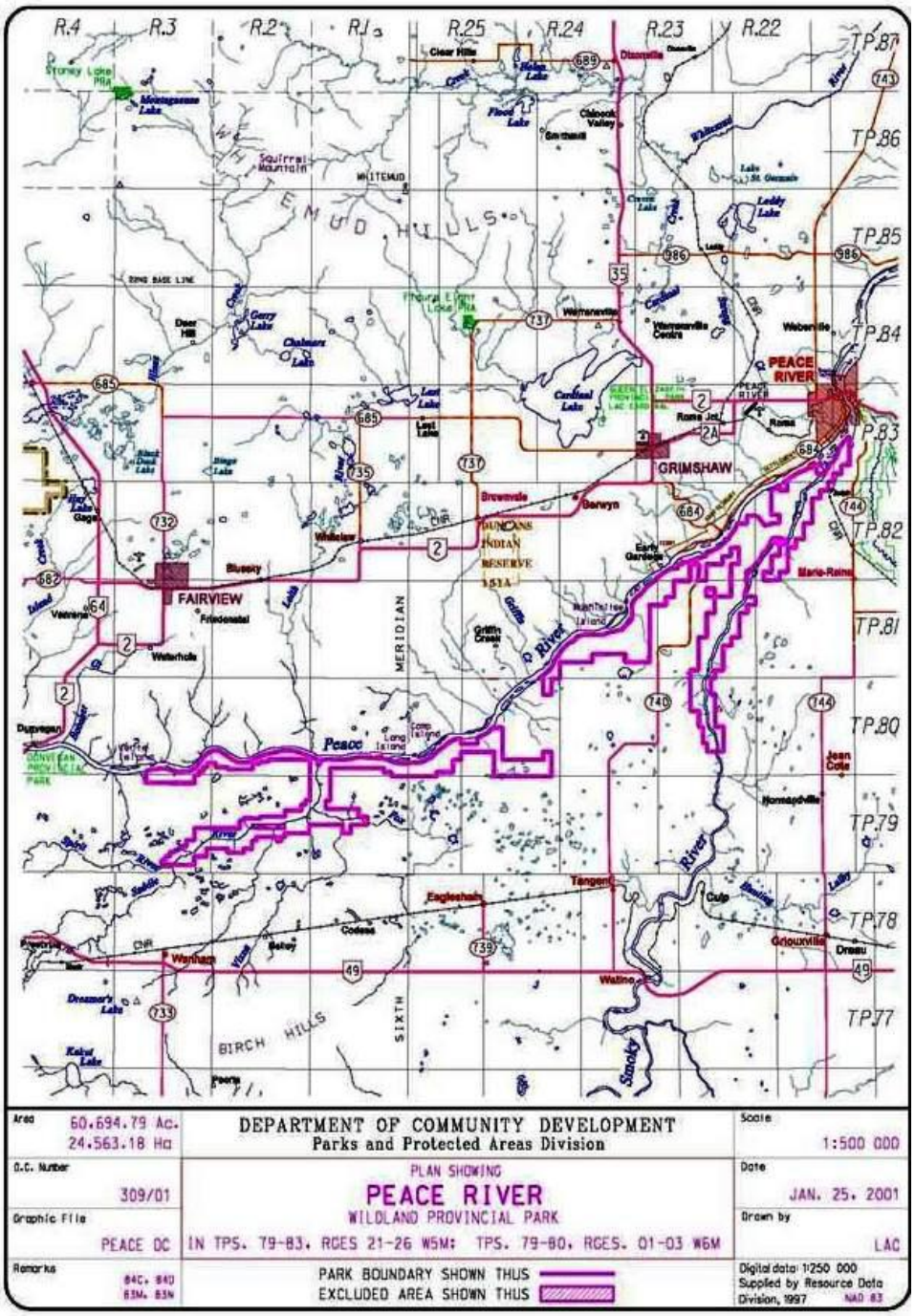
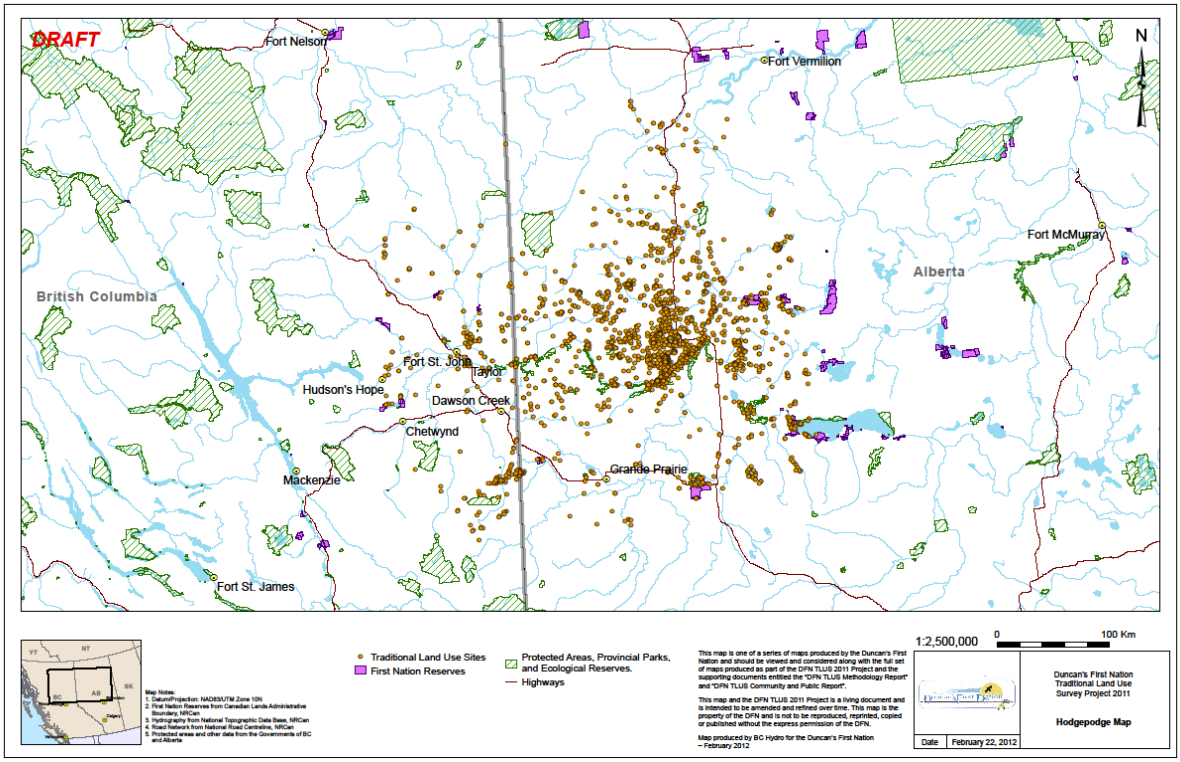


Figure 3. Hodgepodge Map of all DFN Traditional Use Sites Identified in the TLUS, Scale 1:2,500,000 (General, Matthew (2012). Duncan's First Nation Traditional Land Use Survey Maps (13 Maps). Duncan's First Nation and BC Hydro, 22 February 2012).



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> *An ethnohistorical study that presents archival information relating to aboriginal history, land use and occupation of the central Peace River region by ancestors of the Duncan's First Nation, currently located on Duncan's Indian Reserve No. 151A near Brownvale, Alberta.*

Duncan‟s First Nation and British Columbia Hydro and Power Authority (2010). "Traditional Territory Map." Schedule A, Duncan‟s First Nation Traditional Land Use Agreement for Site C Clean Energy Project, 12 July 2010.

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Tera Environmental Consultants (2011). Traditional Knowledge Report for the Nova Gas Transmission Ltd. Tanghe Creek Lateral Loop No.2 (Sloat Creek Section). Prepared for TransCanada Nova Gas Transmission Ltd., Calgary, October 2011: Sec. 3.5.3 Beaver First Nation, page 20.

> *DFN was conducting a TLU study for the above two TransCanada Nova Gas projects. No results were reported.*

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SITE C CLEAN ENERGY PROJECT

VOLUME 5 APPENDIX A07 PART 4

ABORIGINAL SUMMARY: DUNCAN'S FIRST NATION

FINAL REPORT

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January 2013

Duncan's First Nation

As required by Section 20.8 of the EIS Guidelines, the following summary presents BC Hydro's understanding of Duncan's First Nation's asserted or established Aboriginal rights and treaty rights, and other Aboriginal interests potentially impacted by, and concerns with respect to, the Project. The summary also provides BC Hydro's understanding of the potential adverse effects of the Project on the treaty rights and interests of Duncan's First Nation.

Duncan's First Nation's Treaty Rights

Section 35(1) of the Constitution recognized and affirmed treaty rights of Aboriginal groups. Treaty 8 was entered into in 1899 and guarantees the First Nation signatories the "right to pursue their usual vocations of hunting, trapping and fishing throughout the tract surrendered" subject to two limitations: (i) "such regulations as may from time to time be made by the Government of the country," and (ii) "saving and excepting such tracts as may be required or taken up from time to time for settlement, mining, lumbering, trading or other purposes."

The following Aboriginal groups listed in Table 34.1 are signatories or adherents to Treaty 8: Blueberry River First Nations, Fort Nelson First Nation, McLeod Lake Indian Band, Saulteau First Nations, Doig River First Nation, Halfway River First Nation, Prophet River First Nation, West Moberly First Nations, Athabasca Chipewyan First Nation, Beaver First Nation, Dene Tha' First Nation, Duncan's First Nation, Horse Lake First Nation, Little Red River Cree Nation, Mikisew Cree First Nation, Smith's Landing First Nation, Sturgeon Lake Cree Nation, Tallcree First Nation, Woodland Cree First Nation, Deninu K'ue First Nation, Salt River First Nation.

For a more thorough discussion of rights under Treaty 8, see Section 34.3.2.1.

Duncan's First Nation's Concerns with Respect to the Project

The following table presents a high-level description of the concerns identified by Duncan's First Nation in consultation activities with BC Hydro between November 1, 2007 and November 30, 2012, including those identified in meetings, phone calls, letters, emails, reports (e.g., Traditional Land Use Studies, Community Assessments), and any submissions made during the comment periods for the EIS Guidelines.

Project Components and Activities
Interest in changes to the alignment of Highway 29, including any changes to Highway 97.
Interest in BC Hydro's plans for debris clearing, management and disposal including whether all timber, regardless of its commercial value, and woody debris would be removed from the reservoir.

Cumulative Effects
Concern regarding the Project's potential contribution to the cumulative impacts of development in the region, including pipelines, logging, oil and gas, coal mining and coal bed methane.
Interest in using a pre-development, pre-industrial or pre-W.A.C. Bennett Dam baseline in order to assess the cumulative environmental effects of the Project, and to assess the cumulative implications of the Project on the exercise of section 35(1) rights. Interest in assessing the potential meshing, aggregation, and conflation of effects of the Project in combination with existing upstream facilities as well as the recently approved Dunvegan Hydroelectric Project as part of the cumulative effects assessment.
Geology, Terrain and Soils
Concern about the risk of earthquakes at the proposed dam site.
Water – Surface Water Regime
Concern about potential downstream effects of the Project on water flow and water levels, including in the Peace River, Slave River, McKenzie River, Salt River and the Peace Athabasca Delta.
Interest in extending the scope of the spatial boundaries for downstream studies to ensure that all potential downstream effects, as far as the Peace Athabasca Delta and/or the Great Slave Lake are included in the scope of the effects assessment.
Concern about the potential effects of the Project on water levels and water flow upstream, including the extent of upstream flooding in the Peace River, Halfway River, Moberly River, Moberly Lake, and Hudson's Hope.
Concern about spilling from the proposed Site C dam and whether there would be Total Gas Pressure (TGP) effects downstream.
Water – Water Quality
Concerns about the potential effects of the Project on water quality.
Water- Thermal and Ice Regime
Concern about the potential effects of the Project on increasing water temperature in the Peace River.
Concern about the potential effects of the Project on ice flow, ice formation, ice break-ups and ice bridges, including the ice bridges at Shaftesbury, Dunvegan and Carcajou. Concern that changes to ice flow and formation have the potential to impact human transportation and animal migration and wintering habitat availability.
Water – Fluvial Geomorphology and Sediment Transport
Concerns about the potential effects of the Project on sediment transport. Concern about the effects of sedimentation on fish due to change in downstream sediment load and river bed mobilization and sediment transport.
Water – Methylmercury
Concern about mercury accumulation and contamination in fish.

Concern that the perceived risk, observed change and advisories related to bio-accumulation of mercury in fish will likely reduce harvesting and consumption of fish from the reservoir and result in reduced confidence in fish as a food source due to the perception of high levels of mercury.
Air – Microclimate
Concern about the potential effects of the Project on local climate and weather patterns including changes in cloud, humidity, wind and tornadoes. Concern that effects on microclimate may result in effects on wildlife and plant communities, water temperature, ice formation, and farming.
Air – Noise and Vibration
Concern that the Project will increase noise and noise pollution. Concern that noise associated with the Project will scare away wildlife which the community depends on.
Fish and Fish Habitat
Concern about the potential effects of the Project on fish, fish habitat, and fish species composition, including in the Peace River, Halfway River and Moberly Lake and Alberta.
Concern about the potential effects of the Project on spawning, including in the Peace River, Halfway River, Lynx Creek and Cache Creek areas.
Concern about the potential effects of the Project on fish migration, including in the Peace River, Halfway River and Moberly River.
Concern about the potential effects of the Project on fish passage, both upstream and downstream of the dam, including fish mortality in turbines and/or spillways.
Concern with potential oxygen depletion in deeper parts of the reservoir / stratification.
Concern about the potential effects of the Project on riparian habitat and whether the Project would create new aquatic zones.
Vegetation and Ecological Communities
Concern about the potential effects of the Project on vegetation and plant communities.
Concern about the potential effects of the Project on regionally rare and important ecosystems including old growth forests, south-aspect grassland, shrub and aspen slopes.
Concern about the potential effects of the Project on wetland habitat.
Wildlife Resources
Concern about the potential effects of the Project on wildlife, wildlife habitat and biodiversity.
Concern about the potential effects of the Project on wildlife migration and movement, including the ability of wildlife to swim across the reservoir and climb the banks of the reservoir.
Concern about the potential effects of Project-related construction activities on wildlife, including gravel extraction operations and the influx of vehicles during construction potentially causing increased wildlife mortality.

Concern about the potential effects of the Project on migratory birds and migratory bird habitat, including warblers, marsh birds, ducks, woodpeckers, red and blue listed neo-tropical migratory birds, Slave River area geese and water fowl.
Concern about the potential effects of the Project on furbearers and habitat for furbearers, including fishers, wolverine, rabbits, muskrats and beaver.
Concern about the potential effects of the Project on ungulates and ungulate habitat, including moose, elk, deer, caribou, bison and Stone Sheep. Specific concern with effects resulting from loss of seasonal ranges, winter habitat, loss of calving and fawning areas on the islands in the Peace River, seasonal movement barriers, loss of the river valley as a wildlife movement corridor .
Current use of Lands and Resources for Traditional Purposes
Concern about the potential effects of the Project on access to quality hunting areas, including areas that contain moose, elk, deer, bear and birds. Concern about potential effects from Project-related activities, such as the Highway 29 realignment and the Peace Reach Pit, on hunting. Specific hunting areas of concern include: - The arc from the upper Halfway to Hudson's Hope to Moberly Lake to Upper and Lower Pine watershed - Pine / Peace confluence - BC / ALTA border to Smoky / Peace River confluence to Caldotte / Peace River confluence to Notikewen / Peace River confluence - Boucher Lake / Peace Moberly Tract area - Between Moberly Lake and Peace Rivers - N/W of Hudson's Hope - Upstream of Clear / Peace River confluence
Concerns about the potential effects of the Project on fishing, including access, water flow, water levels and habitat. Specific fishing areas of concern include: - BC / ALTA border to Many Islands - Many Islands to Dunvegan - Dunvegan to Peace/Smoky River confluence and north to Notikewin Provincial Park - Saddle Creek / Peace confluence to upstream of Peace River - Peace River downstream of Farrell Creek - Downstream of Hudson's Hope - Peace River above the dam - North bank Peace upstream of Talyor bridge - Lower reaches of Pine River / at Beatton / Peace confluence up to Charlie Lake and upper Beatton River / on Peace River at BC / ALTA border - Pine / Peace confluence - Clear / Peace confluence

- Many Islands and at Fourth Creek / Peace Confluence - Many Islands to Dunvegan - Dunvegan to Notikewin / Peace River confluence
Concern about potential effects of the Project on trapping activity on the Peace by DFN that is not documented in current Traditional Land Use Studies but is known to have taken place historically.
Concern about the potential effects of the Project on berry harvesting and plant gathering.
Concern about increased access for recreation non-Aboriginal harvesters to the area leading to increased pressure on wildlife and fish resources and increased competition for campsites.
Land and Resource Use Effects
Concern about the potential effects of the Project on forest harvesting.
Concern about loss of income from reduced fish and wildlife harvesting opportunities.
Concern about the potential changes to ice bridges and ferry operations required for the transport of people, goods and access to traditional hunting grounds including the Shaftsbury and Tompkins Landing ice bridges.
Social Effects Assessment
Interest in the determination of the housing baseline and the analysis of effects on housing being performed separately for the affected First Nation communities.
Heritage Resources
Concern that construction and operation of the Project will damage or destroy archaeological, unidentified or non-archaeological (e.g., spiritual) heritage sites.
Human Health
Concern with decreased water quality and additional pollution in connection with the Project.
Concerns related to noise and vibration, including loss of quiet enjoyment due to increased noise.
Concerns related to the contamination of fish and wildlife resulting in a lack of faith in country foods. Perception of health risk related to methylmercury in country foods.
Treaty Rights (Hunting, Fishing and Trapping)
Concern about the potential impacts of the Project on Treaty 8 rights.
Aboriginal Interests – Aboriginal employment, contracting and business development
Interest in contracting and procurement opportunities for local contractors and Aboriginal businesses.
Existing Hydroelectric Projects on the Peace River
Assertion that the W.A.C. Bennett and Peace Canyon dams impacted and/ or continue to impact the Treaty 8 First Nations, including their ability to exercise section 35(1) rights. Asserted impacts include:

- Impacts on fish, wildlife and vegetation - Impacts on hydrology - Assertion that there is lack of dialogue with BC Hydro regarding past grievances related to the W.A.C. Bennett and Peace Canyon dams
Assertion that the W.A.C. Bennett and Peace Canyon dams impacted and/ or continue to impact the Treaty 8 First Nations downstream, including on the Peace River, Slave River, the Peace Athabasca Delta and the Slave River Delta, including their ability to exercise section 35(1) rights.
Opposition to the Project while past grievances related to the Peace Canyon and W.A.C. Bennett Dams remain outstanding. Interest in addressing past grievances as part of the Project consultations.

These concerns are presented in an issues tracking table under Volume 1 Appendix H Aboriginal Information, Distribution and Consultation Supporting Documentation, which outlines BC Hydro's consideration and/or response to the concern or provides a reference to where the concern is considered or responded to in the EIS.

Potential Adverse Effects of the Project on the Exercise of Duncan's First Nation's Treaty Rights

Based on the assessment undertaken by BC Hydro and set out in Volume 3 Section 19 Current Use of Lands and Resources for Traditional Purposes, interactions were identified between the Project and the current use of lands and resources for traditional purposes by Duncan's First Nation in the Local Assessment Area (LAA). As a result, BC Hydro's understanding of the current use of lands and resources for traditional purposes by Duncan's First Nation was brought forward into the effects assessment.

The effects assessment looked at the potential Project effects during the Project construction and operations phases on fishing opportunities and practices, hunting and trapping opportunities and practices, and cultural and other traditional uses of the land.

The following potential Project effects and mitigations measures were identified:

Project Effect	Mitigation Measures
Changes in fishing opportunities and practices	~~Consult with Aboriginal groups respecting the~~ Consider developing~~ment of~~ fish habitat compensation projects that align with BC Hydro compensation programs.
	~~Seek input from Aboriginal groups respecting mitigation strategies.~~
	~~Continue to consult with Aboriginal groups on clearing plans and protocols.~~

Project Effect	Mitigation Measures
	Develop a communications program to inform harvesters of planned or unplanned events related to construction activities that may affect fishing opportunities or access.
	Develop a communications program to inform harvesters of longer-term changes in fish community composition.
	Implement all mitigation measures set out in Volume 2 Section 12 Fish and Fish Habitat.
	Implement measures supporting the development of 3 boat launches along the Site C reservoir accessible via Highway 29 to support navigability and navigable use, and the re-establishment of recreational sites on the Site C reservoir and downstream, and to re-establish and create new use patterns and access, as set out in Volume 3 Section 26 Navigation.
Changes in hunting and trapping opportunities and practices	~~Consult with Aboriginal groups respecting the~~Consider developing~~ment of~~ wildlife habitat compensation projects that align with BC Hydro compensation programs.
	~~Seek input from Aboriginal groups respecting mitigation strategies, such as~~Develop mitigation measures intended~~related~~ to decrease impacts on First Nation trap lines in the Project activity zone.
	~~Continue to consult with Aboriginal groups on clearing plans and protocols.~~
	Develop a communications program to inform harvesters of planned or unplanned events related to construction activities that may affect hunting opportunities or access.
	Implement mitigation measures set out in Volume 2 Section 14 Wildlife Resources.
	Implement mitigation measures set out in Volume 3 Section 24 Harvest of Fish and Wildlife Resources pertaining to trapping.
Changes to other cultural and traditional uses of the land	Work with Aboriginal groups to ground-truth traditional land use information for specific areas within the Project activity zone prior to commencing construction.
	~~Continue to consult with Aboriginal groups regarding clearing plans and protocols.~~
	Develop a communications program to inform harvesters of planned or unplanned events that may affect opportunities to harvest plants, berries, and other resources.

Project Effect	Mitigation Measures
	~~Consult with Aboriginal groups respecting the~~Consider developing~~ment of~~ habitat compensation projects that align with BC Hydro compensation programs.
	Work with Aboriginal groups to identify permanent habitation structures used in the current use of lands and resources for traditional purposes that may be lost to inundation. Effects on cabins associated with tenured trap lines will be addressed as set out in Section 24.4.9.1 in Volume 3 Section 24 Harvest of Fish and Wildlife Resources. Where untenured cabins may be impacted by the Project, BC Hydro will work with Aboriginal individuals to determine appropriate measures that could be implemented.
	Work with Aboriginal groups to identify potential sites for relocation of medicinal and food plants to compensate for areas that will be inundated.
	Use only indigenous and/or non-invasive plants and grasses in re-vegetation programs associated with the Project.
	Engage with Aboriginal groups around any reclamation phase that may present opportunities to restore ecological communities that support species of high traditional use value.
	Be prepared to ~~P~~provide support for the indigenous plant nursery owned by West Moberly and Saulteau First Nations located at Moberly Lake. The First Nations have a business plan to support propagation of a wide range of indigenous plant species for use in reclamation work.
	Establish a Culture and Heritage Resources Committee to provide advice and guidance on the mitigation of specific effects of the Project on culture and heritage resources. The Committee would consist of BC Hydro officials and Aboriginal members whose communities are in the immediate vicinity of the Project.

Project Effect	Mitigation Measures
	Consider implementing, in consultation with Aboriginal groups and British Columbia where appropriate, the following potential initiatives: • the identification and naming of key cultural sites and the potential to integrate Aboriginal names into Project operations and sites; • recording of stories and history associated with key cultural sites that may be affected by the Project; • the protection and documentation, including mapping, of important Aboriginal trails and sites; • contribute funding to support a youth culture camp that includes transfer of knowledge around medicinal and food plants; • engage with Aboriginal groups to commemorate the lost and inundated places; • engage with Aboriginal groups around potential plans to undertake ceremonies prior to the commencement of construction on key elements of the Project; and • develop and implement an education program respecting Aboriginal culture, history and use of lands and resources in the Project Area to be offered to all workers on the Project.
	Implement all mitigation measures set out in Volume 2 Section 13 Vegetation and Ecological Communities.
	Implement all mitigation measures set out in Volume 4 Section 32 Heritage Resources.
	Implement measures supporting the development of new shoreline recreation sites in Volume 3 Section 25 Outdoor Recreation and Tourism.
	Implement measures supporting the development of 3 boat launches along the Site C reservoir accessible via Highway 29 to support navigability and navigable use, and the re-establishment of recreational sites on the Site C reservoir and downstream, and to re-establish and create new use patterns and access, as set out in Volume 3 Section 26 Navigation.

Key Findings: Current Use of Lands and Resources for Traditional Purposes

Current use of lands and resources for traditional purposes - fishing

Fishing opportunities and practices of Duncan's First Nation are expected to be adversely affected during construction and operation due to reduced access to fishing areas (including potentially increased competition with non-Aboriginal anglers), and potentially reduced success in harvest of targeted species. The transformation of the river into a reservoir would create a new and productive aquatic ecosystem. This new aquatic environment is expected to support a community of equal or greater productivity; however the composition of fish species would change. The effect would be of low magnitude for Duncan's First Nation, as the Peace River section within the LAA is at the periphery of their use of fish resources.

Although some aspects of the traditional purpose of the activity may be altered by transferring them to another location, fishing practices of Aboriginal people are adaptable, spatially and temporally. For these reasons, a determination of significance has not been made.

Current use of lands and resources for traditional purposes – hunting and trapping

Hunting and trapping opportunities and practices of Duncan's First Nation may be adversely affected due to temporary reductions in availability of targeted species and temporarily reduced access to hunting areas during construction. As the effect would be temporary in nature and may be accommodated in other areas of the LAA, the traditional purpose of the activity would not be undermined.

The effect would be of low magnitude for Duncan's First Nation, as hunting practices of Aboriginal people are adaptable, spatially and temporally, and the affected areas are at the periphery of their current use hunting areas, as indicated in traditional use studies. Therefore, a determination of significance has not been made for the current use of lands and resources for hunting and trapping.

Current use of lands and resources for traditional purposes – other cultural and traditional uses

The Project would have a residual adverse effect on other cultural and traditional uses of the land for Duncan's First Nation. Opportunities to use special high-value places and landscapes along the Peace River for the conduct of multiple current use and cultural activities will be negatively altered within the LAA. The effect would be permanent but the magnitude would be moderate-low for Duncan's First Nation.

Following the methods explained in Volume 1, Section 10 EA Methodology, a cumulative effects assessment was carried out to identify any cumulative interaction between potential residual effects of projects and activities located in the Current Use of Lands and Resources Regional Assessment Area (RAA) with the residual effects of the Project

identified above. As a result of that assessment, BC Hydro has determined the Project is unlikely to result in a cumulative effect on the current use of lands and resources for traditional purposes by the Duncan's First Nation.

Volume 5 Section 34 Asserted or Established Aboriginal Rights and Treaty Rights, Aboriginal Interests and Information Requirements presents BC Hydro's assessment of the potential impacts of the Project on the exercise of asserted or established Aboriginal rights and treaty rights of the 29 Aboriginal groups with which BC Hydro was instructed to consult. The assessment of the potential impact of the Project on the exercise of asserted or established Aboriginal rights and treaty rights looked at the potential impacts on the exercise of the rights to hunt, fish and trap, as set out in Treaty 8, as well as impacts to what may be described as ancillary activities, some of which may be reasonably incidental to the exercise of treaty rights to hunt, fish and trap. The following potential impacts and mitigation measures were identified:

Impact on Exercise of Treaty Right	Mitigation Measures
Hunting and Trapping	
	~~Consult with Aboriginal groups respecting the~~ Consider developing~~ment of~~ wildlife habitat compensation projects that align with BC Hydro compensation programs.
	~~Seek input from Aboriginal groups respecting mitigation strategies, such as~~Develop mitigation measures intended ~~related~~ to decrease impacts on First Nation trap lines in the Project activity zone.
	~~Continue to consult with Aboriginal groups on clearing plans and protocols.~~
	Develop a communications program to inform harvesters of planned or unplanned events related to construction activities that may affect hunting opportunities or access.
	BC Hydro will consider community-based monitoring programs, which may involve incorporation of local, community, or traditional knowledge, where potential effects and the effectiveness of mitigation measures on hunting and trapping opportunities are uncertain, provided a sound methodology with clear indicators and outcomes is delineated. BC Hydro is prepared to engage with Aboriginal groups to discuss potential community-based monitoring programs, such as programs intended to monitor the productivity and abundance of wildlife species.
Fishing	
	~~Consult with Aboriginal groups respecting the~~Consider developing~~ment of~~ fish habitat compensation projects

Impact on Exercise of Treaty Right	Mitigation Measures
	that align with BC Hydro compensation programs.
	~~Seek input from Aboriginal groups respecting mitigation strategies.~~
	~~Continue to consult with Aboriginal groups on clearing plans and protocols.~~
	Develop a communications program to inform harvesters of planned or unplanned events related to construction activities that may affect fishing opportunities or access.
	Develop a communications program to inform harvesters of longer-term changes in fish community composition.
	BC Hydro will consider community-based monitoring programs, which may involve incorporation of local, community, or traditional knowledge, where potential effects and the effectiveness of mitigation measures on fishing opportunities are uncertain, provided a sound methodology with clear indicators and outcomes is delineated. BC Hydro is prepared to engage with Aboriginal groups to discuss potential community-based monitoring programs, such as programs intended to monitor the productivity and abundance of fish species.

The assessment of the potential effects of the Project on the traditional activities of fishing, hunting, and trapping demonstrates that the Project may impact the exercise of treaty rights by the Duncan's First Nation in the LAA. Duncan's First Nation members will, however, continue to have the opportunity to exercise their right to fish, hunt, and trap within the LAA, within their traditional territory, and within the wider Treaty 8 territory.

Consultation is ongoing between BC Hydro and the Duncan's First Nation, and may yield additional information on the Duncan's First Nation's current and reasonably anticipated future use of lands and resources that may potentially be affected by the Project. Should Duncan's First Nation provide additional information to BC Hydro, it will be considered and incorporated in the effects assessment during the EIS review phase and prior to submission of the EIS to the Joint Review Panel.

SITE C CLEAN ENERGY PROJECT

VOLUME 5 APPENDIX A07 PART 5

TLUS PUBLIC REPORT:
DUNCAN'S FIRST NATIONS

FINAL REPORT

Prepared for BC Hydro Power and Authority

Prepared by Duncan's First Nation

November 2011

Table of Contents

A. Duncan's First Nation Ethnohistorical Review

B. Duncan's First Nation TLUS Community and Public Report

C. Duncan's First Nation TLUS Methodology Report

D. Duncan's First Nation TLUS Hodgepodge Map

23/01/2012

DUNCAN'S FIRST NATION

DFN: ETHNOHISTORICAL REVIEW

Land Use History Project | Duncan's First Nation

TABLE OF CONTENTS

Executive Summary ..... **iv**
1.0 Introduction **1**
1.1 Study Objectives 1
1.2 Study Methodology 2
1.2.1 Additional Research That Could be Undertaken 3
1.3 Study Area 4
1.4 Study Team 5
2.0 Identity of the Duncan’s First Nation **6**
2.1 Community Profile and Location 9
2.2 Cultural and Linguistic Affiliation 10
2.2.1 Cree Ancestry of the Duncan‘s First Nation 10
2.2.2 Beaver (*Dane-zaa*) Ancestry of the Duncan‘s First Nation 15
2.2.3 Iroquois Ancestry of the Duncan‘s First Nation 17
3.0 Historical Encounters With Ancestors of the DFN **19**
3.1 Prior to First Contact with Europeans 19
3.2 First European Recognition of Aboriginal Occupation in the Peace River Region 23
3.3 First Direct European Encounter with Aboriginal People in the Central Peace River .. 26
3.4 Expansion of the Fur Trade 34
3.5 Aboriginal Hunting Bands, Métis and Freemen 43
3.6 Observations on Aboriginal Land Use, 1860s-1870s 50
3.6.1 Competition for Land at Peace River Landing, 1880s 68
3.7 Treaty 8 69
3.8 Post-Treaty Settlement 76
3.8.1 Observations on Aboriginal and Métis settlement 76
3.8.2 Development of a Mixed Economy 84
4.0 Establishment and Purported Surrender of DFN Indian Reserves **89**
4.1 Establishment of Indian Reserves 89
4.2 Survey of DFN Indian Reserves 91
4.3 Purported Surrender of Duncan‘s Indian Reserves 151 and 151B – 151H 96
5.0 Named Places **98**

6.0 Atlas of Historical Maps 101
6.1 Peter Pond 101
6.2 Philip Turnor 103
6.3 Alexander Mackenzie 107
6.4 George Dawson 110
6.5 James Macoun 112
6.6 Leonard Ugarenko 114
6.7 Robin Ridington 115
6.8 Regna Darnell 116
Appendix A: Chronological Listing of Early Posts in the Central and Upper Peace Area 117
Appendix B: Details of George Dawson's Maps of His 1879 Expedition 120

Cover photograph from: http://en.wikipedia.org/wiki/File:The_Peace_River.JPG#file; accessed 13 December 2011.

Executive Summary

This report, which is based on the known and available literature reviewed to date, examines the land use history of the Duncan‘s First Nation from the time of first contact between Aboriginal people and Europeans in the central Peace River region in the late 1800s to the time when the Indian Affairs Department purportedly surrendered a number of DFN Indian Reserves in the late 1920s.

The contemporary Duncan‘s First Nation is a group of individuals focused geographically around the general vicinity of what is now the town of Peace River, Alberta, whose multi-national ancestors adhered to Treaty 8 in 1899. The leader of this group, known as ―Duncan‘s Band” at the time of Treaty, was a man named Duncan Testawich who was himself a descendant of a trader of Iroquois ancestry who came west with the fur trade, and a locally-born Métisse woman (Section 2.2.1). The composition of the DFN community at the time of Treaty 8 included people of Cree as well as *Dane-zaa* (Beaver) ancestry, together with individuals of Iroquois and Métis ancestry (Sections 2.2.1 - 2.2.3).

Historical evidence reviewed in this report indicates that, at the time of contact with European explorers, the central Peace River region was occupied by people identified as *Dane-zaa* or Beaver who formed small nomadic bands. Their social organization was intimately related to the resources and conditions of their environment, an open country where they once hunted buffalo, but now existed on the harvesting of moose and small game (Sections 3.1 - 3.3).

In the early years of the developing fur trade, the population of the Indigenous people declined. Both the local *Dane-zaa* and Cree people suffered. In the 1830s, the Cree gradually spread north and west into the Peace River region, sometimes camping within the area formerly associated exclusively with the *Dane-zaa* (Section 3.4). Métis and Iroquois trappers and traders came with the fur trade. They worked for fur trade companies, intermarried with the local Indigenous women, and eventually retired in the area (Section 3.5). Newly established on the Peace River in the 1870s were small communities of Cree and Métis people. By the late 19th century, a community of mixed-blood people residing in the vicinity of Peace River Landing supplemented their hunting and trapping with farming (Section 3.6).

In 1899, at Peace River Landing, Duncan Testawich, identified as ―Headman of Crees,” adhered to Treaty 8 on behalf of ―the Indians of Peace River Landing and the adjacent territory” (Section 3.7). Living alongside Duncan Testawich were non-Aboriginal people who had immigrated to the Peace River, lured by tales of the region‘s rich agricultural potential (Section 3.8). Government surveys of the Peace River region‘s potential indicate that fertile land was restricted to land along the river flats, where Duncan Testawich had commenced breaking the land and sowing grain, ventures that supplemented his usual hunting and trapping activities (Section 3.8.1). Competition for the better lands at Peace River Landing brought new non-Aboriginal settlers, including missionaries who established schools for local Aboriginal, Métis and non-Aboriginal children (3.8.1). Duncan Testawich's older brother, Jean-Baptiste Testawich, did not adhere to treaty. He was listed on the 1901 census as a ―French Half-breed” then living at Spirit

River, south from Dunvegan, where he also farmed when not working for the Hudson‘s Bay Company or as a free trader (Section 3.8.2).

Ten Indian Reserves were set aside and surveyed in the early 1900s for the ―Peace River Landing Band” (―Duncan Testawich‘s Band” i.e., today‘s Duncan‘s First Nation). These Reserves reflected the Band‘s interests in farming, an occupation that waxed and waned as crops flourished and then died from early frosts or drought (Section 4.0). By 1910, Duncan‘s Band members still preferred a more Indigenous life-style of hunting and trapping to that of the uncertainties of farming. During World War 1, pressures for farming lands desired for returning soldiers prompted a review of the small Duncan‘s Band‘s land needs and Ottawa arranged the purported surrender of eight of their ten reserves (Section 4.3).

This report has also compiled a preliminary list of Aboriginal place names, which are an indicator of use and occupation , that appear in the historical literature (Section 5.0).

Included also is an Atlas of Historical Maps which presents a collection of maps showing occupation of the region by Dane-zaa and Cree people over time. Some of these maps also show the locations of historic trails (Section 6.0).

As well, this report contains a chronological listing of early fur trading posts in the Peace River region from the 1780‘s – *circa* 1831 (Appendix A), and a series of map details from George Dawson‘s maps of his 1879 expedition through the Peace country (Appendix B).

1.0 Introduction

This report has been prepared for the Duncan‘s First Nation (―DFN”) in response to their Chief and Council‘s request for a study focused on DFN land use history, based on known and available published and unpublished source materials.

The present report is written so that it can either stand alone as an ethnohistorical and ethnographic document, or complement or be incorporated into a Traditional Use Study (―TUS”). A study such as this incorporates both ethnography and ethnohistory. "Ethnography" is a description of a particular culture based on observation and participation, and on interviews with members of that culture. "Ethnohistory" complements ethnography by drawing upon historical documents to reconstruct a description of Aboriginal life and events in historic times. Thus, ethnohistorical documents include: field notes, manuscripts and publications compiled by past and present ethnographers, historians and linguists; observations and reports by government and non-government individuals including explorers, missionaries and local pioneers; correspondence files of government agencies, especially the voluminous files held by Aboriginal and Northern Affairs Canada; documentation provided by members of the Aboriginal society, themselves; litigation files relating to Aboriginals‘ land disputes with governments and corporations; and, other materials such as photographs, sound- tape recordings, maps, plans, and surveyors' field books.

A TUS, also known as a Traditional Land Use Study (―TLUS”) or a Traditional Land Use and Occupancy Study (―TLUOS”), provides systematic documentation of an Aboriginal community‘s lifeways to clarify the specific relationship existing between people and their lands, territories and resources, past and present. A component of such studies, as in the present report, places land use within the historical context of a particular society. When used together with ethnographic data, including contemporary interviews, such research provides a comprehensive picture of land use, particularly in respect of the history of such land use over time. The ethnohistorical materials can serve as a cross-check of the ethnographic data that is obtained in the community. Importantly, however, the ethnohistorical data may be incomplete or silent and require complementary data from the members of the Aboriginal society in order for the data to be interpreted fully, particularly in areas where land use continues.

1.1 Study Objectives

The objective of this study is to summarize the documentary history of land use in the Peace River region by the Duncan‘s First Nation and their ancestors. More specifically, the known and available historical record has been reviewed for information relating to the types and geographical extent of DFN traditional land use over time, from the period of first Aboriginal – European contact in the Peace through to 1928, when the Department of Indian Affairs purportedly surrendered some of the DFN‘s Indian Reserves.

1.2 Study Methodology

A considerable amount of archival and library research was undertaken in order to prepare this report. Institutions that were visited while undertaking this study, above and beyond the extensive research library and archives at the Bouchard & Kennedy Research Consultants offices in Victoria, are described below:

Calgary, Alberta	Glenbow Museum and Archives; Arctic Institute of North America; University of Calgary Library and Special Collections; Court of Queen‘s Bench Registry.
Edmonton, Alberta	Provincial Archives of Alberta; University of Alberta Library and Special Collections.
Winnipeg, Manitoba	Hudson‘s Bay Company Archives, Provincial Archives of Manitoba.
Victoria, BC	BC Archives; University of Victoria‘s McPherson Library; Legislative Library; BC Land Title and Survey Authority.
White Rock, BC	Offices of David Knoll, legal counsel for DFN
Followup email/telephone inquiries	Hudson‘s Bay Company Archives, Winnipeg; Library and Archives Canada, Ottawa: Aboriginal and Northern Affairs Headquarters, Ottawa; McGill University Archives, Montreal; National Archives, London, England; Court of Queen‘s Bench Registry, Judicial District of Calgary; Special Collections Division of the University of Alberta Library.

Randy Bouchard and Dorothy Kennedy together undertook the archival and library research in Calgary and Edmonton. Bouchard, alone, undertook research at the Hudson‘s Bay Company Archives in Winnipeg and the Court of Queen‘s Bench Registry in Calgary. As well, Bouchard

travelled to the offices in White Rock, BC, of David Knoll, legal counsel for Duncan‘s First Nation, to review historical documents and reports held there. Bouchard & Kennedy retained the services of a professional historical research firm in Ottawa to obtain certain documents from Aboriginal and Northern Affairs Headquarters in Ottawa and from Library and Archives Canada, also in Ottawa. Additionally, heritage resource consultant Sharon Keen undertook some of the Victoria-based research under the direction of Randy Bouchard who coordinated all the documentary research and who also contacted by email and by telephone the institutions listed in the chart above.

This report summarizes the historical facts that are known and available to the authors at this time concerning the Duncan‘s First Nation‘s land use history. Other historical facts may be found after this date that are relevant to the subject. It should be noted that this report draws exclusively on archival and library research and does not include the present day oral history of Duncan‘s First Nation members.

1.2.1 Additional Research That Could be Undertaken

While the research that we have undertaken in order to write the present study has been comprehensive and has resulted in a thoroughly-documented report of about 140 pages containing 550 footnotes, [1] this research has not been exhaustive. The findings reflect the research and analysis undertaken to date.

There are several additional sources of documentation known to the present authors that it has not been possible to pursue, due primarily to time and budgetary considerations. These sources include:

- Aboriginal and Northern Affairs Canada Central Registry (–Record Group 10”) files (especially trapline files and lands files) that: have not yet been microfilmed; are held by Aboriginal Affairs in their Ottawa-area headquarters and their regional offices in Edmonton; can only be accessed through Federal Access to Information and Privacy legislation; and, can only be accessed with a Band Council Resolution. It has been the present authors‘ experience during many years of accessing such Aboriginal Affairs files on behalf of British Columbia and Alberta First Nations that it can frequently take several months to obtain the requested documents. Notwithstanding, it has been possible to utilize some Aboriginal Affairs documents in this report because they were: already microfilmed and thus publicly available; or had been cited in other researchers‘ reports and publications; or were obtained—in those instances where a BCR was not required—by retaining the services of an Ottawa-based historical research consulting firm;
- The Fish & Wildlife Branch of the Government of Alberta‘s Department of Sustainable Resource Development holds current trapline maps and files for both Aboriginal and non-Aboriginal individuals, and these materials should be reviewed together with Federal

[1] This research and report writing have greatly exceeded the budget allocated for this land use history project.

Aboriginal Affairs trapline records (described above) in order to obtain an understanding of the history of trapline usage by DFN members, both in past years and in more recent times;

- Although one of this report‘s authors spent 5 days at the Hudson‘s Bay Company Archives in Winnipeg in connection with the present study and obtained historical information that has been included here, it is clear that more such data pertaining to the Duncan‘s First Nation could be obtained from the HBCA. Some of the HBCA materials are available on microfilm through interlibrary loan, but others can only be obtained by going to the HBCA in Winnipeg;
- It has not been possible to visit the various local museums and archival facilities in this region of the Peace River, including the Grande Prairie Archives as well as the Oblates of Mary Immaculate Archives for the Grouard-McLennan Archdiocese that is located in McLennan, Alberta. The McLennan Archives contains Baptismal, Marriage and Burial Registers dating back as far as the early 1860s for the 47 Missions and Parishes comprising the Grouard-McLennan Archdiocese. While several references to birth, death and marriage information of ancestors of today‘s Duncan‘s First Nation appear in the present report, they are cited from other researcher‘s reports;
- The Alberta Community Development Offices are located on the campus of the University of Alberta at Edmonton. And while the authors spent several days in Edmonton, in connection with the present study, undertaking research both at the Provincial Archives of Alberta and at the University of Alberta, there was not time to visit Alberta Community Development which has on file both historical reports relating to the Peace River region of Alberta, as well as archaeological reports containing ethnographic and ethnohistoric data relating to this same region.

1.3 Study Area

The Duncan‘s First Nation did not define a study area for this review. Instead, this review‘s authors have been guided by the delineated ―Claim Area Map” that appears here as Figure 1 on page 9. This map, prepared by Public History Inc., Ottawa, was originally printed as part of a 1999 Duncan‘s First Nation inquiry report entitled ―Indian Claims Commission: Duncan‘s First Nation Inquiry, 1928 Surrender Claim” that is available online at http://dsp-psd.pwgsc.gc.ca/collection_2009/indianclaims/RC31-56-1999E.pdf . While this map focuses on the region where Indian Reserves were set aside in the early 1900s for the Duncan‘s First Nation, in the general vicinity of Peace River, Alberta,[2] a larger area has been taken into consideration for this present research, as an objective of the present review has also sought to determine if evidence exists of the DFN‘s ancestors‘ use of lands not included within this 1999 ―Claim Area.”

[2] This ―Claim Area Map” incorrectly indicates the location of Duncan‘s First Nation IR 151H on the western shore of Bear Lake (Cardinal Lake) when in fact it was surveyed on the northeast shore of this lake (see Section 4.2 of the present report).

1.4 Study Team

This report, prepared on behalf of the Duncan‘s First Nation, has been researched and written by Randy Bouchard, an ethnographer, ethnohistorian and linguist, and Dr. Dorothy Kennedy, a social and cultural anthropologist, each of whom has more than 40 years of experience undertaking ethnographic, ethnohistoric and linguistic research throughout northwestern North America. Some archival research for this study has been undertaken in Victoria under Bouchard‘s direction by historical researcher Sharon Keen, M.A.

2.0 Identity of the Duncan’s First Nation

The Duncan‘s First Nation takes its name from Duncan ―Tastaoosts” (Testawich) who was identified as ―Headman of the Indians of Peace River Landing and the adjacent territory” when Treaty 8 was signed on the 1st of July 1899.[3] While Duncan ―Tastaoosts” was also identified as ―Headman of Crees” in the same Treaty 8 document,[4] biographical notes indicate that Duncan Testawich‘s ancestry reflected the multinational and multilingual nature of the western fur trade. Apparently, Duncan Testawich spoke ―Cree, Beaver, English, French and some Chipewyan.”[5] Historian David Leonard, citing information from adventurer Warburton Pike who travelled through the Peace River country in the fall of 1890 and met and was assisted by Duncan‘s brother, Jean-Baptiste ―Tustawits” (Testawich), concluded that the Testawich brothers ―were the grandchildren of Francois Tustawits.” Leonard described Francois Tustawits as ―an Iroquois who had purportedly come to the Peace River area with George Simpson [Governor of the Hudson‘s Bay Company] in 1828.” [6] While Leonard was unable to confirm this connection with George

[3] For a transcript of the Treaty document, itself, see Charles Mair (1999). *Through the Mackenzie Basin: An Account of the Signing of Treaty No. 8 and the Scrip Commission, 1899*, with Introductions by David Leonard and Brian Calliou. The University of Alberta Press and the Edmonton & District Historical Society, Edmonton. Page 162. This 1999 publication is a facsimile reprint of the first portion‘s of Charles Mair‘s classic 1908 book, *Through the Mackenzie Basin: A Narrative of the Athabasca and Peace River Treaty Expedition of 1899, With a Map of the Country Ceded and Numerous Photographs of Native Life and Scenery*. William Briggs, Toronto.

[4] Mair 1999:162.

[5] Evelyn M. Hansen, ed. (1968). *Brick’s Hill, Berwyn and Beyond: A History of Berwyn & District*. Berwyn Centennal Committee, Alberta. Page 20, cited in G. Neil Reddekopp (1996). The Creation and Surrender of the Beaver and Duncan‘s Band‘s Reserve. Alberta Aboriginal Affairs, Indian Land Claims, Paper No. 2. Page 15, fn. 71.

[6] David Leonard (2005). *The Last Great West: the Agricultural Settlement of the Peace River Country to 1914*. Detselig Enterprises Ltd.,. Page 61. Leonard, at fn. 73 on p. 75, cites page 232 of Warburton Pike (1892). *The Barren Ground of Northern Canada*. MacMillan and Co., London and New York. Page 232. However, on p. 232 of his book, Warburton Pike states only that Jean-Baptiste was half-Iroquois and that he was ―descended from” the crew who came with George Simpson. The name ―Francois” does not appear at page 232 of Pike‘s book.

Simpson,[7] he did find evidence of "Francois" Testawich trading with the Hudson's Bay Company at Dunvegan in1839.[8]

Additional documents suggest that through his mother, Duncan Testawich (who was born in 1848),[9] may have been a descendant of Baptiste Bisson, one of the voyageurs who travelled with Alexander Mackenzie on his epic trip to the Pacific in 1793. [10] In 1869, Duncan Testawich married Sophie Thomas, a sister of Napoleon Thomas, a man of Iroquois ancestry who played a significant role in the development of British Columbia's northeast. [11] One of Duncan Testawich's sons, David Testawich, in 1895 married Angelique Thomas, another sister of Napoleon Thomas.[12] Duncan's brother, Jean-Baptiste Testawich, who was born in 1846, married

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[7] Leonard states that Duncan and Jean-Baptiste were "grandsons" of this Francois Testawich, although other information, including a July 1956 interview with Jean-Baptiste's son, Jonas Testawich, indicates that it was Jean-Baptiste's and Duncan's father who came out west with the fur trade. Both sons were born in the Peace River country. Jonas Testawich said that his father's father spoke "only French" but "soon learned Cree" when he first arrived in the Peace River Country. See Loggie Papers, Interview with Pioneers. Interview of Jonas Testawich, Brownvale, Alberta, July 1956, by Margaret Loggie. Glenbow Archives, Calgary, Alberta. D971.23 L832, file 37. Other records indicate that Jean-Baptiste and Duncan's father was possibly from Quebec before he came out west with the fur trade. See Fidirchuk, McCullough & Associates (1988). Appendix (Ethnic Affiliations), in, B. Reeves and Firdirchuk, McCullough & Associates' unpublished manuscript, "Historical Development—Sturgeon Lake Band," cited in Reddekopp 1996:15, fn. 72.

[8] Leonard 2005:61, fn. 74, citing Hudson's Bay Company document B.56/D/2a, the Dunvegan Account Book for 1839-1842.

[9] Leonard 2005:163.

[10] Sir Alexander Mackenzie Historical Society (1984). *Peace River Remembers.* Peace River, Alberta. Page 94. Cited in Reddekopp 1996:15, fn. 73. Baptiste Bisson was later employed by the North West Company as a Hunter, then went to the Hudson's Bay Company in 1818, was at Peace River 1818-1819, in the Athabasca District 1819-1820, and again at Peace River 1810-1821. See E.E. Rich, Editor (1938). *Journal of Occurrences in the Athanasca Department by George Simpson 1820 and 1821, and Report*. Published by the Champlain Society for the Hudson's Bay Company Society. Page 64, fn.2. HBC Governor George Simpson in September 1820 described Baptiste Bisson as the best hunter in the Peace River District, and in May 1821 described him as "without exception the best large animal hunter in North America." See: George Simpson to Duncan Finlayson, Peace River District, 29 September 1820; and, George Simpson to George Leith, North West Company, Fort Chipewyan, 19 May 1821, both cited in Rich 1938:64, 338.

[11] The Napoleon Thomas (or Tomas) family was of Iroquois ancestry; this family was identified from the early 1890s onward living in the Pouce Coupe/Dawson Creek area of northeast British Columbia. Napoleon Thomas' first wife was Cree, and his second wife was Beaver. See: Loggie Papers, Interviews with Pioneers. Interview of Harry Garbitt, Moberly Lake, British Columbia, 13 August 1955, by Isabel Loggie. Glenbow Archives, Calgary, Alberta. D971.23.L832, file 31; also, Interview of Harry Garbitt, Moberly Lake, British Columbia, June 1956, by Isabel Loggie. Glenbow Archives, Calgary, Alberta. D971.23 L832, file 32. As well, see the Napoleon Tomas Homestead File 3220658. Canada, Department of the Interior, Dominion Lands Branch. Correspondence relating to land settlement in the Railway Belt and the Peace River Block, 1885-1949. BC Archives, Victoria. GR-0436, Series 1.

[12] Index to marriages in the Dunvegan Parish Record, Grouard-McLennan Diocese, Donnelly, Alberta. Cited in Reddekopp 1996:16, fn. 81.

the daughter of Jean-Baptiste La Pretre of Fort Vermilion in 1869 and later lived at Spirit River. He worked both for the Hudson‘s Bay Company, and as a free trader. [13]

It was clear that the population of the central Peace River spent a considerable part of their working years in the employ of the fur trade. ―The most striking characteristic of Duncan‘s band," remarked lawyer and historian Neil Reddekopp in his thoroughly-researched 1996 paper, ―The Creation and Surrender of the Beaver and Duncan‘s Band Reserves," was ―the association of a large proportion of its members with the Hudson‘s Bay Company." [14]

Although present-day members of the Duncan‘s First Nation are descendants of Cree, Beaver, and other Aboriginal groups, including Iroquois and Métis, the Reserve General Registers maintained at Aboriginal and Northern Affairs Canada emphasize only the DFN‘s Cree and Beaver components. Hence, the Registry states with respect to the DFN:

The Duncan‘s Band comprising Cree and Beaver Indians adhered to Treaty #8 on 1 July 1899 under Duncan Tustaoosts (Tustawits [Testawich]) as their Headman.[15]

Figure 1: Photo of "Daukhan Tustowits" (Duncan Testawich) taken in 1893 when he was 45 years old. Published in H. Somers Somerset (1895). *The Land of the Muskeg*. William Heinemann, London. Page 72.

[13] Leonard 2005:61.

[14] Reddekopp 1996:14.

[15] Aboriginal and Northern Affairs Canada, Ottawa. Indian Lands Registry System, Reserve General Abstract Report for Band 451, Duncan‘s First Nation.

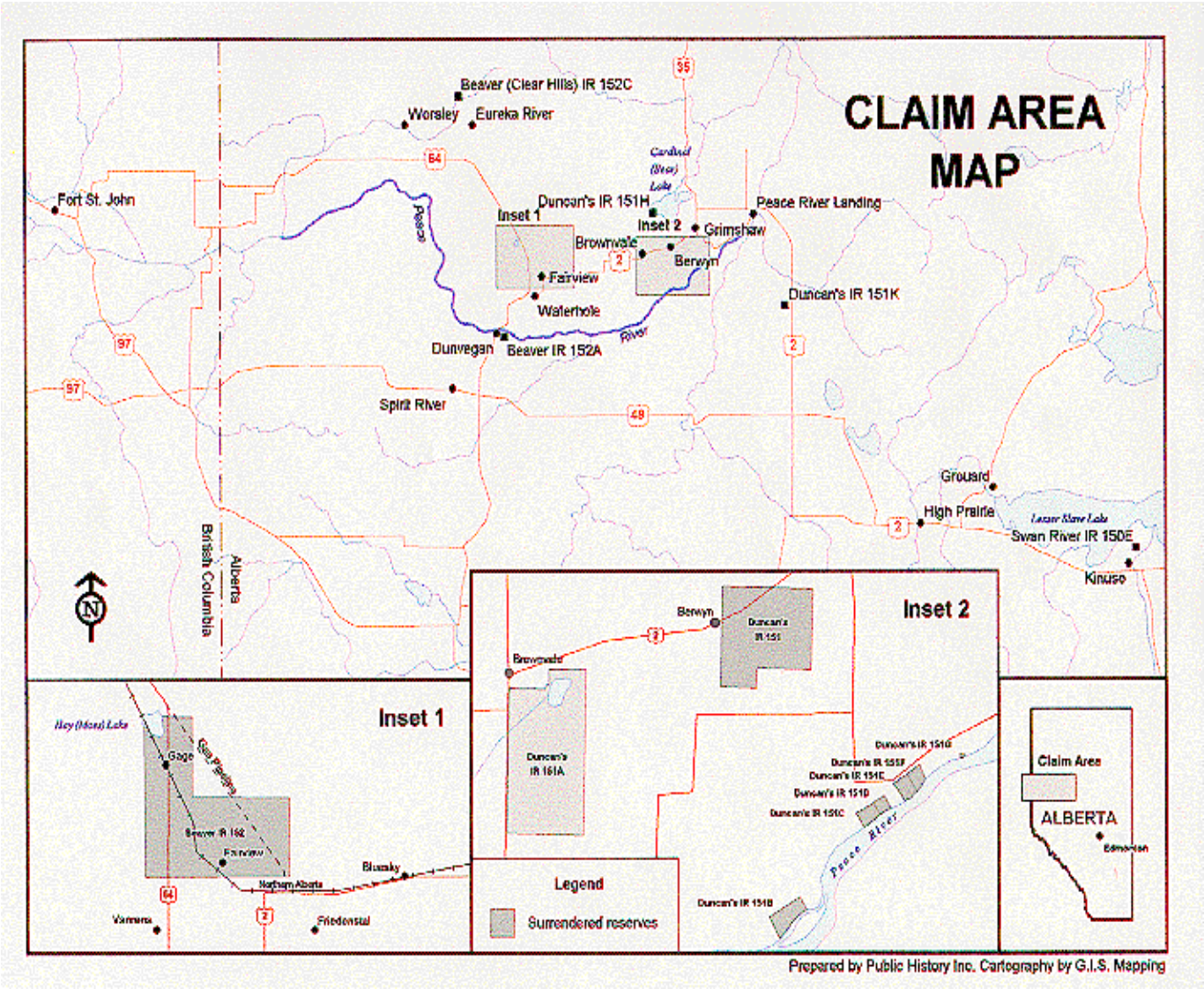

Figure 2. Map showing locations of Duncan's First Nation's Reserves, as originally surveyed in 1905. This map appears at page 231 of a 1999 Duncan’s First Nation Inquiry report entitled “Indian Claims Commission: Duncan’s First Nation Inquiry, 1928 Surrender Claim” that is available online at http://dsp-psd.pwgsc.gc.ca/collection_2009/indianclaims/RC31-56-1999E.pdf .

2.1 Community Profile and Location

The Alberta Government‘s 2010 report entitled ―Métis Settlements and First Nations in Alberta: Community Profiles,” prepared by the Aboriginal Relations, Communications Branch,

Edmonton, and available online at www.aboriginal.alberta.ca , relies on Aboriginal and Northern Affairs Canada's "Indian Register" statistics as of 31 December 2009 to provide a total population of 231 members for the Duncan's First Nation. Of this 231 total, 132 or 57% are listed as living "On-reserve and Crown Land" and 99 or 43% are listed as living "Off-reserve." This same report, which identifies the town of Brownvale, Alberta, as the contact place for the Duncan's First Nation, identifies a 2,426.1 hectare DFN Reserve land base, comprised of Duncan's IR 151A (2,036.8 hectares), located about "39 km southwest" of the town of Peace River, Alberta, and William McKenzie IR 151K, located about "40 km southeast" of the town of Peace River.

2.2 Cultural and Linguistic Affiliation

The following section identifies the Cree, Beaver and Iroquois linguistic and cultural affiliation of the ancestors of the Duncan's First Nation to place this band within a context of regional Aboriginal occupation.

2.2.1 Cree Ancestry of the Duncan's First Nation

While the language spoken by the Cree members of the Duncan's First Nation and their ancestors is classified within the "Algonquian" Language Family, there is some confusion in the literature concerning both the name of the particular dialect of Cree spoken in this region of northwest Alberta and the name of the ethnic grouping of those who speak this dialect of Cree.

The term "Cree" is used both in English and in French to designate all those who speak the Cree language. But the word "*Cree*," itself, is actually derived from a shortened form of the Ojibwa term for the Cree people that has been written as "*Knisteneaux*." Variants of this term, "*Knisteneaux*," first appeared in historical documents in the mid-1600s. The French Canadians are said to have immediately adopted the term and then shortened it to "*Crees*" or "*Cree*"; by the late 1700s, the English, as well, were using "Cree" in this generic sense to refer to all Cree people. [16]

Another term applied to the Cree and used in the early historical literature is said to be the term pronounced in Western Woods Cree as "*ne·hithawe*" and translated as "those who speak the same language." [17] Explorer David Thompson, writing about his 1790-1797 experiences among the

[16] Other transcriptions of this term include: "*Kinishtineau*"; "*Kiristinon*"; "*Kiristinous*"; and "*Kilistinous*"). See John J. Honigmann (1981). West Main Cree. In, *Handbook of North American Indians, Vol. 6, Subarctic*. Edited by June Helm. Smithsonian Institution, Washington DC. Pp. 227-228. See also David G. Mandelbaum (1979). *The Plains Cree: An Ethnographic, Historical, and Comparative Study* [based on Mandelbaum's 1934-1935 fieldwork]. Canadian Plains Studies 9. Canadian Plains Research Center, University of Regina. Page 15.

[17] David W.Pentland, Synonymy section, in, James G.E. Smith (1981). Western Woods Cree. In, *Handbook of North American Indians, Vol. 6, Subarctic*. Edited by June Helm. Smithsonian Institution, Washington DC. Pp. 267-268.

Cree people, transcribed this same term as "*Na hath a way*" which he said is "their [the Cree's] native name." [18] And Alexander Mackenzie wrote the same term as "*Nahathaway*" on a *circa* 1804 map very likely prepared for him by Aaron Arrowsmith.[19]

The linguistic, anthropological and historical literature includes considerable discussion relating to the identification of the dialects of Cree and how to classify the dialect spoken by the Duncan's First Nation and their ancestors. A further debate among scholars has focused on whether the dialect spoken by the Cree people in the region where Indian Reserves were set aside for the Duncan's First Nation should be classified as "Woods Cree" (also given as "Woodland Cree" and "Northern Cree") or as "Plains Cree" (also given as "Northern Plains Cree"). As well, several researchers have referred to the westward expansion of Cree (see also Section 3.4 of the present report).

The chart that follows summarizes the various and sometimes-contradictory views concerning these above-mentioned subjects:

Researcher(s)	Main Division of Cree language	Dialect of Western/Northern Division	Classification of Dialect Spoken by Duncan's First Nation
Richard Rhodes and Evelyn Todd (1981)[20]	The dialects of Cree fall into two groups, "Western Cree" and "Eastern Cree"[21]	Western Cree comprised of six dialects, including "Plains Cree" and "Woods Cree" [22]	The scale of Rhodes and Todd's 1981 Cree Dialect distribution map is such that it is difficult to say with certainty if what they designate as "Plains Cree" includes any of the areas where Indian Reserves were set aside for the Duncan's First Nation,[23] thus suggesting that such areas were Beaver-speaking

[18] William E. Moreau, Editor (2009). *The Writings of David Thompson, Volume 1: The Travels, 1850 Version*. McGill-Queen's University Press, Montreal. P. 95.

[19] [Aaron Arrowsmith (*circa* 1804)]. A Map of America, between Latitudes 40 and 70 North, and Longitudes 45 and 180 West, Exhibiting the Principal Trading Stations of the North West Company. Original held by The National Archives, London, England. Privy Council I, Unbound Papers #3997.

[20] Richard A. Rhodes and Evelyn M. Todd (1981). Subarctic Algonquian Languages. In, Handbook of North American Indians, Volume 6, Subarctic. Edited by June Helm. Smithsonian Institution, Washington DC. Pp. 52-55.

[21] Rhodes and Todd 1981:55.

[22] Rhodes and Todd 1981:55.

[23] Rhodes and Todd 1981:53, Fig. 1. "Cree dialect areas and settlements for which dialect affiliations are known."

Ives Goddard (1996a) ;[24] Ives Goddard (2001)[25]		"Plains Cree" and "Woods Cree" identified as dialects of Cree;[26] "Plains Cree" is the westernmost dialect of the Cree language; there is a "Northern Plains Cree sub-dialect"; Northern Plains Cree is spoken by "people classified ethnographically as the Western Woods Cree" [27]	Goddard does not, on either of his two linguistic maps (1996a; 2001), extend the region where Cree is spoken quite as far northwest as the area where Indian Reserves were set aside for the Duncan's First Nation; thus both of Goddard's language maps include DFN within the region where the Beaver language is spoken; however, Goddard's (2001a:71) statement that Northern Plains Cree is spoken by "people classified ethnographically as the Western Woods Cree" and his cross-referencing of this statement to Smith's (1981) article which contains a chart identifying the Duncan's First Nation as one of the Western Cree groups (Smith 1981:269) is problematic
Nancy LeClaire and George Cardinal (1998)[28]		"Northern or Woods Cree" and "Plains Cree" [29]	Comments in the "Helping You Use the Dictionary" section of the *Alberta Elders' Cree*

[24] Ives Goddard (1996a). [Map entitled] "Native Languages and Language Families of North America." Map Pocket in, Handbook of North American Indians, Vol. 17, Languages. Edited by Ives Goddard. Smithsonian Institution, Washington DC.

[25] Ives Goddard (2001). [Map entitled] "Languages and language families of the Plains in the first half of the 19th century," in, The Languages of the Plains: Introduction. In, *Handbook of North American Indians, Vol. 13, Plains.* Edited by Raymond J. DeMallie. Smithsonian Institution, Washington DC. Page 62.

[26] Ives Goddard (1996). "Consensus Classification of the Native Languages of North America." Table 3 in Goddard's Introduction to the *Handbook of North American Indians, Vol. 17, Languages.* Edited by Ives Goddard. Smithsonian Institution, Washington DC. Page 4.

[27] Ives Goddard (2001a). The Algonquian Languages of the Plains. In, *Handbook of North American Indians, Vol. 13, Plains.* Edited by Raymond J. DeMallie. Smithsonian Institution, Washington DC. Page 71.

[28] Nancy LeClaire and George Cardinal (1998 [2006 edition]). *Alberta Elders' Cree Dictionary*. Edited by Earle Waugh. The University of Alberta Press and Duval House Publishing, Edmonton, Alberta.

[29] George Cardinal in his Introduction to the *Alberta Elders' Cree Dictionary* refers to a distinction between "Northern or Woods Cree" and "Plains Cree" (LeClaire and Cardinal 2006:xi); Earle H. Waugh in his Preface to this same *Dictionary* associates Northern Cree with the "TH" dialect and Plains Cree with the "Y" dialect (LeClaire and

			Dictionary indicate that this dictionary's authors would classify the Cree spoken by the Duncan's First Nation as "Northern Cree" [30]
James G.E. Smith, (1981);[31] James G.E. Smith (1987)[32]		The group known ethnographically as the "Western Woods Cree" speak dialects of Cree that included the "Woods Cree Dialect" and the "Northern Plains Cree Dialect";[33] elsewhere, Smith opined that the westernmost portion of "Western Woods Cree," which he also called the "Strongwoods Cree" or "Bush Cree," represents an "Expansion of [Cree] territory 1700-1780" [34]	While Smith's (1981:247) map of 18th century Western Woods Cree territory does not extend quite as far west as the area where Indian Reserves were set aside for the Duncan's First Nation, his chart, "Population of Western Woods Cree by Government Bands, 1978," in this same article (Smith 1981:269) does include the Duncan's Band [Duncan's First Nation]; however, this is complicated by the fact that Smith's (1981:256) map indicates that he identified as the "1700-1780" expansion of Cree territory did not extend quite as far west as the areas where Indian Reserves were set aside for the DFN
Regna Darnell (2001)[35]	Within the overall dialect continuum	Darnell notes that: "The boundary between the	Darnell at page 639 of her article reproduces David

Cardinal 2006:xiii). Smith comments on these same two "TH" and "Y" dialect distinctions, but he associates "Western Woods Cree" with the "TH" dialect and "Northern Plains Cree: with the "Y" dialect (Smith 1981:256).

[30] LeClaire and Cardinal 2006:xix-xx.

[31] James G.E. Smith (1981). Western Woods Cree. In, *Handbook of North American Indians, Vol. 6, Subarctic*. Edited by June Helm. Smithsonian Institution, Washington DC.

[32] James G.E. Smith (1987). The Western Woods Cree: Anthropological Myth and Historical Reality. *American Ethnologist* , Vol. 14, Part 3.

[33] Smith 1981:256.

[34] Smith 1987: 435, 443.

[35] Regna Darnell (2001). Plains Cree. In, *Handbook of North American Indians, Vol. 13, Plains.* Edited by Raymond J. DeMallie. Smithsonian Institution, Washington DC.

	of Cree, there was a major break in intelligibility between "Western Swampy Cree" and "Eastern Swampy Cree."[36]	Western Woods Cree and the Plains Cree is virtually impossible to draw clearly, due to poor historical records, particularly during the fur trade period;"[37] as well, Darnell points out that in G.E. Smith's 1981 Smithsonian *Handbook* article, speakers of "Northern Plains Cree" are treated as part of the "Western Woods Cree"[38]	Mandelbaum's 1979 map of "Plains Cree" territory *circa* 1860-1870, based on his 1934-1935 fieldwork;[39] on this same map, Darnell superimposes a line delineating the "extent of Cree reserves where Plains Cree is spoken" which includes all the areas where Indian Reserves were set aside for the Duncan's First Nation.[40] (See Section 6.8 of the present report).
Hugh Dempsey (1979)[41]		Dempsey distinguishes "Woodland Cree" from "Plains Cree"[42]	Dempsey's Map and Key to Indian Tribes and Reserves in Alberta identifies the areas where Indian Reserves were set aside for the Duncan's First Nation as part of "Woodland Cree"[43]
Government of Alberta (2010)[44]		This Alberta Government "Community Profiles" document distinguishes	The "Community Profiles" document gives the Tribal Affiliation of the Duncan's First

[36] Darnell 2001:638. This statement about "Western Swampy Cree" and "Eastern Swampy Cree" is cross-referenced to Rhodes and Todd's (1981:55) statements about the same major dialect differences, although Rhodes and Todd use the terms "Western Cree" and "Eastern Cree."

[37] Darnell 2001: 638.

[38] Darnell 2001: 638.

[39] David G. Mandelbaum (1979). *The Plains Cree: An Ethnographic, Historical, and Comparative Study*. Canadian Plains Studies 9. Canadian Plains Research Center, University of Regina. Page 13.

[40] Darnell 2001:639. On Darnell's map, IR 151a is identified as "No. 10" and IR 151K , as "No. 12."

[41] Hugh Dempsey (1979). *Indian Tribes of Alberta*. Glenbow Museum, Calgary, Alberta.

[42] Dempsey 1979:51-64, 86-87.

[43] Dempsey 1979: 86-87.

[44] Government of Alberta (2010). Métis Settlements and First Nations in Alberta: Community Profiles. Aboriginal Relations, Communications Branch, Edmonton. Available online at www.aboriginal.alberta.ca .

		"Woodland Cree" from "Plains Cree"[45]	Nation as "Woodland Cree"[46]

2.2.2 Beaver (*Dane-zaa*) Ancestry of the Duncan's First Nation

Beaver-speaking members of the Duncan's First Nation and their ancestors are known as *Dane-za*, translated as 'real people'; the Beaver language is known as *Dane-zaa záágé?* which translates as 'people-regular language.'[47] In recent years, *Dane-zaa* has been transcribed as "*Dune-za*", [48] but even more recently has been written as "*Dane-zaa*."[49] This term *Dane-zaa* or *Zaa-Dane* appears in the literature with several variants, including "*Tsattine*", "*Tsuten*", "*Tsa-huh*", and "*Tsa-t'quenne*".

Anthropologist Robin Ridington explained in his 1981 article summarizing Beaver culture that the term "*dəneza*" (*Dane-za*) or 'real people' refers to "the people with whom one could establish a kinship connection, with whom one could discover a reciprocal term of relationship."[50] Hence, there is a considerable biological and social web that links those who regard themselves as the 'real people,' *Dane-zaa*.

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[45] Government of Alberta (2010). Métis Settlements and First Nations in Alberta: Community Profiles. Aboriginal Relations, Communications Branch, Edmonton.

[46] Government of Alberta (2010). Métis Settlements and First Nations in Alberta: Community Profiles. Aboriginal Relations, Communications Branch, Edmonton. Page 28.

[47] Dane Wajich project, Beaver Language Materials, Virtual Museum of Canada. http://www.virtualmuseum.ca/Exhibitions/Danewajich/english/resources/language.php and http://www.virtualmuseum.ca/Exhibitions/Danewajich/english/resources/pronunciation_guide. See also Robin Ridington (1981). Beaver, In , *Handbook of North American Indians, Vol. 6 Subarctic,* Edited by June Helm. Smithsonian Institution, Washington DC. As well, see Amber Ridington and Kate Hennessy (Editors) 2007. Virtual Exhibit Catalogue: Dane Wajich—Dane-zaa Stories and Songs: Dreamers and the Land. Appendix I, pp. 376-497 in, Kate Hennessy 2010. Repatriation, Digital Technology, and Culture in a Northern Athapaskan Community. PhD dissertation in Anthropology, University of BC, Vancouver. http://hdl.handle.net/2429/27055.

[48] See, for example, Robin Ridington (1988). *Trail to Heaven: Knowledge and Narrative in a Northern Native Community*. Douglas and McIntyre, Vancouver/Toronto, p. ix; Robin Ridington 1995. "Freedom and Authority: Teachings of the Hunters." In, *Native Peoples: The Canadian Experience*. Second edition. Ed. by R. Bruce Morison and C. Roderick Wilson. Oxford University Press, Toronto, p. 232.

[49] See, for example, Robin Ridington and Jillian Ridington (2006). *When You Sing It Now, Just Like New: First Nations Poetics, Voices, and Representations.* University of Nebraska Press, Lincoln, Nebraska, p. ix. See also . http://en.wikipedia.org/wiki/Beaver_First_Nation.

[50] Ridington 1981:350.

The reference to ―Beaver” is said to have been derived from the Chipewyan term for the Peace River, ―*Chaw hot-e-na Dez-za* or Beaver Indian river.” [51] Another source indicated that the Chipewyan of Lake Athabasca referred to the Beaver people as ―*tsa-ttiné*,” translated in French as ‗*habitants parmi les Castors*,‘ meaning ‗dwellers among the beavers‘; [52] ―*tsa-ttiné*” is a variant transcription of ―*tsattine*,” the term used by the Chipewyan to identify the *Dane-zaa*.[53] In French, the Beaver people are called *Gens de Castor*, meaning literally ‗people of the beaver,‘ or simply *Castors*, ‗beavers.‘[54] In ―Northern Plains Cree” (see Section 2.2.1 of the present report), the term for the Beaver people is ―*amiskiwiyiniw*” meaning ‗beaver person.‘ [55]

The Beaver language (*Dane-zaa záágé?*), which is classified as one of the ―Northern Athapaskan” languages of the Athapaskan Language Family,[56] is spoken both in northwestern Alberta and in northeastern BC.[57] Linguists Michael Krauss and Victor Golla have pointed out

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[51] J.B. Tyrrell, Editor (1934). Journal of a Journey From Cumberland House North America…Towards the Athapiscow Country and Back to York Factory, [September 13, 1790 to July 17, 1792], by Philip Turnor. In, *Journals of Samuel Hearne and Philip Turnor*. The Champlain Society, Toronto (reprinted in 1968 by Greenwood Press Publishers, New York). Page 401. While both Gillespie (1981:168) and Ridington (1981:359) cite this information from Turnor‘s 1790-1792 diary concerning the Chipewyan term for the Peace River, Ridington adds: ―In contrast, Petitot (1888a:292) [*En Route pour la mer glaciale*. 2d. ed. Paris: Letouzey et ané] gave the Chipewyan name for Peace River as *tsa dès* ‗beaver river,‘ suggesting that the people were named after the river” (Ridington 1981:359). See also Beryl Gillespie (1981). Territorial Groups Before 1821: Athapaskans of the Shield and the Mackenzie Drainage. In, *Handbook of North American Indians, Volume 6, Subarctic*. Edited by June Helm. Smithsonian Institution: Washington, DC. Page 168.

[52] Petitot (1876) and Hodge (1910), cited in Ridington 1981:359.

[53] Ridington 1981, 359; see F. W. Hodge, Editor, 1910. Smithsonian Institution Bureau of American Ethnology, *Bulletin 30: Handbook of American Indians North of Mexico, Part 2*. Government Printing Office, Washington DC. Page 822. This same term, ―*tsattine*,” is given as ―*tsa-‘ttinè*” meaning ‗dwellers among the Beaver‘ (translated by Donat Savoie from original publications by Émile Petitot); see Donat Savoie (Editor). *The Amerindians of the Canadian North-West in the 19th Century, as Seen by Émile Petitot*. Mackenzie Delta Research Project, Northern Science Research Group. Vol. II, The Loucheaux Indians. Page 33.

[54] Ridington 1981:359.

[55] David H. Pentland (1979), cited as ―communication to editors” in Ridington 1981:359.

[56] ―Athapaskan”—also spelled ―Athabascan”—is an arbitrary designation introduced in the 1830‘s-1840‘s to denote linguistically related Aboriginal groups in the interior of northwestern North America beyond the Churchill River. A number of writers have used names for the Athapaskan language family based on words meaning ‗man‘ or ‗person‘; since the 1960s-1970s, this term has commonly been spelled ―Dene” in Canada (Gillespie 1981:168). As for the term ―Athabasca,” itself, it is said to be a Cree word meaning ‗(where) there are plants one after the other‘ or ‗there are reeds here and there‘ with reference to the Peace-Athabasca delta region near the west end of Lake Athabasca (Gillespie 1981:168; Smith 1981:269), or, a Cree term meaning ―open country such as lakes with Willows and grass growing about them or swampy land without woods” (Turnor 1790-1792, in Tyrrell 1934:400).

[57] Michael Krauss and Victor Golla (1981). Northern Athapaskan Languages. In, *Handbook of North American Indians, Vol. 6, Subarctic*. Edited by June Helm. Smithsonian Institution, Washington DC. Pp. 67, 81; Robin Ridington 1981. Beaver. In, *Handbook of North American Indians, Vol. 6, Subarctic*. Edited by June Helm. Smithsonian Institution, Washington DC. Pp. 350-351.

that the Beaver language is one of the most poorly demarcated of the Northern Athapaskan languages and noted that there is ―a vagueness about the boundary between Beaver and Slavey [Dene Tha‘] in northern Alberta.”[58]

Similar comments were made by linguist Patrick Moore who commented in 1979: ―There is extensive but poorly known diversity among the dialects of Beaver.” Moore gave the example of the Beaver dialect spoken at Boyer River, Alberta, noting that it was linguistically closer to the language spoken by the ―Slavey” [Dene Tha‘] than to the dialect of Beaver spoken in the vicinity of Fort St. John. [59]

Anthropologist and ethnohistorian Beryl Gillespie pointed out that:

> An Athapaskan people have been associated with the Peace River region and called Beaver Indians since the earliest historical documents relating to the area. There have been no major difficulties of group designations with the Peace River region, but there has been confusion between the Athapaskan-speaking Beaver Indians of the Peace River and the Beaver River Cree.[60]

Both Robin Ridington and historical geographer Leonard Ugarenko have, independently, prepared maps showing the extent of Beaver territory. Ridington‘s map, said to represent Beaver territory ―in 1800,” appears in Section 6.6 of the report. Ugarenko‘s map, appearing here in Section 6.5, was prepared in 1979 and is said to represent Beaver territory ―at contact.” All the areas where Indian Reserves were established in the early 1900s for the Duncan‘s people are included within Beaver territory as delineated by both Ridington and Ugarenko.[61]

2.2.3 Iroquois Ancestry of the Duncan’s First Nation

Speakers of Iroquoian[62] languages—often just identified as ―Iroquois”—came to the west in the 1790s-early 1800s when the North West Company and its short-lived rival, the XY Company,

[58] Krauss and Golla 1981:81.

[59] Patrick Moore (1979). Personal communication to the editors of Vol. 6 of the Smithsonian Institution‘s *Handbook of North American Indians* series. Cited in Ridington 1981:350.

[60] Gillespie 1981:167-168.

[61] Ridington 1981:351. [Map of Beaver] Territory in 1800. See also Leonard Ugarenko (1979). The Beaver Indians and the Fur Trade on the Peace River, 1700-1850. Master‘s thesis, Department of History, York University, Toronto. Map 3, Distribution of the Beaver at Contact. Ridington‘s earlier hand-drawn sketch map of ―Beaver Indian Territory” that appears in his doctoral dissertation does not extend Beaver territory quite as far south, in this region of the Peace River, as his 1981 map does. See Robin Ridington (1968). The Environmental Context of Beaver Indian Behavior. PhD dissertation in Anthropology, Harvard University, Cambridge, Massachusetts. Page 10.

[62] While there are 16 different groups that have been identified as ―Iroquoian,” the actual number of languages classified as ―Iroquoian” is less, totalling possibly 13; very little or no data exists for some of these languages. A major division exists between a ―Northern Branch” and a ―Southern Branch” of Iroquoian. The ―Northern Branch”

hired hundreds of ―Iroquois” and other eastern First Nation hunters who worked their way westward until they reached as far as the Rocky Mountains. Many of these Iroquois hunters stayed in the west and married Cree and Métis women.[63]

As discussed above, Duncan Testawich was likely of Iroquois ancestry. Duncan‘s wife, Sophie, was of Iroquois ancestry, and one of Duncan Testawich‘s sons also married a woman of Iroquois ancestry. Another of the *circa* 1900 members of Duncan Testawich‘s band, Xavier Mooswah, was likely of Iroquois ancestry.

of Iroquoian includes the related ―Five Nations” languages known as Mohawk, Oneida, Onondaga, Cayuga and Seneca in the upper St. Lawrence and south side of Lake Ontario areas. See: Floyd G. Lounsbury 1978. Iroquoian Languages. In, *Handbook of North American Indians, Vol. 15, Northeast*. Edited by Bruce Trigger. Smithsonian Institution, Washington DC. Pp. ix, 334-336.

[63] See: Jennifer H. Brown (2001). History of the Canadian Plains until 1870. In, *Handbook of North American Indians, Vol. 13, Plains.* Edited by Raymond J. DeMallie. Smithsonian Institution, Washington DC. Page 305; Ridington 1968:146; Hugh Dempsey 1998. *Indians of the Rocky Mountain Parks.* Fifth House Publishers Ltd., Calgary, Alberta. Page 67.

3.0 Historical Encounters With Ancestors of the DFN

It is of interest to this present study where fur traders met Aboriginal people identified as either Beaver (*Dane-zaa*) or Cree and whether traders encountered these people or any other First Nations in the area where Canada set aside Indian Reserves for the Duncan‘s First Nation in the early 1900s. Hence, the following sections review evidence concerning observations on Indigenous occupation beginning in the late 18th century.

3.1 Prior to First Contact with Europeans

Prior to Alexander Mackenzie‘s expedition to the Pacific Ocean in 1792-1793, warfare and trade coexisted in the Peace River region, for the same Cree and Chipewyan traders who acted as middlemen in the emerging fur trade were the same parties who at times were antagonistic towards the Beaver (*Dane-zaa*) and other Athapaskans residing to the west.[64]

The name ―Beaver Indians” or *Dane-zaa* has been used from the beginning of historical records to refer to an Athapaskan people associated with the Peace River region.[65] Yet some researchers suggest that the *Dane-zaa* migrated westward in earlier times from the Lake Athabaska region of Alberta and Saskatchewan, having themselves been pushed up along the Peace River by the westward expansion of the Cree that began in the 1700s.

Linguist and anthropologist Pliny Goddard, who in the summer of 1913 undertook linguistic and ethnographic fieldwork with Beaver-speaking communities—including *Dane-zaa* at Dunvegan—opined that it was ―only a short time ago,” relatively speaking, that the Cree intrusion separated the Beaver from the ―Sarsi” (Sarcee), resulting in the Beaver being culturally like other Mackenzie drainage Athapaskans and the Sarcee being adapted to the Plains environment. Goddard reported the following concerning his 1913 discussions with ―a Beaver Indian of Dunvegan” who told him that:

> another tribe (meaning an Athapascan-speakng one) used to live on Lesser Slave Lake and that it had died out. After that the Cree occupied the region because of the fish to be had there…[Goddard‘s footnote continues] I told the chief I had heard that Lesser Slave Lake was Beaver country, what did he know about it. He said, ―There used to be another tribe there (Beaver) but they died out and the Cree came in on account of the fish. It was the only place they could get fish.‘ I asked how long ago. The chief

[64] J.C. Yerbury (1986). *The Subarctic Indians and the Fur Trade, 1680-1860*. University of British Columbia Press: Vancouver. Pp.44, 58-59.

[65] Gillespie 1981:167-168.

> said, ―I did not mean to say I knew it was so but that was what my grandfather told me.‘[66]

Anthropologist and ethnohistorian Beryl Gillespie has discussed anthropologist Diamond Jenness‘ account of how well-armed Cree from Hudson‘s Bay expanded their territory in the 1700s, driving Athapaskan groups, especially the Sekani, westward and northward, and eventually displacing them from a large part of the subarctic region, including northern Alberta. According to Jenness, the Sekani, during these hostile times, gradually split from the Beaver and moved north and west in the eighteenth century, a move caused by direct invasion of the Cree and subsequently the Beaver.[67] However, Gillespie concluded:

> It seems likely that this thesis of Cree expansion in the Subarctic is an overinterpretation and that the early historical documents now available make this reconstruction incorrect for some regions and doubtful for others.[68]

In some areas, territorial shifts may have occurred as a result of a Cree intrusion. Yet as Gillespie concluded in her examination of the locations of territorial groups before 1821:

> The ambiguities of tribal names and unknown effects that the fur trade had in the western interior before any direct contacts make it impossible to state with any definiteness whether Athapaskan people were permanently displaced from any areas by the Cree.[69]

Gillespie‘s conclusion notwithstanding, the issue of a westward move by the Cree was thoroughly reviewed by anthropologists and historians who testified in the 1980s in the Lubicon Lake Cree Band/Cree Community of Little Buffalo Lake litigation, *Chief Bernard Ominayak et al. v. Norcen Energy Resources Limited et al*. litigation in the 1980s. Two conflicting views were put forward by experts in this litigation concerning when the Cree expanded west:

1) The Western Woods Cree lived to the east of Lake Winnipeg and the Nelson River prior to European contact. They then obtained firearms from Europeans about 1670 and in less that a century conquered the vast area of the boreal forest west as far as the Peace River;

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[66] Pliny Goddard (1916). The Beaver Indians. *Anthropological Papers of the American Museum of Natural History, Vol. X, Part IV*. New York. Pp. 209 and fn. 2, 210. Assuming the man who told this to Goddard was middle-aged in 1913, and assuming 25 years per generation, this suggests the man‘s grandfather was born in the early 1800s.

[67] Gillespie (1981:163) is referring to Diamond Jenness (1932). *The Indians of Canada*. Bulletin 65, Anthropological Series No. 15, National Museum of Canada. Queen‘s Printer, Ottawa. Pp. 284, 377-378, and 382-383. Jenness made similar statements in his 1937 publication, *The Sekani Indians of British Columbia*. Bulletin 84, Anthropological Series No. 20, National Museum of Canada. King‘s Printer, Ottawa. Pp. 5-8. See also Leonard Ugarenko (1979). The Beaver Indians and the Fur Trade on the Peace River, 1700-1850. Master‘s thesis, Department of History, York University, Toronto (See Maps 1, 2 and 3 in Ugarenko‘s thesis for his interpretation of the historical data relating to Beaver occupation; Ugarenko‘s Map 3 appears in the present report as Section 6.6).

[68] Gillespie 1981:168.

[69] Gillespie 1981:168.

2) This area reaching west to the Peace River had been occupied by the Cree likely before the earliest British exploration of the region.

Cultural anthropologist James Smith, who appeared on behalf of the Lubicon Lake Cree, held the view, as set out both in a 1982 affidavit submitted in this litigation and in a 1987 published article, that the first proposition as stated above is a ―standardized ethnological myth.”[70] It was Smith‘s conclusion, after reviewing the relevant literature,[71] that contrary to the ―myth,” the ―weight of evidence now indicates that the Cree were as far west as the Peace River long before the advent of European fur traders.” Smith also concluded that ―post-contact social organization was not drastically affected by the onset of the fur trade” and that the Cree ―have always lived in the area from Lake Winnipeg to the Peace River.” [72]

Concerning the area occupied exclusively by the Lubicon Lake Cree Band and the Cree Community of Little Buffalo Lake for hunting, fishing and trapping, since at least the times of the earliest British exploration of the region, Smith described it as: ―between the Peace River on the west, the Wabasca and Loon Rivers on the east, the northern point of the Buffalo Head Hills on the north and Whitefish Lake (Utikuma Lake) on the south.” It should be noted that the area described is not far east from areas associated with ancestors of the Horse Lake First Nation.

It was also Smith‘s opinion, with reference to the Cree people occupying this above-described area, that:

> before the Crees who presently form the Lubicon Lake Band and the Cree community of Little Buffalo Lake were very likely the ancestors of the present Crees of the Lubicon Lake Band and the Cree community of Little Buffalo Lake…[73]

The contrary view concerning the antiquity of the Cree presence in this region was provided by other expert witnesses in the *Ominayak et al.* litigation. Consulting archaeologists Gloria Fedirchuk and Edward McCullough were retained by the Province of Alberta ―to research and to report upon what native people, if any, were Indigenous to” the same above-mentioned area. They also undertook a comprehensive review of the literature,[74] but came to a different conclusion than Smith. Fedirchuk and McCullough stated in their affidavit:

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[70] See James G.E. Smith (1987). The Western Woods Cree: Anthropological Myth and Historical Reality. *American Ethnologist , Vol. 14*, Part 3, Page 434. See also Affidavit of James G. E. Smith, 15 September 1982. *Chief Bernard Ominayak et al. v. Norcen Energy Resources Limited et al.* Court of Queen‘s Bench of Alberta, Judicial District of Calgary. No. 8201-03713. On file with the Court of Queen‘s Bench Registry, Calgary, Alberta.

[71] Said to be ―”archaeological, ethnological, historical, and linguistic” documentation (Smith 1987:434)..

[72] Smith 1987:435, 444.

[73] James Smith affidavit, 15 September 1982.

[74] Fedirchuk and McCullough said that they reviewed the following materials: relevant journals of early explorers of Western Canada; early and relevant journals in the Hudson‘s Bay Company Archives at the Provincial Archives of Manitoba; secondary historical sources relating to the Western Canadian fur trade, and western migration of Indians, particularly Cree; current and accepted archaeological concepts as the relate to attempted linkages between

> we each verily believe that the Cree people are not Indigenous to Northern Alberta, that is, they were not occupants of Northern Alberta at the commencement of the influence of the European fur trade. The Cree‘s entry into Northern Alberta … was in the Cree‘s capacity as agents or participants of the European fur trade.[75]

Another expert witness retained by the Province of Alberta was Leonard Ugarenko, an historical geographer who in 1979 had written a Master‘s thesis entitled ―The Beaver Indians and the Fur Trade on the Peace River, 1700-1850" (see Section 6.6 of the present report). Much of the information contained in Ugarenko‘s 1979 thesis was submitted in the *Ominayak et al.* litigation in the form of a research report with the title ―The Beaver Indians of the Peace River." Ugarenko stated that this report was based on ―information obtained from unpublished Hudson‘s Bay Company records, cartographic records, both published and unpublished maps, and a number of published primary and secondary sources. [76] It was Ugarenko‘s conclusion that:

> for the period prior to 1740 and at least until 1850 the Beaver Indians constantly and effectively occupied and controlled a large geographic area around the Peace River…Contrary to the conclusions of Dr. Smith in his Affidavit dated September 15, 1982 there was no evidence of significant Cree movement into or the attempted occupation of the lands [of the Lubicon Lake Cree] in question. . .When the hostilities [with the Cree] began to subside in the 1760‘s the Beaver were distributed throughout the Peace River valley from the Rocky Mountain foothills to Lake Athabasca.[77]

The origins of the aggression thesis are far from clear. Gillespie points to Albert Gallatin‘s 1836 interpretation of explorer Alexander Mackenzie‘s 1792 account (discussed below) as the source for the thesis that the Cree drove the Athapaskans—including the historical Beaver—from part of their Aboriginal territories in the 1700s, but Gillespie advises that cautious evaluation is needed before accepting this conventional wisdom.[78]

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material culture and artifacts to ethnic groups; and, archaeological reports relating to Northern Alberta. See: Affidavit of Gloria J. Fedirchuk and Edward J. McCullough, 28 June 1983. *Chief Bernard Ominayak et al. v. Norcen Energy Resources Limited et al*. Court of Queen‘s Bench of Alberta, Judicial District of Calgary. No. 8201-03713. On file with the Court of Queen‘s Bench Registry, Calgary, Alberta.

[75] Fedirchuk and McCullough affidavit, 28 June 1983.

[76] Affidavit of Leonard G. Ugarenko, 22 June 1983, together with Ugarenko‘s 16 June 1983 research report entitled ―The Beaver Indians of the Peace River." *Chief Bernard Ominayak et al. v. Norcen Energy Resources Limited et al*.Court of Queen‘s Bench of Alberta, Judicial District of Calgary. No. 8201-03713. On file with the Court of Queen‘s Bench Registry, Calgary, Alberta.

[77] Leonard Ugarenko research report, 16 June 1983, page i.

[78] Gillespie 1981:163.

Though scholars continue to debate the details of the often-hostile relationship between Cree interlopers and resident Athapaskans, the consensus of historians and others examining records of the fur trade is that at the time of the initial European inroads into the Peace River region, Beaver people occupied a significant part of the Peace River, at least as far east as Peace Point, Alberta (see the discussion that follows).

3.2 First European Recognition of Aboriginal Occupation in the Peace River Region

It is of interest which Indigenous groups were encountered when the first fur trade posts were established in the Peace River region.

One of the first literate fur traders to be anywhere near the region was Peter Pond. We do not know for certain if Pond, an independent American fur trader and explorer, encountered any Beaver (*Dane-zaa*) people when he was among several traders who in the winter of 1778-1779 established a post on the Athabasca River approximately 60 km (about 35-40 miles) south from the western end of Lake Athabasca. [79] It is more likely that Pond did meet the *Dane-zaa* a few years later, when a trading post is said to have been established under Pond's direction above Vermilion Falls, near the present Fort Vermilion, possibly as early as 1786.[80] Again, the evidence from this period is incomplete and vague, and hence the date of the establishment of such a post is the subject of debate.

Referring to this early post on the Peace River, the well-regarded Canadian historian, H.A. Innis, wrote that "for all we know there may have been an earlier post built [near the present Fort Vermilion] in the fall of 1786,"[81] and Innis' uncertainty continued to be expressed by a later generation of historians. For example, Terry Smythe, citing explorer Alexander Mackenzie, stated that the first post built on the Peace River was "probably established" in 1788. This post, known as "Boyer's Post," was named after its builder, Charles Boyer of the North West Company. It was reportedly the "main source of provisions for Pond's Fort [on the Athabasca River]" in 1788-1789 and was located near the confluence of Boyer River with the Peace, in the

[79] See: Charles M. Gates (1933). *Five Fur Traders of the Northwest*. The Ryerson Press, Toronto. Page 12; W.K. Lamb, Editor (1970). *The Journals and Letters of Sir Alexander Mackenzie*. Macmillan of Canada, Toronto. Page 129; Leonard Ugarenko (1979). The Beaver Indians and the Fur Trade on the Peace River, 1700-1850. Master's thesis, Department of History, York University, Toronto. Page 69. Ugarenko, citing C. Grant who wintered with Pond in 1778-1779, concluded it was "certain that Pond traded with the Beaver." But Ugarenko added that Pond did not specifically mention the Beaver by name and for that matter did not record detailed information concerning any of the Native people with whom he traded (Ugarenko 1979:69, fn.4). .

[80] Yerbury 1986:61.

[81] See H.A. Innis (1930). *Peter Pond: Fur Trader and Adventurer.* Irwin & Gordon Ltd., Toronto. Page 26. While Mackenzie, himself, stated that it was "the year 1786 when the first traders from Canada arrived on the banks of this river [the Peace River]" (Lamb 1970:253), he did not, on this occasion, associate this event with a particular site. Mackenzie said that it was "in the fall of the year 1787" that he (Alex. Mackenzie) first arrived in the Lake Athabasca area (Lamb 1970:242). This is a reference to Mackenzie's arrival at Pond's house on the Athabasca River on October 25th, 1787, to take over the "Athabasca department" (Innis 1930:17-18).

vicinity of Fort Vermilion.[82] (See Section 6.1 of the present report for a further discussion of Peter Pond and his *circa* 1785 map).

Alexander Mackenzie, himself, referred in his journal to the site of Boyer's Post as the "Old Establishment" when he was proceeding up the Peace River in October 1792 and stopped at Aspin House,[83] about 48km (c. 30 miles) upriver from Boyer's Post. Mackenzie wrote in his journal, "In the summer of 1788, a small spot was cleared at the Old Establishment" and numerous vegetables were grown.[84] Likely this was the first attempt at agriculture on the Peace. Mackenzie would later provide the ambiguous comment in his journal of March 1793, while wintering at the newly-built Fort Fork on the Peace River near its confluence with the Smoky River, that it was 1786 "when the first traders from Canada" arrived on the banks of the Peace River.[85]

Exploration of the Athabasca region in general expanded in the summer of 1789 when Alexander Mackenzie travelled from Fort Chipewyan to the Mackenzie River and the Arctic Ocean by way of Great Slave Lake. A map that was likely made for Mackenzie by Aaron Arrowsmith[86] subsequent to his exploration was published in the 1801 First Edition of Mackenzie's Voyages. This map marks "Beaver Ind." in the vicinity of the "Horn Mountain River" which is today's Horn River in the Northwest Territories that enters the enlargement of the Mackenzie River known as Mills Lake, not far downriver from the Mackenzie's outlet of Great Slave Lake. But this same 1801 map leaves the Peace River area blank, omits the name "Slaves" (Slavey) entirely, and instead adds to the map the names "Inland Ind[ians]" and "Strongbow Indians."[87]

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[82] See Terry Smythe (1968). Thematic Study of the Fur Trade in the Canadian West, 1670-1870. Staff Report for the Historic Sites and Monuments Board of Canada. Agenda Paper 1968-29. Page 262 (copy on file with the Hudson's Bay Company Archives, Provincial Archives of Manitoba, Winnipeg); Historian and archivist W.K. Lamb (1970:239 fn) opined in that it was "probably in 1787" that Boyer's Post was built; historian Barry Gough accepted that 1788 as the date; Gough (1997). *First Across the Continent: Sir Alexander Mackenzie.* (The Oklahoma Western Biographies, Vol. 14), p. 110. University of Oklahoma Press: Norman, Oklahoma.

[83] Lamb 1970:239. Aspin House was later known as "Old Aspin House."

[84] Lamb 1970:242.

[85] Both W.K. Lamb and J.N. Wallace have commented on this remark of Mackenzie's. Lamb (1970:253) noted that it is not clear whether Mackenzie meant that the Peace River was first visited by traders in 1786, or whether a post of some kind was built that year, but opined "The latter seems unlikely." J.N. Wallace (1929) commented that either interpretation was possible. By the fall of 1787, Wallace stated, "we have no word of any trade on the Peace except what we may gather from Mackenzie's obscure remark in reference to 1786" and continued to express his uncertainty. See, J.N. Wallace (1929: 14,18,25-26). *The Wintering Partners on Peace River* . Thorburn and Abbott, Ottawa.

[86] Personal communication from map historian and author Derek Hayes, Victoria, BC, to Randy Bouchard, August 2011. This map is reproduced in Lamb 1970, facing p. 67, as "A Map of America, between Latitudes 40 and 70 North, and Longitudes 45 and 180 West, Exhibiting Mackenzie's Track from Montreal to Fort Chipewyan & from thence to the North Sea in 1789, & to the West Pacific Ocean in 1793."

[87] This present report does not purport to offer an opinion on the relationship between Mackenzie's "Beaver" and the contemporary "Slavey" in this region.

Mackenzie in his journal of this expedition notes that an Indian from Yellowknife told him that the region of the ―Horn Mountain[s]" (west from Great Slave Lake) and Horn River was the ―Land of the Beaver Indians," [88] As Gillespie points out in her discussion of the difficulties of nomenclature, it cannot be assumed that the people of the Horn Mountains/Horn River were the contemporary *Dane-zaa* (Beaver), for Mackenzie makes reference in his journal to both ―Slave" (Slavey) and ―Beaver" (as well as Dogrib) in the Mackenzie Valley area which is associated historically with the Slavey.[89] Mackenzie would later write in 1806 with respect to the Aboriginal people of the forks of the Mackenzie and Liard rivers: ―They have been called Beaver Indians by some in this country but they are Dogrib (or Slave),"[90] another remark that highlights the problem of nomenclature as used in the early journals.

There is no doubt, however, that Alexander Mackenzie did meet *Dane-zaa* (Beaver) people. What is not so certain is when and where it was that he first met them. Mackenzie had stated in a 17 March 1788 letter written from Lac La Loche[91] that he ―found that all the Beaver Indians had been here prior to my arrival which I was very sorry for, having a great desire to see them."[92] While no further details were provided in this letter, Mackenzie later wrote in his journal that ―When this country was formerly invaded by the Knisteneaux [Cree]," [93] they ―found the Beaver Indians inhabiting the land about Portage La Loche."[94] This is the famous portage, also known as Methye Portage, located between Lac La Loche and the Clearwater River. It crosses the height of land which separates the watersheds of the Churchill River, emptying into Hudson Bay, and the Mackenzie River, emptying into the Arctic Ocean. [95]

A clear association of Beaver people with the Peace River, including the area where Indian Reserves were set aside in the early 1900s for the Duncan's First Nation, was made in 1790-1792 by Philip Turnor, surveyor for the Hudson's Bay Company, and Peter Fidler, assistant surveyor. Turnor and Fidler at this time led a mapping expedition into the Athabasca country.[96] This expedition made a circuit of Lake Athabasca. Turnor and Fidler made numerous calculations of

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[88] Lamb 1970:177, 227.

[89] Gillespie 1981:167; Lamb 1970:182.

[90] Mackenzie 1806, in Yerbury 1986:79.

[91] Lac La Loche, also known as Methye Lake, is located in northwest Saskatchewan, south from the eastern portion of Lake Athabasca.

[92] Alexander Mackenzie to Roderic McKenzie [Mackenzie], 18 March 1788, in, Lamb 1970:432-433.

[93] As previously noted, ―*Knisteneaux*" is the Ojibwa term for the Cree people. See Honigmann 1981:227-228; Mandelbaum 1979:15.

[94] Lamb 1970:238.

[95] Lamb 1970:127.

[96] For Turnor's 1790-1792 journal, see J.B. Tyrrell, Editor (1934). Journal of a Journey From Cumberland House North America…Towards the Athapiscow Country and Back to York Factory, [September 13, 1790 to July 17, 1792], by Philip Turnor. Pp. 327-491, in, *Journals of Samuel Hearne and Philip Turnor*. The Champlain Society, Toronto (reprinted in 1968 by Greenwood Press Publishers, New York).

longitudes and latitudes during this trip, although Turnor did not actually draft maps in the field; rather, he waited to do so until he returned to London in 1792. [97] Fidler did make many sketches in the field, however, including 16 sketches illustrating most of the shoreline of Lake Athabasca.[98] (See Section 6.2 of the present report for a further discussion of Philip Turnor and his 1792 map)

Thus, concerning the earliest exploration of the Peace River area we can conclude the following:

- Pond‘s investigations of the Peace River in the mid-1780s are largely unknown, although he associates the Peace River with Beaver Indians;
- Mackenzie‘s 1789 information about the ―Land of the Beaver Indians" is internally inconsistent. His placement of ―Beaver" people in the Horn River/Horn Mountains area can not be accepted on face value;
- Both Turnor‘s map and his 1790-1792 journal indicate that his information on the Peace River and its Aboriginal inhabitants came from ―Canadian and Indian" sources and that they associated the Peace River with the Beaver people.

3.3 First Direct European Encounter with Aboriginal People in the Central Peace River

It is Alexander Mackenzie‘s journal of his epic 1792-1793 expedition that is significant for a review of the Duncan‘s First Nation‘s ancestors‘ historical land use of the central Peace River region.

Mackenzie set out from Fort Chipewyan on Lake Athabasca on 10 October 1792.[99] He arrived on the 19th of October at the "Old Establishment," [100] i.e. Boyer's Post that had been built *circa* 1788 on the north bank of Peace River, just above the mouth of the Boyer River. [101] On the 20th of October he reached the "New Establishment," the newly-built post known as Aspin House located about 48 km (30 miles) upriver from Boyer's Post. Mackenzie noted at this point in his journal that during his previous five years in this region, he had yet to meet a single Aboriginal person from the area he now reached.[102]

[97] Turnor, who had been retained as a surveyor by the Hudson‘s Bay Company in 1788, hired Peter Fidler as his assistant in 1790. See Richard I. Ruggles (1991). *A Country So Interesting: The Hudson's Bay Company And Two Centuries of Mapping 1670-1870.* McGill-Queen‘s University Press, Montreal & Kingston. Pp. 18-19, 52-53.

[98] Ruggles 1991:53,197.

[99] Lamb 1970:237.

[100] Lamb 1970:239.

[101] Smythe 1968:262.

[102] Lamb 1970:239.

There was "only one chief with his people" at Aspin House when Mackenzie arrived there on 20 October 1792, but by the 21st-22nd, the "other two" chiefs and their bands arrived, numbering "forty-two hunters." Only "the war chief and fifteen men" had not yet arrived. Mackenzie wrote that "about three hundred" Indigenous people, including sixty hunters, would be looking to Aspin House for trade and supplies.[103] Concerning their appearance, Mackenzie observed that these Aboriginal people had adopted the dress of their "former enemies, the Knisteneaux [Cree]."[104] Mackenzie continued up the Peace River on his way to Fort Fork, situated on the southeast side of the Peace River about 10 Km (approximately 6 miles) upriver from its confluence with the Smoky River, which Mackenzie referred to as the "Eastern Branch" of the Peace River. Although little had been built on the Fort Fork site by the time of Mackenzie's arrival on 1 November 1792, it would be his home through the winter of 1792-1793, before his voyage up the Peace River and to the Pacific Ocean. [105]

It was Mackenzie who first recorded the story associated with "Peace Point," the name that fur traders applied to a place on the lower Peace River, commemorating a peace agreement between the Cree and the Beaver (*Dane-zaa*). Peace Point is located approximately 420 Km (about 262 miles) east of the Alberta/BC border and about 90 Km (approximately 56 miles) south of the Northwest Territories/Alberta border. Arriving at "Peace Point" on 13 October 1792, Mackenzie wrote the following in his journal, as it was explained to him by his interpreter:

> When this country was formerly invaded by the Knisteneaux [Cree], they found the Beaver Indians inhabiting the land about Portage la Loche [Methye Portage, south from the eastern end of Lake Athabasca]; and the adjoining tribes were those whom they called slaves [Slavey]. They drove both these tribes before them; when the latter proceeded down the river from the Lake of the Hills [Lake Athabasca], in consequence of which that part of it obtained the name of the Slave River. The former [the Beaver] proceeded up the river [Peace River]; and which the Knisteneaux made peace with them, this place [Peace Point] was settled to be the boundary.[106]

Gillespie astutely noted in her review of this same passage in Mackenzie's journal that this "boundary" concept is European and "probably does not reflect an Indian perception of a peace-making event."[107]

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[103] Lamb 1970:240.

[104] Lamb 1970:240.

[105] Lamb 1970:241. Mackenzie had, in the summer of 1792, sent a party of men here to what became the Fort Fork site to build a fort where he would be able to winter, while searching for a route to the Pacific Ocean.

[106] Lamb 1970:238. (See also the discussion that follows below).

[107] Gillespie 1981:163.

Mackenzie at this same time pointed out that ―the real name of the [Peace] river and point” was actually ―that of the land which was the object of contention,” [108] although it was not until August of 1793, on his return from the expedition to the Pacific, that he provided this Aboriginal term, ―*Unjigah*,” in his journal—in describing the height of land separating the source of the Fraser River from the source of the Peace, Mackenzie referred to the ―*Unjigah*, or Peace River.”[109] He also identified the ―*Unjigah*, or Peace River” on the 1801 ―Map of Mackenzie‘s Track from Fort Chipewyan to the Pacific Ocean in 1793” that accompanied his published journal. [110]

Historians have addressed the issue of why the Cree and the Beaver (*Dane-zaa*) achieved this pact and concluded that severe depopulation among the Cree resulting from a 1781-82 smallpox epidemic that approached from the southeast likely contributed to their desire for peace.[111] Apparently this same epidemic did not reach the Beaver people.[112] Nevertheless, at the time of Alexander Mackenzie‘s expedition to the Peace River, it is likely that the *Dane-zaa* had some indirect contact with Europeans, for Cree and Chipewyan middlemen traded European goods to more western bands,[113] and also carried on hostile relations with these same neighbours. Alexander Mackenzie noted early in 1793 while he was wintering at Fort Fork that the Beaver had guns beginning in 1782, and that they paid dearly for goods of European manufacture.[114] Yet by 1793, Mackenzie wrote, the Beaver had ―more or less, imbibed the customs and manners of the Knisteneaux [Cree].” [115] The number of Beaver people together with their western neighbours, identified by Mackenzie as ―Rocky Mountain Indians,” [116] ―did not exceed a

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[108] Lamb 1970:238.

[109] Lamb 1970:400. ―*Unjigah*” is clearly the same term that historians David Leonard and Beverly Whalen transcribed as ―*Unchaga*” in a footnote to O.C. Edwards‘ journal that was kept in his capacity as physician for the Treaty 8 Commission of 1900. Leonard and Whalen wrote, with reference to the area known today as Peace Point on the lower Peace River, that: ―…the name of the [Peace] river changed from (in Cree) ―*Tsadu*” to ―*Unchaga*,” or (in English) from ‗Beaver‘ to ‗Peace‘.” See David Leonard and Beverly Whalen (2002). *On the North Trail: the Treaty 8 Diary of O.C. Edwards*. Published by the Alberta Records Publication Board, Historical Society of Alberta. Page 78, fn.91. Clearly ―*Unjigah*” is the same term that historians David Leonard and Beverly Whalen transcribed as ―*Unchaga*” in a footnote to O.C. Edwards‘ journal that was kept in his capacity as physician for the Treaty 8 Commission of 1900. Leonard and Whalen wrote, with reference to the area known today as Peace Point on the lower Peace River, that: ―…the name of the [Peace] river changed from (in Cree) ―*Tsadu*” to ―*Unchaga*,” or (in Englsih) from ‗Beaver‘ to ‗Peace.‘

[110] This map is reprinted in Lamb 1970, between pp. 66-67.

[111] Yerbury 1986:61.

[112] Arthur J. Ray (1974). *Indians and the Fur Trade*. University of Toronto Press, Toronto. Pp. 105-109.

[113] Ugarenko 1979:66.

[114] Lamb 1970:253.

[115] Lamb 1970:253.

[116] Editor Kaye Lamb (1970:250) opined in a footnote that: ―By the ‗Rocky Mountain Indians‘ Mackenzie meant the Western Beaver Indians; by ‗Beaver Indians‘ he meant the ‗Eastern Beaver…‘.” (a further discussion of these ―Rocky Mountain Indians” continues below).

hundred and fifty men, capable of bearing arms; two thirds of whom were Beaver.[117] The Beaver differed slightly from the Rocky Mountain Indians in their dress, these latter people being less influenced by the Cree at that time.

It was in the general vicinity of Fort Forks where in the early 1900s Indian Reserves were established for the Duncan‘s First Nation, so it is pertinent to understand the Aboriginal occupation of this area in the early days of the fur trade.

Arriving at the Fort Fork site on 1 November 1792, Mackenzie wrote in his journal that no sooner had he pitched his tent than he ―summoned the Indians together” and ―gave each of them about four inches of Brazil tobacco, a dram of spirits, and lighted the pipe.” He admonished them for their ―previous misconduct” and said he wanted to ―inquire into the truth of it.” Then he presented them with a ―quantity of rum” which he urged them to use ―with discretion” and ―added some tobacco, as a token of peace.” Over the next several days, Mackenzie equipped these Aboriginal people ―for their winter hunting.” [118]

Considering the months that Mackenzie spent at Fort Fork, his observations on the Indigenous people are sparse, but nonetheless helpful to understanding Aboriginal land use at this time. Mackenzie identified the Indigenous people of this region as ―Beaver and Rocky Mountain Indians.” While they co-existed peacefully at the time of Mackenzie‘s visit in the winter of 1792-1793, the Beaver Indians informed him that this relationship had not been peaceful in the past, and that some tension still existed between the two groups. About two thirds of the 150 Aboriginal men who Mackenzie described as ―capable of bearing arms”—meaning they were neither too young nor too old—―call themselves Beaver Indians.”[119] The journal is not clear that they all lived in the one camp near Fort Forks, for in recounting their numbers, Mackenzie referred to them as ―the Beaver and the Rocky Mountain Indians, who traded with us in this river.”[120] His later meeting of Rocky Mountain Indians farther up the Peace River, near the mouth of the Clear River,[121] where he expected to see one of the old men he had met earlier at the Forks, suggests that several bands resided in the area, mostly Beaver but some of whom were Rocky Mountain Indians. The journal indicates that the Aboriginal camp at Fort Forks consisted of numerous lodges, and that the occupants of one lodge were destitute, for ―according to custom” they had given away all their belongings after the death of one of their near relatives.[122]

In January 1793, while at Fort Fork, Mackenzie was told by two men who identified themselves as ―Rocky Mountain Indians” that their designation was contrary to the fur traders‘ own use of the name. They also told Mackenzie that their traditional home was around Fort Forks, that ―the

[117] Lamb 1970:253.

[118] Lamb 1970:243.

[119] Lamb 1970:253.

[120] Lamb 1970:253.

[121] Lamb 1970:261.

[122] Lamb 1970:251-252.

Beaver Indians had greatly encroached upon them and would soon force them to retire to the foot of these mountains [Rocky Mountains]." The also said they were the only real residents of the area west to the Rocky Mountains.[123]

Although "the Beaver Indians made their peace with the Knisteneaux [Cree], at Peace Point," Mackenzie wrote, other Cree who had not made peace with the Beaver continued to harass them and, if they missed the Beaver during their war excursions, these other Cree continued westward "wreaking their vengeance on those [Indians] of the Rocky Mountain, who being without arms, became and easy prey to their blind and savage fury."[124]

It is clear that the Aboriginal people Mackenzie met in the vicinity of Fort Forks were hunters and that their range was considerable. Speaking of "Deer Mountain" –the Whitemud Hills situated about 100 km (approximately 62 miles) northwest of the Forks of the Smoky and Peace Rivers—Mackenzie stated that the Indigenous people hunted beaver in this direction, and that for a change of diet they also hunted the plentiful deer that could be found here.[125] Aboriginal hunters connected with Fort Forks brought Mackenzie "plenty of furs" in the winter of 1792-1793. The scant snow in January "was particularly favourable for hunting the beaver" and permitted these animals to be more easily "traced from their lodges to their lurking-places."[126] At other times, the Fort Fork Aboriginal hunters reported, they travelled to Lesser Slave Lake [about 112 Km (70 miles) southeast of Fort Fork] to hunt. Mackenzie described this lake as "well known to the Knisteneaux [Cree], who are among the inhabitants of the plains on the banks of the Saskatchewine [Saskatchewan] river."[127]

In preparation for a heavier snowfall, the hunters in late January 1793 spent time making snowshoes, although Mackenzie does not mention if the anticipated hunt was for beaver or other species.[128] A change in hunting technology had occurred in the six years that fur traders had come to the Peace River, and according to Mackenzie the Aboriginals' use of bows was now nominal, while the use of snares continued.[129] Mackenzie wrote "These Indians are excellent

[123] Lamb 1970:249-250.

[124] Lamb 1970:253.

[125] Lamb 1970:242-243.

[126] Lamb 1970:250.

[127] Lamb 1970:249, fn.2. Mackenzie added that when these Cree people "used to come to make war in this country" they came in their canoes to Lesser Slave Lake, left them there, and followed a "beaten path" which was their "war-road" all the way to the forks of the Peace and Smoky Rivers (Lamb 1970:249, fn.3). This "war-road" is shown on Mackenzie's map that appears between pages 238-239 of Lamb's edition.

[128] Lamb 1970:251.

[129] Lamb 1970:253.

hunters”[130] although in his private correspondence he spoke of his disappointment in the poor returns of the winter of 1792-1793.[131]

Concerning the animals available to the Aboriginal people in this region of the Peace, Mackenzie mentioned beaver, deer, ―rein deer,” moose, elk and buffalo. By the term ―rein-deer,” he likely meant caribou, [132] but Mackenzie was told they had mostly left the country some years earlier after the local habitat changed and the animals ―retired to the long range of high lands that, at a considerable distance, run parallel with this river,” likely a reference to the Rocky Mountain foothills. Elk and buffalo now roamed this country about the Forks, Mackenzie noted. [133] Farther up the Peace, he saw the tracks of grizzly bear and commented that the Indigenous people hunted them, but only when hunting in parties of three or four men.[134]

On the 9th of May 1793 Mackenzie began his ascent of the Peace River, accompanied by a party of ten, among them Baptiste Bisson,[135] said by some to have been an ancestor of Duncan Testawich‘s mother.[136] Over the next month, until Mackenzie reached the Rocky Mountain portage, his daily journal records the beauty and abundance of the countryside along with the occasional encounter with an Aboriginal camp. Among Mackenzie‘s party of ten were two young Aboriginal men who served as hunters and interpreters, along with his assistant and six Canadians. So on 11th May 1793, when they came across ―a chief of the Beaver Indians on an hunting party” a few miles west from the confluence of the Saddle (Burnt) River with the Peace, the young guides conversed readily with them, indicating that the area was occupied by *Dane-zaa* people. According to Mackenzie‘s editor, Kaye Lamb, the camp of this hunting party ―cannot have been far from the point where Fort Dunvegan, the best-known of the trading posts on the Peace River, was built by the North West Company in 1805.” Mackenzie‘s own hunters

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[130] Lamb 1970:254.

[131] Lamb 1970:452.

[132] Lamb 1970:413, fn.2 also concluded that by Mackenzie‘s ―rein-deer” was a reference to caribou, for Mackenzie mentioned the animal eating ―a short curling moss,” a species which ―grows on the rocks,” as lichen, the caribou‘s food, certainly does. Mackenzie noted that this animal provided both food and clothing.

[133] Lamb 1970:255-256.

[134] Lamb 1970:262.

[135] Lamb 1970:257.

[136] Sir Alexander Mackenzie Historical Society (1984). *Peace River Remembers.* Peace River, Alberta. Page 94. Cited in Reddekopp 1996:15, fn. 73. Baptiste Bisson was later employed by the North West Company as a Hunter, then went to the Hudson‘s Bay Company in 1818, was at Peace River 1818-1819, in the Athabasca District 1819-1820, and again at Peace River 1810-1821. See E.E. Rich, Editor (1938). *Journal of Occurrences in the Athabasca Department by George Simpson 1820 and 1821, and Report*. Published by the Champlain Society for the Hudson‘s Bay Company Society. Page 64, fn.2. HBC Governor George Simpson in September 1820 described Baptiste Bisson as the best hunter in the Peace River District, and in May 1821 described him as ―without exception the best large animal hunter in North America.” See: George Simpson to Duncan Finlayson, Peace River District, 29 September 1820; and, George Simpson to George Leith, North West Company, Fort Chipewyan, 19 May 1821, both cited in Rich 1938:64, 338.

stayed overnight with this hunting party, and the following evening, some of these Beaver hunters camped overnight with Mackenzie, giving Mackenzie the opportunity to learn something about the country he was soon to pass through. The trip to the Rocky Mountains, he was told, would take ten days.[137]

On the evening of on 12 May 1793, Mackenzie and his party camped on an island just upriver from the confluence of the Montagneuse River with the Peace, about 60 km (37 miles) downstream from the BC/ Alberta border. Mackenzie reported there was an Aboriginal camp ―at some distance" from this spot. He commented that ―the greater part of this band" were ―Rocky Mountain Indians."[138] These people were not familiar with a route to the Pacific Ocean that Mackenzie sought after, and knew nothing of the country beyond the first mountain, seemingly a reference to the Rockies. An old man who Mackenzie had met on an earlier occasion was not present, although Mackenzie reported the knowledge that this individual had acquired during a war expedition to the west side of the ―Rocky mountain." [139]

Proceeding up the Peace River from the Montagneuse River mouth, Mackenzie wrote that he observed on one of the islands in the Peace a large grizzly den, which he referred to as a ―*watee*," and added that, ―The Indians entertain great apprehension of this kind of bear." [140] Mackenzie and his party camped on the night of the 13th of May in the vicinity of the mouth of the Clear River,[141] which is about 13 miles (approximately 21 miles) down the Peace from the Alberta/BC border.

Mackenzie observed few signs of Aboriginal occupation as he proceeded upstream, apart from several lodges, left from a previous season,[142] stripped birch bark that had been prepared for making five canoes, and trees that had been stripped of their cambium layer—a food the Aboriginal people eat in the spring when the sap begins to run. He also saw trails, but none of the inhabitants themselves. [143] The only camps mentioned in Mackenzie‘s journal of this time are those he attributed to the Knisteneaux [Cree], which he presumed had been made during one of their war expeditions. [144] Yet, game was plentiful. Mackenzie commented: ―the country is so

[137] Lamb 1970:259-260; Mackenzie at this time identified the Saddle (Burnt) River by its Native (Cree) name, ―*Quiscatina Sepy*" and provided the translation ―River with the High Banks.‘

[138] Lamb 1970:260.

[139] Lamb 1970:261.

[140] Lamb 1970:262. ―*Watee*" is the term transcribed in LeClaire and Cardinal‘s *Cree Dictionary* (2006:224,285) as *wâti* and translated as ―lair; den.‘

[141] Lamb 1970:261.

[142] Situated on an island near Lynx Creek, situated east of Hudson‘s Hope, BC.

[143] Lamb 1970:265.

[144] Lamb 1970:271.

crowded with animals as to have the appearance, in some places, of a stall-yard, from the state of the ground, and the quantity of dung which is scattered over it.”[145]

Mackenzie retraced his trail through this country in August 1793 on his return from the Pacific. Along the route he commented on seeing evidence of the Aboriginal people‘s occupation of the mountains. Upstream from Peace River Canyon he found a hunting camp used only a few days prior to his arrival. He surmised that the inhabitants had left in an alarmed state, for three of their canoes and paddles had been left on the beach.[146] He met no Aboriginal people until the 24th of August, near Fort Fork, where he encountered only two unidentified lodges whose inhabitants, Mackenzie reported, ―were astonished to see us, as if we had been the first white men whom they had ever beheld.” [147]

Once Mackenzie arrived back at Fort Forks on 24 August 1793, his chronicles ended. The expedition that had begun in the winter of 1792-1793 had introduced Mackenzie to *Dane-zaa* and Rocky Mountain people residing along the central Peace River, and as reviewed above, he reported in his journals snippets of information about their lifeways. More comprehensive is Mackenzie‘s description of the Cree entitled ―Some Account of the Knisteneaux [Cree] Indians” included in his ―General History of the Fur Trade,” a manuscript published along with Mackenzie‘s journals in Lamb‘s 1970 edition of *The Journals and Letters of Sir Alexander Mackenzie*. Concerning their economic pursuits, Mackenzie stated:

> The profession of the men is war and hunting, and the more active scene of their duty is the field of battle, and the chase in the woods. They also spear fish, but the management of the news is left to the women. The females of this nation . . . dress the leather, make the clothes and shoes, weave the nets, collect wood, erect the tents, fetch water, perform every culinary service. . . [148]

In terms of the social organization of the Cree and Beaver (and Rocky Mountain Indians), the basic social unit of both peoples was the family, either nuclear or extended, that joined with kindred to form a hunting band associated with a particular area during the winter months, and formed large coalitions comprised of similar hunting bands in the warmer months, sometimes at fisheries or the bison grounds, and sometimes for celebration. What is clear from Mackenzie‘s journal is that both the Beaver and the Cree were highly mobile people. Typically, the fur traders would encounter a small band of people, only to find them gone from the area several months later, as Mackenzie witnessed between his winter sojourn at Fort Forks and his return there in August.

[145] Lamb 1970:264.

[146] Lamb 1970:404.

[147] Lamb 1970:406-407.

[148] Lamb 1970:135.

In sum, historical documents contain the following observations about Aboriginal land use at the end of this period of this period of initial contact:

- *Dane-zaa* people continue to form small, nomadic hunting bands
- Eastern *Dane-zaa* bands began to show cultural influence from the Cree
- Increased Cree intrusion into the central Peace River region
- Relations between *Dane-zaa* and Cree bands continued to be hostile

3.4 Expansion of the Fur Trade

Historian J.C. Yerbury points out in his book *The Subarctic Indians and the Fur Trade* that ―the effects of the fur trade on the economy and on the social and spatial arrangements of Canadian Athapaskan populations, during the Early Fur Trade Period were significant.”[149] A listing of fur trade establishments in the Athabasca region compiled by Parks Canada Historian Terry Smythe indicates that many such posts had been built for either trade or for provisioning before the establishment of Fort Dunvegan in 1805. [150] Appendix A in the present study, based primarily on Smythe‘s 1968 report, provides a chronological listing of such trade establishments, beginning *circa* 1788 and extending from the vicinity of Fort Vermilion to the area around Hudson‘s Hope.

Initially, these posts were created along the Peace River to provide pemmican for supporting the traders‘ wintering parties on Lake Athabasca and to provision outgoing canoes.[151] The journals indicate that trading relationships between the Europeans and the Aboriginal people expanded and became mutually-dependent, as the former relied upon the Indigenous populations for provisioning and for furs, and the Aboriginal hunters grew accustomed to trade goods, especially firearms and ammunition, along with tea, tobacco and flour.

Each post drew in localized bands comprised of small trapping parties led by a company-appointed ―chief.” As new posts became established, or relocated, they became the focus of local Aboriginal traders, known as ―homeguards,” who provisioned the posts and carried out labour for credit. Traders recognized trading ―chiefs” by bestowing upon them a set of European clothing and gifts of gunpowder and trade goods, and the intense competition resulted in new intertribal trade rivalries.[152]

Once armed by the fur traders, the Beaver or *Dane-zaa* people held their own against the Cree population—now somewhat depleted by smallpox—but the Chipewyan from the northeast

[149] J.C. Yerbury (1986). *The Subarctic Indians and the Fur Trade, 1680-1860*. University of British Columbia Press: Vancouver. Page 67.

[150] Terry Smythe (1968). Thematic Study of the Fur Trade in the Canadian West, 1670-1870. Staff Report for the Historic Sites and Monuments Board of Canada. Agenda Paper 1968-29 (copy on file with the Hudson‘s Bay Company Archives, Provincial Archives of Manitoba, Winnipeg).

[151] Yerbury 1986:69.

[152] Yerbury 1986:69.

became antagonistic towards the Beaver, especially those on the lower Peace River,[153] while the Beaver of the mid-Peace carried out raids on the Sekani of the Rocky Mountains to the west, beyond Hudson's Hope.[154] Conflict between people identified as Beaver and other Aboriginals trading at the Rocky Mountain Portage House near the present day Hudson's Hope is remarked upon in the 1805-1806 journal kept at this post by John Stuart.[155] Aboriginal people residing near the headwaters of the Halfway River were also being harassed, and their fear of the Beaver of both the "[Smoky River] forks and Fort Vermillion" was given as the reason for their avoidance of the Peace River, at least in 1805.[156] At the same time, Cree war parties continued to move into the Peace River from the west end of Lesser Slave Lake by way of a route described earlier by Mackenzie as the "Knistineaux [Cree] war-road," a "beaten path" leading all the way north to the confluence of the Peace and Smoky Rivers.[157]

The North West Company controlled the fur trade *circa*1800 and most of the trade returns in the 1800-1804 period were secured from Iroquois hunters who the company brought to the region from Eastern Canada to provision the posts. [158] As Yerbury points out, initially the Beaver (*Dane-zaa*) were suspicious of these eastern Aboriginals and blamed them for a number of their people dying from some disorder.[159] By 1802-1803, the HBC had established Posts at Nottingham House on Lake Athabasca and Mansfield House on the Peace River, near the mouth of Boyer River,[160] in the vicinity of Fort Vermilion. Concerning the competition between the North West Company and the Hudson's Bay Company and the overall extent of the Beaver people, the HBC's Thomas Swain, who had established Mansfield House in 1802,[161] wrote in January 1803:

> In short the NW [North West] Company has done all that laid in there [their] power to stop us from Building here [in the Fort Vermilion area] and they do not scruple to tell us that we have no

[153] Yerbury 1986:61, 67.

[154] Lamb 1966:178.

[155] John Stuart (1805-1806). Journal at the Rocky Mountain December the Twentieth 1805. BC Archives, A/B/40/St9.1A/1.

[156] W. Kaye Lamb, Editor (1966). *The Letters and Journals of Simon Fraser, 1806 – 1808*. The Macmillan Company of Canada Ltd., Toronto. Pp. 15-16. Presumably Fraser refers to the *Dane-zaa* people of Fort Fork, at the confluence of the Smoky and Peace Rivers, and the Beaver people of Fort Vermilion.

[157] Lamb 1970: 249, fn. 3. This "war-road" is shown on Mackenzie's map that appears between pages 238-239 of Lamb's edition.

[158] Yerbury 1986:70.

[159] Yerbury 1986:72.

[160] Yerbury 1986:67.

[161] E.E. Rich, Editor (1938). *Journal of Occurrences in the Athanasca Department by George Simpson 1820 and 1821, and Report*. Published by the Champlain Society for the Hudson's Bay Company Society. Appendix A, Posts and Districts, Page 470; see also Smythe 1968:262.

> buissness [business] in this part of the Country. The Beaver Indians…[are] a brave bold Nation, although not above two hundred men in number from the age of 15 Years to 70—which is scattered from the entrance of Peace River to the Rocky Mountain[s] in which space the NW Company has 5 Settlements…[162]

As part of the North West Company‘s continued fur trade expansion on the Peace River, Archibald Norman McLeod in 1805 established Fort Dunvegan[163] on the north side of the Peace River (in Tp.8, R.4, W5), as a principal fur trading and provisioning post. One of Fort Dunvegan‘s main advantages in 1805 was its proximity to the buffalo ranges.[164] Fort Dunvegan was operated by the NWC from 1805 to 1821, at which time the Hudson‘s Bay Company took over its operation. The Post was closed between 1825-1828, then reopened and continued operations until 1918 when it was closed.[165]

The competition for furs was intense throughout the early 1800s, with each company trying to undercut the other and create trade monopolies with the local bands, creating a tense situation that resulted in a general decline in returns. There was also intense competition between various groups of Indigenous trappers. Among the hunters at St. Mary‘s Post, which was established by the HBC *circa* 1818 near the Smoky River/Peace River forks to be in direct competition with the NWC‘s Fort Dunvegan about 60 miles (approximately 100 Km) farther upriver,[166] were Saulteaux hunters who had accompanied the fur trade during the early 1800s, and some of whom had intermarried with the Beaver. [167] Since the price of goods offered to the Iroquois and

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[162] Thomas Swain (1803). Mansfield House (Fort Vermilion) Journal, 1802-03. Entry for 10 January 180s. Hudson‘s Bay Company Archives, Provincial Archives of Manitoba, Winnipeg. B.224/a/1. Typescript in the Fort Dunvegan Search File, HBCA.

[163] This post was named ―Dunvegan” after the name of the seat of the McLeod family on the Isle of Skye. See Fort Dunvegan Post History, Hudson‘s Bay Company Archives, Provincial Archives of Manitoba, Winnipeg. Elsewhere it is noted that ―Dunvegan” means ‟fortress; stronghold.‘ See Daniel Francis and Michael Payne (1993). *A Narrative History of Fort Dunvegan*. Prepared for the Fort Dunvegan Historical Society and Alberta Community Development. Page 6.

[164] Smythe 1968:273-274.

[165] Smythe 1968:273-274; see also Fort Dunvegan Post History, HBCA.

[166] Smythe 1968:269-270; HBC Post History for Fort St. Mary‘s, HBCA, Winnipeg; HBC Search File for Fort Dunvegan, HBCA, Winnipeg.

[167] Yerbury 1986:85. ―Saulteaux,” (also spelled ―Saulteau”) meaning ‟people of the rapids‘(i.e. Sault St. Marie, Ontario), is a term that was used by French Canadian traders to refer to a Plains Ojibwa group of western Manitoba and eastern Saskatchewan, the Saulteaux of Lake Winnipeg, and also a Southeastern Ojibwa group from Sault Sainte Marie, Ontario. See: E.S. Rogers (1978). Southeastern Ojibwa. In, *Handbook of North American Indians, Vol. 15, Northeast.* Edited by Bruce Trigger. Smithsonian Institution, Washington DC. Pp. 768-770; Jack H. Steinberg (1981). Saulteaux of Lake Winnipeg. In, *Handbook of North American Indians, Volume 6, Subarctic*. Edited by June Helm. Smithsonian Institution, Washington DC. Pp. 254-255; Patricia C. Albers (2001). Plains Ojibwa. In, *Handbook of North American Indians, Vol. 13, Plains*. Edited by Raymond J. DeMallie. Smithsonian Institution, Washington DC. Page 659. A more recent migration of Saulteau took place over an approximately 10-

Saulteaux was half that paid by the Beaver, Yerbury suggests that some of these earliest intermarriages may have been the Aboriginal people‘s attempt to manipulate the price structure.[168] The presence of Saulteaux at the Forks of the Peace River provided intelligence on local affairs, including the fact that the Cree from Lesser Slave Lake said they had been persuaded by the HBC men to make war upon the ―Mountain Beaver Indians" during the summer of 1818.[169]

By the early 1820s, the Hudson‘s Bay Company had gained a strong presence in the Peace River. Fort Dunvegan, which had been established on the north bank of the Peace River in 1805, had become a major trading centre. In September 1820, instructions were given for the establishment ―without delay" of another post, ―Fort de Pinnette," farther up the Peace, near the mouth of the Beatton River at Fort St. John. ―Fort de Pinnette" was to be established ―to secure the hunts of the free Iroquois in the neighbourhood of the Rocky Mountains" whose trade had been previously lost to the North West Company due to the HBC‘s inability to provide sufficient trade goods.[170] The HBC was also outfitting the local *Dane-zaa*, including the band headed by Pouce Coupe, a *Dane-zaa* man whose residency south of the Peace River gave his name to the prairie where he lived, and eventually the town that grew up there.

One of the reasons why hunters travelled so widely was to compensate for fluctuations in the availability of resources. The life of hunters and trappers was precarious, dependent upon the success of the hunt. For example, weather conditions in the spring of 1821 created great difficulties when a late frost alerted the animals to approaching hunters. Governor Simpson reported in May 1821 that many *Dane-zaa* people had died of starvation. Moreover, wrote Simpson:

> …our Fort Hunter Baptiste Bisson,[171] who is without exception the best large animal hunter in North America lived entirely on parchment for several weeks, and whole families of Indians existed

year period around 1900 when a Plains Ojibwa group travelled from Manitoba to the Moberly Lake area. See Douglas Hudson (1992). The Two Mountains That Sit Together: An Ethno-Historical Overview. Report prepared on behalf of the Treaty 8 Tribal Association for the BC Ministry of Energy, Mines & Petroleum. Pp. 1, 67-70, and Appendix G. See also Art Napoleon, Editor (1998). *Bushland Spirit: Our Elders Speak*. Twin Sisters Publishing Co., Moberly Lake, BC. Pp. 3 and 23-33 .

[168] Yerbury 1986:85.

[169] Yerbury 1986:85-86.

[170] Letter from George Simpson to Duncan Finlayson, 29 September 1820. In, Rich 1938:61-62.

[171] Records suggest that through his mother, Duncan Testawich may have been a descendant of Baptiste Bisson, who was one of the voyageurs who paddled for Mackenzie on his trip to the Pacific in 1793. See Sir Alexander Mackenzie Historical Society (1984). *Peace River Remembers.* Peace River, Alberta. Page 94. Cited in Reddekopp 1996:15, fn. 73. Baptiste Bisson was later employed by the North West Company as a Hunter, then went to the Hudson‘s Bay Company in 1818, was at Peace River 1818-1819, in the Athabasca District 1819-1820, and again at Peace River 1810-1821. See E.E. Rich, Editor (1938). *Journal of Occurrences in the Athanasca Department by George Simpson 1820 and 1821, and Report*. Published by the Champlain Society for the Hudson‘s Bay Company Society. Page 64, fn.2.

> solely on singed Beaver Skins; the North West Co. were at Dunvagon & Vermillion compelled to kill many of their Horses, and the few seed potatoes that were reserved at St. Mary‘s have been consumed…[172]

Though the returns of the Peace River disappointed George Simpson in 1821, he commented that the HBC‘s opening of Fort St. Mary‘s at the confluence of the Peace and Smoky Rivers looked promising for ―the adjacent Woods and plains abound with Buffalo and Deer, and valuable Furred Animals are numerous...”.[173]

Governor Simpson also pressed upon the Company servants to plants vegetable gardens to stave off further bouts of starvation, as the North West Company had done at their Peace River establishments.[174]

Simpson noted in May 1821 that a community of Métis people had emerged in the general vicinity of Fort Dunvegan which at that time was still a North West Company fort. Concerning these Métis people, Simpson wrote:

> There are a number of Free Canadians and Iroquois in this neighbourhood, discharged Servants of the North West Company (indeed the greater part of the Iroquois Servants of both Compys. are free during the Winter) these Men and their Meitiff [Métis] progeny are generally more expert in hunting the Buffalo and Deer than the Natives and make considerable quantities of Provisions and Furs…[175]

The HBC attempted to win the trade of these Free Canadians and Iroquois, along with that of the thirty to fifty Aboriginal hunters in the District,[176] neither group of which was particularly loyal to the NWC, but both of whom expected a constant supply of trade goods that the HBC had difficulty providing. Simpson noted in this same letter/report that *Dane-zaa* hunters also visited the HBC‘s Colvile House situated farther down the Peace, as well as establishments belonging to the North West Company.[177] *Dane-zaa* people also traded at the HBC‘s post set up on the Moberly River, upstream from NWC‘s Fort St. John, an area also hunted by Iroquois Free Traders.[178] Noting that ―The Natives of Peace River are the Beaver Indians” and that they

[172] HBC Governor George Simpson to George Leith, North West Company, Fort Chipewyan, 19 May 1821, in, Rich 1938:338. Simpson in September 1820 had described Baptiste Bisson as the best hunter in the Peace River District. See: George Simpson to Duncan Finlayson, Peace River District, 29 September 1820, in Rich 1938:64.

[173] Simpson to Governor & Committee, 18 May 1821. In, Rich 1938:379.

[174] Simpson to Governor & Committee, 18 May 1821. In, Rich 1938:379.

[175] Simpson to Governor & Committee, 18 May 1821. In, Rich 1938:380-381.

[176] Simpson to Governor & Committee, 18 May 1821. In, Rich 1938:381-382.

[177] Rich 1938:382-385.

[178] Rich 1938:384.

comprised about 130 to 150 hunters, Simpson added there were also in the District about 20 to 30 "emigrant Soataux [Saulteaux] from the plains."[179]

Simpson stated at this same time that the Beaver (*Dane-zaa*) people did not intermarry with Europeans, and added:

> To Europeans they are kind and hospitable, and they boast that no white Man has ever fallen by the hands of any of their Tribe: they seldom or never intermarry with Neighbouring Tribes and it is against their Religious tenets to have connexion with the Civilized, so that here are no Beaver Indian half breeds, and that in some measure accounts for their indifference to the North West Coy., who are allied and have Meitiff [Métis] progeny with all the other Tribes in North America.[180]

It was nevertheless recommended by Simpson that, "Connubial alliances are the best security we can have of the goodwill of the Natives..".[181]

The North West Company's Fort Dunvegan remained in operation from 1805 to 1821, after which the HBC took over its business until it closed in 1825. It remained closed until 1828. After this time it operated until the 20th century. In the 1820s, Chief Trader William McIntosh kept the Fort Dunvegan post journal and recorded the daily affairs of the District, as observed and reported at this fort, situated on the Peace River. While the merger between the two trading companies had occurred in 1821, competition for the remaining furs resulted in trouble among the local Aboriginal bands. Trade and provisioning continued around the Smoky River where Pouce Coupe actively hunted.[182] Saulteau, Iroquois and other Free traders also hunted in these parts.[183]

Reports from farther up the Peace River at "St Johns" Post (Fort St. John) in August 1822 indicated that the *Dane-zaa* and Sekani (referred to at this time as "Slaves") "were ungovernable and in a state of open War fury."[184] Later that same day, "Five Indians of that Post [St. Johns] also arrived late in the evening who corroborated the above accounts."[185]

Clerk Hugh Faries noted in his 1822-1823 journal kept at St. Johns Post that the region's profitability was in question and this likely contributed to the level of discord in the Aboriginal bands. The Peace River region's Chief Traders, William Macintosh of Fort Dunvegan and Colin

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[179] Rich 1938:387.

[180] Simpson to Governor & Committee, 18 May 1821. In, Rich 1938:388.

[181] Simpson to Governor & Committee, 18 May 1821. In, Rich 1938:392.

[182] Fort Dunvegan Journal, 14 October 1822. HBC Archives, B.56/a/1.

[183] Fort Dunvegan Journal, 31 October 1822. HBC Archives, B.56/a/1.

[184] Fort Dunvegan Post Journal 1822/23. HBCA, B.56/a/1, 5 August 1822, f.5.

[185] Fort Dunvegan Post Journal 1822/23. HBCA, B.56/a/1, 5 August 1822, f.5.

Campbell of Fort Vermilion, stressed that the upper and central Peace were depleted of game from the very first of the post-merger records of 1822. Fort Dunvegan was characterized as ~~f~~formerly a plentiful place …", while the Fort Vermilion District Report for 1822 noted ~~t~~the exausted [sic] state of the country in large animals."[186] By December 1833, John Charles, Chief Factor for the Peace-Athabasca District, wrote:

> Peace River in Respect of Large Animals, is not the same Country it was in Days long Since gone by, there is no Buffalo in that Quarter now. And the exertion of the Beaver Indians...on their circumscribed Grounds with the encouragement held out by us for the Provisions and Leather has I believe thinned the Moose Deer considerably.[187]

In February 1823, Governor George Simpson made a decision to close St. Johns post and build a new establishment at the former site of Rocky Mountain Fort, a North West Company post which had operated on the south side of the Peace River, near the mouth of the Moberly River, between *circa* 1794-*circa* 1804. [188] Simpson made this decision on the basis of recommendations by both Hugh Faries of St. Johns Post and William Macintosh of Fort Dunvegan, in the hope that with such a move, ~~m~~more furs might be expected from the Slaves [Sekani] and less expenses incurred." [189] The local St. Johns Post Aboriginal community nevertheless opposed the closure of St. Johns and, in part, as repercussion for the HBC‘s proposal to transfer the trade farther up the Peace River, murdered the company clerk and four other men in early November 1823. [190]

At Dunvegan there was growing discontent among the Aboriginal hunters and the Company personnel. Hugh Faries, who had arrived in late September 1824 to take charge of Dunvegan, stated that he had been instructed to ~~e~~endeavour to establish Peace & tranquility with the natives as they appear latterly to be something hostilely inclined towards the whites." [191]

Faries‘ journal kept for the HBC provides a record of the Aboriginal people arriving at Fort Dunvegan to trade between the fall of 1824 and the spring of 1825. The journal identifies

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[186] Theresa Ferguson (1993). *Wood Bison and the Early Fur Trade: the Uncovered Past: Roots of Northern Alberta Societies.* Eds. Patricia McMormack and R. Geoffrey Ironside. Circumpolar Research Series No. 3, Canadian Circumpolar Institute. University of Alberta, Edmonton. P. 71.

[187] John Charles to Governor and Committee December 1833, cited in Ferguson 1993:72.

[188] Smythe 1968:276, but see also David Burley, J. Scott Hamilton and Knut Fladmark (1996). *Prophecy of the Swan: the Upper Peace River Fur Trade of 1794-1823*. University of British Columbia Press, Vancouver. Pp.29-30.

[189] Simpson to Edward Smith, 8 February 1823. HBCA, D. 4/87, folios 95-101. Cite in Burley, Hamilton and Fladmark 1996:126, fn. 2.

[190] For a discussion of this incident, see Burley, Hamilton and Fladmark 1996:126-138. The events of the murders are also well covered in a paper compiled by Finola Finlay in 1993 as a course requirement at Northern Lights College. Ms. Finlay reviewed an extensive collection of fur trade documents from the 1820s. See Finola Finlay (1993). History and Mythology: the Murders at Fort St. John. Northern Lights College, Fort St. John, BC. On file with the North Peace Museum and Archives, Fort St. John.

[191] Fort Dunvegan Post Journal 1824/25. HBCA, B.56/a/2, 1 October 1824, f. 1.

numerous "parties" who travelled in small, independent bands in search of fur-bearing animals and game. Many of these Aboriginal people were specifically identified as "Beaver Indians":

> [9 October 1824]…some Beaver Indian men & women [came to the Fort and provided] the fresh meat of three Moose Deer…[on this same day] Two Beaver Indians arrived from the Southern side of the river [Peace River]…
>
> [13 October 1824]…[Faries wrote] I intend sending to the Rocky Mountain Portage to draw in what furs the Slaves [Sekani] may have…
>
> [15 October 1824]…a party of Indians arrived the Grands Oreilles ['Big Ears'] [underlined in original] party...the most of them are sick, we hear of nothing but sickness amongst them from all quarters. Two Beaver Indians also arrived from the opposite side of the River [Peace River], say they have nothing, all sick. Gladue [underlined in original] a freeman & family also arrived...
>
> [16 October 1824]…Old Racquette & party arrived they are as poor as the others...
>
> [18 October 1824]… Wapoose [underlined in original] a Beaver Indian arrived from below...
>
> [19 October 1824]… a party of Indians arrived from the other side in expectation of getting their winter supplies & will now remain idle about the Fort until such time as the Canoe arrives…
>
> [22 October 1824]… some of the Indians the Grand Diablo ['Big Devil'] [underlined in original] Party took their departure, Old Gladue & family also…
>
> [23 October 1824]… several Indians arrived, Farro [underlined in original] & party consisting of seven or eight men...[Faries also mentions the arrival of] Old Ignace an Iroquois... ...[192]
>
> [1 November 1824: ...three Beaver Indians, viz Bras Cassé [?], Bull & Canoe [?] [all 3 names underlined in original]...
>
> [12 February 1825]: ...[Faries refers to the death of] the Little Head [underlined in original] a Rocky Mountain Indian Chief....
>
> [18 February 1825]: ...The Bras Capé [?] [underlined in original] a Beaver Indian [arrived]....
>
> [24 February 1825]:...three Rocky Mountain Indians belonging to La Raquettes [underlined in original] party arrived...
>
> [19 March 1825]:...Four Rocky Mountain Indians arrived...

[192] Fort Dunvegan Post Journal 1824/25. HBCA, B.56/a/2, hand-numbered folios 2-5.

> [27 March 1825]:...A young Beaver Indian arrived from the Big Ears party…one of the Party [,] the Fox‘s eldest son [,] died some time ago…
>
> [29 March 1825]:…The old Rein Deer a Rocky Mountain Indian arrived...
>
> [19 April 1825]:…Several Beaver Indians arrived—The Big Ears [underlined in original] Party, he being a Chief [underlined in original] & himself & band having exerted themselves pretty well this Winter...
>
> [22 April 1825]:…Engaged two Beaver Indians as summer Hunters…[193]

This same Fort Dunvegan Post Journal does not report that any Cree people visited at this time, 1824-1825.

Fort Dunvegan closed in 1825 and remained shut for three years. During this time, Colin Campbell, writing from Fort Vermilion on the lower Peace River, remarked that no post would be built farther up the river, for the murderers of the men at Fort St. John were being harboured by the ―Upper Indians." The Company expected that the Beaver people would help them find the murderers, but this did not happen. ―If the Beaver Indians are determined to give us no other satisfaction," Campbell wrote, ―the Peace River will be entirely abandoned."[194] In 1826, once Fort Dunvegan had closed, the Aboriginal people of the upper Peace took their furs and provisions east as far as the Notikewin River[195] to where the Fort Vermillion post would send men with goods to trade with them.[196] With the temporary closure of the other Peace River posts, hunting and trapping activities became focused around Fort Vermilion and Aboriginal families who had previously wintered farther up the Peace began to congregate around this Fort.[197]

Once Dunvegan reopened in 1828, the majority of the Beaver chose to trade there, partly as a result of pressure on the fur resources from Cree and Chipewyan groups in the eastern parts of Beaver hunting territories.

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[193] Fort Dunvegan Post Journal 1824/25. HBCA, B.56/a/2, stamped folios 4-13.

[194] Colin Campbell, 4 October 1826, Fort Vermilion. Cited in Finlay 1993.

[195] The Notikewin River originates in the Clear Hills of Alberta and flows northeast and eastward, empyting into the southwest side of the Peace River about 50 Km (31 miles) northeast from the town of Manning, Alberta. ―Notikewin" is derived from the Cree term ―*nôtinikewin*" which means ―battle.‘ See Nancy LeClaire and George Cardinal (2006). *Alberta Elders' Cree Dictionary*. Edited by Earle Waugh. The University of Alberta Press and Duval House Publishing, Edmonton, Alberta. Page 256. Thus it is not surprising that documents and maps from the 1870s through the early 1900s identify this same river as ―Battle River" (see Sections 3.6 and 3.8.1 of the present report).

[196] Gertrude Nicks (1980). Demographic Anthropology of Native Populations in Western Canada, 1800 – 1975. PhD dissertation in anthropology, University of Alberta, Edmonton. P. 20.

[197] Ugarenko 1979:42.

What is particularly notable about the ethnohistory of the early 19th century is the increased opportunities that the *Dane-zaa* and the Cree had to participate in the fur trade. This is reflected in the chronological listing of early fur trading posts established in the central and upper Peace River areas between *circa* 1788 and *circa* 1831 which can be found in Appendix A of the present report. Significantly, the many competing posts established in the region in these years contributed to the escalation of the fur trade and the influx of a multi-national population–mostly men—who serviced the industry. (Studies on the effects of the fur trade on Aboriginal societies include the works of Arthur S. Ray).[198]

In sum, historical documents contain the following observations concerning *Dane*-zaa and Cree Aboriginal land use in the early 19th century:

- *Dane-zaa* and Cree participation in fur trade at centralized trading posts
- Aboriginal bands‘ continuation of nomadic lifestyle for harvesting seasonal resources
- Increased pressure on fur and game resources
- Emergence of community of people of mixed ancestry brought to the region by the fur trade

3.5 Aboriginal Hunting Bands, Métis and Freemen

The population of the Peace River as reported in the HBC post journals has been reviewed by demographer Gertrude Nicks[199] and by historical geographer Leonard Ugarenko,[200] both of whom show that the decade of the 1830s was a difficult one for the *Dane-zaa* hunting bands, as members of other First Nations and Métis hunters entered the area and competed for the same resources. Both scholars observed a decline in population among the Dunvegan and ―upper” (farther up the Peace) people due to sickness and death during the winter of 1827-1828, a trend that continued into the next decade. Census records from the 1830s indicate that Iroquois as well as Salteaux hunters had moved with their families from the plains to the Peace River. It is clear from the HBC‘s Fort Dunvegan journals of the 1820s-1830s that the basic economic unit among the Aboriginal people at this time continued to be the family and the hunting band, differentiated by the Fort‘s Chief Trader Colin Campbell as independent parties each led by a named headman.

[198] See Arthur Ray (1974). *Indians in the Fur Trade*. University of Toronto Press, Toronto; Arthur Ray (1988). The Hudson‘s Bay Company and Native People. Pp. 335-350 in, *Handbook of North American Indians, Volume 4, History of Indian – White Relations*, edited by Wilcomb E. Washburn . Smithsonian Institution, Washington, DC; Arthur Ray (1990). *The Canadian Fur Trade in the Industrial Age*. University of Toronto Press, Toronto.

[199] Gertrude Nicks (1980). Demographic Anthropology of Native Populations in Western Canada, 1800 – 1975. PhD dissertation in anthropology, University of Alberta, Edmonton.

[200] Leonard Ugarenko (1979). The Beaver Indians and the Fur Trade on the Peace River, 1700-1850. Master‘s thesis, Department of History, York University.

By the early 1830s, most of the buffalo (wood bison) were gone from the Fort Dunvegan region, although the decline of these animals had actually begun in the early 1820s. The 1821-1822 Fort Chipewyan District Report noted that the buffalo ―have migrated toward the Mountains [Rocky Mountains]" and that the ―Slave [Sekani] Indians that resort to St. John‘s report they had no buffalo in their Country formerly—which is in and along the Mountains [Rocky Mountains], but now they are plenty.[201] However, a particularly severe winter in 1829-1830 with a very large snowfall made it difficult for the buffalo to forage and easy for predators to pursue and kill them.[202] Chief Trader Colin Campbell wrote in the 1828-1830 Dunvegan Journal, in February 1830, that the Fort hunters were killing more buffalo than he could use. Because these buffalo were ―not fat enough to make dried Provisions," Campbell added, ―the meat will be lost." He knew there would ―be no doubt a great number wantonly killed," even though he did his ―best by persuasion to prevent it."[203] Notwithstanding, buffalo were rarely seen around Dunvegan after the winter of 1829-1830. [204]

With the demise of the buffalo *circa* 1830, the main sources for the prodigious amounts of meat required for Fort Dunvegan became moose and elk, and to a lesser extent, bear. Records show that Post hunters produced 30,000-40,000 pounds of meat each year. But moose were more difficult to hunt, and it was not unusual for Fort Dunvegan to be lacking meat during the winter. Moreover, the increasing numbers of Freemen and Native hunters and trappers on the Peace not only increased the need for provisions but also increased the incidence of starvation.[205]

During the 1830s, as had been the case in the 1820s and earlier, the Fort Dunvegan journals consistently recognized the local Aboriginal population collectively as ―Beaver Indians."[206] These same people were also identified as ―Beaver Indians" in earlier accounts. For example, Daniel Harmon of the North West Company wrote on 10 October 1808, when he first arrived at Dunvegan, that ―a band of Beaver Indians" had encamped who were ―waiting our arrival, in

[201] HBCA B.39/e/4, folio7d. Cited in Daniel Francis and Michael Payne (1993). *A Narrative History of Fort Dunvegan*. Prepared for the Fort Dunvegan Historical Society and Alberta Community Development. Page 14, fn. 40.

[202] Francis and Payne 1993:14.

[203] Dunvegan Journal, 1828-1830. Provincial Archives of Alberta, Edmonton. 74.1/120, page 5. Cited in Francis and Payne 1993:14, fn. 41.

[204] Dunvegan Journal, 1828-1830. Provincial Archives of Alberta, Edmonton. 74.1/120, page 5. Cited in Francis and Payne 1993:14, fn. 41.

[205] Francis and Payne 1993:14.

[206] See the Fort Dunvegan Post Journal references previously cited in Section 3.4, as well as the following: Extracts from Dunvegan/Peace River/Journal of Occurrences 1834/35, by Chief Trader Colin Campbell. HBCA B.56/a/3; Extracts from Dunvegan Journal 1835/36, by Chief Trader Colin Campbell. HBCA B.56/a/4; Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5; and, Extracts from Dunvegan Journal 1837 & 38, by Chief Trader Colin Campbell. HBCA B.56/a/6. See also the discussion that follows.

order to obtain the articles which they need." Harmon at the same time also noted there were "a number of Iroquois hunters" around Fort Dunvegan.[207]

Accounts of the Beaver population were provided on several occasions in the 1830s by Colin Campbell. On 11 April 1835 at Fort Dunvegan he recorded a census of 424 Beaver Indian individuals, comprised of 70 men, 109 women, 25 male adults, 111 male children and 109 female children; at the same time Campbell recorded a local Dunvegan population of 50 Freemen and Iroquois, consisting of 14 men, 10 women, 3 male adults, 12 male children and 11 female children.[208] A year later, Campbell provided the figure of 432 as his "last account" of the local population of "Beaver Indians" who came to Dunvegan. This total of 432 was comprised of "76 men, 10 young men or lads, 114 women, 120 male children, [and] 112 female children." To this Campbell added a local population figure of 50 Freemen, comprising "11 men, 1 lad, 12 women, 14 m. children, [and] 11 f.m. children."[209] Another census of the Beaver was provided by Campbell in April of 1837 when he enumerated a population of 446, comprised of 75 men, 10 young men, 116 women, 125 boys, and 120 girls. He also enumerated 48 Freemen, comprising 10 men, 1 young man, 12 women, 15 boys and 10 girls.[210] In May 1838, Campbell enumerated 386 Beaver Indians (73 men, 105 women, 113 male children, and 95 female children) and 42 "Half Breed Freemen" (9 men, 11 women, 12 male children, and 10 female children).[211]

Research undertaken to date indicates that references to the presence of Cree people in the Fort Dunvegan area began to appear in the HBC's Post journals only in the mid-1830s.[212] The first reference to the Cree in the HBC's Dunvegan Post journals, as far as it has been possible to determine, was on September 1st, 1836. Colin Campbell on this date wrote that he had been informed that "a number of Plains Crees" totalling "22 tents" were "on the way at Smoky River to come & pay a visit to the Beaver Indians."[213] Since the Cree and the Beaver had a history of acrimonious relations, Campbell on September 4th, 1836 sent "Baptiste Boisson" to intercept

[207] Daniel W. Harmon (1820). *Journal of Voyages and Travels in the Interior of North America*. Andover. Page 175. Typescript in the Fort Dunvegan Search File, HBCA.

[208] Extracts from Dunvegan/Peace River/Journal of Occurrences 1834/35, by Chief Trader Colin Campbell. HBCA B.56/a/3, folio 2d.

[209] Extracts from Dunvegan Journal 1835/36, by Chief Trader Colin Campbell. HBCA B.56/a/4, folio 4d, entry for 30 April 1836.

[210] Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5, folio 3d, entry for 4 April 1837.

[211] Extracts from Dunvegan Journal 1837 & 38, by Chief Trader Colin Campbell. HBCA B.56/a/6, folio 5, entry for 7 May 1838, "Indian Population at Dunvegan."

[212] No references to the Cree were found during a review of the HBC's 1820's Fort Dunvegan journals that was undertaken by the senior author of the present report in the first week of July 2011 at the Hudson's Bay Company Archives in Winnipeg.

[213] Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5, folios 1d-2.

the Cree and ―to try & persuade them to return to their own country.” At the same time, Campbell reported that because he had to go to Fort Chipewyan, he was leaving Baptiste Lafleur,[214] a company interpreter, in charge of Fort Dunvegan.[215]

It is very likely that Campbell‘s 1 September 1836 transcription of the name Baptiste ―Boisson” is a reference to Baptiste Bisson, who, as previously noted, was one of the voyageurs who had travelled with Alexander Mackenzie on his trip to the Pacific in 1793. [216] Baptiste Bisson, described as a ―Canadian half-breed,” was later employed by the North West Company as a Hunter, then went to the Hudson‘s Bay Company in 1818, was at Peace River in 1818-1819, in the Athabasca District 1819-1820, and again at Peace River in 1820-1821.[217] Governor George Simpson in May 1821 had described Baptiste Bisson as a Fort Hunter who was ―without exception the best large animal hunter in North America.”[218] Earlier, in September 1820, Simpson had described Baptiste Bisson as the best hunter in the Peace River District.[219]

When Campbell returned to Fort Dunvegan (from his trip to Fort Chipewyan), he wrote on 24 October 1836 that he found there were a number of Cree among the Beaver who had congregated at the fort to get their winter supplies for trapping and hunting. This was a situation that caused Campbell considerable alarm:

> …all the Beaver Indians waiting to get their Fall supplies, and a number of the Plains Crees with them—these strangers have been the cause of our Indians not being so industrious as they otherwise would have been in making Provisions and their having set fire to the country wherever they passed will ultimately prevent our Fort Hunters from supplying us amply with Fresh Meat. Although the Indians are when face to face on good terms, they are very

[214] Presumably the name that Campbell wrote as ―Baptiste Lafleur” is Jean-Baptiste Lafleur, who, historians Daniel Frances and Michael Payne have pointed out, was a North West Company employee who was an interpreter at Dunvegan in 1806, then returned to Lower Canada for about 20 years before coming back to Dunvegan *circa* 1827 to work as an interpreter for the Hudson‘s Bay Company until he died in 1877. See Daniel Frances and Michael Payne. *A Narrative History of Fort Dunvegan*. Prepared for the Fort Dunvegan Historical Society and Alberta Community Development. Watson & Dwyer Publishing Ltd. Page 68.

[215] Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5, f. 2.

[216] See Sir Alexander Mackenzie Historical Society (1984). *Peace River Remembers.* Peace River, Alberta. Page 94. Cited in Reddekopp 1996:15, fn. 73.

[217] See E.E. Rich, Editor (1938). *Journal of Occurrences in the Athanasca Department by George Simpson 1820 and 1821, and Report*. Published by the Champlain Society for the Hudson‘s Bay Company Society. Page 64, fn.2.

[218] George Simpson to George Leith, North West Company, Fort Chipewyan, 19 May 1821, in, Rich 1938:338.

[219] George Simpson to Duncan Finlayson, Peace River District, 29 September 1820, in, Rich 1938:64. Baptiste Bisson worked for Fort Dunvegan in the 1830s as a Fort Hunter. In November 1836, he formed a hunting party with one of his sons, along with a son-in-law, and provisioned Fort Dunvegan. See HBCA, B.56/a/5, Fort Dunvegan Journal, 2 November 1836. Journal of Occurrences 1836/1837 by Colin Campbell.

> suspicious of each other & our Beaver Indians dread a treacherous blow from the Crees…[220]

A few days later, Campbell reported that the Cree set off for Lesser Slave Lake ~~w~~where they will be supplied with their wants."[221] But next summer they were back. Campbell wrote in June 1837 that the Beaver were ~~in~~ continual alarm on account of the dread they are in from an attack from the Plain[s] Crees" and consequently many of the Beaver left for Fort Vermilion;[222] this echoed the same situation that Campbell had described in February 1837.[223] The unexpected Cree presence in 1836 together with poor weather conditions that year disrupted the hunt and, as pointed out by historians Daniel Francis and Michael Payne on the basis of their review of HBC Fort Dunvegan documents, resulted in a 50% drop in the Dunvegan fur trade in 1836.[224] Clearly this Cree presence had been disruptive. Campbell wrote in November 1836 that he was hiring Baptiste Bisson, together with one of his sons as well as his son-in-law, to hunt for the Fort that winter (1836-37). And Campbell added that ~~o~~wing to the Crees having exhausted the best part of the country for larger animals, we are not likely to be amply supplied with Fresh Meat."[225]

Saskatchewan River Freemen then living around Jasper House also entered the Peace River to hunt in the mid-1830s. Colin Campbell reported that he tried to dissuade these Freemen from going north of the Peace River, but that they proceeded regardless of his admonishment or the fact that beaver were out of season.[226] Less than two weeks later these same Freemen passed through Fort Dunvegan on their way back to Jasper House:

> Having fallen in with our Fort Hunters who most forcibly forbid them to proceed. The freemen not daring to incur the displeasure of the Beaver Indians have given up their project & are now on their way back to their own country, about Jasper House.[227]

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[220] Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5, folior 2, entry for 24 October 1836.

[221] Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5, folio 2, entry for 29 October 1836.

[222] Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5, folio 1d, entry for 8 June 1837.

[223] Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5, folio 3.

[224] See Daniel Francis and Michael Payne (1993). *A Narrative History of Fort Dunvegan*. Prepared for the Fort Dunvegan Historical Society and Alberta Community Development. Page 17.

[225] Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5, folios 2-2d, entry for 2 November 1836.

[226] Extracts from Dunvegan Journal 1837 & 38, by Chief Trader Colin Campbell. HBCA B.56/a/6, folio 1, entry for 12 May 1837.

[227] Extracts from Dunvegan Journal 1837 & 38, by Chief Trader Colin Campbell. HBCA B.56/a/6, folio 1d, entry for 25 May 1837. It is interesting to note that Campbell at this time referred to the area in the general vicinity of Jasper House as the Iroquois' ~~o~~wn country." While the Iroquois originallycame from the east with the early fur

Two months later, in November 1837, the *Dane-zaa* were still complaining about the intrusion of these Freemen upon their hunting grounds, a grievance exacerbated by "starvation & sickness" among the bands living in the vicinity of Fort Dunvegan.[228] Starvation and sickness were also recorded at Dunvegan in January 1838. [229] Possibly these two references to "sickness" were a reference to influenza, as scholars have determined that there was a major outbreak of influenza in the Peace River area in 1837. This disease had been brought in by the Athabasca fur brigades and spread up the Peace.[230] Reports of smallpox in "the Saskatchewan District" in the spring of 1838 further distressed the Indigenous people in the Fort Dunvegan region. Campbell, too, was anxious, for his vaccine was found to be ineffective against the disease.[231] Though the Dunvegan journal does not state that smallpox came to the Peace River that year, Campbell's May 1838 census of 386 Beaver Indians and 42 Freemen[232] indicates that the population had suffered significantly since the 1837 enumeration (446 Beaver Indians and 48 Freemen).[233] Ugarenko commented, based on his review of these data, that it is possible that the "Saskatchewan Freemen" brought smallpox to the area in 1838-1839.[234] It is also possible that this population decrease was as a result of the above-mentioned 1837 influenza outbreak. Similarly, it is not possible to determine whether the 13 Aboriginal deaths recorded at Dunvegan in the spring of 1838 [235] were the consequence of influenza, or the result of smallpox. Notwithstanding,

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traders, they were (as previously noted) identified around Fort Dunvegan in 1808 by Daniel Harmon. By the 1820s, and likely earlier, they had also established a presence around Jasper House. Reverend George Grant, who accompanied Sandford Fleming's Railway Survey in 1872 and kept his own journal, mentioned that while Fleming's expedition was on its way to Edmonton from Jasper, they fell in with a couple of men who advised them that they were members of a "small colony" of Iroquois who had settled fifty years back on the Smoky River (the headwaters of which emanate from the Rockies not too far from Jasper House). See Reverend George M. Grant (1925). *Ocean to Ocean: Sandford Fleming's Expedition through Canada in 1872*. Toronto: the Radisson Society of Canada Ltd. P. 237.

[228] Extracts from Dunvegan Journal 1837 & 38, by Chief Trader Colin Campbell. HBCA B.56/a/6, folio 3d, entry for 20 November 1837.

[229] Dunvegan Correspondence Book, HBCA, B.56/b/1. Cited in Leonard Ugarenko (1979). The Beaver Indians and the Fur Trade on the Peace River, 1700-1850. Master's thesis, Department of History, York University, Toronto. Page 44.

[230] Arthur J. Ray (1976). Diffusion of Diseases in the Western Interior of Canada, 1830-1850. *The Geographical Review, 66*. Page 146. Cited in Leonard Ugarenko (1979). The Beaver Indians and the Fur Trade on the Peace River, 1700-1850. Master's thesis, Department of History, York University, Toronto. Page 44.

[231] Extracts from Dunvegan Journal 1837 & 38, by Chief Trader Colin Campbell. HBCA B.56/a/6, folios 4-4d, entries for 31 March and 15 April 1838.

[232] Extracts from Dunvegan Journal 1837 & 38, by Chief Trader Colin Campbell. HBCA B.56/a/6, folio 5, entry for 7 May 1838, "Indian Population at Dunvegan."

[233] Extracts from Dunvegan /Peace River/Journal 1836/37, by Chief Trader Colin Campbell. HBCA B.56/a/5, folio 3d, entry for 4 April 1837.

[234] Ugarenko 1979:44.

[235] Dunvegan Journal for 1838-1839 [13 October 1838-6 May 1839].. HBCA B.56/a/7, folio 1, entry for 13 October 1838. See also Ugarenko 1979:44.

Ugarenko concluded there were no deaths recorded among the Beaver due to major epidemics after 1838-1839. [236]

Trade at Fort Dunvegan fell off in 1839, likely as a result of sickness among the local bands. [237] Two years later, Colin Campbell lamented that the Indigenous people suffered widespread starvation, which again affected the Fort Dunvegan‘s annual returns. [238] In 1841, in an attempt to conserve declining beaver stocks, the HBC introduced a quota system and offered premiums to the local Aboriginals for bringing in furs other than beaver.[239] As a result, the beaver returns plummeted at Dunvegan and elsewhere.[240]

By the 1840s, Fort Dunvegan regularly reported complaints of declining meat supplies, as the demands for meat and leather were beginning to exhaust the game resources of this region. These demands required supplementing the diet at the Post with smaller animals such as rabbits and birds and fish, but these could not make up for the shortage of meat. Colin Campbell told Governor Simpson in 1841 that the situation at that time was a ―sad affair" for the Beaver Indians, because ―the moose are now too rare for them to depend upon and there are no Buffaloe in this country for some years back." This was compounded by the ―entire disappearance of the Lynx and Rabbits."[241]

Starvation continued to plague the Beaver people in this region in the 1840s, as was noted by . Clerk Francis Butcher the 1842-1843 Dunvegan Post Journal. [242] When Eden Colvile, the Associate Governor of Rupert‘s Land, passed up the Peace in the summer of 1849, he commented that at Dunvegan ―animals are getting scarcer" and added, ―Forty Indians are said to have died of starvation during the winter." [243]

In sum, historical documents contain the following observations concerning *Dane*-zaa Aboriginal land use in the Peace region in the 1830s-1840s:

- Buffalo gone by early 1830s
- Moose becomes the primary species taken

[236] Ugarenko 1979:44.

[237] HBCA B.56/b/1, folio 5, cited in Francis and Payne 1993:17, fn.52.

[238] HBCA D.5/6, folio 11d, cited in Francis and Payne 1993:17, fn.53.

[239] Arthur J. Ray (1975). Some Conservation Schemes of the Hudson‘s Bay Company, 1821-50. *Journal of Historical Geography* 1:1, pp. 64-65. Cited in Francis and Payne 1993:17.

[240] Francis and Payne 1993:17.

[241] HBCA D.5/6, folio 111d, cited in Francis and Payne 1993:15, fn.44.

[242] Dunvegan Post Journal for 1842-1843. HBCA B.56/a/11. Cited in David Leonard (2000). *Delayed Frontier: The Peace River Country to 1909*. Detselig Enterprises and the Edmonton & District Historical Society, Edmonton. Pp.54-57.

[243] HBCA D.5/25, folio 528, cited in Francis and Payne 1993:15, fn.46.

- Increased Cree presence in the Peace River area affecting game populations
- Very slight improvement in *Dane-zaa*/Cree relations
- Freemen (Iroquois) living among the *Dane-zaa* and occasionally competing with them as hunters
- European diseases and starvation affect local Aboriginal populations in the 1830s and 1840s
- Declining meat supplies and decreasing fur returns in the 1840s

3.6 Observations on Aboriginal Land Use, 1860s-1870s

Ancestors of the Duncan's First Nation were continuing to practice an Aboriginal life style of hunting, foraging, trapping and trading their furs at Fort Dunvegan in the 1860s when non-Aboriginal newcomers arrived on the Peace River in search of gold and furs. One such newcomer was the legendary "Twelve-Foot Davis"[244] who in 1865 established a fur-trading post on the opposite side of the Peace River from the Hudson's Bay Company's Fort Dunvegan.[245] Others who came to the Peace and worked in competition with the HBC included Dan Carey, William Cust and the Elmore brothers. Historians Daniel Francis and Michale Payne as well as David Leonard have pointed out that by the mid-1870s the Elmore brothers had seven posts from St. Johns to below Vermilion, and collectively the non-HBC fur traders were doing about as much business as the HBC.[246] There was intense competition along the Peace River. These free traders challenged the HBC by bringing in horses for trade, along with "luxury items" such as candy and colourful apparel. Other challenges to the HBC included the free traders' lack of respect for the HBC's long-standing practice of prohibiting the use of liquor in the fur trade.[247]

The Indigenous trappers and hunters who provided furs to the traders were Beaver, Cree and Iroquois, and even though camps of each people remained discrete at this time, there was some overlapping land use.

Significant observations on Aboriginal land use in this region are provided in the journals and reports of various survey expeditions of the 1870s, including the journal of Charles Horetzky of the Canadian Pacific Railway Exploration Survey, led by Sandford Fleming in 1872. Horestzky walked up the south bank of the Peace River from Dunvegan to Fort St. John, where he

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[244] "Twelve-Foot Davis" was born in Vermont *circa* 1818-1820 as Henry Fuller Davis, and died in 1900. The name "Twelve-Foot Davis" came from his days in British Columbia's Cariboo Gold Rush, which he participated in after taking part in the 1849 California Gold Rush. Fuller in 1861 staked a claim in the Willow Creek area of the Cariboo; the claim measured 12 feet in length and from it Fuller made $15,000.00, earning him the nickname "Twelve-Foot Davis." See Leonard 2000:124-125. See also David Leonard and Beverly Whalen (2002). *On the North Trail: the Treaty 8 Diary of O.C. Edwards*. Published by the Alberta Records Publication Board, Historical Society of Alberta. P.5, fn.6; p.59, fn. 73.

[245] HBCA B.39/b/20 Journal of John McAulay, 1872. Cited in Leonard 2000:125, fn. 4.

[246] Francis and Payne 1993:22-25; Leonard 2000:125, 129, 151. See also David Leonard 2008: 8.

[247] Leonard 2000:150-151.

attempted to find Beaver guides to show him the route up the Pine River to McLeod Lake. Being late in the season, no one would agree to his request.[248]

The 1872 expedition‘s botanist, John Macoun, also mentioned Beaver people in his report. Though he remarked with reference to the extent of the local plains that the Aboriginal people had a very indefinite sense of distance, he did note that the Beaver hunted the area of the portage between Lesser Slave Lake and the Peace River, and as far west as the Rocky Mountains. They also hunted a sixty-mile wide plain opposite from Dunvegan, presumably meaning Grande Prairie.[249]

Reverend George Grant accompanied Sandford Fleming‘s Railway Survey in 1872. Grant‘s journal provides mention of Iroquois in the central Peace Region at this time. On the way to Edmonton from Jasper the expedition fell in with a couple of men who advised them that they were members of a ―small colony” of Iroquois who had settled fifty years back on the Smoky River.[250]

A Cree presence on the Peace was noted by Alfred Selwyn, Director of the Geological Survey of Canada, during his 1875 expedition.[251] He observed on August 16, 1875 the location of a ―Cree camp” on the Peace River and marked the location on the map of the expedition route accompanying his report. The map indicates the camp‘s location on either side of a creek entering the north bank of the Peace River roughly midway between Dunvegan and the HBC post at the Forks of the Peace and Smoky rivers, [252] seemingly near the place now known as ―Early Gardens.” Selwyn described the camp seen in mid-August as having ―a large number of Indian lodges; they belong to a party of Crees and Half-breeds who had come here, from Edmonton and Jasper House, to hunt and pick berries.” Their trip to the Peace River over a good horse trail took ten days and Selwyn reported that these people came here annually. [253] It appears that Selwyn and party spoke with members of this same Cree camp again on 23 August on his way back up the river. He heard their complaints of hunger—berries and bear meat comprised their food.[254]

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[248] Sandford Fleming, editor (1874). Report of Charles Horetzky to Sandford Fleming, 15 March 1873. *Canadian Pacific Railway. Report of Progress on the Explorations and Surveys up to January 1874.* Ottawa. P. 48.

[249] Report by John Macoun, 1 May 1873. Appendix C, in, Fleming 1874: 70.

[250] Reverend George M. Grant (1925). *Ocean to Ocean: Sandford Fleming’s Expedition through Canada in 1872*. Toronto: the Radisson Society of Canada Ltd. P. 237.

[251] Alfred Selwyn (1877). The Report on Exploration in British Columbia Geological Survey of Canada, Reports of Explorations and Surveys, 1875-76. Published by the Authority of Parliament, 1877. Pp. 56-57, map.

[252] Map entitled Sketch Survey of route from Quesnel Mouth by Stewart and McLeod‘s Lakes to the Junction of the Smoky River and Peace River to Illustrate the report of A.R.C. Selwyn (1875), in Selwyn 1877.

[253] Selwyn 1877: 56-57.

[254] Selwyn 1877: 60.

The "large number" of Cree lodges observed by Selwyn appears to reflect the autumn congregation at the berry fields. Journals kept by members of the Geological Survey indicate that more commonly Indigenous people encountered during the expedition were observed travelling in small independent groups. Beaver were observed distinctly from Cree.

The presence of Cree in the central Peace River region was increasing in the 1870s, a fact observed by other members of the Geological Survey of Canada who passed through this area in 1879, including the now-famed geologist and ethnographer, George Dawson. While Selwyn noted that the Beaver (and Sekani) people did not go below Fort Dunvegan,[255] Dawson defined *Dane-zaa* occupation as extending west to east from the Rocky Mountains to the Smoky River (see the discussion that follows).

George Dawson explored the upper Peace River Basin in 1879 during the course of a seven-month expedition undertaken on behalf of the Geological Survey of Canada. [256] His expedition included more than 100 horses and mules for riding and packing.[257] Having entered the Peace River region by way of Pine Pass in July,[258] Dawson had by the 12th of August 1879 reached the area of what would later become known as Dawson Creek (referred to by Dawson at that time as "Dawson's Brook"). [259] It was here that Dawson and his party caught sight of a couple of Aboriginal people Dawson described as "timid Beaver Indians." According to Dawson, these people ran away as fast as they could. Two of Dawson's men followed them to "their camp" nearby, then brought a number of these Aboriginal men, women and children—who were said to be "curious and hungry"—back to Dawson's camp which on the night of August 12th-13th, 1879, was northeast from today's Dawson Creek. Dawson gave the latitude of their campsite as 55 degrees 53 minutes 34 seconds, which appears on his map to be just west from the present-day BC/Alberta border, about 18 Km (11 miles) from the center of the town of Dawson Creek, and in the vicinity of the confluence of Henderson Creek with the Pouce Coupe River. [260] While

[255] Selwyn 1877: 60.

[256] See George M. Dawson (1881). Report on an Exploration from Port Simpson on the Pacific Coast, to Edmonton on the Saskatchewan, Embracing a Portion of the Northern Part of British Columbia and the Peace River Country, 1879. In, *Geological and Natural History Survey of Canada. Report of Progress for 1879-80*. Dawson Brothers, Montreal. See also Sheets I and III of Dawson's "Map of Part of British Columbia and the North West Territory, from the Pacific Ocean to Fort Edmonton" which accompanies Dawson's 1879 report, as published in 1881. Portions of these maps appear in the present report as Figures 5-21 of Appendix B.

Some information that is not in Dawson's published work is contained in his unpublished diaries which are held by McGill University Archives. See George M. Dawson (1849-1901). McGill University Archives, Montreal, Quebec. M.G. 1022. George M. Dawson Journals. Microfilm No. 270.

[257] George Dawson to Anna Harrington, 6 July 1879. In, Lois Winslow-Spragge (1993). *No Ordinary Man: George Mercer Dawson.* Edited by Bradley Lockner. Natural Heritage/Natural History Inc., Toronto, Ontario. Page 135.

[258] See Appendix B, Figure 5 in the present report.

[259] See Appendix B, Figure 6 in the present report.

[260] See Appendix B, Figure 6 in the present report.

Dawson's published report did not provide the location of these Aboriginal people's camp,[261] he did identify these people as "Beavers," [262] (i.e. *Dane-zaa*) and noted "these were the first people we had seen besides our own party since leaving the Parsnip River twenty-four days previously."[263]

On the 13th of August 1879, Dawson wrote that not far from their previous night's camping spot they found "a trail which we had learned from the Indians would lead us to Dunvegan." What Dawson's map shows is that the route he had been following connected—in an area that today would be within the northern portion of the town of Dawson Creek—with the above-mentioned west-east "Indian trail" whose route Dawson had been paralleling. From this connecting point, one trail is shown heading to the south, down through what is today the town of Pouce Coupe, and still further south past the southern end of Swan Lake. Another trail is shown heading to the northeast and then following north along the Pouce Coupe River (Dawson's "Echafaud River") before heading east along what is likely Henderson Creek, a very short distance north from Dawson's camping spot of the 12th – 13th of August. [264]

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[261] Dawson 1881: 48B-49B. Dawson's unpublished diary entry states only that this Aboriginal camp was "not far off." See Dawson 1849-1901:Entry for 12 August 1879.

[262] Dawson 1881: 49B. In his unpublished diary, Dawson referred to these people as "Beaver Indians" (underlined in original); see Dawson 1849-1901: Entry for 12 August 1879.

[263] Dawson 1881: 48B-49B.

[264] Dawson 1881: 50B and Map (Appendix B, Figure 6 in the present report).

[265] Dawson 1881: 50B and Map (Appendix B, Figure 6 in the present report). Dawson did not provide the ethnic identification of these Aboriginal people, either in his published report or in his diary.

[266] Dawson 1881: 50B and Map (Appendix B, Figure 6 in the present report). This same trail, the one leading to Fort Dunvegan from the Pouce Coupe River/Henderson Creek confluence by way of Spirit Creek, is also shown on a map prepared by the Alberta/British Columbia Boundary Commission [See: Office of the Surveyor General, Ottawa (1925). *Report of the Commission Appointed to Delimit the Boundary between the Provinces of Alberta and British Columbia: Parts III-A and III-B, 1918-1924*. Atlas, Part III, Sheet 47] and was also followed in 1903, but in the opposite direction, by James Macoun of the Geological Survey of Canada. See James Macoun (1904). *Report on the Peace River Region* [15 December 1903]. Published for the Geological Survey of Canada by S.E. Dawson, King's Printer: Ottawa. Pp. 17E-18E and Map (Appendix B, Figure7 in the present report). Macoun at that time referred to

The trail that Dawson was following was described as ―a very indistinct one and evidently not much used." Thus Dawson was pleased when one of ―two Indian lads" who had appeared at his camp on the evening of the 13th of August, and stayed overnight, offered to guide him to Fort Dunvegan. Dawson's camp on the 13th was on the north side of Henderson Creek, about 24 Km (15 miles) east from this creek's confluence with the ―D'Echafaud [Pouce Coupe] River." [267]

On the 16th of August 1879, Dawson reached Fort Dunvegan and immediately organized two smaller expeditionary parties. He sent his assistant, R.G. McConnell, ―to penetrate as far to the northward as possible," accompanied by Rev. Gordon, together with a packer, a Beaver Indian as guide, and an Aboriginal person of mixed blood to act as interpreter to the guide. [268]

At this point in his published report, Dawson provided the following description of the ―Country of the Beaver Indians":

> Both Beaver and Cree are now found on this part of the Peace River, though the country really belongs to the former. The extent of the Beaver territory is as follows:—Northward to the Battle River,[269] eastward to the Smoky and Simonette Rivers, southward to Grand Coup Plat, a tributary of the Smoky, westward to the Portage of the Mountain of Rocks [Rocky Mountain Portage] on the Peace River, where they mingle with the Siccanies. On Pine River and other south-western streams, the Beaver country extends to the mountains. The Beavers are now a small and weak people. The Crees are encroaching on them from the east side of Smoky River, while a band of Iroquois hunters and half-breeds has taken possession of a considerable part of the southern country, between Dunvegan and Jasper House. [270]

The published report suggests Dawson wrote this above-noted description of the ―Country of the Beaver Indians" on the 16th of August 1879. However, the information from which this account was prepared appears in Dawson's unpublished diary on a page that is between the entries for

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Henderson Creek as ―Bear Creek" (but see also the further discussion of this trail in Section 3.8.1 of the present report).

[267] Dawson 1881: 50B and Map (Appendix B, Figure 7 in the present report). See also Dawson 1849-1901:Entries for 13-14 August 1879. Dawson did not provide the ethnic identification of these ―two Indian lads," either in his published report or in his diary.

[268] Dawson 1881: 51B-52B and Map (Appendix B, Figure 7 in the present report).

[269] What Dawson refers to as the ―Battle River" is known today as the Notikewin River which originates in the Clear Hills of Alberta and flows northeast and eastward, empyting into the southwest side of the Peace River about 50 Km (31 miles) northeast from the town of Manning, Alberta. ―Notikewin" is derived from the Cree term ―*nôtinikewin*" which means _battle.' See Nancy LeClaire and George Cardinal (2006). *Alberta Elders' Cree Dictionary*. Edited by Earle Waugh. The University of Alberta Press and Duval House Publishing, Edmonton, Alberta. Page 256.

[270] Dawson 1881: 51B.

September 5th and 6th, 1879, by which time Dawson and his party, as well as other small expeditions within his larger overall survey party, had travelled considerably throughout the areas mentioned. This unpublished description of the "Limits of Beaver Indians" (underlined in original) is as follows:

> To N near Battle R. to E, from [?] Smoky River & Moose R [east from southerly portion of Smoky River], To S to the Grande Coup Plat, to West, the Rocky Mountains portage, or thereabouts on the Peace. Mix there with Siccanies. On Pine R to the Mountains. The Crees are expanding across Smoky R to westward, & the Iroquois now own a considerable stretch of the Southern country.[271]

Additional information about the southern extent of Beaver territory in this region is provided on the map accompanying Dawson's 1881 report; on this map, adjacent to the southern portion of the Smoky River, Dawson wrote: "The Smoky River is reported to receive three important tributaries from the west, above [south from] this point—the Grand Coup Plat, the Porcupine and the Sheep." [272] One of these three rivers/creeks, the "Grand Coup Plat" (also spelled "Grande Coup Plat" by Dawson), as noted above, was said to mark the southernmost limit of Beaver territory, both in Dawson's published and unpublished accounts. [273] Elsewhere in Dawson's diary, these same three "large tributaries" of the Smoky River, "above the Biche [Wapiti River] on the same side" are also mentioned, and in the same order (i.e. Grand Coup Plat, Porcupine, and Sheep).[274] The names and locations of these rivers/creeks are problematic, as indicated in the discussion that follows.

While both Dawson's published account of Beaver (*Dane-zaa*) territory as well as his unpublished description mention the "Grand Coup Plat" as the southernmost limit of the Beaver, the listing on Dawson's map and on another page of his diary suggest that the "Grand Coup Plat" may not be the farthest south of these three tributaries. Additional clarification is not provided on Dawson's 1881 map, as it provides no detail for the upper Smoky River. However, the location of one of the latter three rivers/creeks, the Porcupine River, is identified in the 1918-1924 *Map Atlas* Index accompanying one of the published Volumes of the "Commission Appointed to Delimit the Boundary between the Provinces of Alberta and British Columbia." This Index identifies the Porcupine River emanating from the Rockies in the BC/Alberta boundary region and flowing down to the Smoky River, into which it empties about 40 miles (64 Km) south and slightly east from Grande Prairie. In the Boundary Commission's report accompanying this Map Atlas, "Sheep Creek" is identified as "one of the main tributaries of Smoky River" but it has not been possible to confirm which of the two tributaries entering the Smoky from the west is "Sheep Creek" and which is "Grand Coup Plat." The same Map Index

[271] Dawson 1849-1901:Page between the entries for September 5th and 6th 1879..

[272] Dawson 1881:Map (Appendix B, Figure 10 in the present report).

[273] Dawson 1881: 51B.

[274] Dawson 1849-1901: Page between entries for 4 and 5 September 1879.

shows that one of these tributaries is about 15 miles (24 Km) south of the Porcupine River and the other, about 30 miles (48 Km), and both emanate from the Rockies in the BC/Alberta boundary region.[275]

R.G. McConnell‘s expedition northward from Dunvegan, according to his notes published in Dawson‘s report, began on 17 August 1879. His party followed a trail to ―Hay Lake” (about a mile and a half in length by three-quarters of a mile in width”) where they camped on August 18th. Hay Lake was so named, McConnell wrote, because the marshes around it provided ―a large quantity of wild hay.” [276]

The next day, 19 August, after travelling along the trail north and slightly west from Hay Lake for a distance of ―about four miles,” McConnell and his party arrived at ―Lac des Isles” (‗Lake of Islands‘; known today as George Lake, about 36 Km [22 miles] north from Dunvegan) where he commented that this lake does, in fact, contain ―numerous islands.” [277] McConnell continued in a generally northeastward direction up the valley through which ―Muddy Creek” (Hines Creek) flows, then crossed over the White Mud Hills, and after two more days reached ―Battle River” (Notikewin River) where he and his party met a Cree hunter. [278]

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[275] See: Office of the Surveyor General, Ottawa (1925). Report of the Commission Appointed to Delimit the Boundary between the Provinces of Alberta and British Columbia: Parts III-A and III-B, 1918-1924. Page 112, and, Map Atlas, Part III, accompanying this Report, Index Sheet. Similar territorial boundaries of the Beaver (Dane-zaa) are marked on the ―Map shewing the Distribution of the Indian Tribes of British Columbia” (see Figure 6.4 in the present report), published in 1884 and based on work that George Dawson and W. F. Tolmie had undertaken with various tribes throughout British Columbia between 1875-1883. Dawson, alone, was responsible for the northeasterly portion of this map, which clearly shows ―Cree Indians Encroaching Westward,” from Smoky River to the west, and immediately to the west of this, identifies ―A Band of Iroquois Immigrants Now Hunt Between Jasper House & Dunvegan.” On this map, Beaver territory is shown extending even farther southeast along the Rocky Mountain summits from the uppermost tributaries of the Smoky River. See W.F. Tolmie and G.M. Dawson (1884). ―Map shewing the Distribution of the Indian Tribes of British Columbia.” In, Comparative Vocabularies of the Indian Tribes of British Columbia, With a Map Illustrating Distribution. Dawson Brothers, Montreal.

[276] McConnell 1879, in Dawson1881:58B and Map (Appendix B, Figure 8 in the present report). This small lake, located about 20 Km (12 miles) north from Dunvegan is near where, in 1905, a 25-mile square Indian Reserve would be set aside for the ―Beaver Band,” from whom members of today‘s Horse Lake First Nation are descended. See [276] J. Lestock Reid (1906). Report of Surveys in Treaty No. 8, 15 January 1906. Pp. 161-162, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30 1906. *Canada, Sessional Papers, Vol. 11, Third Session of the Tenth Parliament of the Dominion of Canada, Session 1906-1907*. See also G. Neil Reddekopp (1996). The Creation and Surrender of the Beaver and Duncan‘s Band‘s Reserve. Alberta Aboriginal Affairs, Indian Land Claims, Paper No. 2. Page 32.

[277] This same lake would be referred to as ―Island Lake” by James Macoun in the course of his 1903 survey that included this same region of the Peace and was undertaken for the Geological Survey of Canada, as discussed in Section 3.8.1 of the present report. See Macoun 1904: 9E.

[278] McConnell 1879, in Dawson1881:59B-60B.

While McConnell was heading to the north, Dawson on 18 August 1879 set off from Dunvegan, heading southward with a packer and guide and ―three British Columbian Indians." [279] Concerning the country he was about to explore, Dawson wrote:

> Several trails run southward from Dunvegan toward Grande Prairie and the head waters of the Smoky River, and the Indians travel through in this direction to Jasper House on the upper Athabasca. Many little hunting trails and dim tracks ramify from the main trails in all directions, in conducting us among which our guide was of great service as long as we confined ourselves to the part of the country with which he was familiar.[280]

Following one of these trails southwards, Dawson and his party camped on the night of August18th near the north end of ―*Ka-toot*" Lake (identified as Kakut Lake on present-day maps) which, Dawson noted, is 22 miles south from Dunvegan and drains southeastwards towards the Bad Heart River (―or *Ma-atz-i-ti he-sī-pī* of the Crees") which in turn flows eastward to the Smoky River. [281] Elsewhere, Dawson transcribed the Cree name for the Smoky River as ―*Ka-ska-pa-tē-oo Sī-ī*" whose meaning, he pointed out, is the ―same as in English," and he gave the Cree term for the Little Smoky River as ―*Ka-ska-pa-tē-oo Sī-pī-sīs*." Dawson transcribed ―*Wa-was-ke-soo Sī-pī* " as the Cree term for the Wapiti River, and noted that it means, literally, _elk river.' [282]

Dawson and his party on August 19th 1879 entered the Grande Prairie region, which Dawson described as a ―pretty park-like country" [283] and whose limits he defined as follows:

> The so-called Grande Prairie is a tract of country about forty miles in extreme length in a north-east and south-west direction, and where widest over twenty miles in width. It has an area of about 230,000 acres, and is included between the…Smoky, the Wapiti and Beaver Lodge Rivers. It is drained by the *Kles-kun* stream flowing eastward to the Smoky River, by the Bear River which which crosses it from north-west to south-east, and at its western

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[279] Dawson 1881: 52B.

[280] Dawson 1881: 52B and Map (Appendix B, Figure 8 in the present report). Elsewhere Dawson commented that, ―The Baptiste, Little Smoky, Simonette & Main Smoky are said to lead almost together in the mountains [Rocky Mountains], afterwards diverging." See Dawson 1849-1901:Page between entries for 16 and 17 September.

[281] Dawson 1881:53B and Map (Appendix B, Figure 8 in the present report).

[282] Dawson 1849-1901:Page entitled ―Names of Places" appearing between the entries for 15 and 16 September 1879. Confirmation of several of these Cree terms and their translations, as provided by Dawson in 1879, is provided in a recent Cree dictionary; see LeClaire and Cardinal 2006. Concerning Dawson's ―*Ka-ska-pa-tē-oo Sī-pī*", this dictionary at page 425 gives the Cree term *kaskâpahtew* meaning _in the smoke', and at p. 406 gives the Cree term *sîpŷ* meaning _river'; concerning Dawson's ―*Wa-was-ke-soo Sī-pī* ", the dictionary at p. 296 gives *wâwâskesiw* as the Cree term for _elk.'

[283] See Dawson 1849-1901:Entry for 19 August 1879.

> extremity by the Beaver Lodge [River]. *Kles-kun* and Bear Lakes, about three and six miles in length respectively, besides many smaller sheets of water, occur on the prairie.[284]

During the course of his travels on the 19th of August, Dawson commented on the presence of ―A few old buffalo bones, & the ground scored with their tracks." Dawson added that Louis Campbell, his Métis guide, ―says that the Indians tell that all [the buffalo were] killed by a very severe winter many years ago, when about 5 ' of snow fell."[285] Details about traces of buffalo—and their extinction—are provided in Dawson's published account:

> Buffalo trails [in the Grand Prairie region] still score the sod in all directions, and are deeply hollowed out where a number converge toward the crossing of a river or lake, or some such place. The saucer-shaped ―wallows' of the buffalo and scattered bones are also numerous, though the animal is now no more seen here. The Indians state that the extinction of the buffalo was not entirely due to the introduction of fire-arms and the active hunting carried on for the supply of the Hudson Bay forts, but that all remaining were killed many years ago by an excessively severe winter when the snow was over the buffaloes' backs. It may be mentioned in this place that the Beaver Indians report having seen in the summer of 1879 six woodland buffaloes, of which they killed one, in the vicinity of the Pouce Coupée prairie. [286]

Additional information about the six buffalo seen by the Beaver in 1879 is provided in Dawson's notes, where he states:

> Buffalo.[underlined in original] Informed on good authority that six buffalo seen by the Beaver Indians at a little prairie near Pine River,[287] this summer, one was killed & the remainder hunted [?] out the woods with dogs, which did not return, & were supposed to

[284] Dawson 1881: 53B and Map (Appendix B, Figures 14 and 15 in the present report).

[285] See Dawson 1849-1901:Entry for 19 August 1879. Very likely the severe snowstorm mentioned here is the one that occurred in the winter of 1829-1830, as discussed in Section 3.5 of the present report, which was likely also the same snowstorm that adventurer William Butler referred to during his travels along the Peace River in the winter of 1872-1873. Butler was told at that time, while he was visiting Fort Dunvegan, that, ―During one winter of exceptionally deep snow, eighty buffaloes were killed in a single day in the vicinity of Dunvegan. The Indians ran them into the snowdrifts, and then despatched them with knives." See William F. Butler (1904). *The Wild Northland, Being the Story of a Winter Journey, With Dog, Across Northern North America*. A.S. Barnes and Company, New York. Pp. 207-208.

[286] Dawson 1881: 54B.

[287] Presumably Dawson's mention of ―a little prairie near Pine River" here in his notes is a reference to the same area that he describes in his published account as ―the vicinity of the Pouce Coupée prairie," although these two areas are about 65 Km (approximately 40 miles) apart.

> have been been killed by the buffalo. The chief of the Indians did not want any more of the [?] buffalo killed, hoping that they would increase. Said that wood buffalo still abundant between Athabasca & Great Slave Lake (Inquire further).[288]

Dawson and his party camped, on the 19th of August, northwest of what he identified as ―*Kles-kun*” Lake, at a latitude he gave as 55 ^{0} 20' 28". However, the details of Dawson‘s map are such that it is not possible to determine if his ―*Kles-kun*” Lake is a reference to Clairmont Lake or to adjacent Ferguson Lake, both of which are just north of today‘s city of Grande Prairie. [289]

After travelling on the 19th and 20th through the ―greatest service berry [Saskatoon berry] country” that he had ever seen, Dawson and his party camped on the night of August 20th on the south side of the Bear River (―*Sus-za-ka* of the Beavers”), north from its confluence with the ―Fish River”[290] (―*Klo-es-sa-ka*”) and not far from the northwest end of Bear Lake (―*Sus-mi-gi*”) near today‘s city of Grande Prairie.[291] Dawson wrote, with reference to the Grand Prairie area, that:

> Both Cree and Beaver Indians often come long distances for the berry gathering at Grande Prairie, and after having secured and dried a sufficient quantity of fruit, scatter again in small bands into the more remote parts of the country for the autumn hunt. [292]

Dawson on the 21st of August came across a lake ―east of the mt.” [293] (the ―Isle de Montagne or *Sis-tin* of the Beavers”) [294] that is called Saskatoon Hill on present-day maps. He indicated that the lake was aptly called ―Service-berry Lake” (Saskatoon Lake, on today‘s maps) and was ―greatly resorted to by the Beaver Indians when gathering berries.” [295]

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[288] Dawson 1849-1901:Page between entries for 5 and 6 September 1879. Tales of the last of the buffalo were later recalled as almost legendary events. Butler reported in 1873 that a man named ―*Chimeroo*,” a *Dane-zaa* Aboriginal from the Fort St. John area, was said to have killed the last buffalo in those parts. See Butler 1904:225. Possibly Butler was referring to the same ―last-buffalo” incident that Dawson described a few years later.

[289] Dawson 1881:Map (Appendix B, Figure 14 in the present report).

[290] What Dawson referred to as the ―Fish River” is known today as Colquhoun Creek. While Dawson‘s map identifies the location of ―Fish River” (see Appendix B, Figure 14 in the present report), James Macoun‘s map does not, even though Macoun‘s narrative‘s mention of what he calls ―Fish Creek” is clearly a reference to this same creek, Colquhoun Creek. See Macoun 1904:22E and Map.

[291] Dawson 1881: 53B and Map (Appendix B, Figure 14 in the present report); Dawson 1849-1901: Entries for 19 and 20 August 1879.

[292] Dawson 1881: 53B-54B.

[293] Dawson 1849-1901: Entry for 21 August 1879.

[294] Dawson 1881: 54B and Map (Appendix B, Figure 14 in the present report).

[295] Dawson 1849-1901: Entry for 21 August 1879; see also Dawson 1881: Map (Appendix B, Figure 14 in the present report).

Alfred Selwyn, several years earlier, noted that Saskatoon berries grew abundantly on south-facing hills in the area between Dunvegan and Smoky River.[296] Describing the preparation of berries for storage, he noted that the people:

> pound up the cherries, stones and all, and make cakes of them, which are dried in the sun, and either eaten fresh or stored for winter use; the kernels in the cherries give a pleasant taste of bitter almonds.[297]

Another prairie where Aboriginal people were harvesting large quantities of Saskatoon berries in the 1870s was situated about 70 miles (112 km) up the Peace River from Fort Dunvegan. Botanist John Macoun said that the Beaver people referred to this place as ―Mosquito Prairie." The location seems to be near the Alberta/BC border, but it is impossible from the description given to be precise. The berries growing here were said to be large and very sweet, and Macoun stated that they ―are used in many ways, but the Indian women seem to prefer making them into square cakes and drying them."[298]

On the night of the 21st of August, Dawson camped at a location just south from Saskatoon Hill. The next day, August 22nd, he briefly examined the Beaverlodge River (―Beaver Lodge River or *Uz-i-pa*"). Then he proceeded to an area due south from Bear Lake, where ―Black Jack‘s Trail to Jasper House" crossed the Wapiti River (which he referred to as the ―Elk or La Biche River"), and camped, on the night of the 22nd , along the north side of the Wapiti River. This campsite was southeast from today‘s city of Grande Prairie, in the vicinity of Spring Creek‘s confluence with the Wapiti River. [299]

The next morning, August 23rd, Dawson and his party travelled eastward along the north side of the Wapiti River, crossing this river in the vicinity of what Dawson referred to in his notes as ―Mountain Creek." (This same creek is called ―Big Mountain Creek" on Dawson‘s map, where it is shown entering into the south side of the Wapiti River in an area that would today be south from the city of Grande Prairie). It was in this vicinity that Dawson‘s party found a cottonwood canoe cached near the Wapiti River. From here they headed due south, following a trail that ran more or less parallel to ―[Big] Mountain Creek." Dawson‘s map indicates they travelled approximately 15-20 miles south from the Wapiti River before camping that night about a mile or so west from the Smoky River, at a latitude of 54 ^{0} 53' 4 " north. [300] Dawson and his party followed a trail on the morning of 24 August that led from this camp to the Smoky River and had been used by the father of his guide, Louis Campbell, who was with a hunting party that had

[296] Selwyn 1877:60.

[297] Selwyn 1877:60.

[298] Macoun 1873, in Fleming 1874:84.

[299] Dawson 1849-1901: Entry for 22 August 1879; see also Dawson 1881: Map (Appendix B, Figure 9 in the present report).

[300] Dawson 1849-1901: Entry for 23 August 1879; see also Dawson 1881: 55B and Map (Appendix B, Figure 9 in the present report).

been there in the spring. Dawson was hoping hoped to use this canoe to descend the Smoky to the Peace. But when he could not find this cached canoe here on the Smoky, Dawson returned back north to the small cached cottonwood canoe they had found on the Wapiti River the previous day. They camped on the south side of the Wapiti on the night of the 24th, just downstream from the confluence of ~~[~~Big] Mountain Creek.”[301]

On August 25th, after directing his packer as well as his guide Louis Campbell and one of the Aboriginals in his party to take the pack animals back to Fort Dunvegan, Dawson together with ~~L~~ouis” and ~~J~~ason” (two of the three ~~B~~ritish Columbia Indians” who were travelling with Dawson) set off in a canoe down the Wapiti and Smoky Rivers to the Peace. Dawson commented: ~~W~~e knew that the Indians hunting in this part of the country not unfrequently ran down the Smoky River in canoes…”. They camped on the evening of 25 August on the east side of the Smoky River, at a location that appears to have been not far from where today‘s Highway 43 crosses the Smoky River, east from the city of Grande Prairie. [302] On the evening of 26 August, they camped on the north side of the Smoky River, a few miles east from where the Bad Heart River enters the Smoky. [303]

Travelling by canoe on August 27th past the confluence of the Little Smoky River with the Smoky River, Dawson commented on what he referred to as ~~—~~boccanes,” a term said to refer to places where ~~s~~mouldering combustion” occurs. Dawson stated that it is these ~~b~~occanes” that give the Smoky River its name, and he observed there was a thin column of smoke issuing from one of them when he passed by it that day. [304]

Dawson camped on August 27th ~~a~~ few miles from mouth of Smoky River, on a sandy flat.” On August 28th, Dawson reached the Hudson‘s Bay Company post at the forks of the Smoky River and the Peace River and, it appears, camped here overnight on this date, although he noted that

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[301] Dawson 1849-1901: Entry for 24 August 1879; see also Dawson 1881: 55B-56B and Map (Appendix B, Figure 9 in the present report).

[302] Dawson 1849-1901: Entry for 25 August 1879; see also Dawson 1881: 56B and Map (Appendix B, Figure 9 in the present report).

[303] Dawson 1849-1901: Entry for 26 August 1879; see also Dawson 1881: 56B and Map (Appendix B, Figure 8 in the present report).

[304] Dawson 1849-1901: Entry for 27 August 1879; see also Dawson 1881: 56B-57B and Map (Appendix B, Figure 17 in the present report). Similar information about the origin of the name for the Smoky River had been provided many years earlier by David Thompson of the North West Company who was in this general area of the Smoky River/Peace River confluence between November 1802-March 1804. Recalling his early times with the North West Company, Thompson stated, many years later: ~~—~~…the Smoke [Smoky] River is so named from the volumes of dark smoke sent from the Coal Mines [coal deposits] there on fire, and which have been burning beyond the memory of the oldest Indian of that River.” See William E. Moreau, Editor (2009). *The Writings of David Thompson, Volume I: The Travels, 1850 Version*. Montreal & Kingston, Seattle, and Toronto: McGill-Queen‘s University Press, University of Washington Press, and The Champlain Society, in association with the Centre for Rupert‘s Land Studies at the University of Winnipeg, Manitoba. Pp. 185-186, 277.

the Post, itself, was deserted at this time.[305] Dawson on August 29th met up with Louis, his guide, and others, together with horses and pack animals, in the general vicinity of the Peace River/Smoky River confluence. They cached the canoe and travelled by horse back to Fort Dunvegan, following a trail that more-or-less paralleled the Peace River but was, as Dawson stated, ―a considerable distance” north from it. On the evening of 29 August, they camped at a small lake identified by Dawson as ―Lac des Femmes” [_lake of women‘].[306] This same lake, located near the northern end of what is today Duncan‘s IR 151A, just south of Highway 2, was known as ―Old Wives Lake” in the 1880s and later.[307]

Dawson and his party arrived back at Fort Dunvegan on the afternoon of 30 August.[308] He spent several days here, where one of his tasks was to organize four additional expeditions.[309] On the 5th of September, Dawson set out with his own group, heading south via the same trail he had used to go to the Grande Prairie area in August. He and his party camped on the night of 5 September on the ―Ghost River” (Spirit River),[310] about 12 miles (20 Km) south from Dunvegan. While Dawson did not comment on Aboriginals in the vicinity of Spirit River at this time, there were a number of Duncan‘s Band members identified at the Spirit River settlement *circa* 1900[311] (see Section 3.8.1 of the present report).

On the night of 6 September, Dawson‘s party camped a short distance up the Bad Heart River from its confluence with the Smoky River, then proceeded the next day in a southerly direction along the west side of the Smoky River, camping on 7 September near where the stream from ―*Kles-kun*” Lake enters into the Smoky. They camped on 8 September at the confluence of the Simonette River with the Smoky.[312] From here, Dawson‘s party on 9 September crossed the

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[305] Dawson 1849-1901: Entry for 28 August 1879 [although the entry for 28 August is mistakenly dated as a second entry for August 27th].

[306] Dawson 1849-1901: Entry for 29 August 1879; Dawson 1881:Map (Appendix B, Figure 8 in the present report).

[307] See: James M. Macoun (1904). *Report on the Peace River Region* [15 December 1903]. Published by the Geological Survey of Canada by S.E. Dawson, King‘s Printer: Ottawa. Pp. 6E-7E; David Leonard (2000). *Delayed Frontier: The Peace River Country to 1909*. Detselig Enterprises and the Edmonton & District Historical Society, Edmonton. Pp. 68, 72, 84, 109, 184-187; David Leonard and Beverly Whalen, Editors (2002). *On the North Trail: The Treaty 8 Diary of O.C. Edwards*. Published by the Alberta Records Publication Board, Historical Society of Alberta. Pp. 44, 47, 48.

[308] Dawson 1849-1901:Entries for 29 and 30 August 1879; Dawson 1881:Map (Appendix B, Figure 8 in the present report).

[309] Dawson 1849-1901:Entries for 31 August and 1-4 September.

[310] Dawson 1849-1901:Entry for 5 September; Dawson 1881:Map (Appendix B, Figure 8 in the present report).

[311] Historian David Leonard has pointed out, on the basis of his analysis of Canada Census data, that the majority of the Spirit River community in 1901—fourteen people in three families—consisted of people having the name ―Tustawits” [Testawich]. See David Leonard (2005). *The Last Great West: the Agricultural Settlement of the Peace River Country to 1914*. Detselig Enterprises Ltd., Calgary, Alberta. Page 60.

[312] Dawson 1849-1901:Entries for 6th, 7th, and 8th September; Dawson 1881:Map (Appendix B, Figures 8 and 9 in the present report).

Simonette River and followed a trail which led in a northeasterly direction towards what Dawson referred to as the ―Cree settlement" (at Sturgeon Lake). There was also another trail, Dawson wrote; it led in a southerly direction towards Jasper House, following between the Smoky River and the Simonette River. Continuing along the trail that led to the northeast, Dawson‘s party eventually reached Sturgeon Lake (identified on Dawson‘s map as ―*Ke-me-sis*" Lake), camping at this lake‘s north end on 13 September and at the ―Cree settlement" on its southeast end, on 14 September. This settlement, Dawson added, consisted of ―two log houses, with several little garden patches." [313] Subsequently Dawson identified the name for Sturgeon Lake, ―*Ke-me-sis*," as a Cree term, and provided the name for the settlement here as ―*Pus-kwat-sī-nas*" which he stated was a Cree term translated as ―little bare hill." [314] These houses he described as ―rough log houses inhabited by Cree Indians who cultivate small garden patches." [315] From this Cree settlement, a trail led north to the Smoky River and south to the Athabasca River; both trails are marked on Dawson‘s map of his 1879 travels south of the Peace. On this same map, Dawson indicated that the Cree wintered their horses on the shores of an un-named lake (presumably Goose Lake) located south of Sturgeon Lake. [316] Dawson included in his notes a description of a Cree hunting camp encountered on 19-20 September 1879 located near Smoke Lake, identified in Cree by a term meaning ―buck moose lake.‘ [317] The account is particularly instructive for the remarks on the presence of dogs and the methods used by the women to cure the hides at the camp:

> The camp is an extensive standing bruleé, with no view but of burnt sticks, & scarcely room to set up tents among the logs. The hunting party, we learn, has now separated, the guides two uncles having gone off in other direction. We have before this seen many abandoned hunting camps, but now arrive at an inhabited one. Plenty moose meat, & the skin of one lately killed spread on a sloping frame of sticks. A couple of women get upon the skin, they weight stretching it, & with chisel-shaped, but slightly cured pieces of own set in wooden handles, scrape away the hair, & outer surface of the skin. The dogs—lean looking no matter how well their masters may be faring—stand below, or climb upon the skin near the women & snatch up the hairy morsels as they are separated. Dried moose meat in various stages hanging around,

[313] Dawson 1849-1901:Entries for 9-14 September; Dawson 1881:Map (Appendix B, Figures 9 and 18 in the present report).

[314] Dawson 1849-1901:Page between entries for 15 and 16 September; Dawson 1881:Map (Appendix B, Figure 18 in the present report)).

[315] Dawson 1881:63B.

[316] Dawson 1881:Map (Appendix B, Figure 18 in the present report).

[317] While this term was transcribed as ―*Ī-a-pe-oo* Lake" in Dawson‘s published journal and map (Dawson 1881:65B and Map), it was transcribed as ―*Ī-a-tē-ow* Lake" (underlined in original) in his unpublished notes (Dawson Dawson 1849-1901:Entry for 19 September 1879).

> children crying with a familiar intonation—though in Cree. Some of the children were some miles back on the trail playing when they heard the noise of our approach, & very much frightened fled into camp. The father of them came out to see what was up, & met us on the trail, not a little surprised however at being followed to his secluded hunting ground.[318]

Another visitor to this region in the 1870s was William Butler, an astute, educated adventurer from England who kept a fascinating and informative journal of his travels along the Peace River in the winter of 1872-1873. While at Fort Vermilion in March 1873, Butler commented on hills named after the presence of reindeer and buffalo, located respectively one day's journey to the north and to the south of the Fort.[319] Butler's "Reindeer Hills" are likely the Caribou Mountains in northern Alberta. His "Buffalo Hills" are now called the Buffalo Head Hills, situated to the east of the Peace River, south of Fort Vermilion. Butler added, however, that he saw neither reindeer nor buffalo, no were either of these animals part of the subsistence of Fort Vermilion when he was there. Instead, the Peace River, Butler observed, was the "land of the moose."[320] When Butler was visiting Dunvegan several weeks later, he was told that numerous "wood-buffalo" were present in this region in former times, but their ultimate demise was due to a winter of "exceptionally deep snow." Butler wrote that "eighty buffaloes were killed in a single day in the vicinity of were said to have died in a single day in the vicinity of Dunvegan. The Indians ran them into the snowdrifts, and then despatched them with knives[321] (presumably the winter that Butler was referring to was that of 1829-1830 which has previously been discussed).

From Fort Vermilion, Butler headed up the Peace River, travelling southeast overland to save some distance in traversing what he was told would be "twelve long winter days' travel" to Fort Dunvegan. Once on a trail leading to the "Buffalo Hills," Butler announced that he was:

> …now in the country of the Beaver Indians…a tribe once numerous on the river which bears its present name of Peace from the stubborn resistance offered by them to the all-conquering Crees—a resistance which induced that warlike tribe to make peace on the banks of the river, and to leave at rest the beaver-hunters of the Unchagah.[322]

Yet, Butler added, few Beaver people remained, as their numbers had steadily decreased. Butler wrote that in 1873, "in the whole length of 900 miles from beyond the mountains [Rocky

[318] Dawson 1881: 51B.

[319] See William F. Butler (1904). The Wild Northland, Being the Story of a Winter Journey, With Dog, Across Northern North America. A.S. Barnes and Company, New York. Page 165.

[320] Butler 1904:165.

[321] Butler 1904:207-208.

[322] Butler 1904:169.

Mountains] to the Lake Athabasca, scarce 200 families [of Beaver people] lie scattered over the high prairies and undulating forest belts of the Peace River.[323] It was at this point in his journal that Butler pointed out, "No men in this land of hunters hunt better than the Beavers." To this he added, "It is not uncommon for a single Indian to render from his winter trapping 200 marten skins, and not less that 20,000 beavers are annually killed by the tribe [Beaver Indians] on the waters of the Peace River." [324]

On the third day after leaving Fort Vermilion, travelling overland and not along the Peace River, Butler's party encountered five "wigwams" (teepees) of Beaver Indians with their leader "*At-tal-loo*" camped near some beaver lodges. "*At-tal-loo*" spoke of his band's misfortune that winter and the death of six members, despite moose being plentiful. The remaining women of the camp outnumbered the men. Butler reported that another man in the camp was named "*Twa-poos*," though Butler traded his tea for marten skins only with "*At-tal-loo*."[325]

Soon after this encounter, Butler left the "Little Buffalo River" and reached the Peace River. Later that same evening, likely in the vicinity of Carcajou, Butler reached the 8 x 12 hut belonging to a Cree man which that night sheltered 19 people and their dogs, comprising "a Cree and his wife, an Assineboine and his wife, eight or ten children, and any number of Swampy [Cree][326] and Ojibbeway [Ojibwa], and half-breeds." [327]

After spending the night here, Butler's party proceeded up the Peace River, and Butler observed that they were still one hundred and fifty miles from Dunvegan. Carrying on, they encountered "a camp of Crees" comprising three tents and located on the south shore of the Peace River (The precise location is unknown, other than the camp being situated downstream from Fort Dunvegan). With these people Butler traded tea for moose briskets, tongues and noses, and while among them observed the community's morning personal care and their distinctive Métis and Cree-style dress adorned with ribbons and porcupine quills.[328]

Butler didn't report anyone living at the mouth of the Smoky River when he passed along here at daybreak on the 1st of April 1873. [329] Finally, reaching Fort Dunvegan on the evening of April 1st, Butler found a lively community of mixed ancestry, people he identified as "Swampy [Cree] and Half-breed and Ojibbeway [Ojibwa] Métis." [330]

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[323] Butler 1904:170.

[324] Butler 1904:171-172.

[325] Butler 1904:172-173.

[326] See Section 2.2.1 of the present report for a discussion of the divisions of Cree. Presumably Butler assumed that these people were "Swampy Cree" due to his familiarity with them farther to the east.

[327] Butler 1904:174.

[328] Butler 1904:175-177.

[329] Butler 1904:184.

[330] Butler 1904:186-187.

Butler‘s party left Fort Dunvegan at about midnight on the 3rd of April. They continued up the Peace River, travelling on the frozen river‘s surface, and now guided by one of the Fort Dunvegan residents who Butler identified as ―a Scotch half-breed” named William Kalder who spoke French as well as ―his Indian tongue.” [331] At daybreak on the 4th of April, Butler met a young Aboriginal man out hunting moose. This was the time of year, Butler wrote:

> when the Indians leave their winter hunting-grounds and make a journey to the forts with the produce of their season‘s toil. They come, a motley throng; men, women and children; dogs, sleds and hand-toboggans, bearing the precious freight of fur to the trading-post, bringing in the harvest of marten-skins from the vast field of the desert wilds.[332]

Such a cavalcade passed Butler‘s party on April 4th. Among their belongings were the furs of marten that had been caught in dead-fall traps, the construction of which Butler described as being like a guillotine. The hunter checked his trapline weekly, Butler wrote,[333] sometimes harvesting 200 marten a season.[334] Concerning the proficiency of the Beaver hunters, in general, Butler said, ―No men in this land of hunters hunt better than the Beavers.”[335]

Butler described the activities of the Aboriginal cavalcade he met on 4 April 1873, as follows:

> Day by day the party moves along till the fort is reached. Then comes the trade. The fifty or a hundred marten-skins are handed over: the debt of the past year is cancelled, partly or wholly; and advances are taken for the coming season.[336]

Animals found in the Peace River region and ―valuable to the Indian for their flesh,” Butler stated, included beaver, bear and moose. But it was primarily moose that fed the ―forts and the Indians along the entire [Peace] river.” Butler wrote that ―About 100 full-grown moose” had been consumed at each of the four trading posts he had visited that winter along the Peace. Four times that number were said to be consumed each year by the Aboriginal people, yet the stocks remained high. About 2,000 moose hides came out of Athabasca District annually, Butler estimated, adding that ―at-day [1873] there are probably as many moose in Peace River as there were fifty years ago [1820s].” [337] (But see also Section 3.5 in the present report).

[331] Butler 1904:194.

[332] Butler 1904:195-196.

[333] Butler 1904:197.

[334] Butler 1904:171.

[335] Butler 1904:171.

[336] Butler 1904:199.

[337] Butler 1904:203-204.

Local knowledge and local experience were crucial for hunting moose, pointed out Butler who learned some of this information while among the people of the Peace River.[338] To hunt successfully, Butler opined, required years of study. As an example of the skill, Butler included in his memoir a vivid account of ―*Twa-poos*” or ‗Three Thumbs,‘ hunting moose:

> In the morning ―*Twa-poos*,” or Three Thumbs, sets forth to look for a moose; he hits the trail and follows it; every now and again he examines the broken willow-tops or the hoof marks, when experience tells him that the moose has been feeding here during the early night. *Twa-poos* quits the trail, bending in deep circle to leeward; stealthily he returns to the trail, and as stealthily bends away again from it. He makes as it were the semicircles of the letter B, supposing the perpendicular line to indicate the trail of the moose; at each return to it he examines attentively the willows, and judges his proximity to the game.
>
> At last he is so near that he knows for an absolute certainty that the moose is lying in a thicket a little distance ahead. Now comes the moment of caution. He divests himself of every article of clothing which might cause the slightest noise in the forest; even his moccasins are laid aside; and then, on a pointed toe which a ballet girl might envy, he goes forward for the last stalk. Every bush is now scrutinized, every thicket examined. See! He stops all at once! You who follow him look, and look in vain; you can see nothing. He laughs to himself, and point s to yon willow covert. No, there is nothing there. He noiselessly cocks his gun. You look again and again, but can see nothing; then *Twa-poos* suddenly stretches out his hand and breaks a little dry twig from an overhanging branch. In an instant, right in front, thirty or forty yards away, an immense dark-haired animal rises up from the willows. He gives one look in your direction, and that look is his *last*. *Twa-poos* has fired, and the moose is either dead in his thicket or within a few hundred yards of it.[339]

In sum, historical documents contain the following observations concerning Aboriginal land use in this region of the Peace River in the period 1860s-1870s:

- *Dane-zaa* (Beaver) and an increasing number of Cree, as well as growing communities of Métis people, lived on the Peace River
- Aboriginal people continued to subsist on moose and berries and continued to trade their furs at Fort Dunvegan for tea and tobacco and other goods, moving seasonally between hunting areas and Dunvegan

[338] Butler 1904:204-206.

[339] Butler 1904:205-206.

- Métis people engaged in trapping/hunting and farming
- New fur traders provide alternatives to local Aboriginals‘ reliance on trade with the Hudson‘s Bay Company
- Journals and maps made by exploration parties and adventurers travelling throughout the region provide information concerning Aboriginal settlements and land use.

3.6.1 Competition for Land at Peace River Landing, 1880s

Residents of the Peace River practised a mixed economy of trapping/hunting and farming by the 1880s. In 1886-1887, missionary John G. Brick of the Church Missionary Society established the ―Shaftesbury Settlement," located on the northwest side of the Peace River about 24 km (15 miles) upriver from the Smoky/Peace confluence. This was named ―Shaftesbury" after the Society‘s patron in England. Most residents were of mixed ancestry and engaged in farming and trapping. Alex Mackenzie who had settled there in 1885 after retiring from his position as HBC Chief Trader at Little Red River, east of Fort Vermilion, gradually expanded his garden at Shaftesbury into a small farm. The *Edmonton Bulletin* reported in 1892 that Mackenzie had 40 acres in crop and 60 acres broken, with plans to operate a small, steam grist sawmill. A son claimed a parcel next to his and expanded the family farm. His wife‘s brothers, members of the Jean-Baptiste La Pretre family, Métis, had settled on the flats north of Shaftesbury. [340] Alex Mackenzie subsequently sold land to the St. Germaine family around 1894.[341] The St. Germaine‘s also had a ranch at ―Little Prairie" until about 1904.[342]

Historian David Leonard suggests that it may have been Jean-Baptiste La Pretre, Jr., who enticed his new brother-in-law, Alex Mackenzie to join them. Nevertheless, members of the La Pretre family remained engaged as trappers for the HBC in the 1890s. In February 1896. Felix La Pretre and a hunting partner were reported to have arrived at Fort Dunvegan from the Montagnais [Montagneuse] River where they had been trapping for the Company.[343]

It was a land squabble between La Pretre, Jr. and Reverend John G. Brick that resulted in the latter establishing a farm farther upriver where he kept cattle and horses and raised grain.

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[340] See David Leonard (2000). *Delayed Frontier: The Peace River Country to 1909*. Detselig Enterprises Ltd. and the Edmonton & District Historical Society, Calgary, Alberta. Pp. 183-193. See also David Leonard (2005). *The Last Great West: the Agricultural Settlement of the Peace River Country to 1914*. Detselig Enterprises Ltd., Calgary, Alberta. Pp. 50-53.

[341] Loggie Papers, Interviews with Pioneers. Interview of Mrs. Maria Bourassa, Peace River, Alberta, June 1956, by Isabel Loggie. Glenbow Archives, Calgary, Alberta. D971.23 L832, File no. 32.

[342] Loggie Papers, Interviews with Pioneers. Interview of Adolphus St. Germaine, Harmon Valley, Alberta, June 1956, by Isabel Loggie. Glenbow Archives, Calgary, Alberta. D971.23 L832, File no. 33. The place known as ―Little Prairie" is the area about 25 miles (40 Km) southeast from Peace River Landing where Alex Mackenzie‘s step-son, Duncan‘s Band member William Mackenzie, asked for land to be set aside as an Indian Reserve in the early 1900s (see Section 4.1).

[343] Fort Dunvegan Post Journal, June 1895-June 1900. HBCA, B.56/a/16, entry for 24 February 1896.

Brick‘s son‘s farming operation at Old Wives Lake several years earlier had reportedly failed. [344] This was the lake where a DFN member subsequently requested an Indian Reserve, although in the 1880s and 1890s it had not been productive land. William Ogilvie who reported on the potential of the Peace River in 1891 suggested that farming was good, as long as it was confined to the Peace River flats.[345] Despite the warning, in the 1890s there was ―a boom” of settlers intent on farming the Peace River.[346]

Another farm that expanded over the years belonged to William Carson who settled on land situated just downriver from that occupied by Duncan Testawich.[347] The largest farm of the area, however, was established by the Oblate missionaries in 1893 at Strong Creek in the Shaftesbury Settlement area. This operation contained a grist mill, along with a church, mission house and farm buildings. The sisters of Providence established a boarding school and convent here as well, all because of the agricultural yield of the flats along the Peace River. Indeed, it was due to the obvious productivity of the flats between Peace River Crossing and Shaftesbury that James Macoun later omitted this area from his 1904 report, for he had gone over the hill in search of new lands that could be opened for settlement.[348]

When St. Pierre Ferguson undertook a census of Shaftesbury in 1901, he found a community of 172 non-Treaty people, most of whom were of mixed ancestry (88%). Forty-seven people, mostly Cree, had accepted treaty in 1899; twenty more adhered in 1900.[349]

3.7 Treaty 8

Historians generally agree that Canada had two reasons for entering into Treaties:

> 1) to extinguish aboriginal title to the land and open the territory ―for settlement, immigration, trade, travel, mining, lumbering and such other purposes as to Her Majesty may seem meet”; and
>
> 2) to ensure the extension of its authority into the district and prevent conflicts between the Aboriginal residents and the newcomers.[350]

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[344] Leonard 2005:53.

[345] William Ogilvie, cited in James M. Macoun (1904). *Report on the Peace River Region* [15 December 1903]. Published by the Geological Survey of Canada by S.E. Dawson, King‘s Printer: Ottawa. P.12E.

[346] Macoun 1904:12E.

[347] Leonard 2005:55-56.

[348] Leonard 2005: 56.

[349] Leonard 2005:51.

[350] Robert Irwin (1999-2000). ―The Successful Pursuance of that Humane and Generous Policy;‘ Treaty 8 and the Introduction of Indian Policy to the Peace-Athabasca Country. Pp.30-53, in Treaty 8 Revisited: Selected Papers on

Within this context, as Neil Reddekopp and Patricia Bartko have pointed out, [351] Treaty 8 can claim historical primacy or even uniqueness in several ways:

- Treaty 8 was the first of Canada's northern treaties
- Treaty 8 was the first treaty which envisaged the setting aside of lands in severalty for individual families as a potential alternative to creating Indian Reserves held in common by all members of a particular First Nation
- Treaty 8 was the only treaty to take in land both south and north of 60 ^{0} North Latitude
- Treaty 8 was the first treaty where negotiation of a treaty took place concurrently with a process for the distribution of Métis scrip [352]

Among the ―conflicts" that provided reasons for Canada to enter into Treaty 8 was the discovery of gold in the Klondyke area of the Yukon in 1896 which precipitated a rush of miners through the Peace River region in 1897-1898. These ―Klondykers," as they came to be known, followed routes to the Yukon that took them through Dunvegan, Peace River Landing, and along the north side of the Peace all the way from Peace River Landing to Fort St. John. [353] There were a significant number of these ―Klondykers" who passed through the Dunvegan area. For example, an entry in the Dunvegan Post Journal of 26 March 1898 noted that ―over 200 sleds" of Klondykers had come by here over the past few days.[354] A description of the Indigenous population in the vicinity of Dunvegan in 1898 was provided by one of these Klondykers, a man named Barney Maurice who wrote that having left from Edmonton for the Klondyke in late May 1898, he proceeded on horseback to the Athabasca River then followed an Indian trail across the Swan Hills and reached Lesser Slave Lake. From here Maurice went to Peace River Landing at the forks of the Smoky and Peace Rivers, then travelled along the north side of the Peace to

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the 1999 Centennial Conference. Edited by Duff Crerar and Jaroslav Petryshyn. *Lobstick: An Interdisciplinary Journal* (Special Premier Edition). Published by Grande Prairie Regional College.

[351] See G. Neil Reddekopp and Patricia Bartko. (1999-2000). ―Distinction Without A Difference? Treaty And Scrip In 1899." In, Treaty 8 Revisited: Selected Papers on the 1999 Centennial Conference. Edited by Duff Crerar and Jaroslav Petryshyn. *Lobstick: An Interdisciplinary Journal* . Vol. 1, No. 1 (Special Premier Edition). Published by Grande Prairie Regional College, Grande Prairie, Alberta. Pp. 213-214.

[352] The term ―scrip," widely used in North America during the nineteenth century, refers to a negotiable certificate issued by various governments indicating the rights of a holder to receive payment later in the form of cash, goods or land. See Gerhard J. Ens (1999-2000). Taking Treaty 8 Scrip, 1899-1900. In, Treaty 8 Revisited: Selected Papers on the 1999 Centennial Conference. Edited by Duff Crerar and Jaroslav Petryshyn. *Lobstick: An Interdisciplinary Journal* . Vol. 1, No. 1 (Special Premier Edition). Published by Grande Prairie Regional College, Grande Prairie, Alberta. Page 229. See also: The Métis Association of Alberta and Joe Sawchuk, Patricia Sawchuk and Theresa Ferguson (1981). *Métis Land Rights in Alberta: a Political History*. Métis Association of Alberta, Edmonton. Page 87.

[353] See the map entitled ―Klondikers' Routes in Peace River Country" that appears at page 40 in Dennis Madill (1981). *British Columbia Indian Treaties in Historical Perspective*. Report prepared for and published by the Research Branch, Corporate Policy, Indian and Northern Affairs Canada, Ottawa.

[354] Dunvegan Post Journal 1895-1900. Hudson's Bay Company Archives, Provincial Archives of Manitoba, Winnipeg. B.56/a/16. Entry for 26 March 1898.

Dunvegan. Not far from Peace River Landing, Maurice referred to passing ―a lot of halfbreed farmers," a reference to the ―Shaftesbury" settlement of non-Aboriginal and Métis farmers begun in the mid-1880s about 24 Km (15 miles) upriver from Peace River Landing.[355] When he reached Dunvegan, Maurice described the Aboriginal people here as ―mostly Beaver Indians, although there were a few Crees," and added, ―Almost all of them were hunters and trappers and lived in teepees."[356] At this point in Maurice`s narrative, he mentions that when he came back down the Peace River to Dunvegan the following winter (of 1898-1899), he saw a little shack here that was half full of dried moose meat and saw ―Indian women packing the meat into canvass bags and stamping it down with their feet in order to have it pressed flat and tight."[357]

As historian Dennis Madill has pointed out, the Commissioner of the North West Mounted Police, L.W. Herchmer, had advised the federal government in December 1897 that a treaty should be made with those Aboriginals who might resist the Klondykers:

> I have the honour to draw your attention to the advisability of the Government taking some immediate steps towards arranging with the Indians not under Treaty, occupying the proposed line of route from Edmonton to Pelly River. These Indians although few in number, are said to be very turbulent, and are liable to give very serious trouble when isolated parties of miners and travellers interfere with what they consider their vested rights.[358]

This and other pre-treaty correspondence of the Department of Indian Affairs, historian Richard Daniel has noted, reflected ―a strong emphasis on the need for peace and friendship between the native people and settlers and miners."[359]

―Conflicts" between Aboriginal residents and newcomers into the Peace region were mentioned in a 27 June 1898 Minute of Council where it was noted that ―the Beaver Indians of the Peace and Nelson Rivers, as well as the Sicannies and Nihannies Indians, were inclined to be troublesome."[360] This same information was included within Privy Council Order-in-Council 2749 of 6 December 1898 which established the Commission for Treaty 8.[361]

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[355] See Leonard 2000:183-193.

[356] V. Maurice (1947). *Fifty Years in Peace River Country and Short Story of the Alaska Highway*. Published by the Author, High Prairie, Alberta. Pp. 19-22.

[357] Maurice 1947:23-24.

[358] L.W. Herchmer to the Comptroller of the North West Mounted Police, 2 December 1897. Library and Archives Canada (LAC), Ottawa. RG 10, Vol. 3848, File 75,236-1. Cited in Madill 1981:41.

[359] See Richard Daniel (1977). Indian Rights and Hinterland Resources: The Case of Northern Alberta. M.A. thesis in Sociology, University of Alberta, Edmonton. Page 56.

[360] Minute of Council No. 1703, 27 June 1898. Copy in British Columbia Archives, Victoria. GR 444, Box 64, File 198/98.

[361] Privy Council Order-in-Council No. 2749, 6 December 1898. Copy in BCA, Victoria. GR 444, Box 64, File 198/98.

These ―troubles" were caused by ―occasional squatters" making their way into the Peace River District, according to the Deputy Superintendent General of Indian Affairs' 1899 Annual Report:

> While under ordinary circumstances the prospect of any considerable influx might have remained indefinitely remote, the discovery of gold in the Klondike region [of the Yukon] quickly changed the aspect of the situation. Parties of white men in quest of a road to the gold fields began to traverse the [Peace River] country, and there was not only the possibility ahead of such travel being greatly increased, but that the district itself would soon become the field of prospectors who might at any time make some discovery which would be followed by a rush of miners to the spot.[362]

The 27 June 1898 Minute of Council also noted that the Department of Indian Affairs ―possesses so limited a knowledge of the conditions of the country, and of the nature and extent of the claims likely to be put forward by its Indian inhabitants, that the Minister considers that the Commissioners [i.e. the Commissioners appointed for Treaty 8] should be given discretionary power both as to the annuities to be paid to and the reservations of land to be set apart for the Indians." This Minute of Council also noted that the Treaty Commissioners must understand it was of the ―utmost importance" that they obtain from the Aboriginal people to be treated with, their ―acquiescence in the relinquishment of the aboriginal title." [363]

One of the terms of Treaty 8, in addition to a term allowing Her Majesty the Queen to set aside Indian Reserves ―for such bands as desire reserves," was a term that stated:

> [The Queen] agrees with the said Indians that they shall have right to pursue their usual vocations of hunting, trapping and fishing throughout the tract surrendered as heretofore described, subject to such regulations as may from time to time be made by the Government of the country, acting under the authority of Her Majesty, and saving and excepting such tracts as may be required or taken up from time to time for settlement, mining, lumbering, trading or other purposes.[364]

Charles Mair, one of the secretaries of the ―Half-breed Scrip Commission" whose duties began where the work on Treaty 8 ended, wrote that the Treaty Commissioners were to have arrived at Lesser Slave Lake on 8 June 1899 and then proceed to other places within the Treaty 8 area.

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[362] J.A.S. Smart (1900). Letter/report of 31 December 1899 from J.A.S. Smart, Deputy Superintendent General of Indian Affairs, to the Superintendent General of Indian Affairs, Ottawa. In, Report of the Department of Indian Affairs for the Year Ended June 30, 1899. Page xviii. *Canada, Sessional Papers, Vol. 11, Fifth Session of the Eighth Parliament of the Dominion of Canada, Session 1900*.

[363] Minute of Council No. 1703, 27 June 1898. Copy in BCA, Victoria. GR 444, Box 64, File 198/98.

[364] *Treaty No. 8 Made June 21, 1899 and Adhesions, Reports, etc*. Reprinted from the 1899 edition in 1966 by the Queen's Printer, Ottawa (1969 Reprint). Pp. 12-13.

Delays altered the schedule, however, and the Commissioners did not reach Lesser Slave Lake until 19th June. After this, the party divided and one group proceeded to Peace River, while the other headed to Fort St. John.[365] However, Mair noted, because the Commissioners were delayed, they sent word to Fort St. John that the Beaver should ―stay where they were until they could be met.” [366]

The two Commissioners who proceeded to Fort St. John, by way of Dunvegan, were James Ross, Minister of Public Works in the Territorial Government, and J.A. McKenna, then private secretary to the Superintendent-General of Indian Affairs. [367] Ross and McKenna left for Dunvegan on 22 June 1899. But when they were within 25 miles of Fort St. John, Ross and McKenna turned back, as they received a letter from the HBC agent stating that the Fort St. John Beaver had left for their hunting-grounds and thus there was ―no hope of their coming together again that season.” [368]

Mair at this point in his narrative states that Commissioners Ross and McKenna then ―returned to Fort Dunvegan, and took the adhesion of some Beaver Indians, after which they left for Lower Peace River.” [369] At Peace River Landing, Duncan Testawits, identified as ―Headman of Crees,” adhered to the Treaty on behalf of ―the Indians of Peace River Landing and the adjacent territory.[370] A population of 47 persons comprised the initial membership, divided into 14 families.[371] Joseph Mayikus (Mycoose), an Aboriginal resident of Fort St. John, entered treaty with Duncan‘s band and later transferred to Fort St. John.[372] Speaking of the meeting with the Aboriginal people gathered at Peace River Landing, Mair wrote:

> A great concourse of natives was at the Landing awaiting our arrival. The place was covered with teepees and tents, and no less than four trading marquees had been pitched pending the scrip issue, which it took some time to complete.

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[365] Charles Mair (1999). *Through the Mackenzie Basin: An Account of the Signing of Treaty No. 8 and the Scrip Commission, 1899*, with Introductions by David Leonard and Brian Calliou. The University of Alberta Press and the Edmonton & District Historical Society, Edmonton. Pp. 64-67. This 1999 publication is a facsimile reprint of portions of Charles Mair‘s classic 1908 book, *Through the Mackenzie Basin: A Narrative of the Athabasca and Peace River Treaty Expedition of 1899, With a Map of the Country Ceded and Numerous Photographs of Native Life and Scenery*.

[366] Mair 1999: 64-67.

[367] Mair 1999: 25.

[368] Mair 1999: 64-65.

[369] Mair 1999: 64-65.

[370] Mair 1999:162.

[371] Reddekopp 1996:12.

[372] Reddekopp 1996:17.

> Near the Landing were the mill and farm of a namesake of Sir Alexander Mackenzie. His father, indeed, was a cousin of the renowned explorer who gave his name to the great river of the North[373]. . . . The Landing, he told me, used to be known as ―The Forks," it being here that the Smoky River joins the Peace and here were concentrated, in bygone days, the posts and rivalries of the great fur companies. The remains of the North-West Company‘s fort are still visible on the north bank, a few miles above the Landing. On the south shore, in the angle of the two rivers, stood the Hudson‘s Bay Company‘s fort, whilst the old X.Y. Company‘s post, at that time the best equipped on the river, stood on the north bank opposite the Smoky.[374]

An official map of the ―Territory ceded under treaty No. 8, and the Indian tribes therein" was published in the 30 June 1900 Indian Affairs Annual Report. [375] (See also Section 6.4 of the present report)

Figure 3: "Our camp at Peace River Crossing," summer 1899 Treaty 8 Commissioners. From, Mair 1908: facing 82.

Charles Mair's account account of the Treaty Commission‘s expedition made a number of observations about the Peace River area, among them his observation in June 1899 that, ―All along the trail [along the north side of the Peace River between the Smoky River and Dunvegan] were old buffalo paths and wallows," which, he added,

[373] According to historians David Leonard and Beverly Whalen, Alexander Mackenzie was born in 1843, ended up in the Peace River country working for the Hudson‘s Bay Company in the 1860s-1870s, and began farming in the vicinity of Peace River Crossing in the 1880s, which is where Mair met him in 1899. This Alexander Mackenzie (spelled ―MacKenzie"), who died in 1919, was the ―great nephew" of Sir Alexander Mackenzie. See Leonard and Whalen‘s footnote to the published diary of Dr. Oliver C. Edwards who was with the Treaty 8 Commission in 1899, in, David Leonard and Beverly Whalen, Editors (1999). *On the North Trail: The Treaty 8 Diary of O.C. Edwards*. Historical Society of Alberta (reprinted 2002). Page 43, fn. 49.

[374] Mair 1999:87.

[375] See: Department of Indian Affairs (1900). Map showing the Territory ceded under treaty No. 8, and the Indian tribes therein. In, Report of Commissioner for Treaty No. 8, 11 December 1900. Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1900. *Canada, Sessional Papers, Vol. 11, First Session of the Ninth Parliament of the Dominion of Canada, Session 1901.*

they actually saw ―everywhere we went on land, showing how numerous these animals [buffalo] were in times past.[376] As well, Mair noted that the Peace River was known as the ― , its majestic and proper name, or the *Tsa-hoo-dene-desay* [in the Beaver language]―_The Beaver Indian River'―or the *Amiskoo eëinnu Sepe* of the Crees, which has the same meaning." Mair also pointed out that the term ―Peace River" came from the peace pact made between the ―warring tribes" of the region.[377]

Historian David Leonard states in his Introduction to the 1999 reprint of Charles Mair's 1908 publication that Mair's book was special, as it was written by ―a first-hand witness to some of the most significant events in the history of Northwest Canada." Still, as Leonard adds, Mair's work is presented from the perspective of ―a strong apologist for the British Empire, whose reputation and expressed world view could warrant his designation as the Rudyard Kipling of Canada."[378]

Another perspective has been provided by historian Richard Daniel. Summarizing Treaty 8 in his 1977 thesis, ―Indian Rights and Hinterland Resources: The Case of Northern Alberta," Daniel stated that this treaty:

> was the primary instrument with which the Indians of the area and the government of Canada attempted to reach an agreement on the sharing of the land and other resources and with which Indian rights are still measured to a very considerable extent, especially by the Indian people themselves.[379]

Brian Calliou provides a contemporary Indigenous perspective to the evaluation of Mair's book in his Introduction to the 1999 reprint. Calliou, a member of a Treaty 8 First Nation, notes that Treaty 8 ―sets out the relationship between First Nations of the territory and the Canadian state" and adds that First Nations generally declare that this relationship with the Crown of Canada is ―nation to nation." Citing participants' statements in a June 1998 Calgary workshop sponsored by the Canadian Institute of Resources Law and the Arctic Institute of North America, Calliou points out that: ―Through the knowledge of the elders, Treaty 8 First Nations view the treaty as sacred, whereby solemn promises were made to share the land and resources in a peaceful manner."[380]

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[376] Mair 1999:83.

[377] Mair 1999:88. As has been previously discussed (see Section 3.3 of the present report), what Mair transcribes here as ― " is the same term that Alexander Mackenzie had earlier written as ―*Unjigah*" (Lamb 1970:400) which is also the same term that historians David Leonard and Beverly Whalen transcribe as ―*Unchaga*" in a footnote to O.C. Edwards' journal that was kept in his capacity as physician for the Treaty 8 Commission of 1900. Leonard and Whalen state, with reference to the area known today as Peace Point on the lower Peace River, that: ―...the name of the [Peace] river changed from (in Cree) ―*Tsadu*" to ―*Unchaga*," or (in English) from _Beaver' to _Peace'." See David Leonard and Beverly Whalen (2002). *On the North Trail: the Treaty 8 Diary of O.C. Edwards*. Published by the Alberta Records Publication Board, Historical Society of Alberta. Page 78, fn.91.

[378] David Leonard (1999). Charles Mair and the Settlement of 1899, in, Mair 1999: xv-xvi.

[379] Daniel 1977: v.

[380] Brian Calliou (1999). Prelude to Expansion: The Treaty 8 Commissions, in, Mair 1999: xlii, xliv, xlvii.

3.8 Post-Treaty Settlement

As previously discussed (see Section 3.6), government surveys such those undertaken by the Geological Survey of Canada in 1875 and 1879 had recognized the Peace River region's wealth of natural resources and this, in part, had prompted the Canadian Government to enter into Treaty 8 with the local Aboriginals. Several years after the 1899 adhesion of the "Beaver Indians of Dunvegan" to Treaty 8, James Macoun[381] undertook a survey of the region in 1903 to assess its agricultural potential, visiting farms and making inquiries about the success of emerging farming operations. His report and also the reports of H.A. Conroy, the Inspector for Treaty 8, describe increasing numbers of settlers engaged in farming, living alongside Aboriginal hunters and trappers and former Hudson's Bay Company servants, generally identified as Métis.

3.8.1 Observations on Aboriginal and Métis settlement

James Macoun compiled a Report on the Peace River Region for the Geological Survey of Canada providing information obtained during a 1903 survey. [382] Macoun's map of the region, which accompanies his report and is entitled "Map of Part of the Country Between the Peace and Athabaska Rivers to Illustrate Report of James M. Macoun," appears in the present study as Section 6.5.

In June 1903, after arriving at Peace River Landing, Macoun hired a pack-train for his trip around the central Peace River. He commented that there were two small grist-mills and two small saw-mills at that time at "The Settlement," [383] by which he meant the Shaftesbury Settlement.[384]

Agriculture had been undertaken only at three places on the plateau area between Peace River Landing and Dunvegan, Macoun reported: "Old Wives Lake,"[385] located near the northern end of

[381] David Leonard points out that James Macoun was the son of John Macoun [who had first come to the Peace River country in 1872 as a botanist with the Canadian Pacific Railway Exploration Survey]. See David Leonard (2008). *The Grande Prairie of the Great Northland: The Evolution of a County 1805-1951*. Published by the County of Grande Prairie, Alberta. Page 21.

[382] See James M. Macoun (1904). *Report on the Peace River Region* [15 December 1903]. Published by the Geological Survey of Canada by S.E. Dawson, King's Printer: Ottawa. In a 15 December 1903 letter of transmittal to the Geological Survey of Canada that prefaces this report, Macoun reports that he was joined on this expedition by William Spreadborough who gathered a collection of representative birds and small mammals while Macoun collected plants and insects. See Macoun 1904:[4E].

[383] Macoun 1904:5E-6E.

[384] As previously noted, Shaftesbury was the name of a settlement of non-Aboriginal and Métis farmers begun in the mid-1880s about 24 Km (15 miles) upriver from Peace River Landing. See Leonard 2000:183-193.

[385] Macoun 1904:6E-7E. This is the same lake that George Dawson (see Section 3.6 of the present report) referred to as "Lac des Femmes" ("lake of women') when he and his party camped here on 29 August 1879. See Dawson 1849-1901: Entry for 29 August 1879; Dawson 1881:Map (Appendix B, Figure 8 in the present report).

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what is today Duncan‘s First Nation IR 151A, just south of Highway 2; the east end of ―Bear Lake," today‘s Cardinal Lake, northwest from Grimshaw; and ―the waterhole," the place known today as Waterhole, adjacent to Highway 2, about 16 Km (10 miles) northeast from Dunvegan. Macoun wrote that the Anglican missionary, J.G. Brick, had tried to farm at ―Old Wives Lake" between 1884 and 1889. However, Macoun was told that, due to frost, Reverend Brick had harvested only three of six crops during the six years spent here.[386] Macoun reported that a small patch of potatoes had been planted in 1903 at ―Bear Lake" [387] (Cardinal Lake) which was at that time joined to the Shaftesbury settlement by two wagon trails, one at either end of the lake.[388] According to Macoun, farming on a small scale had been attempted at the place called ―the waterhole," first by settlers and afterwards by the Hudson‘s Bay Company. [389]

Following the trail from the Shaftesbury Settlement to Dunvegan in early July 1903, Macoun stopped along the way at ―Old Wives Lake" which he described as being ―about one mile long and a third of a mile wide" and ―surrounded by a marsh where a great quantity of good hay can be made in the autumn." He added that about two miles south from Old Wives Lake ―there is a large spring known as Cold spring" which gushes from a small depression. [390]

From Old Wives Lake, James Macoun and his party travelled north on 9 July 1903 to ―Bear Lake" (Cardinal Lake). From the northeast end of this lake, Macoun wrote, there was a ―well-travelled Indian trail" running north to the Whitemud River, and he and his party followed this trail, along which he noted there was a ―good bridge" crossing of ―Bear Creek" (Cardinal Creek). Macoun observed ―regular Indian camping places" amongst ―patches of prairie" while he was passing through the wooded region north from Cardinal Lake and south from the Whitemud Hills. He stated that none of this prairie was more than ―ten to twenty acres" in extent around these camping places. On the higher land were aspen and willow; on the lower ground were spruce, tamarack and balsam-poplar.[391] Macoun provided no information concerning the ethnicity of the Aboriginals in this particular area north from Cardinal Lake.

While in this same general area, Macoun referred to the trail between Dunvegan and ―Battle River" (Notikewin River),[392] which is shown on the map accompanying his report.[393] However, a

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[386] Macoun 1904:11E.

[387] Macoun 1904:11E.

[388] Macoun 1904:7E.

[389] Macoun 1904:11E.

[390] Macoun 1904:7E.

[391] Macoun 1904:7E-8E.

[392] What Macoun refers to as the ―Battle River" is known today as the Notikewin River which originates in the Clear Hills of Alberta, about 45 Km (28 miles) and flows northeast and eastward, empyting into the southwest side of the Peace River about 50 Km (31 miles) northeast from the town of Manning, Alberta. ―Notikewin" is derived from the Cree term ―*nôtinikewin*" which means ‗battle.‘ See Nancy LeClaire and George Cardinal (2006). *Alberta Elders' Cree Dictionary*. Edited by Earle Waugh. The University of Alberta Press and Duval House Publishing, Edmonton, Alberta. Page 256.

trail that Macoun referred to that connected "Bear Lake" (Cardinal Lake) to a place on the Whitemud River where this river was transacted by the Dunvegan- to-Battle River trail, is not shown on the map, due to what Macoun described as an oversight. [394]

Turning south on the Dunvegan- to-Battle River trail, Macoun observed birch groves and forests of jack pine with understory of high bush cranberry. He noted that, "About a mile north of the 22nd base line, where the trail crosses a large bend of MacAllister creek [Jack Creek, emptying into Hines Creek]," there is "a large hay meadow, the only large one seen north of Island Lake [George Lake] [395]." Between "Island Lake" and Hay Lake,[396] Macoun continued, the trail passed:

> through woods and across swamps and marsh for about three miles, when it emerges on a beautiful piece of country, much the finest seen on the north side of the Peace river and unexcelled anywhere in the region examined in 1903.[397]

Macoun and his party members continued southward on this trail and crossed the Peace River at Dunvegan on August 1st, 1903. Throughout August and into early September of 1903, Macoun explored the region south of the Peace Rriver. He began these explorations by following the 15-mile (25 Km) long wagon road that connected Dunvegan with Spirit River. [398] There were "about twenty homesteads" at the Spirit River settlement in August 1903, most of which had cattle and horses. Macoun estimated there were in total about 200 acres under cultivation in the Spirit River

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[393] This same Dunvegan- to-Battle River trail is also shown on one of the maps that accompany Dawson's 1881 published report, as a party led by one of Dawson's colleagues, R.C. McConnell, explored this same region in the summer of 1879 (see Section 3.6 of the present study).

[394] Macoun 1904:8E.

[395] "Island Lake," known today as George Lake, is located about 36 Km (22 miles) north from Dunvegan ; the same lake was identified in 1879 by R.G. McConnell, a member of George Dawson's expedition, when McConnell described how he and his party arrived at "Lac des Isles" ("Lake of Islands'). See the discussion of McConnell's expedition throughout this same area of the Peace in Section 3.6 of the present report.

[396] Years earlier, when R.G. McConnell and his party on 18 August 1879 had camped at Hay Lake, located about 20 Km [12 miles] north from Dunvegan, McConnell commented that this lake was so named because it provided "a large quantity of wild hay" (see Section 3.6). It was near Hay Lake that in 1905 , a 25-mile square Indian Reserve would be set aside for the "Beaver Band," from whom members of today's Horse Lake First Nation are descended (see Section 4.9).

[397] Macoun 1904:9E.

[398] Macoun 1904:13E-14E. Spirit River as a modern settlement had begun in 1888 when the Hudson's Bay Company established a ranch here to provide beef, dairy products and transport to settlers and to the North West Mounted Police, should a detachment be stationed here. A ranch was operated here at Spirit River between 1888 and 1895-96, at which time it was closed after several years running at a loss. Those who operated the Spirit River ranch for the HBC included Charles Bremner, John Laronde, E. Eastman, and James Kirkness. See Spirit River Ranch Post History. HBCA.

region, although none of the homesteads had yet been surveyed. Every one of these homesteads was visited by Macoun in August 1903. [399]

While Macoun did not comment on the ethnicity of the Spirit River residents, this information is available from the 1901 Canada Census. Historian David Leonard reviewed this 1901 census data and noted that of the 59 people enumerated at Spirit River at that time, 51 claimed Cree as their mother tongue.[400] Based on his review of the 1901 Census data, Leonard concluded that there had been some sort of "settlement" at Spirit River since the early 1870's.[401] Among those appearing in the 1901 Canada Census at Spirit River were Louison Cardinal, age 40 and said to have been born at Jasper House,[402] as well as the "French Half-breeds," Jean-Baptiste Tustawits (born 1846) [403] and Johnny and Modeste Tustawits, both said to have been born at Dunvegan (in 1871 and 1876 respectively). [404] Leonard noted that the majority of the Spirit River community in 1901—fourteen people in three families—consisted of people having the name "Tustawits."[405]

Leaving Spirit River on the 3rd of August 1903, Macoun went by "Indian trail" along an 8 km (5 mile) route to "Rat Creek,"[406] through a forest of spruce and poplar that supplied the logs for the Spirit River homes.[407] He commented, while proceeding farther to the west, after camping at a

[399] Macoun 1904:13E.

[400] See David Leonard (2005). *The Last Great West: the Agricultural Settlement of the Peace River Country to 1914*. Detselig Enterprises Ltd., Calgary, Alberta. Page 60. Based on his review of the 1901 Census data, Leonard concluded that there had been some sort of settlement at Spirit River since the early 1870's (see Leonard 2005:60).

[401] Leonard 2005:60.

[402] In 1905, an Indian Reserve was set aside at the northeast end of Cardinal Lake for a man named Louison Cardinal and his family, members of the Duncan's Band (see Section 4.2). Given that this Louison Cardinal, when he was enumerated in the 1901 Canada Census at the Shaftesbury Settlement, was said to be 65 years and to have been born at Lac La Biche, Alberta (see Leonard 2005:51), it could be assumed he was the father of the Louison Cardinal living in 1903 at Spirit River, although this has not been confirmed.

[403] Jean-Baptiste Testawich, the brother of Duncan Testatiwch, was born in 1846 and in 1869 married Marie La Pretre, daughter of Jean-Baptiste La Pretre of Fort Vermilion. See Margaret Loggie (1956). Interview of Jonas Testawich [son of Jean-Baptiste Testawich], Brownvale, Alberta, July 1956. Glenbow Archives, Calgary. D971.23 L832, file 37. In April 1996, Jean-Baptiste Tustawitz [Testawich] is reported to have been working at Fort Dunvegan . See Fort Dunvegan Post Journal for 1895-1900. HBCA B.56/a/16, entry for 15 April 1896. In 1901, Jean-Baptiste Testawich was the oldest member of the settlement at Spirit River (Leonard 2005:60).

[404] Leonard 2005:60.

[405] Leonard 2005:60.

[406] If Macoun's distance estimate is correct, what he referred to as "Rat Creek," encountered while travelling west from the Spirit River settlement, would have been one of the southeasterly branches of what is known today as Howard Creek. Howard Creek empties into the south side of the Peace River approximately 5 miles (8 Km) west from Dunvegan—more specifically, west from the south side of the Peace, opposite Dunvegan. See Macoun 1904:Map of part of the Country between the Peace and Athabaska Rivers. Macoun's "Rat Creek" is referred to as "Rat River" by Dawson on his 1881 map.

[407] Macoun 1904:16E

place about 8 miles (13 Km) west of ―Rat Creek," that the trail he was then following was now situated to the north of what had been shown on earlier maps,[408] thus indicating that trail locations were subject to change in this area.

Macoun continued along the trail [409] and subsequently spent three days ―thoroughly examining the Pouce Coupé prairie," most of which, he noted, lies west of the boundary with British Columbia. [410] He wrote that the most open part, almost entirely prairie, ―is directly west of the junction of Bear and Pouce Coupé creeks," [411] adding that this open area ―is cut by a creek[412] in which is the only water in this part of the prairie [Pouce Coupé prairie]." [413] At the ―Pouce Coupé prairie" Macoun and his colleague met both Métis and Aboriginal people who were picking and drying Saskatoon berries, and who told them that the season for berry harvesting here was a week earlier than at Spirit River and Dunvegan.[414]

After exploring the area south from the ―Pouce Coupé prairie" to as far as the southern end of Swan Lake on the BC/Alberta border, Macoun followed a trail for three days to the Grande Prairie region. He spent a week carefully examining this region ―from every point of view." [415]

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[408] Macoun 1904:17E.

[409] This same trail that Macoun followed—connecting Fort Dunvegan with the Pouce Coupe River/Henderson Creek confluence by way of Spirit Creek—had been followed, but in the opposite direction, by George Dawson in 1879 (see Dawson 1881:50B-51B and Map) , and was subsequently shown, in part, on a map prepared by the Alberta/British Columbia Boundary Commission. See: Office of the Surveyor General, Ottawa (1925). *Report of the Commission Appointed to Delimit the Boundary between the Provinces of Alberta and British Columbia: Parts III-A and III-B, 1918-1924*. Atlas, Part III, Sheet 47.

[410] Macoun 1904:18E. Surveying of the BC/Alberta boundary did not begin until 1913. See: Office of the Surveyor General, Ottawa (1917). *Report of the Commission Appointed to Delimit the Boundary between the Provinces of Alberta and British Columbia: Part , From 1913 to 1916.*

[411] Macoun 1904:17E-18E and Map. Macoun‘s use of the term ―Bear Creek" here is problematic. It is the present authors‘ opinion (having reviewed Macoun‘s written account and map as well as other historical accounts and maps, together with present-day maps) that the Bear River that flows in a southeast direction into La Glace Lake then flows from La Glace Lake into Bear Lake and from Bear Lake flows in a southeast direction through the present-day city of Grande Prairie and into the Wapiti River, cannot be the same ―Bear Creek" that Macoun refers to on pages 17E-18E of his 1904 report. Rather, the ―Bear Creek" he refers to on these pages is very likely Henderson Creek, even though Macoun does not indicate any creek here on this map (he indicates only the trail that follows alongside this creek). The Bear River that flows through Grande Prairie does not originate far enough to the northwest for it to have a confluence with the Pouce Coupe River. As noted above, this same route, but in the opposite direction, had been followed by Dawson in 1879. What is problematic is that Macoun at page 23E seems to use term ―Bear Creek" to refer to what is today Bear River (as described above), which Dawson in 1879 (Dawson 1881:53B and Map) had also identified as Bear River. In any case, it has not been possible to resolve this apparent contradiction.

[412] Macoun 1904:18E.

[413] This creek, which is named after George Dawson, was identified on Dawson‘s 1879 map as ―Dawson‘s Brook". See Dawson 1881:Map.

[414] Macoun 1904:18E-19E

[415] Macoun 1904:19E-21E.

Macoun approached the Grande Prairie region from the west, entering the prairie "about ten miles northwest of Bear lake" and camping on the night of 13 August 1903 near the head of "Fish Creek" (Colquhoun Creek).[416] The next day, Macoun commented that "the Indian trail we had been following joined one of them from Spirit river to Saskatoon lake near Bear creek [Bear River]." Small farms had already been established around Saskatoon Lake, Macoun observed.[417] A trail led from Saskatoon Lake to "Beaver Lodge Creek," i.e. Beaverlodge River, which Macoun also identifies as "Beaver Lodge River" on his accompanying map.[418] At this point in his report, Macoun wrote that 20-25 settlers "went to Grande prairie during the winter and spring of 1903, but none remained." He said he spoke with a number of them that month (August 1903) but could not get a clear answer as to why none of them stayed.[419] Farther along, Macoun noted there was trail to Kleskun Lake, another place said to be of low agricultural value, and a wagon road that follows ridges and high ground from Grande Prairie (in the vicinity of Kleskun [Saskatoon] Lake) to Spirit Lake. Macoun's map shows this wagon road extending from Spirit Lake to Dunvegan and from Dunvegon to Peace River Landing.[420]

After following this wagon road to Spirit River, Macoun and his colleague on August 27th travelled eastward to Burnt River.[421] They crossed Burnt River and while heading farther to the east, toward Smoky River, Macoun noted the existence of prairie areas known as "Grizzly Prairie" and/or "Fox Prairie," which names, he added, may refer to one and the same prairie. Macoun said this was "as good a tract of country as any we have passed through during the summer, if not the best." It extended from the trail to the Birch Hills, and was described by Macoun as "ideal cattle country." The trail, Macoun wrote, passed to the north of "Egg Lake" (presumably, Kakut Lake on today's maps). Macoun crossed the Smoky River at a strong rapid about 16 Km (10 miles) down the Smoky from its confluence with the Little Smoky, where they found an old canoe.[422] The crossing was easy but the land from this river to "Stinking Lake" (Winagami Lake on today's maps) was a route more easily travelled in the winter, for it was broken with innumerable marshes and ponds, once habitat for beaver, an animal now extinct from the area, according to old hunters Macoun interviewed at Lesser Slave Lake.[423] Macoun

[416] George Dawson and his party had camped in this same general area on the night of 20 August 1879. Dawson referred to this same creek as "Fish River" and showed its location on his map. See Dawson 1881: 53B and Map; Dawson 1849-1901: Entries for 19 and 20 August 1879. While Dawson's map identifies the location of "Fish River," James Macoun's map does not, even though Macoun's narrative's mention of what he calls "Fish Creek" is clearly a reference to this same creek, Colquhoun Creek. See Macoun 1904:22E and Map.

[417] Macoun 1904:22E.

[418] Macoun 1904:23E and Map.

[419] Macoun 1904:23E.

[420] Macoun 1904:25E and Map.

[421] Macoun 1904:25E-26E. Macoun's accompanying map shows this same creek as "Riiere au Brulé" (meaning "burnt creek"); present-day maps refer to it either as Saddle Creek or as Burnt Creek.

[422] Macoun 1904:26E-27E and Map.

[423] Macoun 1904:27E and Map.

gained further intelligence on the Peace River region from missionaries and others at Lesser Slave Lake. [424]

Macoun at this point in his report talks about how he had travelled in June 1903 from the west end of Lesser Slave Lake northwest to Peace River Landing (his map indicates this trail as a wagon road). Along this route, he noted, ―there is considerable prairie which begins about twenty-five miles from Peace river landing.” [425] Macoun camped on 7-8 June 1903 along this trail, ―on the northern edge of the prairie, about eighteen miles from Peace River Landing.” [426] .

In mid-June, 1903, Macoun left to go down the Peace River by steamer to Vermilion. At about eight or ten places along the 280 miles between Peace River Landing and Vermilion there was land suitable for cultivation. Yet Macoun observed only one settlement, consisting of about half a dozen people of mixed ancestry, who lived at Wolverine Point, opposite the Iroquois River. Numerous farms had been established in the environs of Fort Vermilion, including the finest farm of all, that belonging to the Hudson‘s Bay Company. At the Roman Catholic mission, there was also a farm and garden, along with schools for Aboriginal and non-Aboriginal or Métis children. Nearly all settlers in the region, Macoun stated, were ex-HBC men and people of mixed ancestry. They hunted the area including the lands between Peace River Landing and Vermilion and between Buffalo Head Hills and the Peace River, said by these hunters to be covered with forest or burnt areas, with many marshes and muskegs.[427]

The multi-ethnic composition of the Shaftesbury Settlement, which included a number of Duncan‘s First Nation members, was exemplified in a 1956 interview of Mrs. Maria Bourassa of the town of Peace River, Alberta, a daughter of pioneer settler Charles St. Germaine; Mrs. Bourassa recalled the following people living at Shaftesbury in 1913, starting with the farthest-upriver homestead: [428]

1. Old man Xavier; [429]
2. Bill Carson (and later his brother), who homesteaded on what was to be the Early place. Carson bought Alex Mackenzie‘s old grist mill and made his own flour;
3. Duncan Testowitch [Testawich]; [430]

[424] Macoun 1904:27E-28E.

[425] About two years later, in May 1905, an Indian Reserve (151K) would be surveyed for Duncan‘s Band member William McKenzie and his family at ―Little Prairie,” located about this same distance (25 miles/40 Km) along this trail between Peace River Landing and Lesser Slave Lake (see Section 4.2 of the present report).

[426] Macoun 1904:29E.

[427] Macoun 1996:29E-35E.

[428] Loggie Papers, Interviews with Pioneers. Interview of Mrs. Maria Bourassa, Peace River, Alberta, June 1956, by Isabel Loggie. Glenbow Archives, Calgary, Alberta. D971.2/L832, file 32.

[429] This was Xavier Moosewuk [Mooswah], A Duncan‘s Band member who was likely of Iroquois ancestry. See Jean Louis Quemeneur, *Genealogie des Familles Diverses.* Grouard-McLennan Diocese, cited in Reddekopp 1996:16, fn. 79; see also Reddekopp 1996:14, 24.

4. Johnny Knott, who was married to a Campbell from Grande Prairie and whose children went to school with Mrs. Bourassa. (The Campbell girls were excellent horsewomen, and could rope and ride bareback as well as a man);
5. The Whitebears, Mrs. Allie Brick‘s parents. Mrs. Whitebear was a Campbell;
6. The Anglican Mission;
7. Allie Brick;
8. MacCorristers. Mrs. MacCorrister was a Campbell, too;
9. Old John Wright, who was an old bachelor named ―Chewing Gum Wright.” He lived in a little shack and was said to have come into the country with the first survey party at Shaftesbury (Selby‘s);
10. The La Pretes [La Pretre family]: Benjamin (married to Duncan Testawitch‘s sister, Angelique), Francois La Pretre [Pretre], Jean Felix La Pretre [Pretre];
11. Alex Mackenzie. He was a North West Company trader (Mrs. Bourassa thought) and later Hudson‘s Bay trader at Red River. Still later he was a free trader on the flats at Shaftesbury. His wife was a La Prete [Pretre]. There was also another La Prete [Pretre] sister (a Testawitch) living on the Mackenzie place. She later married a Kennedy. Alex Mackenzie was some relation of Sir Alexander Mackenzie (Mrs. Bourassa suggested a second uncle);[431]
12. The Hudson‘s Bay post.[432]

Another account of the people and businesses in this same area, *circa* 1911, was compiled by local historian Isabel Loggie based on the recollections of Pierre Gauvreau who noted that the ―Indian graveyard” was situated between the Anglican church grounds and ―Old Jack Hodgson‘s

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[430] A trail known as the ―Xavier Trail” [named after another Duncan‘s Band member, Xavier Mooswah (see previous footnote)] extended from Duncan Testawich‘s personal reserve land on the river flat, up the hill, and west towards Dunvegan (Leonard 2005:370).

[431] Alexander (Alex) Mackenzie (also spelled McKenzie) was said to be a ―great nephew” of his celebrated namesake, Sir Alexander Mackenzie; one of his sons (stepsons) was William McKenzie (Mackenzie), a Duncan‘s Band member, for whom an Indian Reserve (151K) was surveyed at Little Prairie in 1905 (see Section 4.2 of the present report). While Mair (1999:87) did not provide William McKenzie‘s (Mackenzie‘s) actual name, Mair described Alex Mackenzie‘s father as a ―cousin” of the famous explorer. David Leonard and Beverly Whalen, editors of the published diary of Dr. Oliver C. Edwards, who was with the Treaty 8 Commission in 1899, state in a note that Alex McKenzie was born in 1843, died in 1919 and was ―a great nephew of the explorer, Sir Alexander Mackenzie.” See David Leonard and Beverly Whalen, Editors (2002). *On the North Trail: The Treaty 8 Diary of O.C. Edwards*. Historical Society of Alberta. Page 43, fn. 49. The stepson relationship between the more recent Alexander Mackenzie and William McKenzie (Mackenzie) is confirmed independently by the recollections of Adophus St. Germaine who was eight years old when his family came to this region in 1893 and settled in the Little Prairie area and later at the Shaftesbury Settlement. Mr. St. Germaine said that William Mackenzie was one of the two sons that Alexander Mackenzie‘s wife had had by a previous marriage. See Loggie Papers, Interviews with Pioneers. Interview with Mr. Adolphus St. Germaine, Harmon Valley, Alberta, June 1956, by Isabel Loggie. Glenbow Archives, Calgary, ALberta. D971.23.L832, file 33

[432] Loggie Papers, Interviews with Pioneers. Interview of Mrs. Maria Bourassa, Peace River, Alberta, June 1956, by Isabel Loggie. Glenbow Archives, Calgary. D971.2/L832, file 32.

place.” Gauvreau also recalled the presence of Revillon‘s store[433] at the junction of the Peace and Heart rivers. [434]

Up until 1911, the steady stream of settlers to the Peace River country came by way of Lesser Slave Lake, across the lake to Grouard at its western end, and then overland ninety miles by wagon road to Peace River Crossing. By July 1910, however, the transcontinental railway had expanded as far west as Edson, Alberta, and the people of Grand Prairie urged the government to expand the lines to take advantage of the agricultural resources of the Peace River. The promise of a railway encouraged further settlement. While the outbreak of World War 1 temporarily halted ambitious plans for development, several years later land needed for soldiers returning from the war bought increased pressures on the Peace River region, [435] including lands that had been reserved for the Duncan‘s First Nation.

3.8.2 Development of a Mixed Economy

Annual Reports of the Treaty Commissioners provide information on the economic activities of the Duncan‘s Band members at the time of and after they adhered to Treaty 8 in 1899. At the time of the treaty, the Treaty Commissioners observed that their main difficulty in getting the bands to adhere was the apprehension that hunting and fishing privileges were to be curtailed. Promises of ammunition and twine mollified the Aboriginal people‘s fears that new laws would unreasonably restrict their ability to make a living by traditional pursuits. The Commissioners solemnly agreed that such laws would protect the fish and game without impinging upon the Indigenous people‘s hunting and fishing.[436] Prior to the treaty, Duncan Testawich had taken up permanent residence just west of the Shaftesbury Settlement, but his interest in agriculture was not incompatible with maintaining a hunting lifestyle.

A review of the Annual Reports of the Inspector for Treaty 8 indicates that an Aboriginal subsistence pattern continued, augmented by agriculture and animal husbandry. In 1902, H.A. Conroy, the Inspector for Treaty 8, reported that the Aboriginal people at Peace River Landing farmed on a small scale, although their headman (Duncan Testawich) had sown seventy acres of

[433] This company engaged in a type of trade in the Peace River region that has been referred to by fur trade historian Arthur Ray as ―unscrupulous,” due to their underselling of the more established HBC and their offering alcohol as an inducement for business. See Arthur Ray (1990). *The Canadian Fur Trade in the Industrial Age*. University of Toronto Press: Toronto. P.149.

[434] Loggie Papers, Interviews with Pioneers. Interview of Pierre Gauvreau of Peace River, Alberta, June 1956, by Isabel Loggie Glenbow Archives, Calgary, Alberta. D971.23/L832, file 32.

[435] James G. MacGregor (1981). *A History of Alberta*. Edmonton: Hurtig Publishers.

[436] David Laird, J.H. Ross, and J.A.J. Mckenna, 22 September 1899. Report of Commissioners for Treaty 8, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1899, p. xxxvi. *Canada, Sessional Papers, Vol. 11, Fifth Session of the Eighth Parliament of the Dominion of Canada, Session 1900.*

crops that year.[437] The following year, Conroy reported that Duncan's Band had excellent crops, had made considerable progress in farming, had built comfortable log homes and stables, and had brought in horses and cows. They were making what Conroy described as "a comfortable living."[438] Nevertheless, a drought affected Duncan Testawich's harvest on about forty acres of grain in 1904 due to the crop being planted too late in the season.[439]

Reports by the Royal North West Mounted Police in 1903 noted that in contrast to Duncan Testawich's winter residency on the Peace River, the majority of the local Aboriginal and Métis residents spent the winter months trapping at some distance from river. [440] In March 1905, Dominion Surveyor J. Lestock Reid's visit to Peace River coincided with Duncan Testawich's hunting trip with some of his band to an area north of the Peace River. A courier had to be sent to find Duncan Testawich.[441] Reid surveyed ten Indian Reserves for the Duncan's Band, including six parcels being farmed along the Peace River, in addition to land at Bear [Cardinal] Lake and Little Prairie, also areas suitable for farming.[442] Agriculture had become so common among the Duncan's Band members that they made requests for farm tools, as considerable land had been broken, even though another drought in 1906 resulted in crop failure and a reduction in seed that particular year.[443]

Farming on the Duncan's Band reserves consisted of growing crops of wheat, oats and potatoes. The proceeds of this venture supplemented the people's continuing reliance on hunting and

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[437] H.A. Conroy, Inspector for Treaty 8, 1 October 1902. Report of Commissioners for Treaty 8, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1902, p. 178. *Canada, Sessional Papers, Vol. 11, Third Session of the Ninth Parliament of the Dominion of Canada, Session 1903.*

[438] H.A. Conroy, Inspector for Treaty 8, 5 October 1903. Report of Commissioners for Treaty 8, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1903, p. 235. *Canada, Sessional Papers, Vol. 11, Forth Session of the Ninth Parliament of the Dominion of Canada, Session 1904.*

[439] H.A. Conroy, Inspector for Treaty 8,October 12, 1905. Report of Commissioners for Treaty 8, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1904, p. 200. *Canada, Sessional Papers, Vol. 11, First Session of the Tenth Parliament of the Dominion of Canada, Session 1904*

[440] Royal North West Mounted Police Quarterly Report of Peace River Landing, 7 April 1903, cited in Reddekopp 1996:23, fn.120.

[441] The prowess of "Daukhan Tustowits" (Duncan Testawich) as a "famous hunter" throughout this region of the Peace had been discussed by two young British adventurers who spent a considerable amount of time with him in 1893 and described him as somewhat resembling "the ideal French cavalry officer in appearance" (see Figure 1 in the present report). Duncan Testawich was said to have "perfect manners" and was a skilled orator in the Cree language, but did not speak the Beaver language. See H. Somers Somerset (1895). *The Land of the Muskeg*. William Heinemann, London. Pp. 15, 32-33, 102.

[442] J. Lestock Reid, Report of Surveys in Treaty No. 8, 15 January 1906, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30 1906. Page 161. *Canada, Sessional Papers, Vol. 11, Third Session of the Tenth Parliament of the Dominion of Canada, Session 1906-1907*.

[443] H.A. Conroy, Inspector for Treaty 8, December 7, 1906. Report of Commissioners for Treaty 8, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1907, p. 181. *Canada, Sessional Papers, Vol. 14, Fourth Session of the Tenth Parliament of the Dominion of Canada, Session 1907-08*

trapping. While Inspector Conroy praised the homes and animals kept by Duncan Testawich and his Band, he criticized their dependence upon hunting, stating:

> I find it difficult to interest them in their work, as for the least excuse they leave it and go off on a hunt. When they return, they find that their stock has broken into and destroyed a great portion of their crop.[444]

Conroy also opined that if the Indian Department provided an overseer, it would not be long before the sixty-member Band would become self-sufficient.[445] Despite the Inspector‘s admonishment to become full-time farmers, the Duncan‘s Band members continued to hunt, for agriculture remained unreliable. In 1909, they told Inspector Conroy that ―they were compelled to hunt for a living until it was too late for seeding.” Notwithstanding, some members had good crops, even though Conroy would complain that ―were they to work in the same manner as the white settles there” and, in his view, ―stay closer to their ranches,” they might very quickly become self-supporting.[446] The Duncan‘s Band members chose not to follow the Inspector‘s guidance. The Annual Report for 1911 states explicitly: ―The greater part of this band make their living entirely by hunting. Only a few do any farming.”[447]

Duncan Testawich, however, took to farming on the so-called ―Duncan‘s Flat” near an island in the Peace River. Early settlers recall him as a middle-aged man at the time of the Treaty. Barney Maurice, who compiled the 1947 book *Fifty Years in the Peace River Country*, recalled Duncan Testawich‘s delight in his ―brand-new spring-seated wagon” that he hitched behind a four-horse team.[448] Maurice first came to Peace River Landing in 1898 where he had found a HBC Trading Post and ―four or five Indian shacks.” He walked up the river for about twenty miles, observing along the way the farms of Métis homesteaders growing potatoes and rough grains. Though Maurice states that fish could not be found, moose were plentiful, as were fur-bearing animals.

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[444] H.A. Conroy, Inspector for Treaty 8, February 19, 1909. Report of Commissioners for Treaty 8, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1909, p. 199. *Canada, Sessional Papers, Vol. 17, Second Session of the Eleventh Parliament of the Dominion of Canada, Session 1910.*

[445] H.A. Conroy, Inspector for Treaty 8, February 19, 1909. Report of Commissioners for Treaty 8, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1909, p. 199; Census, p. 52. *Canada, Sessional Papers, Vol. 17, Second Session of the Eleventh Parliament of the Dominion of Canada, Session 1910.*

[446] H.A. Conroy, Inspector for Treaty 8,December 30, 1909. Report of Commissioners for Treaty 8, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1910, p. 186; Census, p. 52. *Canada, Sessional Papers, Vol. 11, Third Session of the Eleventh Parliament of the Dominion of Canada, Session 1911.*

[447] W.B.L. Donald, Indian Agent. Annual Report of Lesser Slave Lake Agency, April 1, 1911. Report of the Department of Indian Affairs for the Year Ended June 30, 1911, p. 175. *Canada, Sessional Papers, Vol. 20, First Session of the Twelfth Parliament of the Dominion of Canada, Session 1911-12.*

[448] Loggie Papers, Interviews with Pioneers. Interview of Barney Maurice, High Prairie, Alberta, July 1956, by Isabel Loggie. Glenbow Archives, Calgary, Alberta. D971.23 L832, file 33.

At Dunvegan, Maurice encountered Beaver people, along with a few Cree, all of whom were hunters and trappers and lived in teepees.[449]

[449] V. Maurice (1947). *Fifty Years in Peace River Country and Short Story of the Alaska Highway*. Published by the Author, High Prairie, Alberta. Pp. 21-22.

Figure 4: Woman scraping moose hide. Glenbow Museum and Archives, na-1335-6.

4.0 Establishment and Purported Surrender of DFN Indian Reserves

The following section discusses the ten Indian Reserves that were set aside and surveyed in the early 1900s for the ―Peace River Landing Band" (also known as ―Duncan Testawich‘s Band" i.e., today‘s Duncan‘s First Nation). Also discussed here are some of the circumstances by which eight of these ten Indian Reserves were purportedly surrendered in 1928.

- Important sources drawn upon for this summary include: The 1999 Inquiry report, entitled ―Indian Claims Commission: Duncan‘s First Nation Inquiry, 1928 Surrender Claim" (available online at http://dsp-psd.pwgsc.gc.ca/collection_2009/indianclaims/RC31-56-1999E.pdf) as well as the documentary record compiled in association with this Inquiry, especially lawyer and historian Neil Reddekopp‘s 1996 report, ―The Creation and Surrender of the Beaver and Duncan‘s Band‘s Reserves";[450]
- ―The Development of Farming in Treaty 8, 1899-1940," a 1976 research paper prepared for the Indian Association of Alberta by historians Bennett McCardle and Richard Daniel;[451]
- A 1989 report by historical research consultants Joan Holmes & Associates, entitled ―The Establishment of Reserves in Treaty Eight." [452]

4.1 Establishment of Indian Reserves

Further to the terms of Treaty 8, Indian Commissioner David Laird in a 5 February 1900 letter to Indian Affairs urged that Indian Reserves be established quickly in order to avoid complications involving non-Aboriginal settlers‘ claims. [453] About two weeks later, Treaty Commissioner J.A. Macrae [454] was instructed by J.A. J. McKenna [455] to ―visit the bands wanting land and, without

[450] G. Neil Reddekopp (1996). The Creation and Surrender of the Beaver and Duncan‘s Band‘s Reserves. Alberta Aboriginal Affairs, Indian Land Claims, Paper No. 2, March 1996.

[451] Bennett McCardle and Richard Daniel (1976). Research Papers on the Implementation of Treaty 8: The Development of Farming in Treaty 8, 1899-1940. Prepared for Treaty and Aboriginal Rights Research of the Indian Association of Alberta.

[452] Joan Holmes & Associates (1989). The Establishment of Reserves in Treaty Eight. Report prepared for the Chief General Counsel, Department of Justice, Ottawa, for the *Attorney General of Canada vs. the Attorney General of Alberta, the Lubicon Lake Band, et al*. litigation. Copy on file with the Headquarters Library, Aboriginal and Northern Affairs Canada, Ottawa.

[453] Letter of 5 February 1900 from Indian Commissioner David Laird to J.D. McLean, Secretary of Indian Affairs, Ottawa. While this letter is cited as fn. 36 on pp. 14 and 100 of McCardle and Daniel 1976, these authors do not provide the actual source of this document.

[454] J.A. Macrae was an Ottawa Indian Affairs official who in 1899 had been appointed as Treaty 8 Commissioner for 1900. See Mair 1999:66.

[455] At the time he was appointed as one of the 1899 Treaty 8 Commissioners, J.A.J. McKenna was Private Secretary to the Superintendent General of Indian Affairs. See Mair 1999:25.

encouraging the immediate selection of reserves, to have those Indians who strongly wanted them stake land in preparation for an official survey.” [456] A visit to Duncan Testawich and his band led to them choosing lands they wanted set aside as Indian Reserves in the general vicinity of Peace River Landing.

The land selections of Duncan Testawich and his band were contained in a 2 November 1900 letter written by Sergeant G.D. Butler of the North West Mounted Police‘s Peace River Landing detachment to Indian Commissioner David Laird. Testawich had identified land in the ―Shaftesbury Settlement” located on the northwest side of the Peace River about 24 km (15 miles) upriver from the Smoky/Peace confluence.[457] As previously discussed, this settlement had been established in the 1880s by missionary John G. Brick of the Church Missionary Society and was named ―Shaftesbury” after the Society‘s patron in England.

Butler wrote that Duncan Testawich and David Testawich, one of Duncan‘s sons, selected land ―on a flat 4 miles above the Protestant Mission,” meaning the Shaftesbury settlement, the boundaries of which were identified as ―a creek on this end” and ―a line running nearly N.W. as the other boundary between Duncan Testawich and William Taylor.” [458] Duncan‘s band members Xavier Moosewuk [Mooswah] and Modiste [Modeste] Mooswuk [Mooswah][459] selected land lying south from that of a Beaver man known as ―L. Eagle [L‘Eagle],” who was said to have lived there ―for a number of years.” Land known as the ―Big Island flat” was selected by Duncan‘s band members ―John Bouchie [Boucher],” ―Pierre Brick,” a man said to be ―another son of the Headman‘s,”[460] and ―Chaunter [Chanteur[461]].”[462]

[456] Letter of 20 February 1900 from J.A.J. McKenna to the Deputy Superintendent General of Indian Affairs. Library and Archives Canada (LAC), Ottawa. RG 10, Vol. 7777, File 27131. Cited in McCardle and Daniel 1976:14, fn.37.

[457] See David Leonard (2000). *Delayed Frontier: The Peace River Country to 1909*. Detselig Enterprises Ltd. and the Edmonton & District Historical Society, Calgary, Alberta. Pp. 183-193.

[458] Letter of 2 November 1900 from G.D. Butler, North West Mounted Police, Peace River Landing, Alberta, to Indian Commissioner Harold Laird, Winnipeg, Manitoba. Library and Archives Canada (LAC), Ottawa. RG 10, Vol. 7777, File 27131-1.

[459] Modeste Mooswah was the son of Xavier Mooswah who was likely of Iroquois ancestry. See Jean Louis Quemeneur, *Genealogie des Familles Diverses.* Grouard-McLennan Diocese, cited in Reddekopp 1996:16, fn. 79; see also Reddekopp 1996:24.

[460] This was Jean Felix Testawich, one of Duncan Testawich‘s sons, identified as ―another son of the Headman‘s”. See Sir Alexander Mackenzie Historical Society (1984). *Peace River Remembers.* Peace River, Alberta. Page 81. Cited in Reddekopp 1996:29, fn. 150.

[461] ―Chaunteur” is identified by Reddekopp (1996:24) as ―a Beaver Indian.”

[462] Butler to Laird, 2 November 1900.

Two Hay Reserves were also selected for Duncan's band members: one was located "where Duncan Testawich cut his hay this year and last year [1899 and 1900]"; the other was situated in the area between "Old Wives Lake" and the Peace River.[463]

While their land selection indicated that Testawich's band were engaged in farming by the early 1900s, Butler also noted in this letter that not all members had adopted this new lifestyle. A man known as "Deome [Guillaume] Bell," one of Duncan's band members, [464] still expressed a desire to "hunt and not farm." [465]

Butler wrote, "The posts on all the Farms and Hay Reserves are marked T.I.R.—Temporary Indian Reserve." [466]

4.2 Survey of DFN Indian Reserves

Survey instructions that included setting aside Indian Reserves for "Duncan Testawit's Band" were transmitted on 15 April 1901 to Dominion Surveyor A.W. Ponton. [467] However, these instructions were not acted upon immediately and it was not until February 1905 that Indian Department surveyor J. Lestock Reid, received instructions to survey Reserves "that may be required at or near Peace River."

The influx of non-Aboriginal settlers into the Peace River region, which had begun in the 1880s, increased markedly in the years following 1899 when Duncan Testawich's Band signed Treaty 8. The Peace River District, though located about 450km (approximately 280 miles) northwest from Edmonton, offered to the settlers soil and climactic conditions suitable for commercial wheat production. [468] This influx of settlers created increasing difficulties for Duncan's Band members. Among the difficulties encountered was the encroachment of settlers on parcels that had been identified as "Temporary Indian Reserves." In 1903, for example, Sergeant Butler had to accompany Duncan Testawich and Xavier Mooswah to evict California settlers who at that time squatted on land staked in 1900 as a "Temporary Indian Reserve." [469] Butler was not entirely sympathetic to the Aboriginal residents and wrote in July 1904 to Indian Commissioner David Laird, complaining that Duncan's Band members were interfering with settlement at Peace River by claiming that any settler who chose a location in this area was in trespass. In

[463] Butler to Laird, 2 November 1900.

[464] Reddekopp 1996:16.

[465] Butler to Laird, 2 November 1900.

[466] Butler to Laird, 2 November 1900.

[467] Letter of 15 April 1901 from J.D. McLean, Secretary of Indian Affairs, Ottawa, to surveyor A.W. Ponton, Ottawa. LAC, RG 10, Vol. 7777, File 27131-1.

[468] Indian Claims Commission 1999:8. See also Leonard 1995:183-193.

[469] Quarterly Report of Peace River Landing Detachment, North West Mounted Police. 1 October 1903. LAC, RG 18, Vol. 1575, File 125. Cited in Reddekopp 1996:26, fn. 131.

Butler‘s view, these increasing difficulties made it imperative that Indian Reserve surveys be completed before the end of the summer in 1904 so that a real boundary, rather than what Butler called an ―imaginary line," could be placed between the Indian Reserves and available Crown land.[470] It was not until February 1905, however, that Indian Department surveyor J. Lestock Reid was told to survey Reserves in the Peace River region.

At the same time as the Department of Indian Affairs instructed Reid to survey Indian Reserves, they advised him to ensure that ―the Indians are not deprived of any land that is justly or properly theirs."[471] Prior to this time, Indian Affairs had been informed that eight non-Aboriginal residents of the Shaftesbury Settlement had expressed concern about the allotment of Indian Reserves and had asked that their own property not be affected adversely by the survey of Reserves in the area.[472] Indian Affairs told the Department of the Interior, to whom the settlers‘ concerns had been relayed, that the surveyor had been instructed not to include the settlers‘ claims in the Reserves to be surveyed.[473]

When surveyor Reid arrived in this area on 20 March 1905, he found that Duncan Testawich and some of his band were reported to be away on a hunting expedition to the north. Hence, Reid sent a man with dog train to find Duncan and tell him ―the surveyor had arrived to lay out his reservation."[474] Reid further reported that while waiting for Duncan and his people to return, he ―made a traverse of the north bank of the river (Peace) between the English mission [Church Mission] and the Big Island flat, as this was said to take in several Indian locations."[475] On the 1st of April, 1905,[476] Reid wrote to the Department of Indian Affairs advising them that ―Head-Man Duncan Testawits of the Peace River Crossing Band of Indians" had visited his survey camp.[477]

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[470] Letter of 28 July 1904 from Sergeant G.D. Butler to Indian Commissioner David Laird. Aboriginal and Northern Affairs Canada, File 777/30-7-151, Vol. 1. Cited in Reddekopp 1996:26, fn. 132.

[471] Letter of 10 February 1905 from J.D. McLean, Secretary of Indian Affairs, Ottawa, to surveyor J.Lestock Reid. Aboriginal and Northern Affairs Canada, File 777/30-7-151, Vol. 1, cited in Reddekopp 1996:27, fn.‘s 135 and 138.

[472] McLean to Reid, 10 February 1905, cited in Reddekopp 1996:27, fn.136.

[473] Letter of 10 February 1905 from J.D. McLean, Secretary of Indian Affairs, Ottawa, to P.G. Keyes, Secretary of the Department of the Interior. Aboriginal and Northern Affairs Canada, File 777/30-7-151, Vol. 1, cited in Reddekopp 1996:27, fn. 137.

[474] J. Lestock Reid (1906). Report of Surveys in Treaty No. 8, in, Annual Report of the Department of Indian Affairs for the Year Ended June 30 1906. Page 161. *Canada, Sessional Papers, Vol. 11, Third Session of the Tenth Parliament of the Dominion of Canada, Session 1906-1907*. See also letter of 22 March 1905 from J. Lestock Reid to Frank Pedley, Deputy Superintendent General of Indian Affairs, Ottawa. LAC, RG 10, Vol. 4005, File 240050-3, cited in Reddekopp 1996:27, fn. 140.

[475] Reid 1906:161.

[476] Although Reid stated elsewhere that it was on the 2nd of April 1905 [and not on the 1st of April, as stated above] that he met ―the headman [Duncan Testawich] and the Indians of the Peace River band." See Reid 1906:161.

[477] Letter of 26 April 1905 from J. Lestock Reid to Frank Pedley, Deputy Superintendent General of Indian Affairs, Ottawa. Aboriginal and Northern Affairs Canada, File 777/30-8, Vol. 1. A photocopy of this letter appears as

In total, Duncan Testawich and his band selected ten parcels of land. Reid surveyed six parcels of Indian Reserve lands (IR 151B through 151G) situated along the northwest bank of the Peace River in the vicinity of the Shaftesbury Settlement. These six Indian Reserves included the previously-established holdings (houses, improvements etc.) of individual Duncan's Band members and their families, some of whom had been living here for a period of time described by Reid as ―a number of years." [478] Of the remaining four Reserves, two (IR's 151 and 151A) were surveyed as larger communal reserves, [479] adjacent to what are today the villages of Berwyn and Brownvale, respectively. [480]

The six smaller parcels were surveyed by Reid between 4th-13th April 1905, and the two larger parcels, between 15th-28th April 1905. [481]

Concerning his surveying of eight of the ten DFN Reserves, Reid on 26th April 1905 wrote:

> Having held the usual talk with the Head-Man and his people and after some delay and adjusting I have at last got their lands allotted I think satisfactory to them and I hope the same will meet your approval.
>
> I enclose a rough tracing[482] of the work already completed except the remaining which I hope to have done [?] tomorrow. The tracing will give you an idea of the work already finished and also my connection with the Dominion Land Survey.
>
> Duncan Testawits and his people had as usual a very inflated idea of the amount of land they were entitled to and it was only by giving some of them places on the River [Peace River] and the

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Document 34 in Holmes & Associates (1989). The photocopy of this document clearly indicates the date of this Reid-to-Pedley letter as April the 26th, as does the typescript (at pp. 71-71) and the document index (at p. 6), although the date is given as April ―25th" in Reddekopp (1996:28, fn. 143; 31, fn. 161), and in the Indian Claims Commission 1999 report (p. 11, fn. 32), citing Reddekopp.

[478] J. Lestock Reid [1905] Field Notes of Survey of Reservations for Peace River Landing Band of Indians. Aboriginal and Northern Affairs Canada, File 777/30-8, Vol. 1. Cited in Indian Claims Commission 1999, pp. 10-11, fn. 30.

[479] Reid to Pedley, 26 April 1905.

[480] Duncan's IR 151A near Brownvale was also referred to as the ―Old Wives Lake Reserve" because of the lake here known by this name. Indian Claims Commission 1999:11, fn. 31.

[481] Excerpts from J.Lestock Reid's 1905 Diary. LAC, RG 10, Vol. 4005, File 240050-3. Cited, in Indian Claims Commission 1999, pp. 10-11, fn. 30.

[482] According to the authors of a Joan Holmes & Associates report, this rough tracing, as of February 1989, had not been located. See Joan Holmes & Associates (1989). The Establishment of Reserves in Treaty Eight. Report prepared for the Chief General Counsel, Department of Justice, Ottawa, for the *Attorney General of Canada vs. the Attorney General of Alberta, the Lubicon Lake Band, et al*. litigation. Page 71. Copy on file with the Headquarters Library, Aboriginal and Northern Affairs Canada, Ottawa.

> Reserves No. 1 & No. 2 [IR's 151 and 151A] that they could be satisfied and I hope they could be satisfied.
>
> The total number of Indians in this Band seventy-three (73) and the lands allotted as follows:
>
> [The 6 Indian Reserves] On the Bank of River [Peace River] = 1.20 Sq. Miles
>
> Reserve No. 1 = 5.50 Sq. Miles [IR 151]
>
> Reserve No. 2 = 7.90 Sq. Miles [IR 151A]
>
> Total = 14.60 Sq. Miles [483]

Acknowledging this 26 April 1905 letter, Indian Commissioner Laird told Surveyor Reid: ―I do not like members of the Dunvegan Band receiving land among the Peace River Crossing Band, but I suppose it could not well be avoided.[484] The group that Laird refers to here as the ―Dunvegan Band" is the band who signed Treaty 8 in 1899 as the ―Beaver Band" and who were also known as the ―Beavers of Dunvegan and Grande Prairie" or the ―Beaver Band of Horse Lake and Clear Hills." The 1905 Treaty 8 Annuity Paylist shows that five families, totalling twelve people, transferred from Duncan's Band to the ―Dunvegan Band."[485] Thus, Reid allotted Reserves at Peace River Crossing to people of both Cree and Beaver ancestry.

The last two of the ten Reserves allotted to the DFN were identified as IR 151H and IR 151K and were surveyed in May 1905.[486] Reid allotted these parcels because some Duncan's Band members had requested land separate from the other members of this Band.[487] Specifically, Duncan's Band member Louison Cardinal requested land on the northeast shore of Bear Lake (now known as Cardinal Lake),[488] north from present-day Berwyn, a parcel identified as IR 151H. Cardinal had been born at Lac La Biche in 1836.[489] Duncan's Band member William McKenzie and his wife and four children wanted to live on land later identified as IR 151K, situated about 40 km (25 miles) south from Peace River Landing, at a place called ―Little

[483] Reid to Pedley, 26 April 1905.

[484] Letter of 6 June 1905 from Indian Commissioner Harold Laird to Surveyor J. Lestock Reid. LAC, RG 10, Vol. 3569, File 84, Part 21.

[485] Duncan Tustawits Band . Treaty No. 8, Peace River Landing, 9 June 1905. LAC, RG 10, Vol. 9438. In, Joan Holmes & Associates 1989:72, Document 37.

[486] Letter of 15 January 1906 of J.Lestock Reid to Frank Pedley, Deputy Superintendent General of Indian Affairs, Ottawa. LAC, RG 10, Vol. 4005, File 240050-3. Cited in Reddekopp 1996:32-34, fn.'s 171 and 176.

[487] Reddekopp 1996:32.

[488] Elsewhere, Reid stated in 1907 that Louison Cardinal ―was living on this location [in 1905] and I understand from him that he had been there for some years." See letter of 25 February 1907 from J. Lestock Reid to J.D. McLean, Secretary of the Department of Indian Affairs, Ottawa. Aboriginal and Northern Affairs Canada, File 777/30-8, Vol. 1, in, Holmes & Associates 1989:73, Document 39.

[489] Leonard 2005:51.

Prairie” on the trail to Grouard. [490] William McKenzie‘s stepfather, Alexander Mackenzie (also spelled McKenzie) was said to be a ―great nephew” of his celebrated namesake, Sir Alexander Mackenzie.[491]

Hence, in total, in 1905 Reid surveyed ten Indian Reserves for the ―Peace River Landing Band” (Duncan‘s Band; now, Duncan‘s First Nation). He also surveyed two reserves for the ―Dunvegan Band” (now the Horse Lake First Nation). The reserve land selection along the Peace River and on the surrounding prairies indicates that members of the Duncan‘s Band supplement their continuing reliance on hunting, fishing and gathering with the new pursuit of farming.

Reid forwarded his report and completed survey plans to Indian Affairs in January 1906. [492] In July of 1906, these plans were sent by Indian Affairs to the Department of the Interior for confirmation. [493]

Eight of the ten Indian Reserves for the ―Peace River Landing Band” were confirmed by Privy Council Order-in-Council 917 on 3 May 1907, as follows:

- No. 151 [Peace River Crossing] ―for the Peace River Landing Band,” 5.5 square miles;
- No. 151A [Duncan Tustawits] ―for the Peace River Landing Band,” eight square miles;
- No. 151B [John Felix Tustawits] ―on the Peace River” [―Big Island Flat”], 294.4 acres;
- No. 151 C [Tavia Moosewah] ―on the Peace River,” 126.56 acres;
- No. 151D [Alinckwoonay] ―on the Peace River,” 96.65 acres;
- No. 151E [Duncan Tustawits] ―on the Peace River,” 118.68;
- No. 151F [David Tustawich] ―on the Peace River,” 134.02 acres;
- No. 151G [Gillian Bell] ―on the Peace River,” 5.67 acres. [494]

[490] Reid to Pedley, 15 January 1906, in, Reddekopp 1996:32-34, fn.‘s 171 and 176.

[491] While Mair (1999:87) did not provide William McKenzie‘s (Mackenzie‘s) actual name, Mair described Alex Mackenzie‘s father as a ―cousin” of the famous explorer. David Leonard and Beverly Whalen, editors of the published diary of Dr. Oliver C. Edwards, who was with the Treaty 8 Commission in 1899, state in a note that Alex McKenzie was born in 1843, died in 1919 and was ―a great nephew of the explorer, Sir Alexander Mackenzie.” See David Leonard and Beverly Whalen, Editors (2002). *On the North Trail: The Treaty 8 Diary of O.C. Edwards*. Historical Society of Alberta. Page 43, fn. 49. The stepson relationship between the more recent Alexander Mackenzie and William McKenzie (Mackenzie) is confirmed independently by the recollections of Adophus St. Germaine who was eight years old when his family came to this region in 1893 and settled in the Little Prairie area and later at the Shaftesbury Settlement. Mr. St. Germaine said that William Mackenzie was one of the two sons that Alexander Mackenzie‘s wife had had by a previous marriage. See Loggie Papers, Interviews with Pioneers. Interview with Mr. Adolphus St. Germaine, Harmon Valley, Alberta, June 1956, by Isabel Loggie. Glenbow Archives, Calgary, ALberta. D971.23.L832, file 33.

[492] Reid to Pedley, 15 January 1906, in, Reddekopp 1996:34, fn. 178.

[493] Letter of 13 July 1906 from the Secretary of the Department of Indian Affairs to P.G. Keyes, Secretary of the Department of the Interior, Ottawa. Aboriginal and Northern Affairs Canada. File 777/30-8, Vol. 1. Cited in Reddekopp 1996:34, fn. 179.

While Reid also surveyed Indian Reserve 151H and 151K in 1905, they were not included within the above-mentioned 3 May 1907 Privy Council Order-in-Council, as Ottawa questioned the technicalities concerning the surveying of these two parcels. When Surveyor Reid in January 1906 forwarded his final report and completed survey plans to the Department of Indian Affairs in Ottawa, [495] and these materials in turn were sent to the Department of the Interior for confirmation, [496] the Surveyor General indicated that the lands surveyed for Louison Cardinal and William McKenzie had not been related to existing township surveys. [497] As there was no reason not to proceed with confirmation of the other Reserves, [498] Indian Reserve 151H and 151K did not appear in the 1907 Order-in-Council. Final confirmation of Indian Reserve 151H and 151K would not occur until 1925, by Privy Council Order-in-Council 990. [499]

4.3 Purported Surrender of Duncan's Indian Reserves 151 and 151B – 151H

Surveyor J. Lestock Reid had been instructed not to include the Shaftesbury settlers' claims in the Reserves to be surveyed. [500] By 1905, at the time of the surveys, the Shaftesbury Settlement reportedly had a population of about 200 and included two sawmills and two gristmills.[501] Non-aboriginal settlement had also spread beyond this hamlet on the north bank of the Peace River. By 1909 there were six settlements in this region: Peace River Crossing (formerly known as Peace River Landing), Shaftesbury, Silver Springs, Cold Springs, Bear Lake and Little Prairie.[502]

With this influx of settlers came concerns about excess land being in the hands of the Aboriginal people and Ottawa began to receive requests for ―opening up for settlement" the surveyed Indian Reserves in this region of the Peace. Increasing calls for the disposal of these Reserves came at the time of World War 1. In 1917, lawyers for a soldier serving overseas contacted the Indian Affairs Department asking about the availability of IR 151H,[503] but were told this Reserve was

[494] Privy Council Order-in-Council 917, 3 May 1907. Library and Archives Canada (LAC), Ottawa. RG 2, Vol. 929, File 1666D (copy in the Holmes & Associates 1989 report, p. 73, Document 40).

[495] Reid to Pedley, 15 January 1906, in, Reddekopp 1996:34, fn. 178.

[496] Secretary of Indian Affairs to Keyes, 13 July 1906, in Reddekopp 1996:34, fn. 179.

[497] Letter of 26 September 1906 from Surveyor General E. Deville to the Deputy Minister of the Interior. LAC, RG 15, Vol. 970, File 34571A, cited in Reddekopp 1996:34, fn. 180.

[498] Deville to Deputy Minister of the Interior, 26 September 1906, in, Reddekopp 1996:34, fn. 180.

[499] Privy Council Order-in-Council 990, 23 June 1925, cited in Reddekopp 1996:11, fn. 35.

[500] Letter of 10 February 1905 from J.D. McLean, Secretary of Indian Affairs, Ottawa, to P.G. Keyes, Secretary of the Department of the Interior. Aboriginal and Northern Affairs Canada, File 777/30-7-151, Vol. 1, cited in Reddekopp 1996:27, fn. 137.

[501] Leonard 2000:198-210.

[502] Cited in Leonard 2000:207-209.

[503] Letter of 24 September 1917 from A.M. Stow to W.W. Cory, Department of the Interior. LAC, RG 10, Vol. 7535, File 26131-6. Cited in Reddekopp 1996:56, fn 282.

not available. [504] In June 1919, the Secretary of the ―Peace River Unionist Association" proposed that all the Duncan‘s Indian Reserves, except IR 151, together with the Beaver (ancestors of today‘s Horse Lakes First Nation) Indian Reserves, excepting 152A, be made available for the purposes of soldier settlement. [505] This request made its way to the offices of Arthur Meighan, Minister of the Interior, whose Private Secretary wrote a Memo to Duncan Campbell Scott, the Deputy Superintendent General of Indian Affairs. The Memo requested that all these above-mentioned Indian Reserves be ―thrown open for the purposes of settlement" with the reason given that ―hundreds of returned soldiers are seeking land in this neighbourhood."[506]

By 1928, according to a Department of the Interior report, the available Crown lands in the region had been practically exhausted. [507] Consequently, Ottawa obtained a purported surrender for eight of the ten reserves that had been allotted to the Duncan‘s First Nation.

The Duncan‘s First Nation Chief and Council challenged the validity of the 1928 purported surrenders through the Government of Canada‘s Specific Claims Process. They submitted that the purported surrenders of these seven Indian Reserves in 1928 were null and void, as they were not obtained in strict compliance with statutory requirements governing the surrender of Reserve lands set out in section 51 of the 1927 *Indian Act*. However, Canada rejected this Specific Claim. Consequently Duncan‘s First Nation Chief and Council requested a public inquiry and report by the Indian Claims Commission; this resulted in the 1999 Inquiry Report entitled ―Duncan‘s First Nation Inquiry, 1928 Surrender Claim." [508]

[504] Letter of 15 October 1917 from Assistant Secretary of the Interior to A.M. Stow. LAC, RG 10, Vol. 7535, File 26131-6. Cited in Reddekopp 1996:56, fn. 283.

[505] Letter of 2 June 1919 from L. W. Brown, Secretary of the Peace River Unionist Association, to Brigadier General W.A. Griesbach, M.P. LAC, RG 10, Vol. 7535, File 26131-1. Cited in Reddekopp 1996:56-57, fn. 284.

[506] Memo of 23 September 1919 from Mr. Mitchell, Aruthur Meighan‘s Private Secretary, to Duncan Campbell Scott, Deputy Superintendent General of Indian Affairs. LAC, RG 10, Vol. 7535, File 26131-3.

[507] Indian Claims Commission 1999:8, fn. 22, citing letter of 15 May 1928 from J.W. Martin, Acting Commissioner, Dominion Lands Administration, Department of the Interior, to R.A. Bunyan, Waskatenau, Alberta. Library and Archives Canada (LAC), Ottawa. RG 10, Vol. 7544, File 29131-9, Part 1.

[508] Indian Claims Commission (1999). Duncan‘s First Nation Inquiry, 1928 Surrender Claim. September 1999. Available online: http://dsp-psd.pwgsc.gc.ca/collection_2009/indianclaims/RC31-56-1999E.pdf

5.0 Named Places

Place naming practices bring to the fore Aboriginal perceptions of the natural environment, their linguistic and social history, and their contact with other peoples. Names of certain places carry considerable import, as the principle resource of the locality may be embedded in the name, or carry information about prominent landscape features. The assignment of names to landscape is not arbitrary. They have mostly straightforward, concrete meanings that refer to some aspect of the natural history.

Sometimes there can be an overlap in place naming between neighbouring groups, especially in areas of shared use. It seems appropriate to include here linguist and anthropologist J.V. (Jay) Powell's set of linguistic axioms used in arguments for the traditional boundaries in cases of overlapping claims:

> The people who occupy, use and own an area will have more names for places than those who do not;
>
> Therefore, the group with the higher density of names has a more plausible case for ownership and traditional use and occupancy;
>
> The names of locations will most likely be in the language of those who traditionally occupy, use and own the territory.[509]

The following are some of the Aboriginal Cree and *Dane-zaa* place names for places in the central Peace River region that occur in the historical documents reviewed for this report:

Spirit River: "*Chipay Sipi*," a Cree name meaning "Ghost River." It is reported that a band was haunted by the ghost of a woman who body had been buried in a grove of trees on a hill; when the wind whistled through the trees, the people believed it was her voice; or an Aboriginal man washing gold her noticed flashes of light from the sparkling mineral and assumed it was the light of spirits.[510]

Kakut Lake: "*Ka-toot*" Lake, which geologist George Dawson noted to be 22 miles south from Dunvegan and said to drain southeastwards towards the Bad Heart River ("or *Ma-atz-i-ti he-sī-pī* of the Crees") which in turn flows eastward to the Smoky River.[511]

Smoky River: Dawson transcribed the Cree name for the Smoky River as "*Ka-ska-pa-tē-oo Sī-ī*" whose meaning, he pointed out, is the "same as in English."[512] Confirmation of several of these Cree terms and their translations, as provided by Dawson in 1879, is provided in a recent Cree

[509] J.V. Powell, pers. comm., cited in Dorothy Kennedy (2010). Topogeny among the Ditidaht. Pp. 226-253 in, *A Festschrift for Thomas M. Hess on Occasion of his Seventieth Birthday*. Edited by David Beck. Whatcom Museum Publications No. 21. Bellingham, Washington: Whatcom Museum Publications.

[510] Spirit River History Book (1989) *Chepi* Sepe. Spirit River.

[511] Dawson 1881:53B and Map.

[512] Dawson 1849-1901: Microfilm 270, Page entitled "Names of Places" appearing between the entries for 15 and 16 September 1879; see also Dawson 1881: Map.

dictionary.[513] Concerning Dawson‘s ―*Ka-ska-pa-tē-oo Sī-pī* ”, this dictionary gives the Cree term *kaskâpahtew* meaning ‗in the smoke‘, and the Cree term *sîpîy* meaning ‗river‘; concerning Dawson‘s ―*Wa-was-ke-soo Sī-pī* ”, the dictionary gives *wâwâskesiw* as the Cree term for ‗elk.‘[514]

Smoke Lake: identified in Cree as ―Ī-a-pe-oo Lake," a term meaning ‗Buck Moose Lake.‘ [515]

Possibly either Clairmont Lake or adjacent Ferguson Lake just north of the city of Grande Prairie: *Kles-kun* and Bear Lakes, about three and six miles in length respectively, besides many smaller sheets of water, occur on the prairie. [516]
Kleskun Lake: ―This lake received its name from the dangerous springy spots at the north-west end."[517] A group of Stony people lived in ―stick houses" [tipi formed of poles] on the east side of the lake in the late 1890s.[518]

Little Smoky River as ―*Ka-ska-pa-tē-oo Sī-pī-sīs.*" Dawson transcribed ―*Wa-was-ke-soo Sī-pī*" as the Cree term for the Wapiti River, and noted that it means, literally, ‗elk river.‘ [519]

Bear River: Cree name, ―*Sus-za-ka* of the Beavers" [Bear Creek]), north from its confluence with the Fish River (―*Klo-es-sa-ka*" [Fish Creek]) and not far from the northwest end of Bear Lake (―*Sus-mi-gi*").[520]

Saskatoon Lake: George Dawson on the 21st of August came across a lake ―east of the mt." [521] (the ―Isle de Montagne or *Sis-tin* of the Beavers") [522] that is called Saskatoon Hill on present-day maps. He indicated that the lake was aptly called ―Service-berry Lake" (Saskatoon Lake, on today‘s maps) and was ―greatly resorted to by the Beaver Indians when gathering berries." [523]

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[513] See Nancy LeClaire and George Cardinal (2006). *Alberta Elders' Cree Dictionary*. Edited by Earle Waugh. The University of Alberta Press and Duval House Publishing, Edmonton, Alberta.

[514] LeClaire and Cardinal 2006: 296, 406, 425.

[515] Dawson Report B, 1879-1880. Map Sheet III; Spelled as Ī-a-tē-ow Lake in his daily journal of 19 September 1879 and translated here and in his published account as ‗buck moose lake‘ (Dawson 1881:65B).

[516] Dawson 1881: 53B and Map.

[517] Macoun 1904:24E.

[518] Loggie Papers, Interviews with Pioneers. Interview of Harry Garbitt, Moberly Lake, British Columbia, 13 August 1955, by Isabel Loggie. Glenbow Archives, Calgary, Alberta. D971.23. L832, file 31.

[519] Dawson 1849-1901:Microfilm 270, Page entitled ―Names of Places" appearing between the entries for 15 and 16 September 1879; see also Dawson 1881: Map.

[520] Dawson 1881:54B.

[521] Dawson 1849-1901: Microfilm 270, Entry for 21 August 1879.

[522] Dawson 1881: 54B and Map.

[523] Dawson 1849-1901: Microfilm 270, Entry for 21 August 1879; see also Dawson 1881: Map.

Saddle (Burnt) Rive: known by its Cree name, "*Quiscatina Sepy*" translated as "River with the High Banks".[524]

Notikewin River: "Notikewin" is derived from the Cree term "*nôtinikewin*" which means "battle." See Nancy LeClaire and George Cardinal (2006). *Alberta Elders' Cree Dictionary*. Edited by Earle Waugh. The University of Alberta Press and Duval House Publishing, Edmonton, Alberta. Page 256. Thus it is not surprising that documents and maps from the 1870s through the early 1900s identify this same river as "Battle River" (see Sections 3.6 and 3.8.1 of the present report). The Notikewin River originates in the Clear Hills of Alberta and flows northeast and eastward, empyting into the southwest side of the Peace River about 50 Km (31 miles) northeast from the town of Manning, Alberta.

[524] Lamb 1970:259-260.

6.0 Atlas of Historical Maps

6.1 Peter Pond

A map prepared from Aboriginal reports by Peter Pond in 1785 illustrates his understanding –or lack of understanding—of geography and tribal distribution prior to the establishment of Boyer‘s Post c.1788. Pond‘s information was that ―Beaver Indians" resided up the ―River of Peace."[525] Another version of this map was prepared by Pond for presentation to the Empress of Russia in July 1787; this map places the name ―Beaver Inds." to the north of the Peace, leaving room on the south side of the river for a number which was keyed to a list of annotations . [526] A detail from this map appears in this report on page 75.

Concerning discrepancies among the versions of Pond‘s map, historian Barry Gough remarked, ―Pond changed various details of his map to suit circumstances." [527] Surveyor and historian J.N. Wallace described how a map prepared by Ezra Stiles in 1790, purporting to show Pond‘s travels, shows a site ―on the southeasterly bank of [the] Peace river and apparently…about seventy miles northwest of Pond‘s House [on the Athabasca River]." Yet Wallace concluded: ―This seems to be the only evidence, if indeed it is evidence, that Pond was ever on [the] Peace river." [528] It was also Lamb‘s opinion that ―evidence that Pond ascended the Peace River is inconclusive." [529] Thus the extent and accuracy of Pond‘s investigations of the Peace River area remain largely unknown; consequently, his evidence of occupation must be used cautiously.

[525] Derek Hayes (1999). *Historical Atlas of British Columbia and the Pacific Northwest: Maps of Exploration.* Cavendish Books: Vancouver. Map. 102: Map of Western Canada presented to Lieutenant-Governor of Canada, Lord Hamilton, in 1785. Page 64.

[526] Portion of a map of north-western America prepared by Peter Pond for presentation to the Empress of Russia, July 1787. Reproduced in Lamb 1970: Facing p.13. A section of this map appears on the following page of the present report..

[527] Gough 1997:65.

[528] See J.N. Wallace (1929). The Wintering Partners on Peace River, From the Earliest Records to the Union in 1821. Thorburn and Abbott, Ottawa. Pp. 12-13.

[529] Lamb 1970:243.

and Rivers
Great Slave Lake
N°21
A Great Waterfall
R. of the Mountains
Slave R.
A Number of small Lakes
called little Arambascha
Salt R.
Lake
Mt. St. Elias
Cape St. Elias
Cape Suckling
Beaver Ind.
R. of Peace
N°19
Cross Cape
Strong Bay In.
These parts are the
least frequented by the
Natives it being a War
road.
C. Fitzcumbe

6.2 Philip Turnor

Hudson‘s Bay Company surveyor Philip Turnor and his assistant Peter Fidler in 1790-1792 made a clear association of the Beaver people (*Dane-zaa*) with the Peace River, including the area where in the early 1900s Indian Reserves were set aside for the Duncan‘s First Nation.[530] While Turnor and Fidler made numerous calculations of longitudes and latitudes during this trip, Turnor did not actually draft maps until he returned to London in 1792.[531] Fidler did make many sketches in the field, however, including 16 sketches illustrating most of the shoreline of Lake Athabasca. [532]

Philip Turnor‘s journal indicates that he did not ascend the Peace River and consequently there is no encounter with *Dane-zaa* on the Peace River. He did, nevertheless, explore the Slave River and on 5 July 1791 noted the location where the Peace River enters the Slave River. Moreover, Turner associated the Peace River with the Beaver people:

> it [the Peace River] is said to come from the stony Mountain [Rocky Mountains] its called by the Chepawyans the Chaw hot-e-na Dez-za or Beaver Indian river up which the Canadians have two settlements which are the Support of this Country its there they get all their dried provision for their journeys…[533]

One of the maps prepared by Turnor indicates ―Beaver Indian Country" along both sides of the lower portions of the Peace River, which he describes as ―Beaver Indian river, by the Canadians called the Peace river." Turnor likely drafted this map in the latter months of 1792. The original of this map is in the Hudson‘s Bay Company Archives, Winnipeg , where it is catalogued as G.2/13 and entitled ―Chart of Lakes and Rivers in North America by Philip Turnor those Shaded are from Actual Survey‘s the others from Canadian and Indian information." [534]

The version of this 1792 map appearing on pages 78 and 79 of the present report was published in 1935 in historian Lawrence Burpee‘s *The Search for the Western Sea*. This published version has been redrawn from the HBCA original and has been re-titled as ―Hudson‘s Bay Country by Turner. 1790" [*sic*]. [535]

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[530] For Turnor‘s 1790-1792 journal, see J.B. Tyrrell, Editor (1934). Journal of a Journey From Cumberland House North America…Towards the Athapiscow Country and Back to York Factory, [September 13, 1790 to July 17, 1792], by Philip Turnor. Pp. 327-491, in, *Journals of Samuel Hearne and Philip Turnor*. The Champlain Society, Toronto (reprinted in 1968 by Greenwood Press Publishers, New York).

[531] Turnor, who had been retained as a surveyor by the Hudson‘s Bay Company in 1788, hired Peter Fidler as his assistant in 1790. See Richard I. Ruggles (1991). *A Country So Interesting: The Hudson's Bay Company And Two Centuries of Mapping 1670-1870.* McGill-Queen‘s University Press, Montreal & Kingston. Pp. 18-19, 52-53.

[532] Ruggles 1991:53,197.

[533] Tyrrell 1934:401.

[534] Ruggles 1991:53,197.

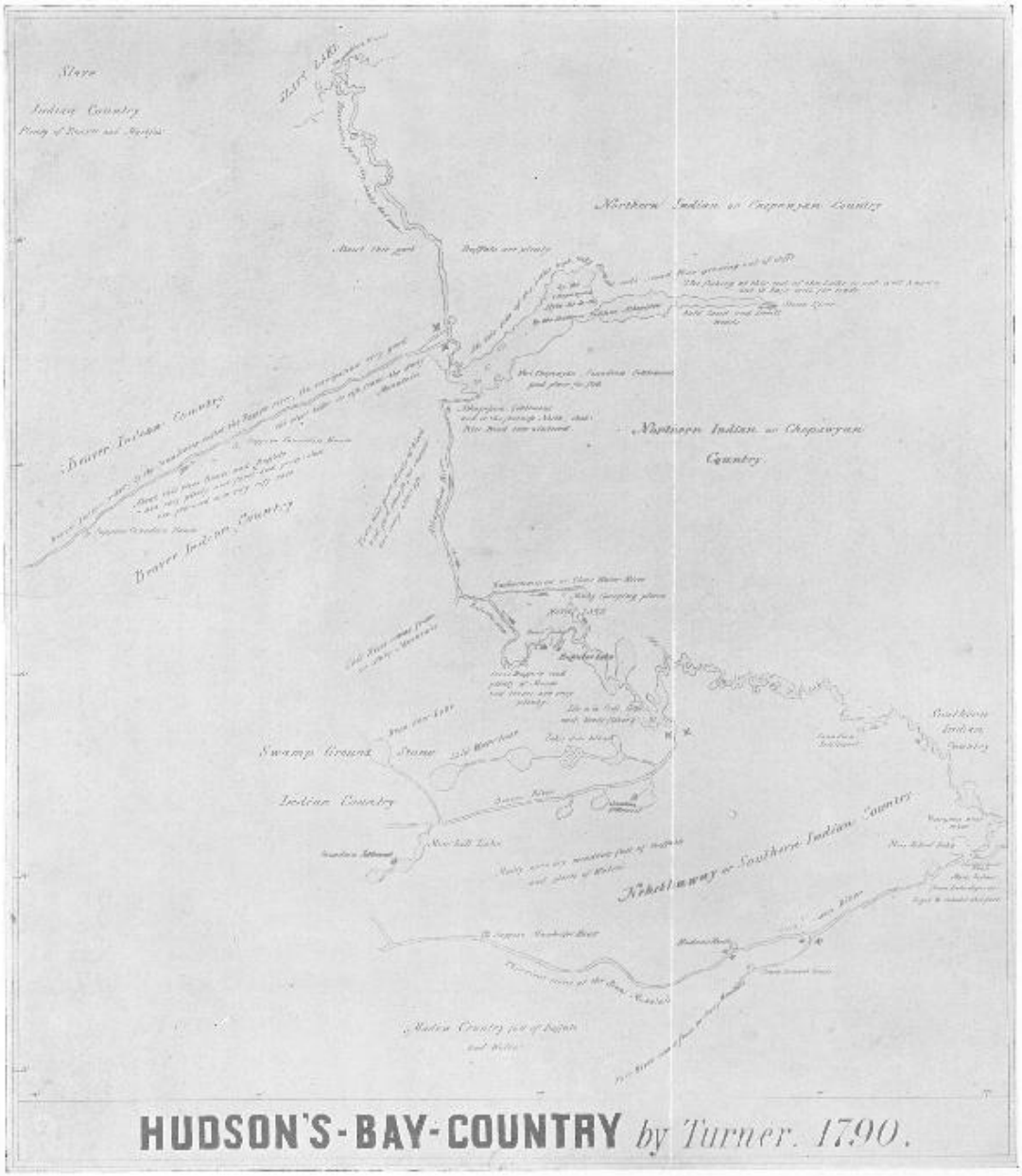
[535] Burpee 1935:1:Map between pp. 170-171.

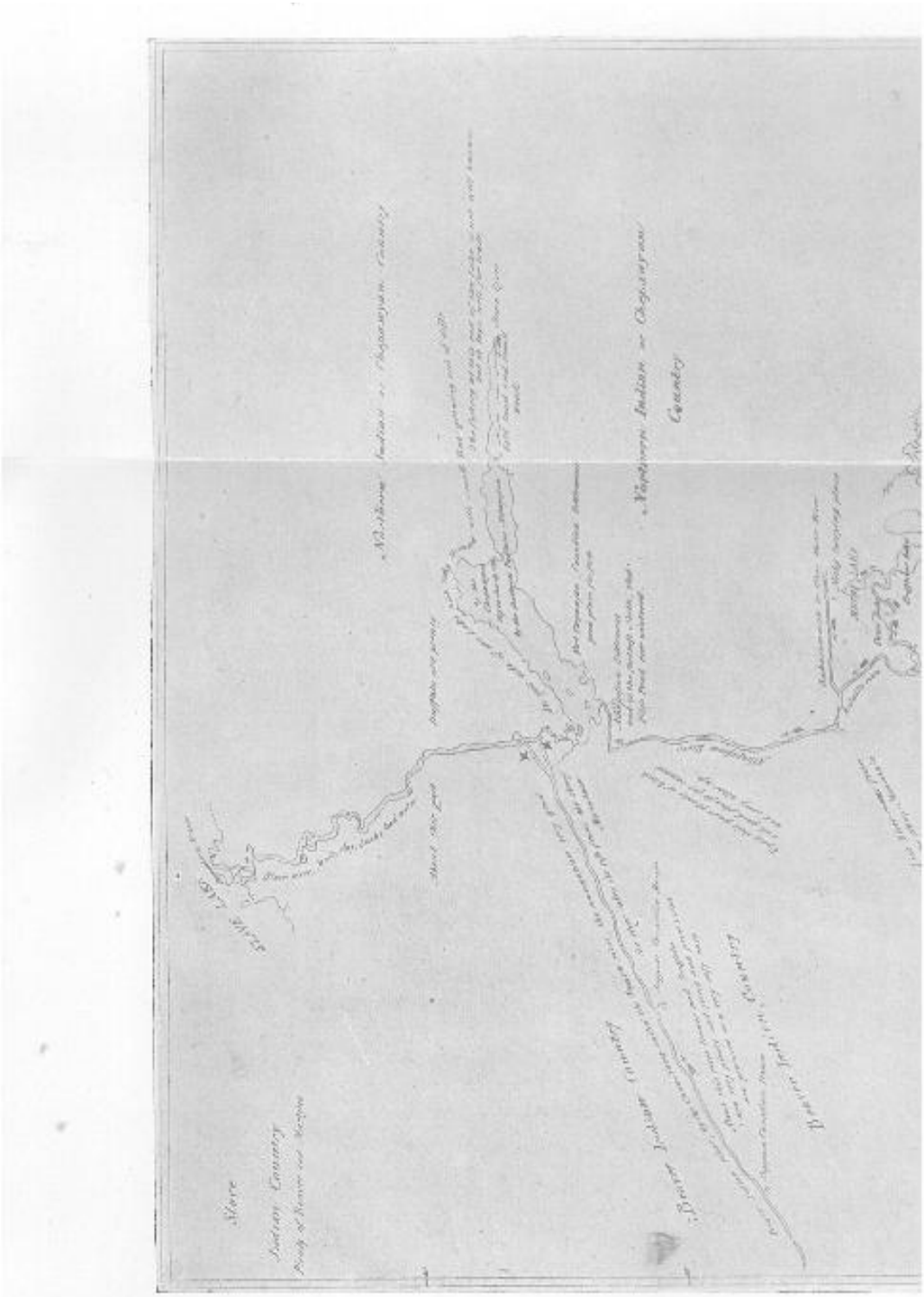
This 1935 redrawn version of the original 1792 map clearly indicates by means of an "x" placed on both sides of the Peace River at its split confluence with the Slave River, that this is information from "Canadian and Indian" sources. Additionally, notations on the map include the statement, with reference to the Peace River, that "about this river Beaver and Buffalo are very plenty…". Also, locations of a "Supposed Canadian House" [trading post] are indicated at two different places on the lower Peace River. [536]

Turnor shows the "Nehethaway or Southern Indians Country," meaning Cree, situated a considerable distance to the south. [537]

[536] Burpee 1935:1:Map between pp. 170-171.

[537] Burpee 1935:1:Map between pp. 170-171.


Slave
Indian Country
Northern Indian or Chipewyan Country
Beaver Indian Country
Beaver Indian Country
Northern Indian or Chipewyan
Country
Swamp Ground
Indian Country
Nihetlawey or Southern Indian Country
HUDSON'S-BAY-COUNTRY by Turner. 1790.



6.3 Alexander Mackenzie

A map likely prepared by Aaron Arrowsmith in the early 1800s, based on the explorations of Mackenzie and others, [538] identifies the Aboriginal people around the confluence of the Peace River with the Smoky River as *–Ƒza-Dene* or Beaver Ind." The term *–Ƒza-Dene*" is a variant transcription of *–ŧsattine*," the term used by the Chipewyan to identify the *Dane-zaa*.[539] While this map is not dated, it was likely prepared *circa* 1804, and it is almost certain that Arrowsmith produced a similar map for Mackenzie's 1801 *Voyages*. [540] A detail of Alexander Mackenzie's map can be found on page 82 of this present report.

There are at least 3 known versions of this map:

1) First is the map likely by Aaron Arrowsmith (*circa* 1804): *A Map of America, between Latitudes 40 and 70 North, and Longitudes 45 and 180 West, Exhibiting the Principal Trading Stations of the North West Company*. Original held by The National Archives, London, England. Privy Council I, Unbound Papers #3997. This is the copy that is reproduced here (p.82). A similar copy is held by the Hudson's Bay Company Archives, G.4/14;

2) A second, better-known version is reproduced in Lamb's 1970 edition of Mackenzie's 1801 *Voyages*, facing page 67, and has the title *A Map of America, between Latitudes 40 and 70 North, and Longitudes 45 and 180 West, Exhibiting Mackenzie's Track from Montreal to Fort Chipewyan & from thence to the North Sea in 1789, & to the West Pacific Ocean in 1793*. The lesser-known map (from the National Archives in England) has almost the same features on it, but differs from the better-known version in that it has a different title (as given above) and contains some additional identification of Aboriginal groups;

3) A third version of this map comprises the portion that was subsequently published in London in 1817 as part of a pamphlet with the lengthy title: *Notice respecting The Boundary between His Majesty's Possessions in North America and the United States; with a Map of America, between Latitudes 40 ^{o} and 70^{0} North, and Longitudes 80^{0} and 150^{0} West; exhibiting The Principal Trading Stations of the North-West Company; and*

[538] Personal communication from map historian and author Derek Hayes, White Rock, BC, to Randy Bouchard, Victoria BC, August 2011.

[539] Ridington 1981, 359; see also F. W. Hodge, Editor, 1910. Smithsonian Institution Bureau of American Ethnology, Bulletin 30: Handbook of American Indians North of Mexico, Part 2. Government Printing Office, Washington DC. Page 822. This same term, *–ŧsattine*," is given as *–ŧsa-ttinè*" and translated as `dwellers among the Beaver` (citing Petitot 1888:360-363) in: Donat Savoie (Editor). *The Amerindians of the Canadian North-West in the 19th Century, as Seen by Émile Petitot*. Mackenzie Delta Research Project, Northern Science Research Group. Vol. II, The Loucheaux Indians. Page 33.

[540] Personal communication from Hayes to Bouchard, August 2011..

> *intended to accompany the narrative of occurrences in the Indian countries of North America, connected with the Earl of Selkirk, the Hudson's Bay and the North-West Companies*. HBCA Library, PP 2029. While this pamphlet and map were published anonymously, their author is said to have been Simon McGillivray, a partner of the North West Company. [541]

On the version of the c.1804 map reproduced here, the words ―*Tza-Dene* or Beaver Ind." are written adjacent to ―Fork Fort," near the confluence of the Smoky River with the Peace, as well as in the area north from Lesser Slave Lake. This same map also shows the ―Rocky Mountain Indians" in the Parsnip River valley of the Rocky Mountain Trench.

The location of the Cree on this map is indicated by the designation ―Nahathaway Indians" [542] which is written in a southeasterly direction from an area of the Peace River not far upriver from its confluence with the ―Loon River" (Wabasca River).

[541] See James V. Walker (2010), Henry S. Tanner and Cartographic Expression of American Expansionism in the 1820s. *Oregon Historical Quarterly, Vol*. 111, No. 4:418, 440; see also Frederick Merk (1967). *The Oregon Question: Essays in Anglo-American Diplomacy and Politics*. The Belknap Press of Harvard University Press, Cambridge, Massachusetts. Pp. 60-65.

[542] ―Nahathaway" is the term that the Western Woods Cree use to refer to themselves. See: James G.E. Smith 1981. Western Woods Cree. In, *Handbook of North American Indians, Vol. 6, Subarctic*. Edited by June Helm. Smithsonian Institution, Washington DC. Pp. 267-268.

Fort Chepawyan
N.W. Depot
CHEPAWYANS
AND
NAHATHAWAY
INDS
TZA-DENE
OR
BEAVER IND.
Buffalo
Isle a la Crosse
N.W. Depot
Beaver Lake
NAHATHAWAY IND
Lake Manito
Fort George
Hudsons Ho.
BLACKFOOT
INDIANS
FALL
INDIANS
STONE IN.
KOOTANAC
INDIANS
Red Deers River

6.4 George Dawson

Detail of Dawson's Language Map entitled: ―Map shewing the Distribution of the Indian Tribes of British Columbia," published in 1884 and based on work that George Dawson and W. F. Tolmie had undertaken with various tribes throughout British Columbia between 1875-1883. [543] In red letters are the words ―Beaver Indians" and ―Nehiyawok or Cree Indians," along with the following statement written south to north in the area of Smoky River: ―Cree Indians Encroaching Westward." To the west, Dawson wrote: ―A Band of Iroquois Immigrants Now Hunt Between Jaspar House and Dunvegan."

The 1870s-1880s extent of the ―Cree Indians Encroaching Westward" is reflected in several other maps of this time period. For example, a south-to-north linguistic ―boundary"—extending from the general vicinity of the headwaters of the Smoky River and its tributaries to the confluence of the Smoky and Peace Rivers and then northwards along the west side of the Peace River—is also shown on Franz Boas' 1890 ―Linguistic Map of British Columbia" where this ―boundary" information is attributed to George Dawson. [544] This same linguistic ―boundary" is shown on A.G. Morice's 1892 map; it is very likely that the information also came from George Dawson. [545]

Similar information about the Beaver/Cree ―boundary" was also provided at the time of the Treaty 8 Commissions of 1899-1900. O.C. Edwards, physician for the Treaty 8 Commission of 1900, wrote in his journal that, ―The Peace River is the great dividing line between the Crees and the Beavers." [546] Moreover, with reference to the same south-to-north region mentioned above (i.e. from the Smoky River headwaters and north as far as Fort Vermilion), the official Treaty 8 map (printed in 1900 and published in the *Canada Sessional Papers* in 1901), indicates, generally, ―Beavers" along the west side of the Smoky and Peace Rivers, and ―Crees" along the east side. This same map indicates ―Iroquois" in the immediate vicinity of Jasper House. [547]

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[543] This map appears in: W.F. Tolmie and G.M. Dawson 1883 (published 1884). ―Map shewing the Distribution of the Indian Tribes of British Columbia." In, *Comparative Vocabularies of the Indian Tribes of British Columbia, With a Map Illustrating Distribution*. Dawson Brothers, Montreal.

[544] See Franz Boas (1890 [published in 1891]). Linguistic Map of British Columbia. Plate XIX in, Second General Report on the Indians of British Columbia. *Sixtieth Annual Report of the British Association for the Advancement of Science for 1890.* Page 552.

[545] See Rev. A.G. Morice (1892 [published in 1893]). Map Of Part Of British Columbia, Shewing The Habitat Of The Western DÉNÉ Tribes, Together With Portions Of The Territory of Surrounding Races. Section II, Plate II, Opposite Page 109. In, Are the Carrier Sociology and Mythology Indigenous or Exotic? *Proceedings and Transactions of the Royal Society of Canada for the Year 1892, Series 1, Section II. Ottawa.* Pp. 109-126.

[546] See David Leonard and Beverly Whalen (2002). *On the North Trail: the Treaty 8 Diary of O.C. Edwards*. Published by the Alberta Records Publication Board, Historical Society of Alberta. Page 55.

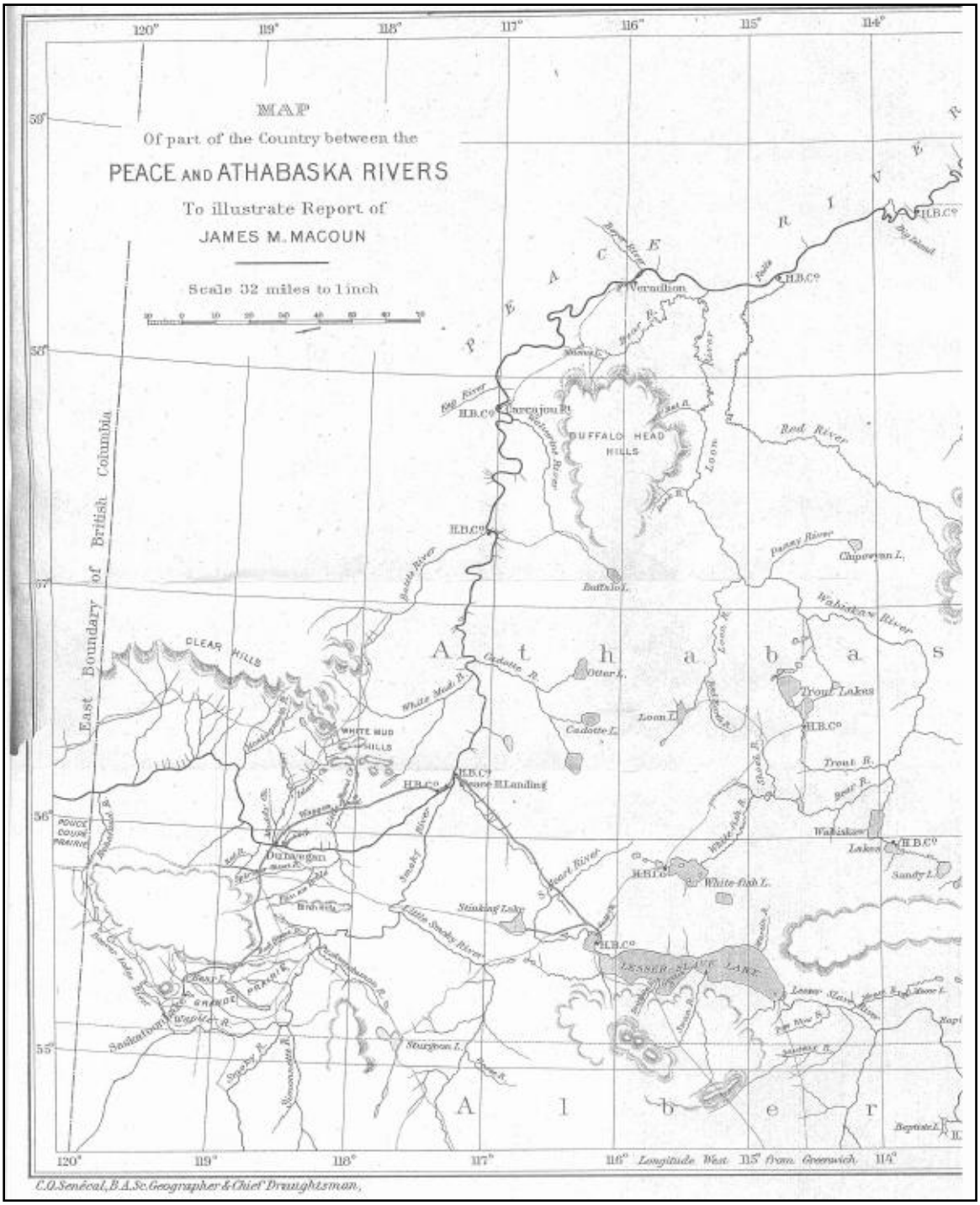
[547] See Department of Indian Affairs (1900). Map showing the Territory ceded under treaty No. 8, and the Indian tribes therein. In, Report of Commissioner for Treaty No. 8, 11 December 1900. Annual Report of the Department of Indian Affairs for the Year Ended June 30, 1900. *Canada, Sessional Papers, Vol. 11, First Session of the Ninth Parliament of the Dominion of Canada, Session 1901.*

122
121
120
119
118
117
116
115
BEAVER
INDIANS
NEHIYAWOK
OR
CREE
INDIANS
Leaver Slave Lake
Lesser Slave R.
Dunvegan
IMMIGRANTS FROM HUDSON & DUNVEGAN
INDIANS ENCROACHING WESTWARD
BAND OF IROQUOIS
JASPER HOUSE
CREE
BETWEEN
McLeod River
Pembina River

6.5 James Macoun

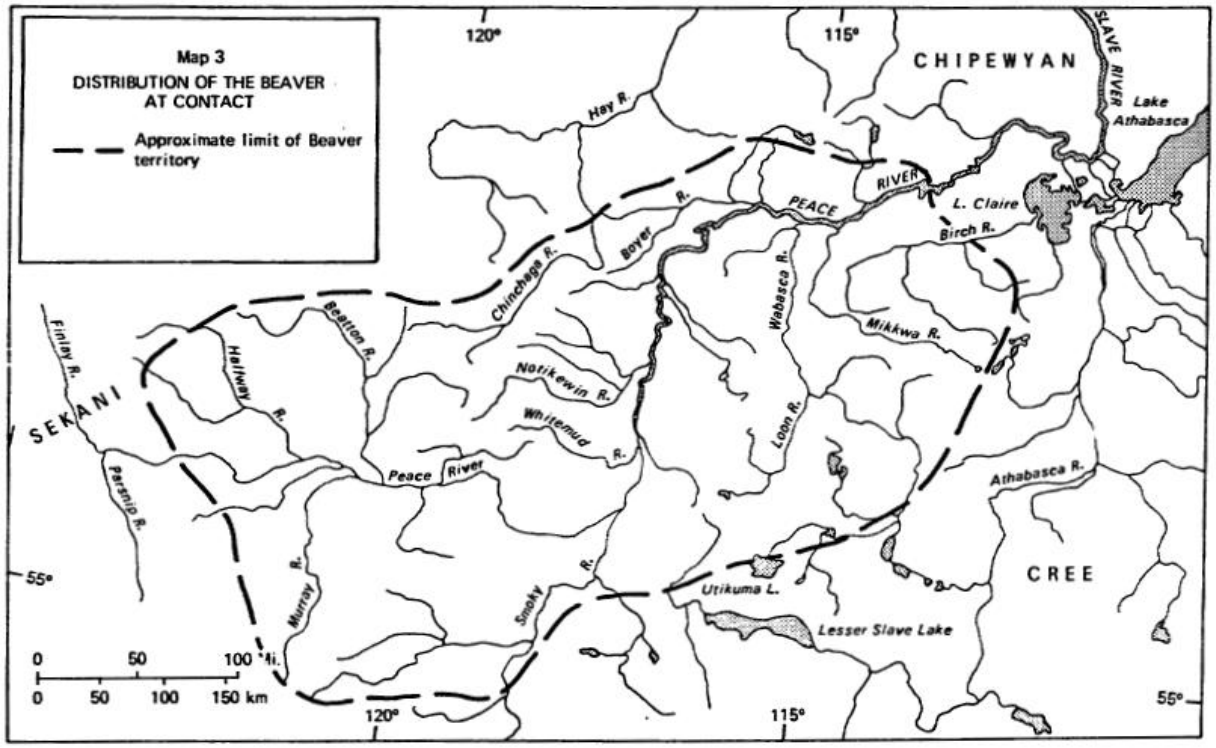
James Macoun of the Geological Survey of Canada undertook a survey of the Peace River region in 1903 (see Section 3.8.2) and published the following map in his 1904 report. Macoun‘s map is entitled ―Map of Part of the Country Between the Peace and Athabaska Rivers to Illustrate Report of James M. Macoun.” [548]

[548] James M. Macoun (1904). *Report on the Peace River Region* [15 December 1903]. Published by the Geological Survey of Canada by S.E. Dawson, King‘s Printer: Ottawa.


MAP
Of part of the Country between the
PEACE AND ATHABASKA RIVERS
To illustrate Report of
JAMES M. MACOUN
Scale 32 miles to 1 inch
East Boundary of British Columbia
CLEAR HILLS
WHITE MUD HILLS
BUFFALO HEAD HILLS
Dunvegan
Vermilion
Peace River Landing
Trout Lakes
Wabiskaw Lakes
Sandy L.
White-fish L.
Stinking Lake
LESSER SLAVE LAKE
Chipewyan L.
Buffalo L.
Otter L.
Loon L.
Cadotte L.
Red River
Loon R.
Trout R.
Smoky River
Little Smoky River
Sturgeon L.
Saskatoon Lake
Baptiste L.
Longitude West 115° from Greenwich
C.O.Senécal, B.A.Sc. Geographer & Chief Draughtsman.

6.6 Leonard Ugarenko

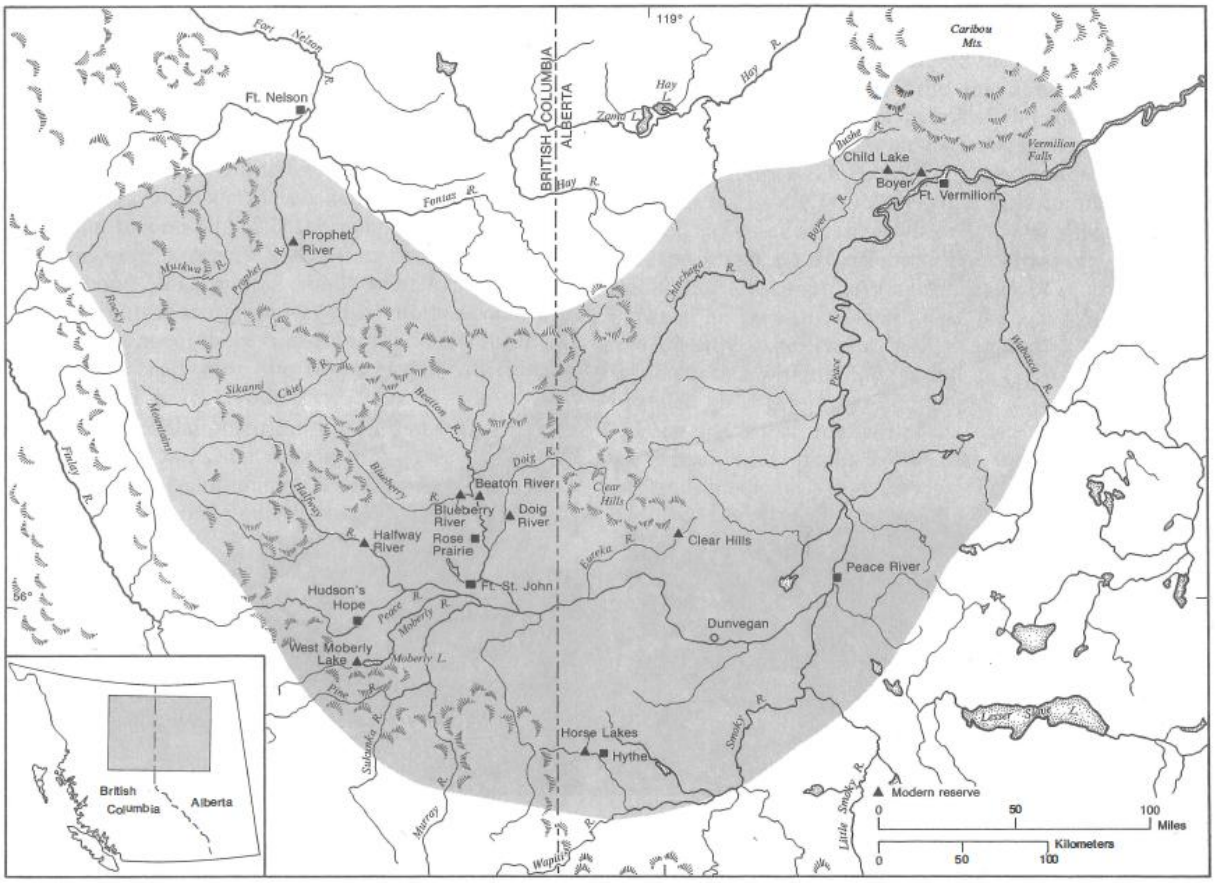
Map appearing in Leonard Ugarenko, 1979 Master's thesis entitled "The Beaver Indians and the Fur Trade on the Peace River, 1700-1850." [549]



[549] Leonard Ugarenko (1979). The Beaver Indians and the Fur Trade on the Peace River, 1700-1850. Master's thesis, Department of History, York University, Toronto.

6.7 Robin Ridington

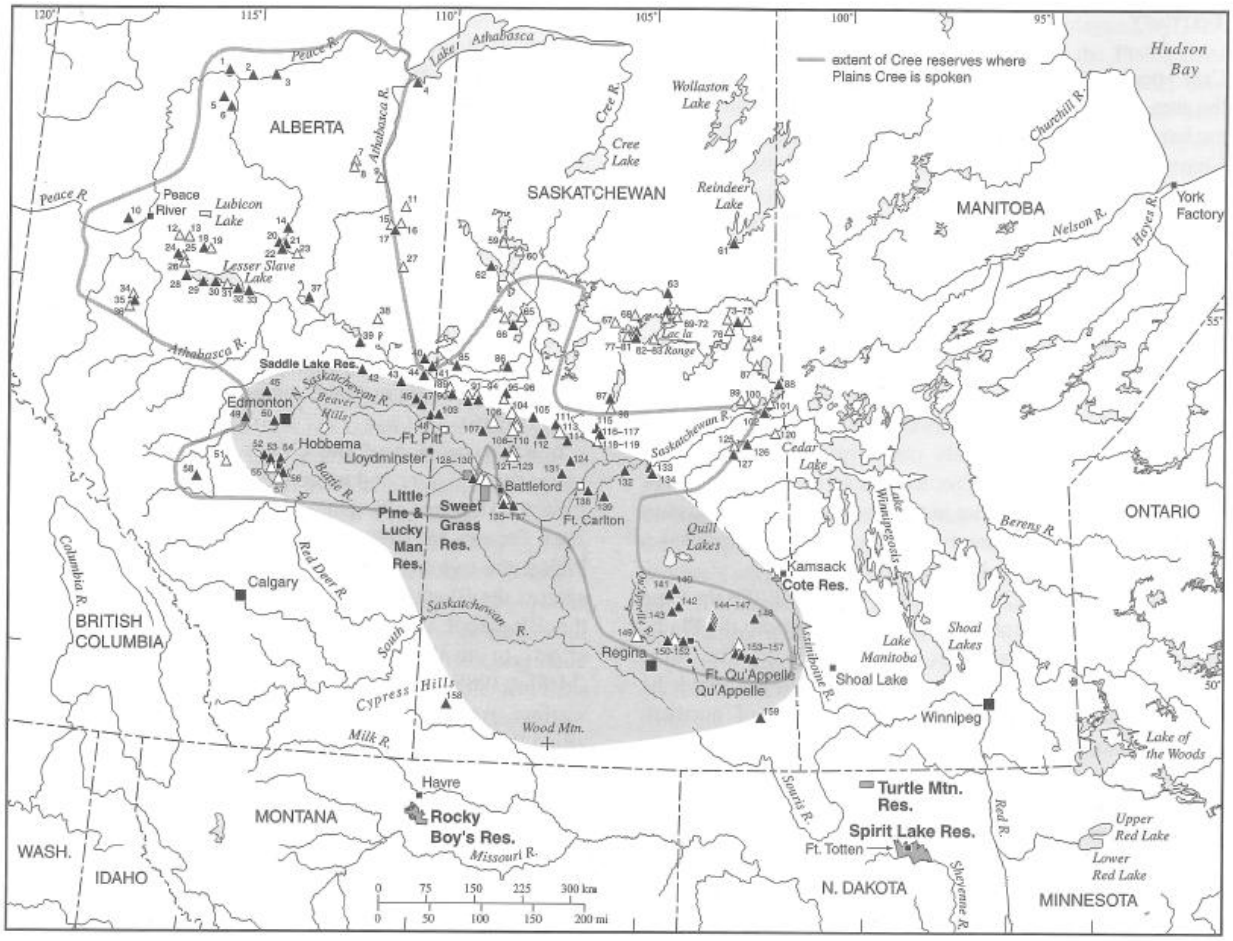
Anthropologist Robin Ridington—together with his first wife, Antonia Ridington—undertook ethnographic field work with *Dane-zaa* people in the Fort St. John region in the 1960s-1970s. Robin Ridington's map of Beaver Territory "in 1800" is reproduced below.[550]



[550] Robin Ridington (1981). "Figure 1. Territory in 1800. Reserves were established after 1900." Page 351, in, Beaver. *Handbook of North American Indians, Vol. 6, Subarctic*. Edited by June Helm. Smithsonian Institution, Washington DC, 1981. Pp. 350-369.

6.8 Regna Darnell

Anthropologist Regna Darnell has reproduced David Mandelbaum's 1979 map of "Plains Cree" territory *circa* 1860-1870, based on his 1934-1935 fieldwork.[551] On this same map, Darnell superimposes a line delineating the "extent of Cree reserves where Plains Cree is spoken" which includes all the areas where Indian Reserves were set aside for the Duncan's First Nation. Village icon number 10 on Darnell's map indicates the location of DFN's Peace River Crossing IR 151A; icon number 12 indicates DFN's William McKenzie IR 151K.[552]



[551] David G. Mandelbaum (1979). *The Plains Cree: An Ethnographic, Historical, and Comparative Study*. Canadian Plains Studies 9. Canadian Plains Research Center, University of Regina. Page 13.

[552] Regna Darnell (2001). "Figure 1. Plains Cree territory 1860-1870 (Mandelbaum 1979:13)." Page 639 in, Plains Cree. *Handbook of North American Indians, Vol. 13, Plains.* Edited by Raymond J. DeMallie. Smithsonian Institution, Washington DC. Pp. 638-651.

Appendix A: Chronological Listing of Early Posts in the Central and Upper Peace Area

The primary source for the following information is Terry Smythe (1968) *Thematic Study of the Fur Trade in the Canadian West, 1670-1870*, a Staff Report for the Historic Sites and Monuments Board of Canada. Agenda Paper 1968-29. A copy is on file with the Hudson‘s Bay Company Archives, Provincial Archives of Manitoba, Winnipeg. Additional, similar information has been provided from Ernest Voorhis (1930). Historic Forts and Trading Posts of the French Regime and of the English Fur Trading Companies. Report prepared for the Natural Resources Intelligence Service of the Department of the Interior, Ottawa; copy on file with the Hudson‘s Bay Company Archives, Provincial Archives of Manitoba, Winnipeg. FC/171/V6.

Chronological Listing of Early Posts in the Central and Upper Peace Area		
c.1788-1791	Boyer‘s Post	This first post built on the Peace River, just above the mouth of Boyer River, was important as one of the closest sources of buffalo for the Athabasca district trade of the North West Company (―NWC‟); Alexander Mackenzie in October 1792 referred to Boyer‘s Post as the ―Old Establishment”
c.1790 - 1792	McLeod‘s Fort	A NWC fur trade and provisioning House situated on left bank of Peace River, at the mouth of Whitemud River.
1792-c.1799	Aspin House	A NWC provision and fur trading post on the north side of the Peace River in about Tp.106, R.17, W5 that was built to replace Boyer‘s Post; Alexander Mackenzie in October 1792 referred to Aspin House as the ―New Establishment”
1792-1805	Fort Fork	A NWC fur trade and provisioning post, and Alexander Mackenzie‘s staging camp, situated on the south bank of the Peace River, about 10 km above the mouth of Smoky River.
c.1794-1804	Rocky Mountain Fort	A NWC fur trade post on the south bank of the Peace River, near Moberly River, built as a temporary facility, intended for the purposes of trade in the late fall and winter

		months.
c.1798 – c.1831	Fort Vermilion I	Built on the right bank of the Peace River, about 27km below the mouth of the Keg River, Alberta. It was a major provision and fur trading post. In 1821, it was taken over by the HBC and remained the chief post on the Peace River until being abandoned c.1830.
1802-1803	Mansfield House	HBC post situated on the Peace near the mouth of Boyer River to be near the buffalo. The post failed when the Aboriginal people refused to trade.
1802-1804	Fort Liard	NWC post situated on the north bank of the Peace River, just above mouth of Boyer River.
1803-1805	Fort Fork	An XY Company post near the NWS‘s original Fort Fork situated above the mouth of the Smoky River.
c.1803- c.1805	Horse Shoe House	A NWC wintering post situated at the Horse Shoe bend just above the mouth of the Notikewin River.
c. 1806 – post 1808	Encampment Island Fort	A NWC wintering post situated on an island in the Peace River below the mouth of Cadotte River said to be established for trading with the Beaver people.
1805-1823	Rocky Mountain Portage House	A NWC portage post built at the lower end of the Rocky Mountain portage near the present town of Hudson‘s Hope.
1805-1825; 1828-1918	Fort Dunvegan	A principal fur trading post and provisioning post on the Peace River; located on the north bank of the Peace, in Tp.8, R.4, W5.
c.1806-1823	Fort St. John	A NWC wintering post on the north bank of the Peace River near junction with the Beatton River, established at the request of the Beaver people.
1812	Colin Campbell‘s House	A NWC wintering post situated between Cadotte and Smoky Rivers, about 38km

		below the town of Peace River.
1818	St Mary‘s Post I	An HBC fur trade and provisioning post situated on the right bank of the Peace River, just above the mouth of Smoky River.
1819	St Mary‘s Post II	A wintering post situated on the north bank of the Peace River, just above the mouth of Smoky River.
1820	St Mary‘s Post III	A fur trade and provisioning post situated on the left bank of the Peace River, opposite the Harmon River
1820-21	Fort de Pinnette (a.k.a. Fort St. George) or Fort de Pinette	An HBC post situated on the south bank of the Peace River, below the mouth of the Pine River.
c.1831	Fort Vermilion II	HBC fort located on south bank of the Peace River just above mouth of Boyer River. This post became the nucleus of the town of Fort Vermilion.

Appendix B: Details of George Dawson’s Maps of His 1879 Expedition

Figure 5: Detail (1 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

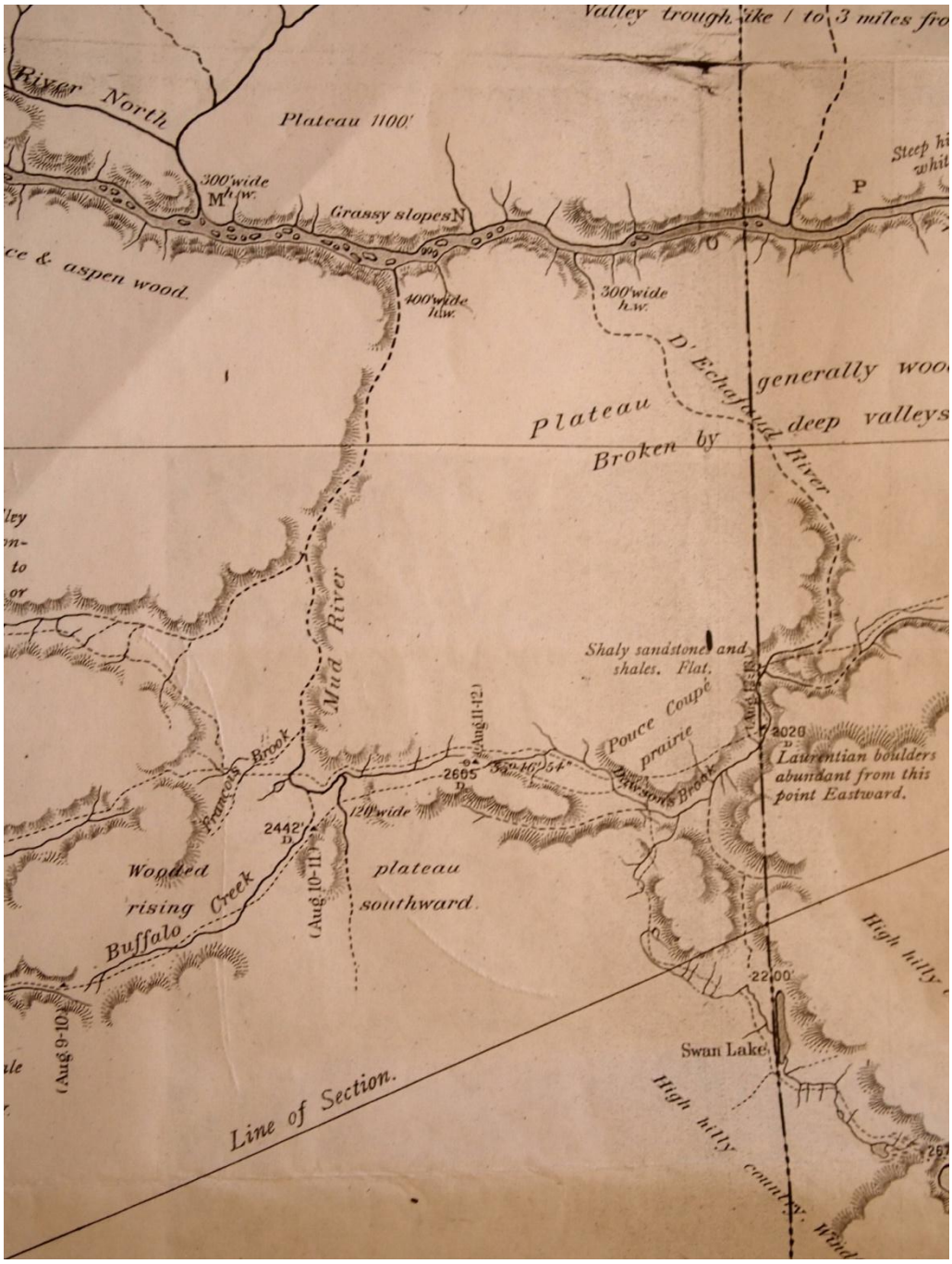


Figure 6: Detail (2 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

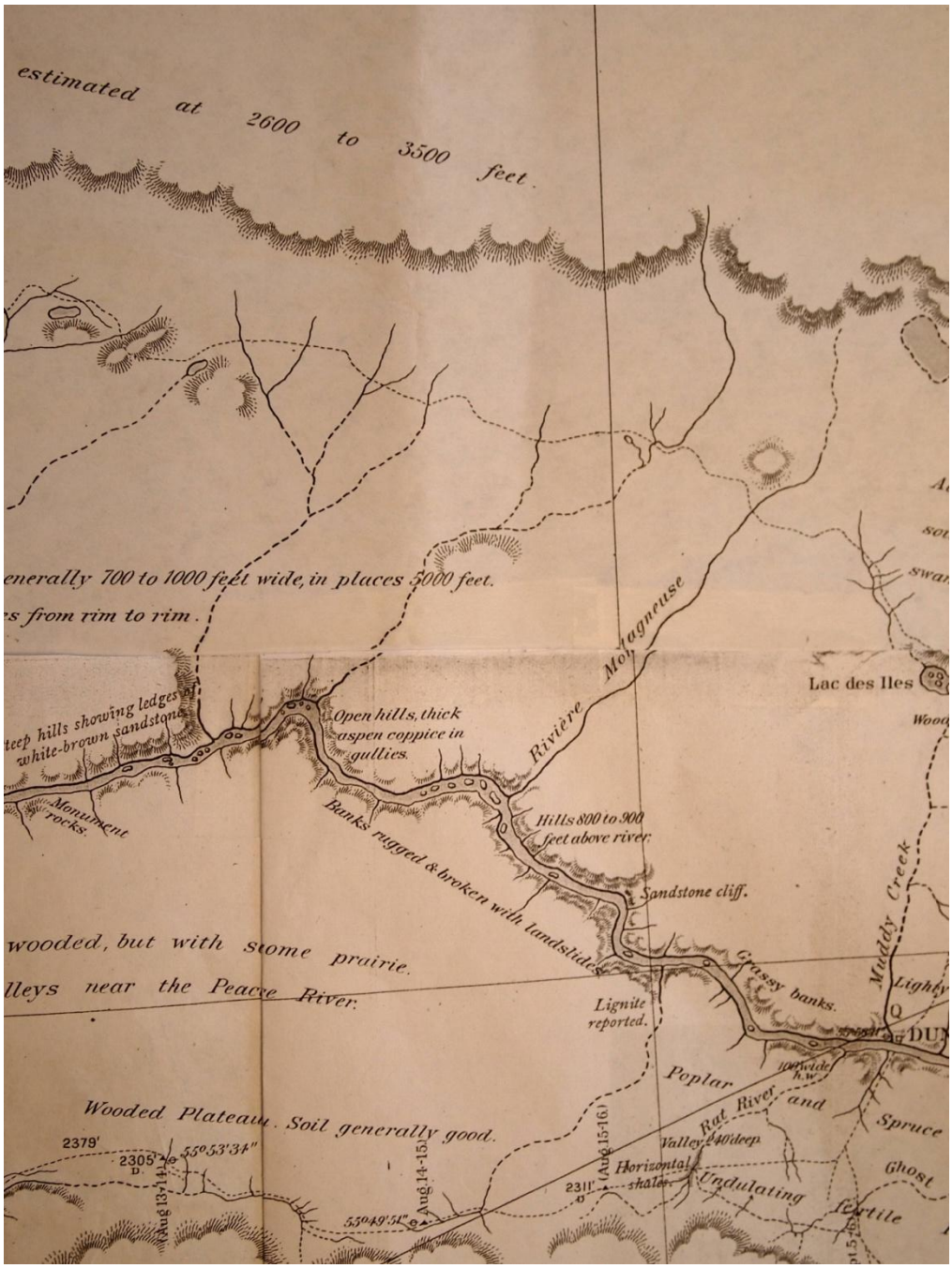


Figure 7: Detail (3 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

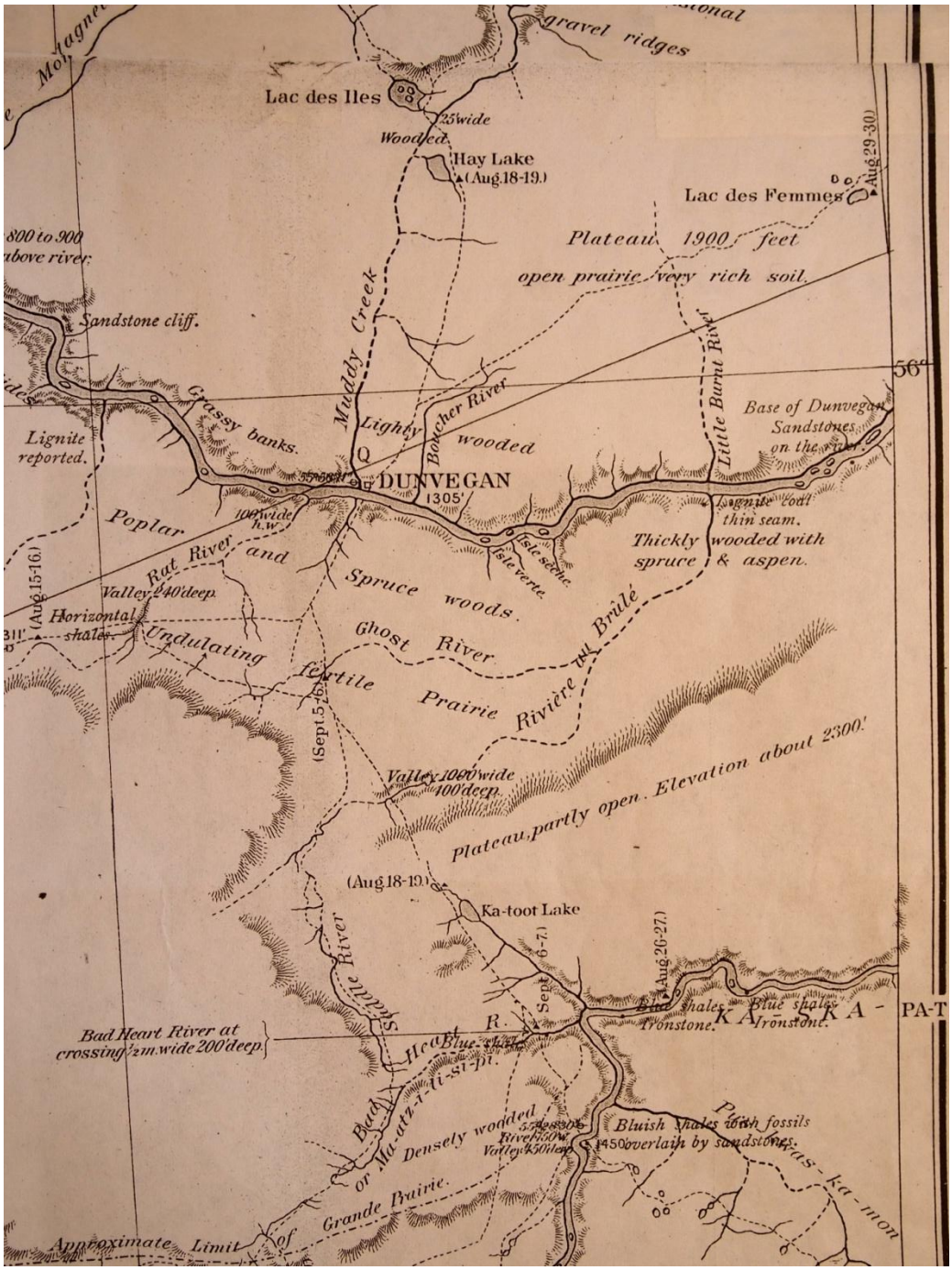


Figure 8: Detail (4 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

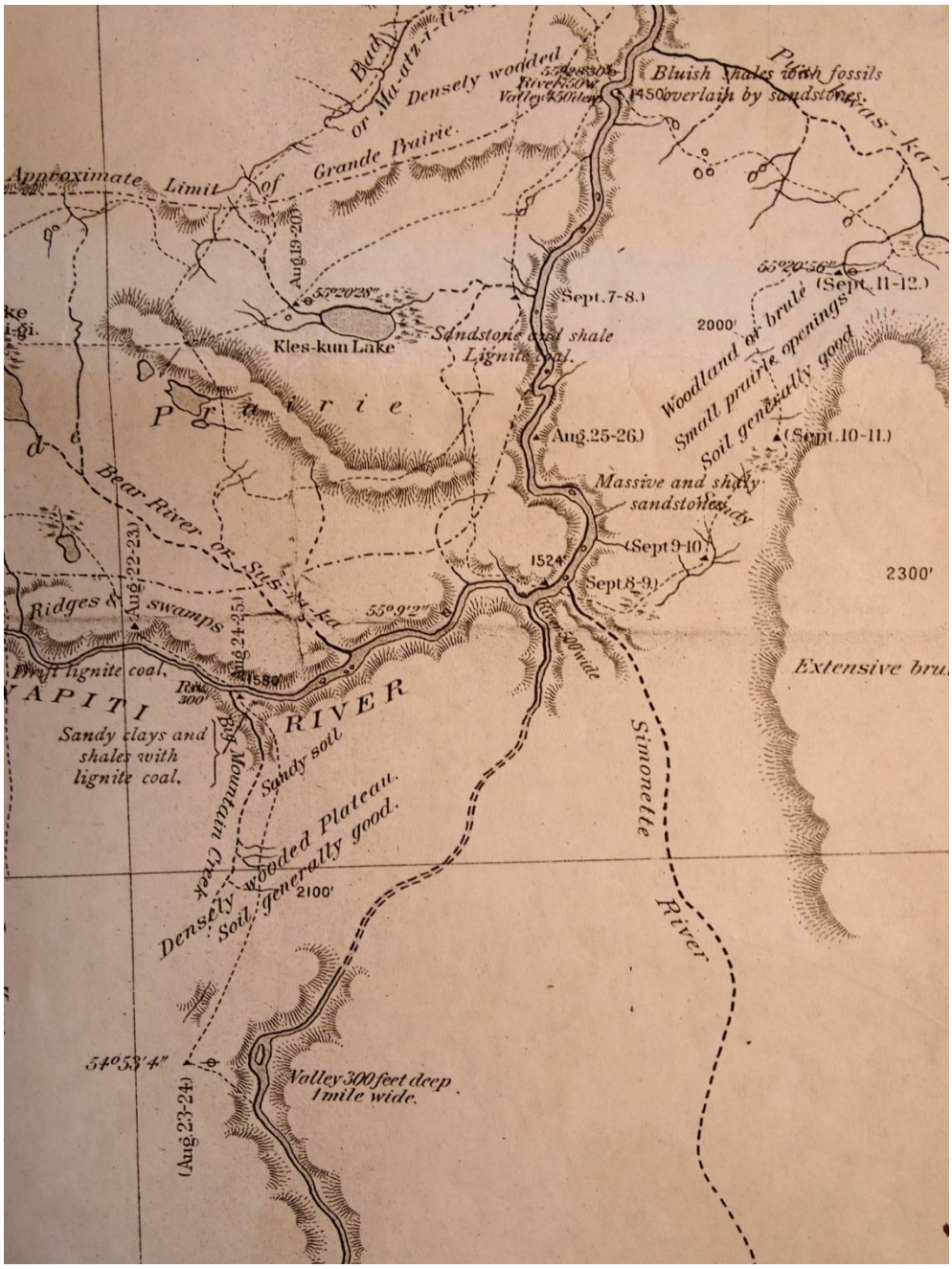


Figure 9: Detail (5 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

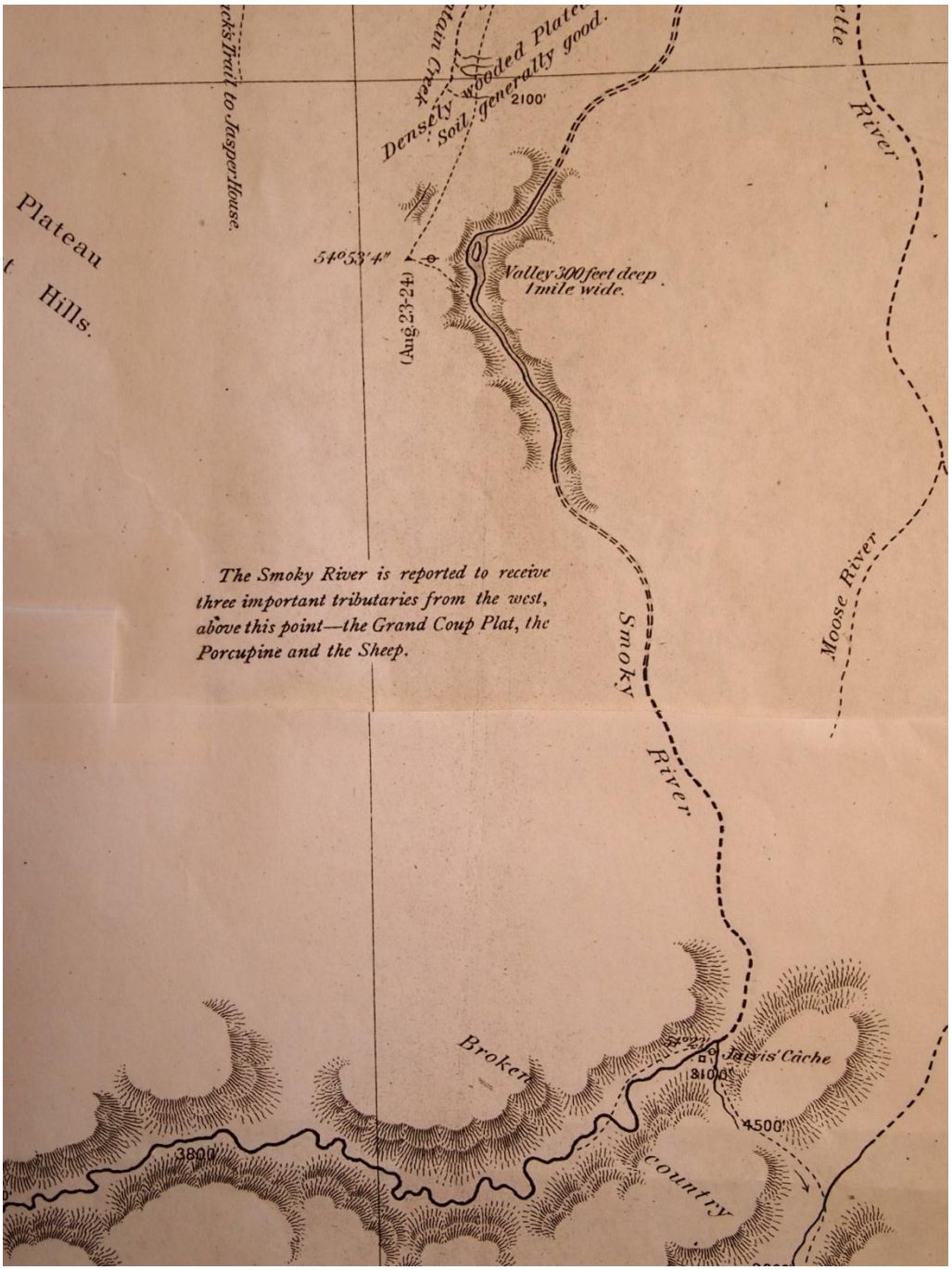


Figure 10: Detail (6 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

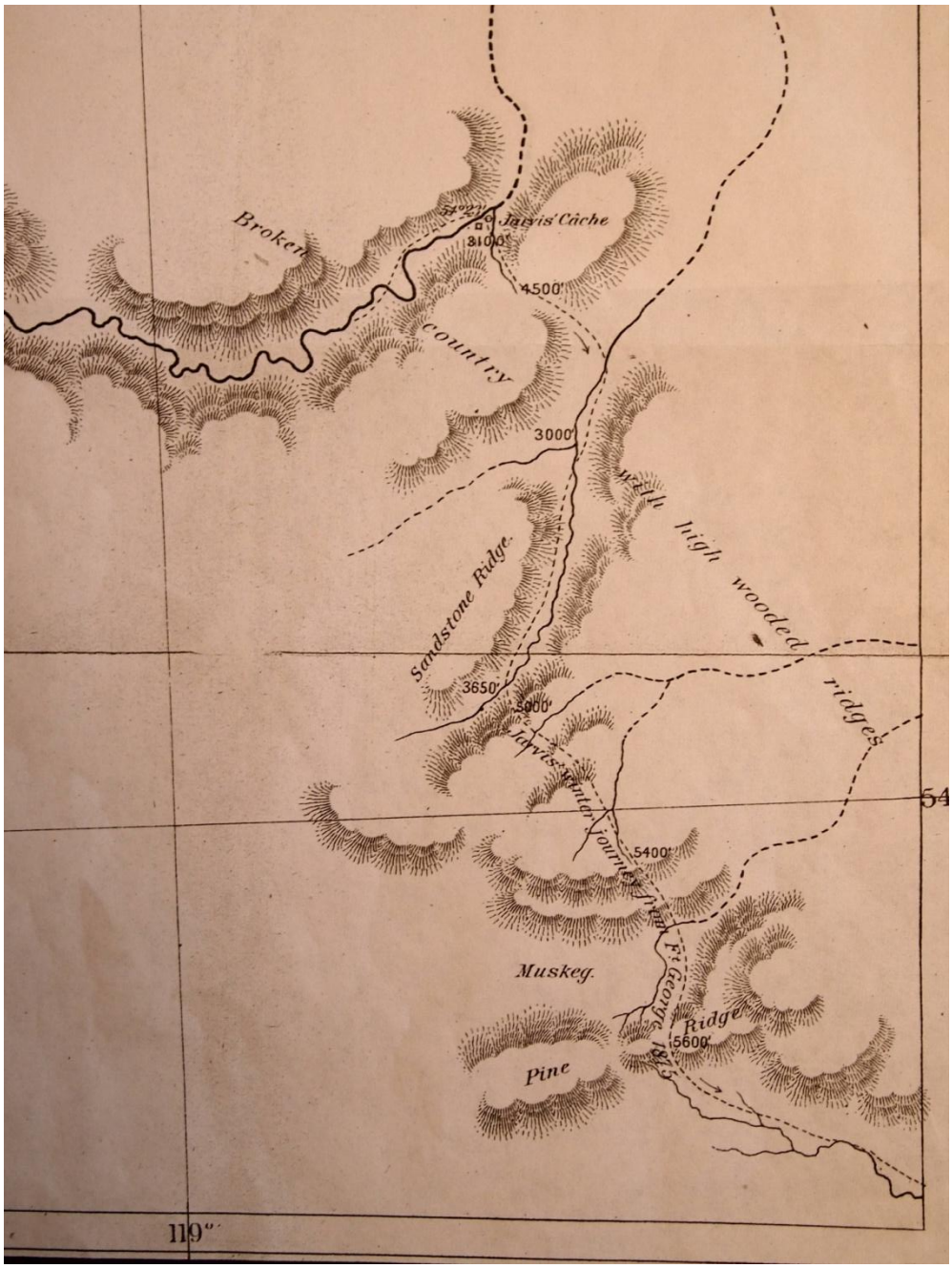


Figure 11: Detail (7 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

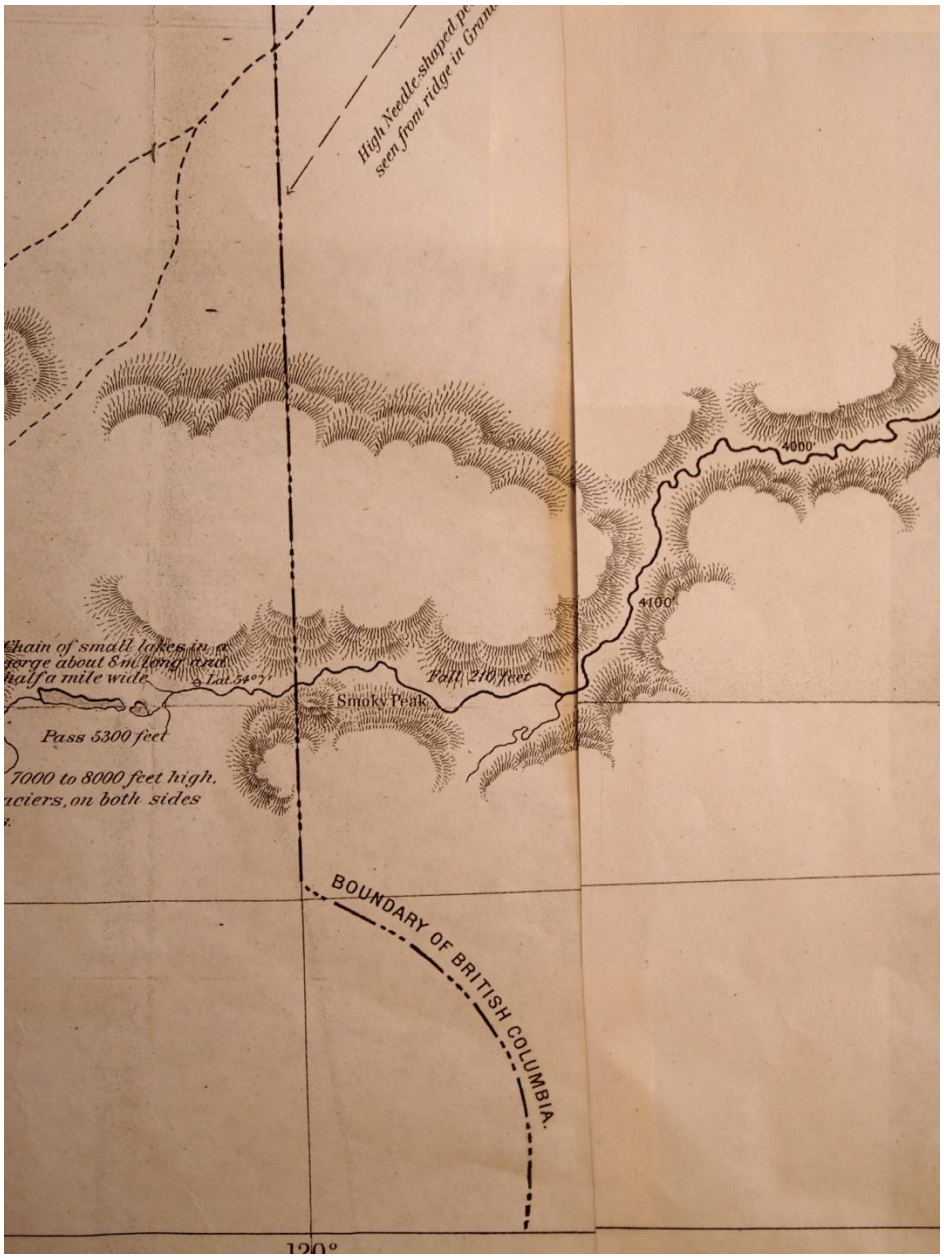


Figure 12: Detail (8 of 11) of Plate II of the maps illustrating George Dawson’s 1879 expedition, published in 1881.

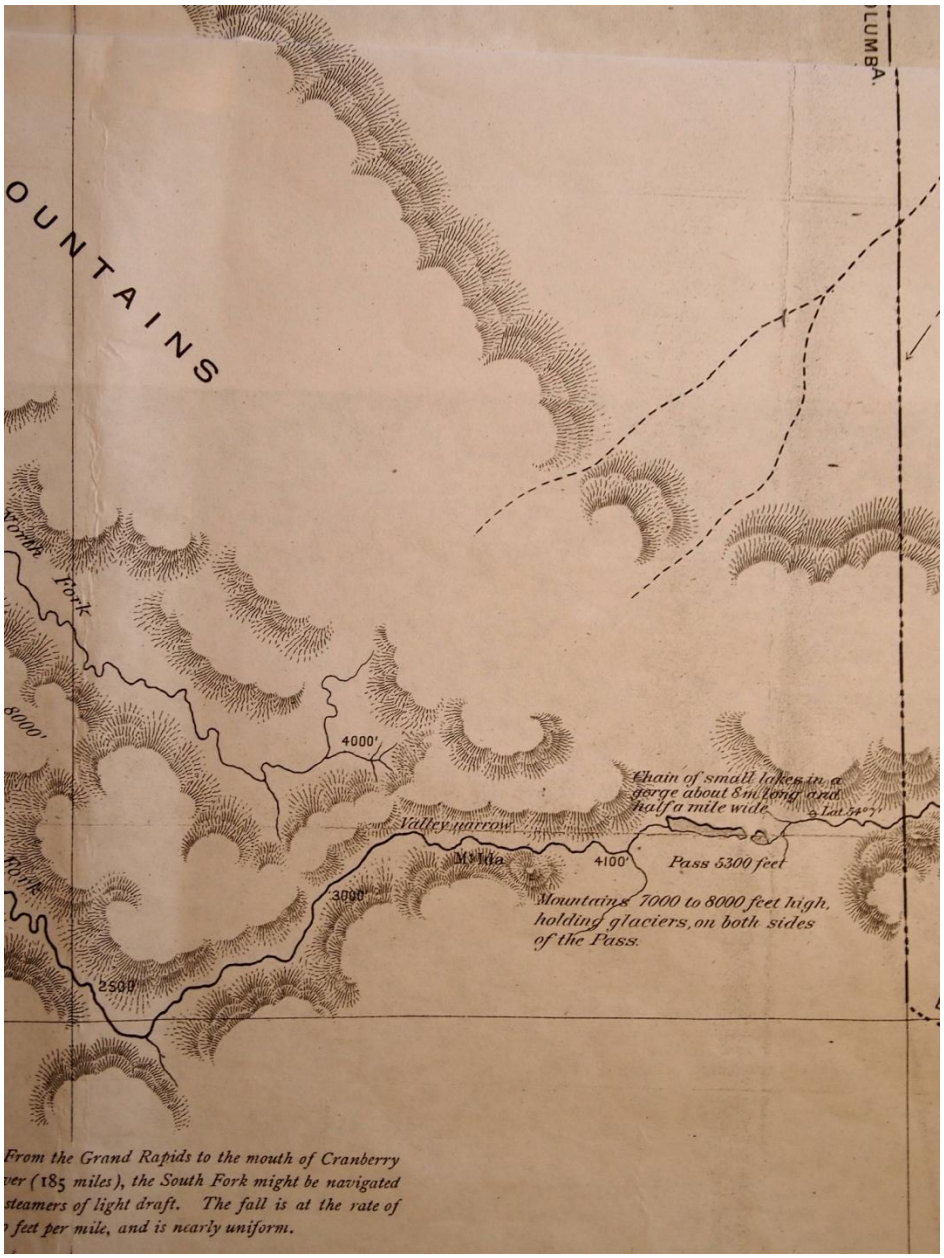


Figure 13: Detail (9 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

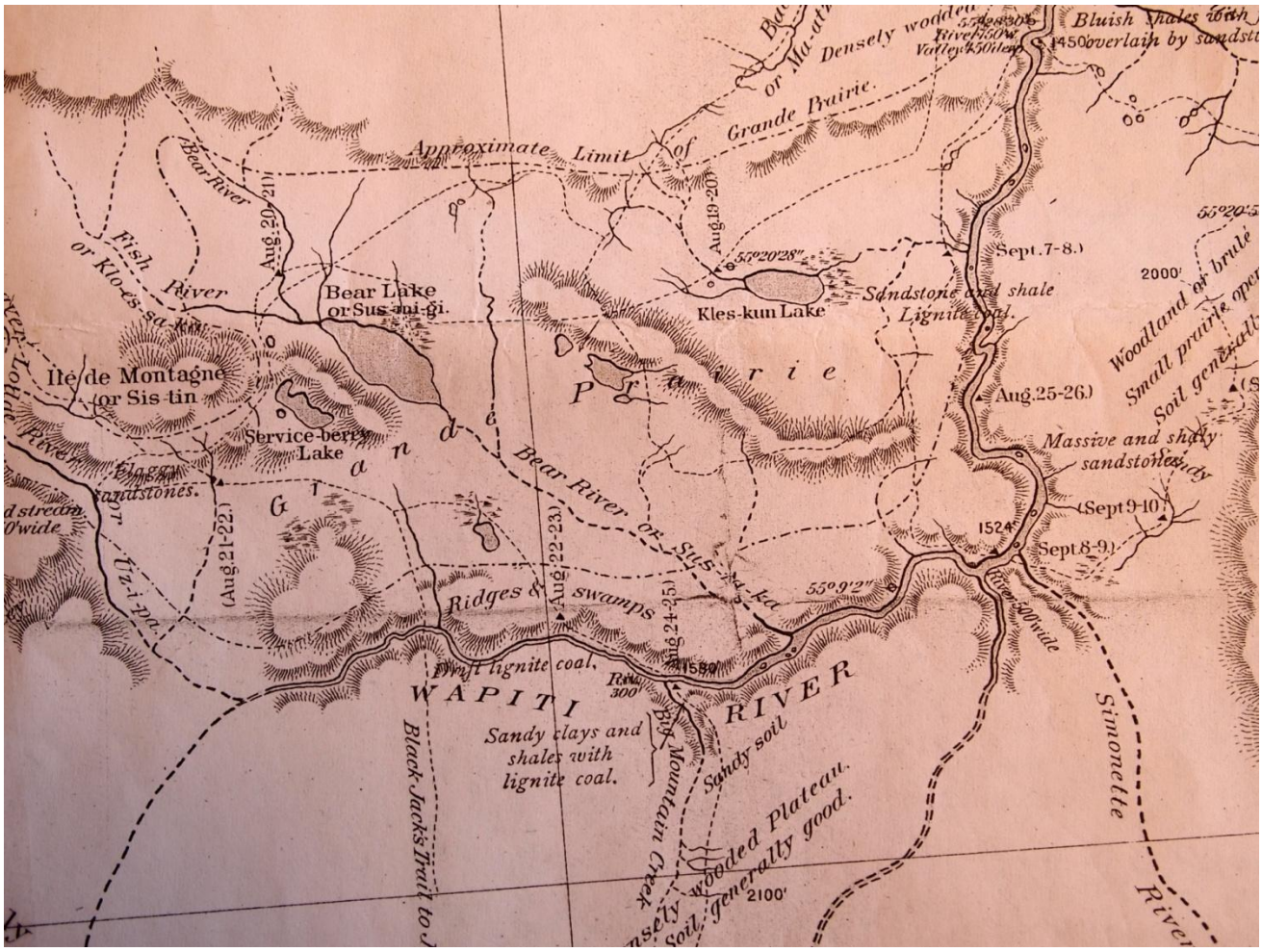


Figure 14: Detail (10 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

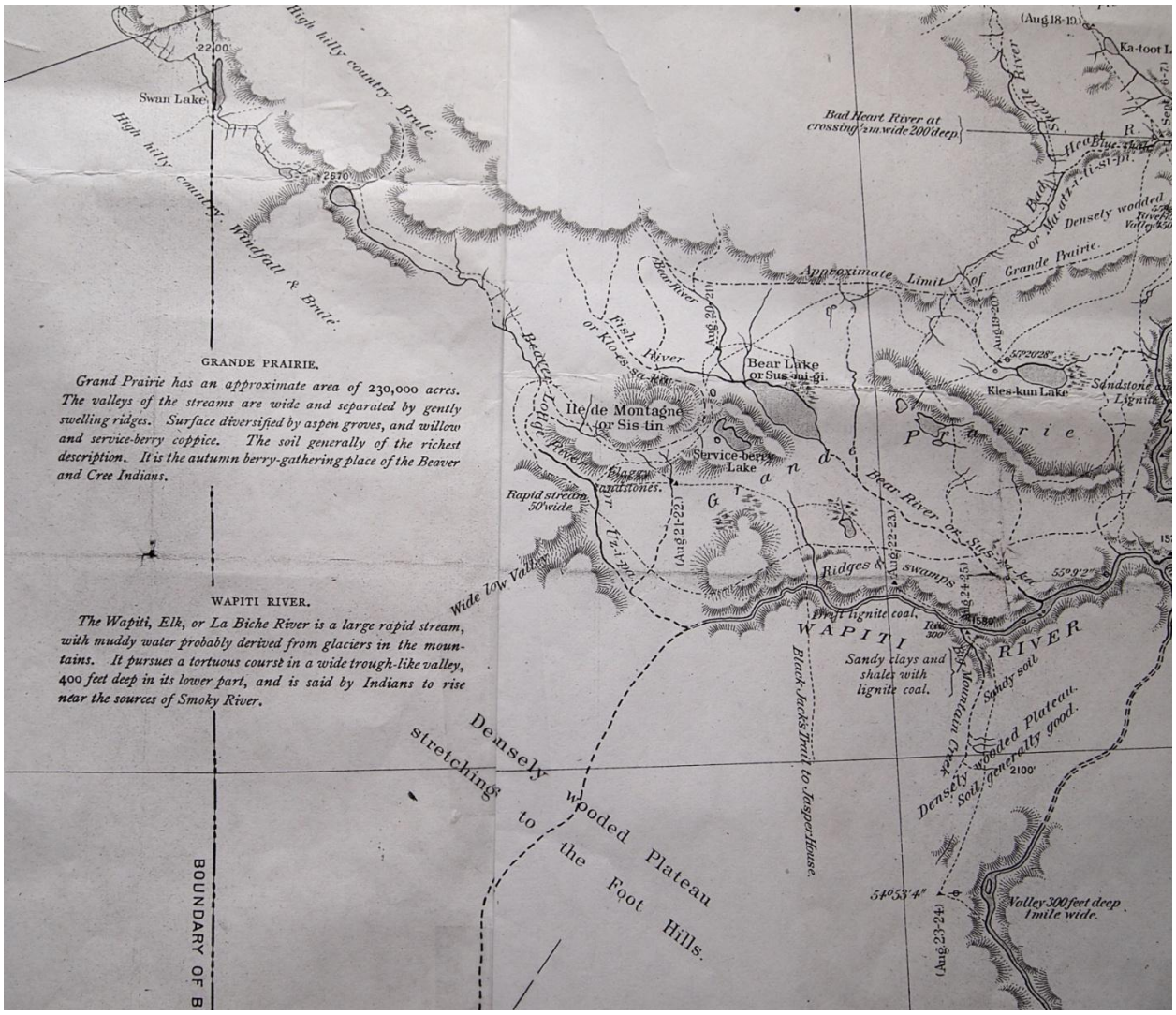


Figure 15: Detail (11 of 11) of Plate II of the maps illustrating George Dawson's 1879 expedition, published in 1881.

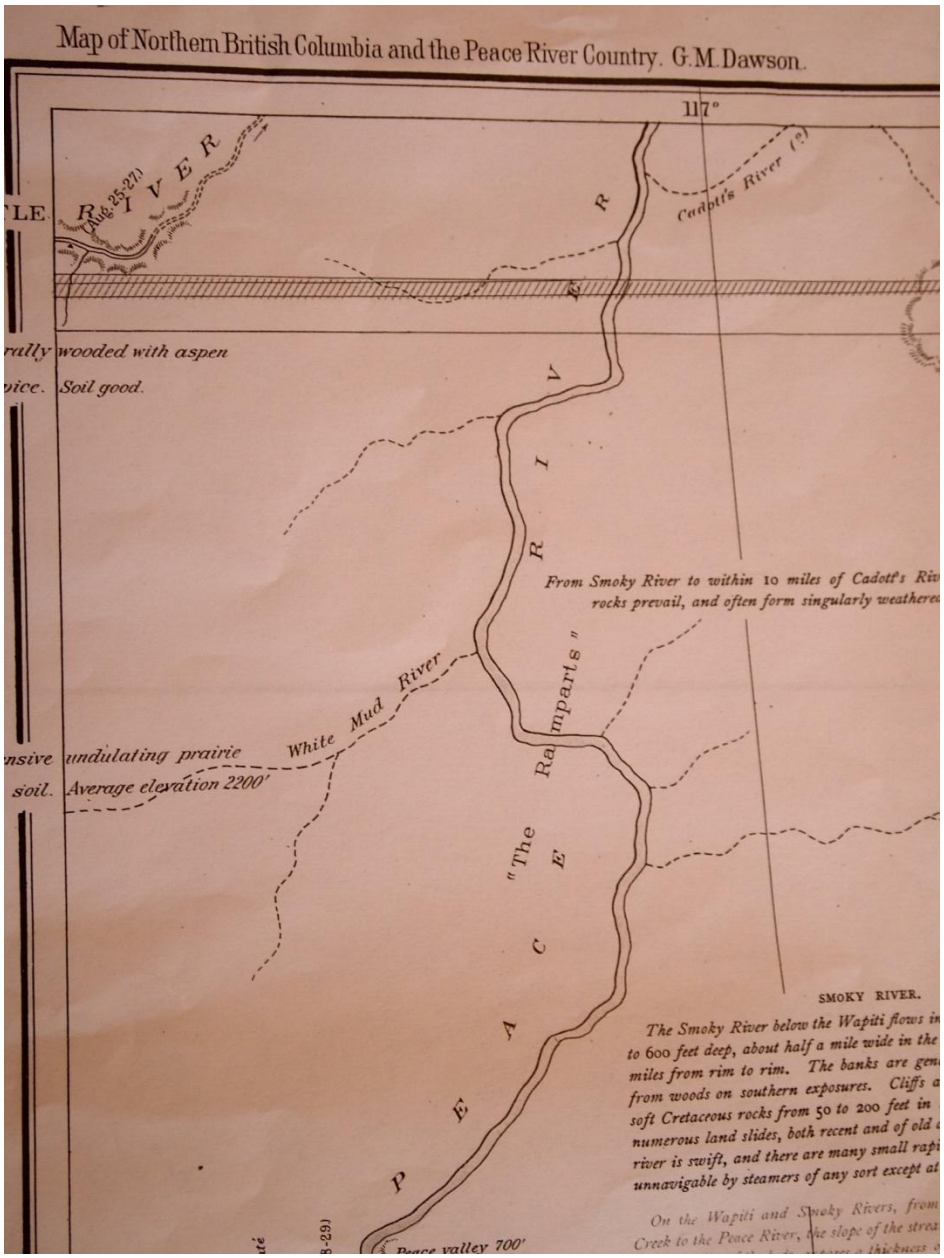


Figure 16: Detail (1 of 6) of Plate III of the maps illustrating George Dawson’s 1879 expedition, published in 1881.

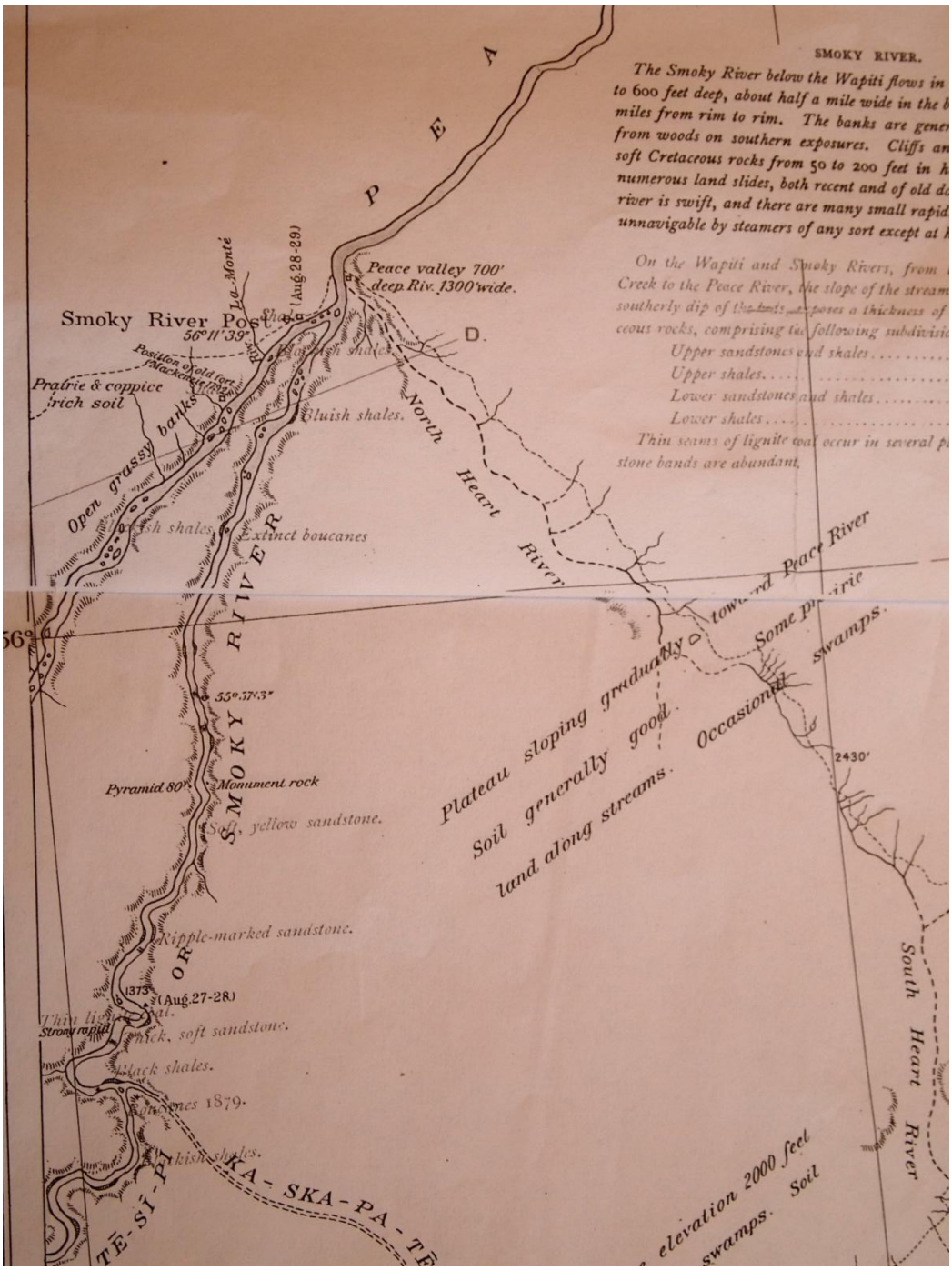


Figure 17: Detail (2 of 6) of Plate III of the maps illustrating George Dawson's 1879 expedition, published in 1881.

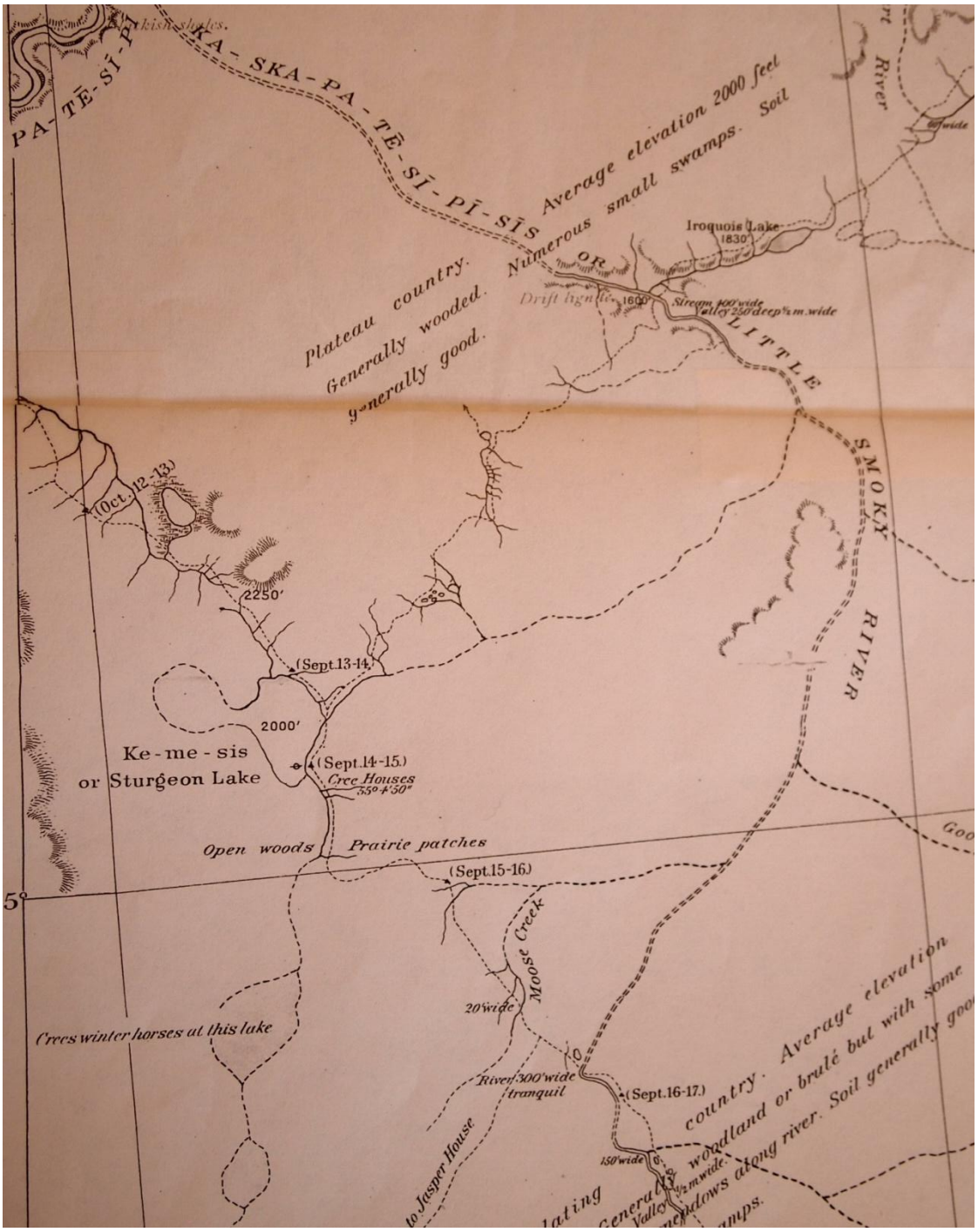


Figure 18: Detail (3 of 6) of Plate III of the maps illustrating George Dawson's 1879 expedition, published in 1881.

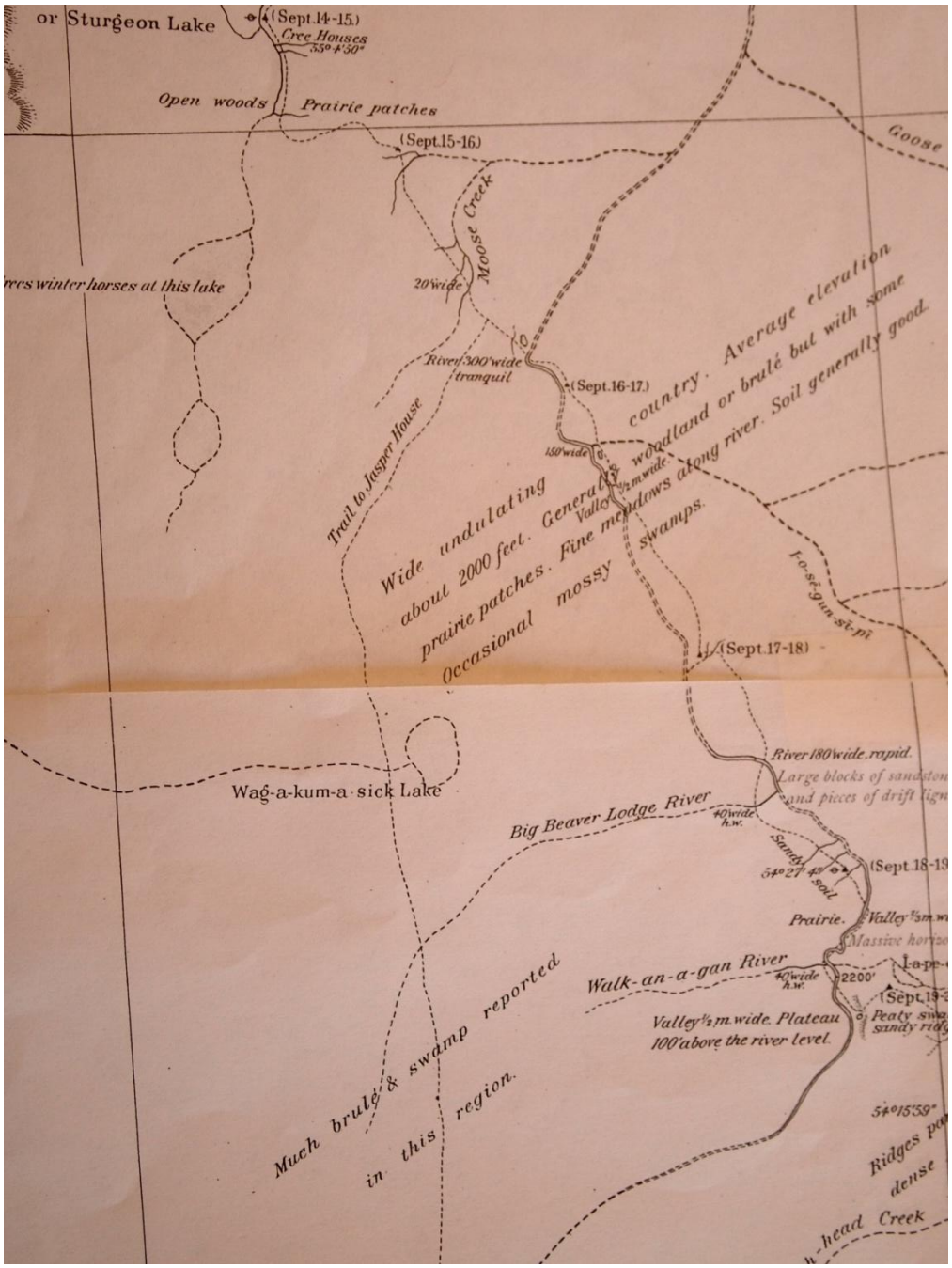


Figure 19: Detail (4 of 6) of Plate III of the maps illustrating George Dawson's 1879 expedition, published in 1881.

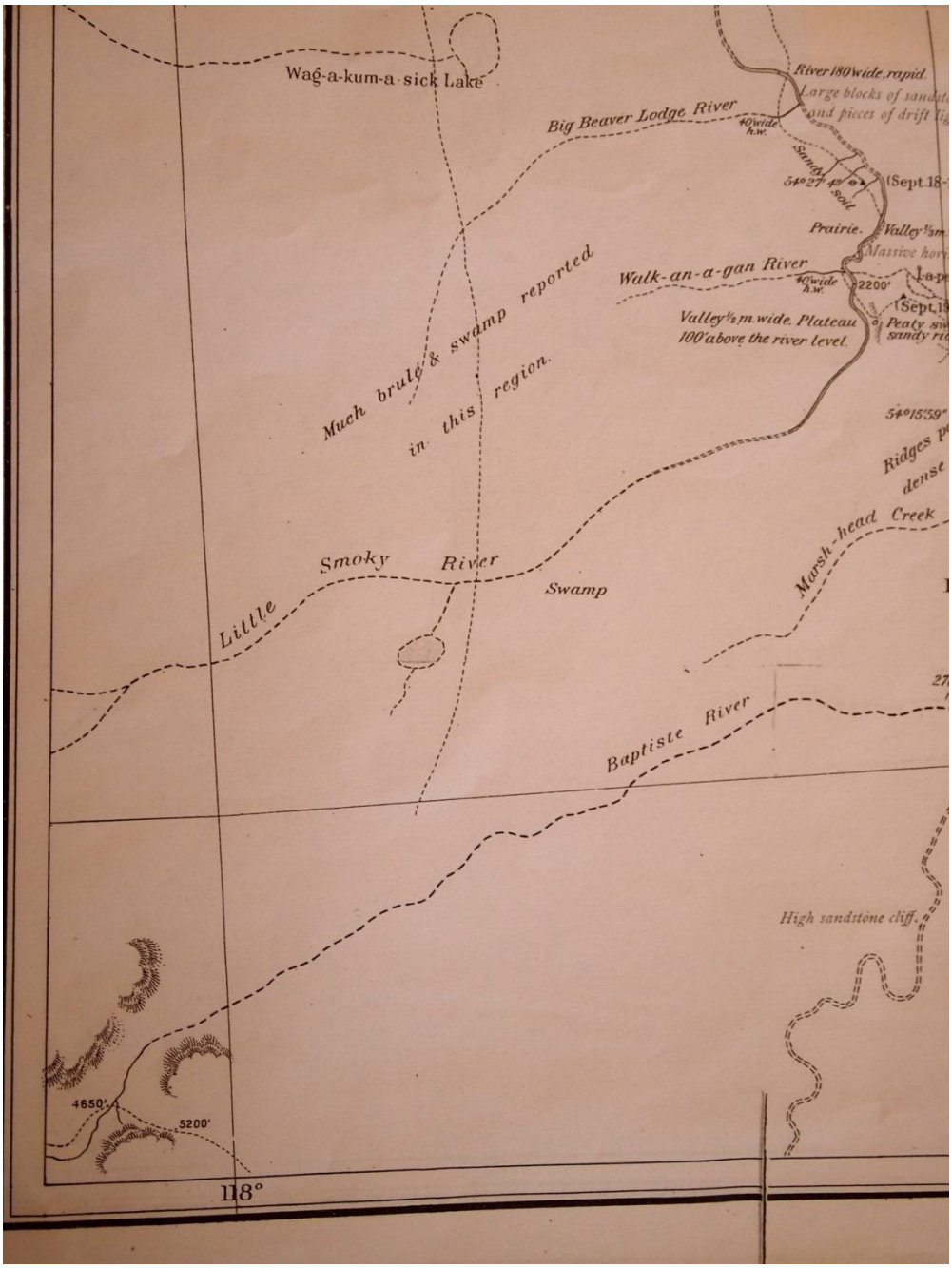


Figure 20: Detail (5 of 6) of Plate III of the maps illustrating George Dawson's 1879 expedition, published in 1881.

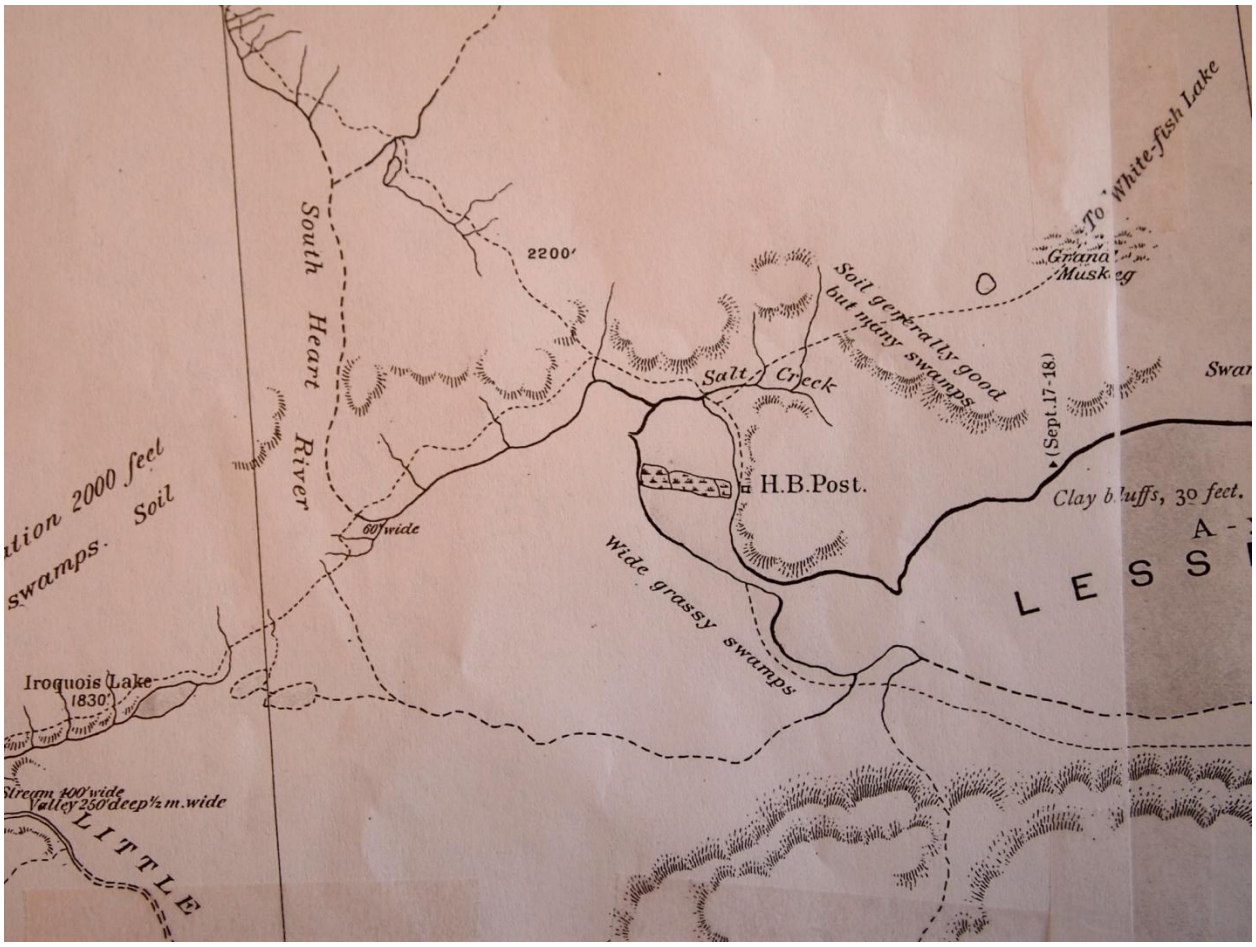


Figure 21: Detail (6 of 6) of Plate III of the maps illustrating George Dawson's 1879 expedition, published in 1881.

Duncan's First Nation

Traditional Land Use Survey 2011

Community and Public Report

November 2011

Contents: What's In This Report?

A) The Need for a Traditional Use Survey

B) What is a Map Biography Survey?

C) DFN's Science Based Approach

D) Methodology: Designing and Planning the Research

E) Methodology: Putting the Research Plan Into Action

F) Survey Results: The Maps and Community Data

G) Analysis: Looking at We How Did?

H) Confidentiality and Community Ownership of Their Cultural Information

I) Limitations

J) Moving Forward and Building a Community Research Agenda

K) Acknowledgements and Thanks

L) Appendices

A) The Need for a Traditional Use Survey

The Duncan's First Nation (DFN) asserts that it holds Treaty and Aboriginal Rights in north – western Alberta and north – eastern British Columbia, Alberta and the historic Treaty #8 area. DFN community members, as individuals, exercise these rights on the ground within these areas. The rights of the Duncan's People were affirmed when they entered into Treaty #8. In return for agreeing to share some of the lands with settlers, Crown officials guaranteed that the Duncan's people's traditional vocations would be maintained into the future.

Treaty 8 Guarantees the Vocations, Livelihood and Rights of the Duncan's People

The DFN families have long term relationship with lands in north – eastern BC and north – western Alberta and their way of life, culture, spirituality, social needs and economy are tied to these lands. Many changes have occurred that have affected the Duncan's People ability to depend on the land and feed their families as they once did. In DFN's view, large scale oil and gas, energy, forestry and farming activity has clearly resulted in some level of ecological change that has also affected Duncan's people's use of their lands. Despite the pace and scope of change, the DFN is clearly a community that continues to have ties to and relies on the same lands.

How can the DFN confidently make such a statement as this? Living and relying on the land is simply a fact of the Duncan's People ongoing existence. If this was in doubt, a person one would simply have to casually walk through the community. When they did so, they would find ample evidence readily at hand that points to a life lived on, and tied to the land. One would find meat racks in people's backyards, cut and stacked tepee poles, lockers with hunting rifles, pictures on mantles with relatives pictured in camp or with a recent kill, moccasins made from strongly smoked moose hide, freezers of game, canned jars of game and fish, fish nets hanging in the back yard, sheds with camping and trapping gear, fishing boats, ATV's, ski – doos and some very content dogs

enjoying bone marrow from a front quarter. This is the case with many First Nations within northern Alberta and across the Boreal Forests of North America.

If this so obvious, why do First Nations undertake Traditional Land Use Studies or Traditional Land Use Surveys? Why should the Duncan's First Nation – a First Nation with guaranteed treaty rights be required to undertake such land use studies and produce mapping to prove their use and occupancy of the land? There are several reasons for this.

Onus of Proof

Canada's courts have determined that the DFN and other First Nations have Treaty and Aboriginal Rights and that such rights are protected by Canada's constitution. The courts have also stated that governments cannot unlawfully impact, take away or limit these rights. For example, when a government is looking at approving oil and gas facilities, a mine, a dam, forestry plans or making a decision about how natural resources are to be managed, it must meaningfully consult the HFLN and other First Nations.

The Law: Requires Governments to Consult and Accommodate Where Development Could Harm DFN Rights

If a First Nation wishes to have its concerns, interests and rights addressed by governments, the courts have said that First Nations must present some level evidence of its use of lands and resources and the potential impact of a proposed development or decision on those uses. Given this, the DFN, and other First Nations must have a readily available source of information and evidence that it can present to government decision makers to establish the community's use of, and reliance on lands and resources. This is one of key reasons of why the DFN needed to produce a new body of

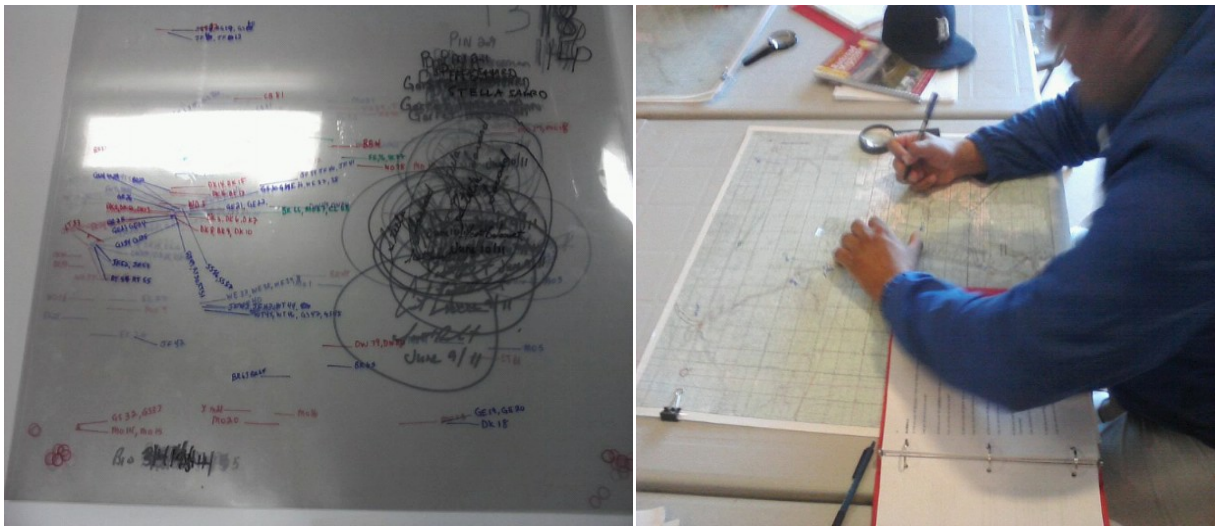
information and set of baseline information. A traditional land use survey, if done carefully, can help the DFN produce this much needed information.

A Base Line Inventory of Traditional and Cultural Use Data

Within the past three years, the DFN conducted a traditional land use scoping exercise, where a few community members identified their hunting, fishing and general land use areas on maps. This was important so as to document the areas that are of greatest importance to community members from a historical and present day perspective. In the interviews community members talked about issues and matters that they felt were of most importance such as how their ability to use these areas is changing through time.

Community members' hunting, fishing and resource use areas were marked on maps using polygons or differing shaped circles. Each interview was documented with a written summary which was reviewed and approved by community participants. The study was based in guidance and recommendations and information set out in a Government of Alberta's *"Best Practices for Traditional Use Studies"* published in 2003.

While this initial survey was a good starting point, the DFN wished to build on this effort with a new traditional land use survey effort. The DFN wanted to have a new set of land use data that documented specific examples of how community members have and continue to use the land.



DFN: A Need to Produce Traditional Use Maps Based on Data That is Held to Be Valid, Accurate, Precise

Given this, the DFN needed to build on past TLUS project work and support them with a new research project that produced a set of maps that were taken as being reliable,

precise and accurate and show what they claim to show. This required the DFN to carefully document how it designed, and put into action its research plan or methodology. The task then for the DFN was create a detailed set of maps based on data that could be backed up through a clear, transparent and solid Methodology Report. A methodology report can be seen as a road map - that could followed to see how the DFN arrived at the maps they did. This was an important need for the DFN so that it can utilize its evidence to get better results from government and industry. Importantly, the Methodology Report will provide that road map and explanation of the maps for DFN people now and in the.

Need to Record Land Use in Face of Development

As noted, the DFN, other First Nations and many other parties are of the view that sheer pace and scope of development has impacted the ecology of northern BC and Alberta and community members ability to use the land. In the DFN's view, their ability to exercise their rights, maintain their culture and feed their families is dependent upon healthy and diverse fish, wildlife and plant communities which in turn depend on healthy and functioning eco-systems.

The DFN and many other First Nations have called upon governments to investigate the cumulative impact of development on the environment and their rights. Until at such time that such requests have been acted upon, the DFN can act now, by documenting community land and resource use and developing baseline inventory of data through a new traditional land use survey. In the future, the DFN can build on this survey by undertaking other forms of research related to the impact of development on the environment and the community.

Needs for a Baseline Inventory of Traditional Use Data to Begin to Document the Cumulative Impact of Development on DFN's Way of Life, Socio – Economic Needs and Ability to Exercise Rights

Preserving a Cultural Record for DFN Future Generations

As noted above, there were many important reasons for undertaking a traditional use survey. However, the most important for the DFN is to make an effort to document its historical and cultural record on the land involving as many community members as possible. While there are many compelling external factors and forces that drove the need to for this map biography research project, the DFN had its own important internal reasons for commissioning the survey. Within ongoing community meetings, community members expressed the need to document important knowledge held by its aging group of elders. The transmittal of culture and history to new generations is deemed as an important priority by the DFN and one of the key drivers for the current TLUS project.

B) What is a Map Biography Survey?

Traditional land use studies and land and occupancy studies have been undertaken across Canada for thirty years. Much of this work occurred to address First Nations evidentiary needs for land claims negotiations, court cases and hearings to address the impacts of large natural resource development projects. There are of course many types of studies that First Nations can undertake to document traditional and cultural land use and the importance of the land to their community, way of life and culture.

The Map Biography Survey is specific type of traditional land use study that has been undertaken by many First Nations. The DFN 2011 TLUS project is a Map Biography Survey. Essentially, this involves interviewing individual community members about their life on the land and water recording various examples of their land use activities on maps and audio recordings. In this case, the research was site, species and activity specific. For example, the DFN interviewed community members about where they killed some moose, elk, deer, geese etc.; where they caught, jackfish, walleye, whitefish etc; where they gathered berries, medicine plants, firewood, water etc.; and where they stayed overnight and their knowledge of special sites.

Map Biographies – Documenting Examples of a Person's Land Use Activities and Life on the Land

The key steps that DFN took in developing and putting the TLUS project into action included:

- Obtaining community input and direction on research priorities

- Defining the Primary Research Objective – the most important question to be answered or information wanted

- Identifying specific categories or cultural activities DFN felt were most important to document in this map biography survey at this time(e.g. Moose kill sites, Jack Fish catch sites, Food Plant gathering sites)

- Preparing a Research Proposal that set out the map biography survey the research methodology – a plan that showed how DFN designed the research from the broadest consideration to the smallest details

- Developing a Data Collection Manual - a training guide and guidebook that set out clear and unchangeable rules of how the research was to be conducted

- Hiring and training community so that they would conduct the interviews and record the data from the interviews the same way, all the time

- Developing a fixed Questionnaire – so that the same questions would be asked of every interview participant, every time

- Determining how the map survey would be representative of the community – ensuring that an adequate groupings of men and women, all age groups and families were interviewed

- Undertaking one-one-one interviews with up to 100 participants or respondents

- During the interview, marking sites (land use activities and events) on “Bio Maps” using a fixed coding system

- Recording the interview and preparing interview transcripts that describe, document and back up the sites marked on the maps

- Transferring the marked data from all the participants / respondents Bio Maps onto various end product maps

- Documenting the research plan and how the research was actually undertaken and any affect on the results as a result of those differences. Two documents do this – the “Methodology Report: and this “Public Report”

- Use and share the resulting maps and research to support DFN’s in having its rights and interests acknowledged and acted upon

- Taking proper steps to safeguard confidential information and involving research participants in lands and resource project consultations and environmental impact assessments

- Determine next research needs and priorities of the DFN community and come up with the funding to commission such research

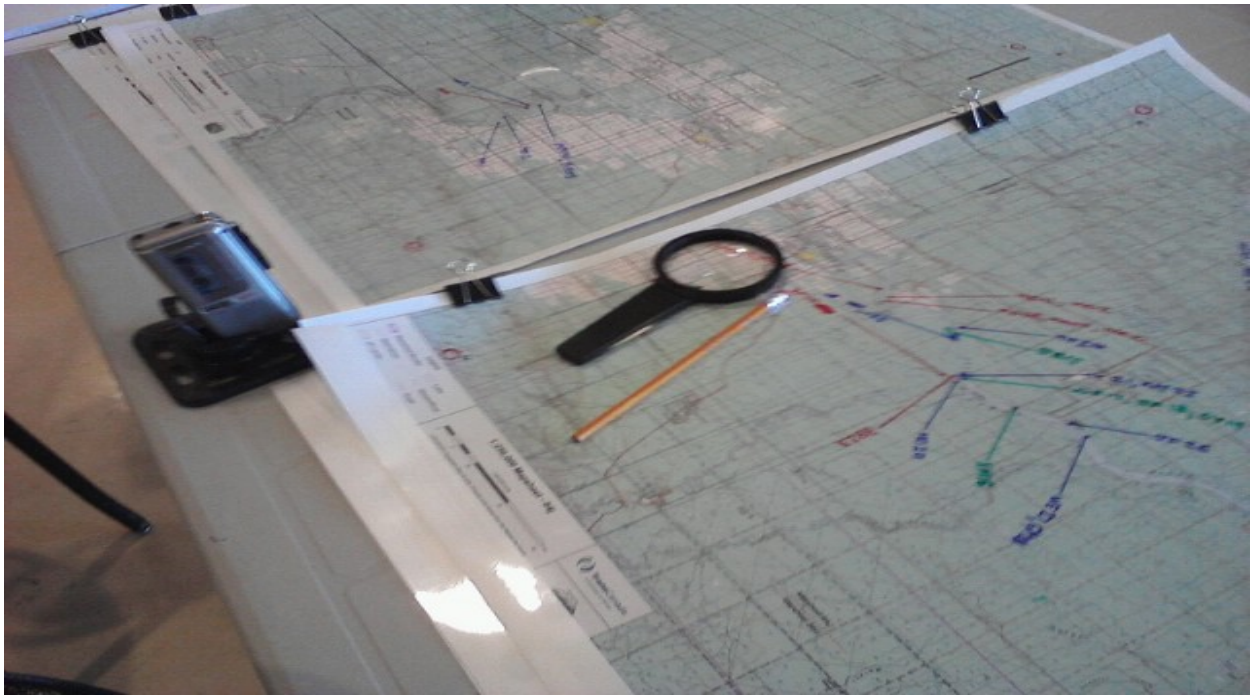
There of course many ways to conduct a traditional land use research project. Often people take the view that is easy to do and it’s simply a matter of talking to people and recording places on maps. This approach has found not to work because not enough attention was paid to determining what types of information was to be gathered, who should be involved, how the data was to be recorded and how the data could be verified. What is critical is ensuring that the every community member is interviewed in the same way each time; that they are asked the exact same questions as everyone else; and that the data marked on the maps are marked the same way, every time. This may seem to be easy, however the research must be designed and conducted in a consistent way. If it is not, you can get differing results from interview to interview degrading the quality of the data and calling into question the validity of the end maps.

C) DFN’s Science Based Approach

As noted, all parties have come to expect more from land use and occupancy research and traditional land use surveys in recent years. What was deemed as acceptable twenty or even ten years ago, is now no longer accepted by many parties – especially that of First Nations and their legal counsel. If a First Nation is going to go to the trouble and effort of planning and undertaking a comprehensive map biography survey with many community members, they want that research to be able to stand up, utilized in different contexts and be able to be relied upon for years to come.

Despite the large amount of traditional land use research work conducted to date within Canada, there are not a large number of publically available studies or methodology reports to figure out the most useful and reliable form of research. What people often

focus on is the look and amount of data on TLUS maps or the digital maps produced through computer mapping or a Geographic Information System (GIS). However, what is crucial is not the look of the maps – but the quality of data that is gathered that is recorded on maps that counts.



Map Biography Research – Focus on How Data is Gathered and Whether Maps Are Supportable

Remember, that above all and more than any other party, First Nations want and need their maps to be believable and supportable. This means that the DFN had to focus on the methodology in this TLUS– a way of demonstrating and showing how it obtained the map data it did. At the end of the day the DFN had be able to demonstrate that the data it collected is objective, reliable, valid, precise, accurate, has integrity, is auditable and is representative. The only way to achieve these data quality standards is through science or the framework of science.

Often science has been looked on in a negative way by First Nations. Sometimes, science has wrongly treated First Nations or indigenous people as test subjects or the subjects to observed an experiment. At times, governments and industry have relied on science in name to justify lands and resources decisions that impact First Nations' lands and rights. Often First Nations and indigenous people question how valid western science is over traditional knowledge or traditional ecological knowledge? What is more accurate – an environmental impact assessment based on one or two years of field studies conducted by experts working in an office hundreds of miles away, or the observations of an entire community who has observed the state of a given land base and values contained therein over several decades and in all seasons?

Thus science has often been held by First Nations as something that is not to be trusted and that has worked against them in the past. This does not have to be the case – especially if the First Nation is the one who is structuring and conducting its own research to meet its own objectives and priorities. In the world of science, knowledge and data gained must ultimately be testable, provable and observable with the human senses. Thus in this way, science can be held to be a powerful tool and ally to First Nations and indigenous people and support their observations of the land over years.

The DFN opted to base and structure its traditional use research project within the framework of science with the goal of having its research held to be transparent and the resulting maps to be based on testable and provable evidence.

Specifically, the DFN opted to base its TLUS project on a new important textbook about traditional land use studies written by Terry M. Tobais. The DFN carefully reviewed the text and decided that its survey and maps would be defendable if it based the project and its methodology on the standards and practices set out in this academic text book. The books is called, "*Living Proof: The Essential Data Collection Guide for Indigenous Use and Occupancy Map Surveys"* by Terry N. Tobias and released in 2009.

D) Methodology: Designing and Planning the Research

The DFN went a considerable length to base its TLUS project on a solid a scientific foundation. This required the DFN to construct a research methodology – a series of concrete and deliberate decisions in how DFN planned, designed and actually conducted the map biography research.

The methodology was made up of five related layers of research design. These five layers were in fact - a series of research design decisions ranging from the broadest aspects of the research (e.g. what should be studied and why) to the smallest details (e.g. how a Moose Kill site was to be marked on a map) and the research rules. The five layers of research design are described below:

Framework

The framework relied upon the DFN was founded upon a scientific approach where the resulting maps and the data they contained could be confirmed and proven.

Method

The method is the general process used to conduct the research and collect data. In this case, the DFN opted to choose the map biography survey method. As noted, this

involves the choosing a larger group of community members and interviewing them one-on-one using a set Questionnaire. All questions are asked of all community members or respondents. The respondent's answers or their specific land and resource use activities are then marked during the interviews on their own set of maps or series of Bio Maps. At the end of the interviewing process, all community members map data on the Bio Maps are combined into several types of end product maps showing different themes. The methodology relied upon and followed is then written up in Methodology report that is to accompany maps and help in interpreting the maps and analyzing the strength of the data.

Parameters

Parameters set the shape and extent of the research. These include the important why, where, when, who and what that is the subject of the research. The DFN had to answer these important questions at the outset of the TLUS research project:

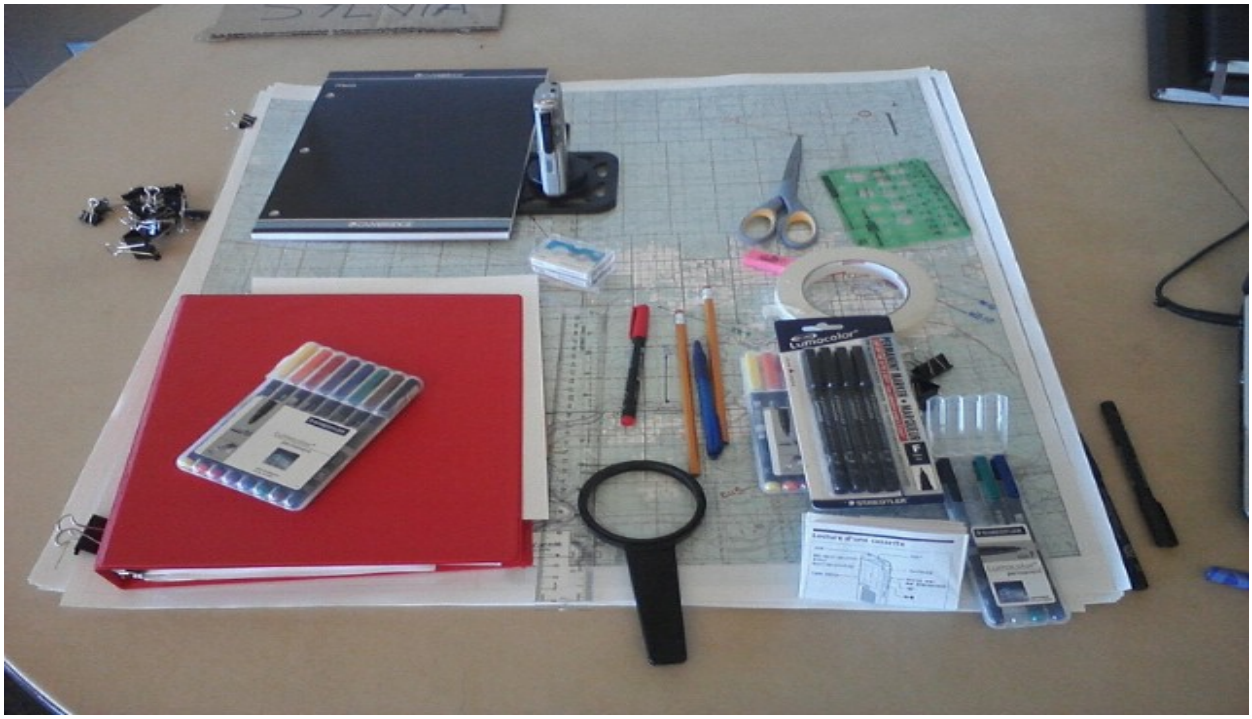
- Why are we undertaking this research and /or what is the main reason and objective of why the DFN is conducting the survey?
- Where or what geographic areas were to be included in the survey?
- When or what time period would the survey be based on?
- Who needed to be involved in the research?
- What specific types of information was DFN looking to document?

Tools

Tools are the actual materials that were used in the research to collect the data with (e.g. base maps, markers, audio recorders, the questionnaire etc)

Conventions

Conventions are the agreed upon set of unchangeable rules that set out how the research is be conducted (e.g. how data is to specifically recorded and marked on maps in every interview, the same way, every time)



Research Tools and Conventions: Attempting to Structure and Conduct Each Interview with Every Community Member, the Same Way, Every Time

E) Methodology: Putting the Research Plan Into Action

The HFLN went into the research phase with the following key parameters set:

<u>Why – What is the Primary Objective of the Research?</u>

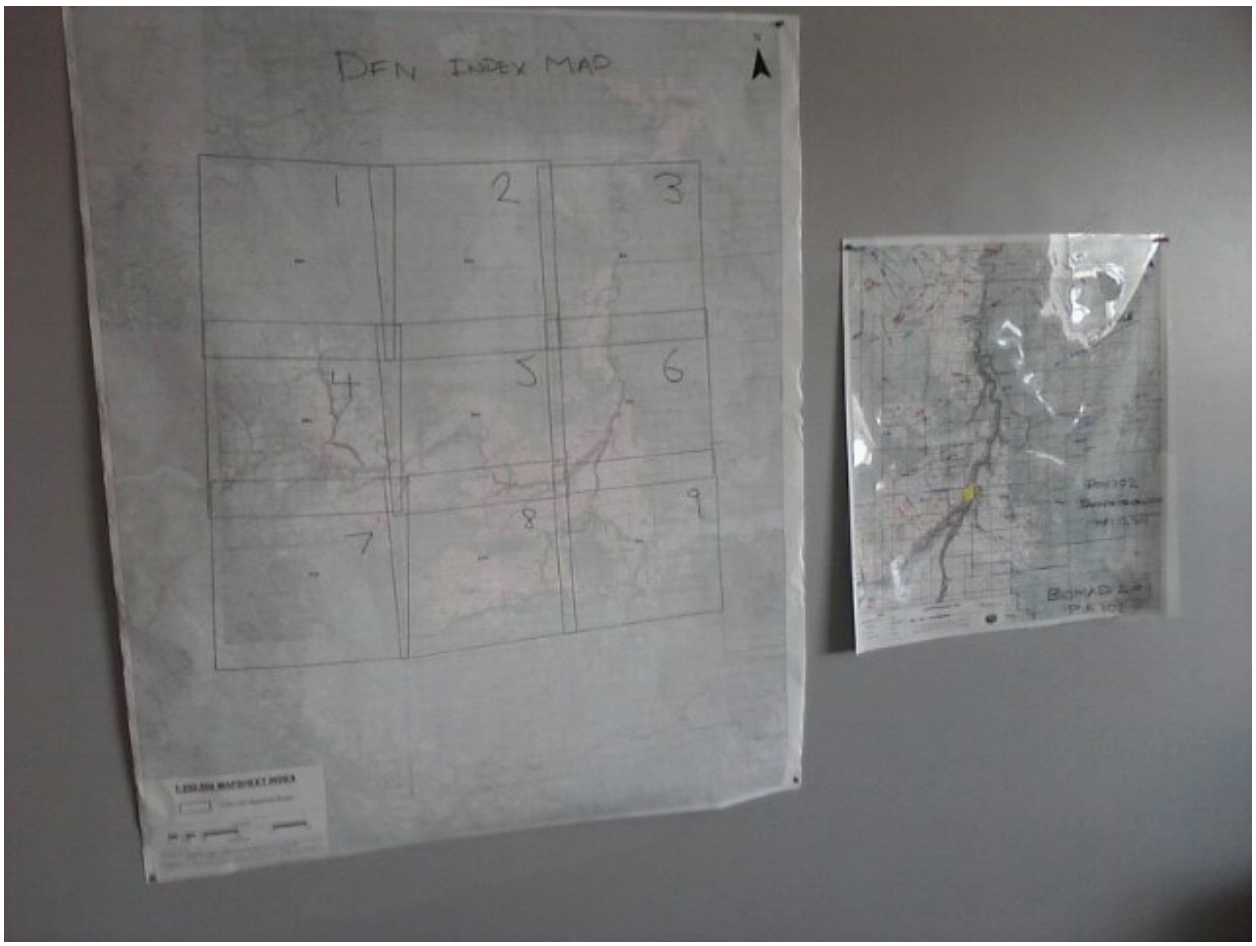
What was the most important reason for conducting the TLUS project? While there were many research needs or objectives, the DFN needed to determine one primary objective for the research. The reason for this, is that if the research was conducted to address a number of objectives, it could have become confused and lead to confused results, potentially leading to differing data being marked on maps. Given this, the DFN set the Primary Objective as:

" The primary objective of the Duncan's First Nation Traditional Land Use Survey is to document some of the DFN's hunting and fishing kill sites and earth and plant material gathering sites with the overall goal of identifying areas of historical and ongoing critical community use".

This set and agreed upon research objective then helped work out and fix other more detailed aspects of research design.

Where – The Geographic Focus of the TLUS?

Based on internal community discussion, the DFN determined that a large area in north – eastern BC and north western Alberta would be the subject the map biography research. The DFN decided not to base the survey on one specific project, or a pre-set area. Nor did base the map biography survey on DFN's traditional territory. It chose an area that it was felt was large enough to capture the majority of community's members use of lands. At the start of the interviews, participants or respondents showed the community researchers what maps they would want to use in their interviews. The same set of base maps were made available to every respondent.



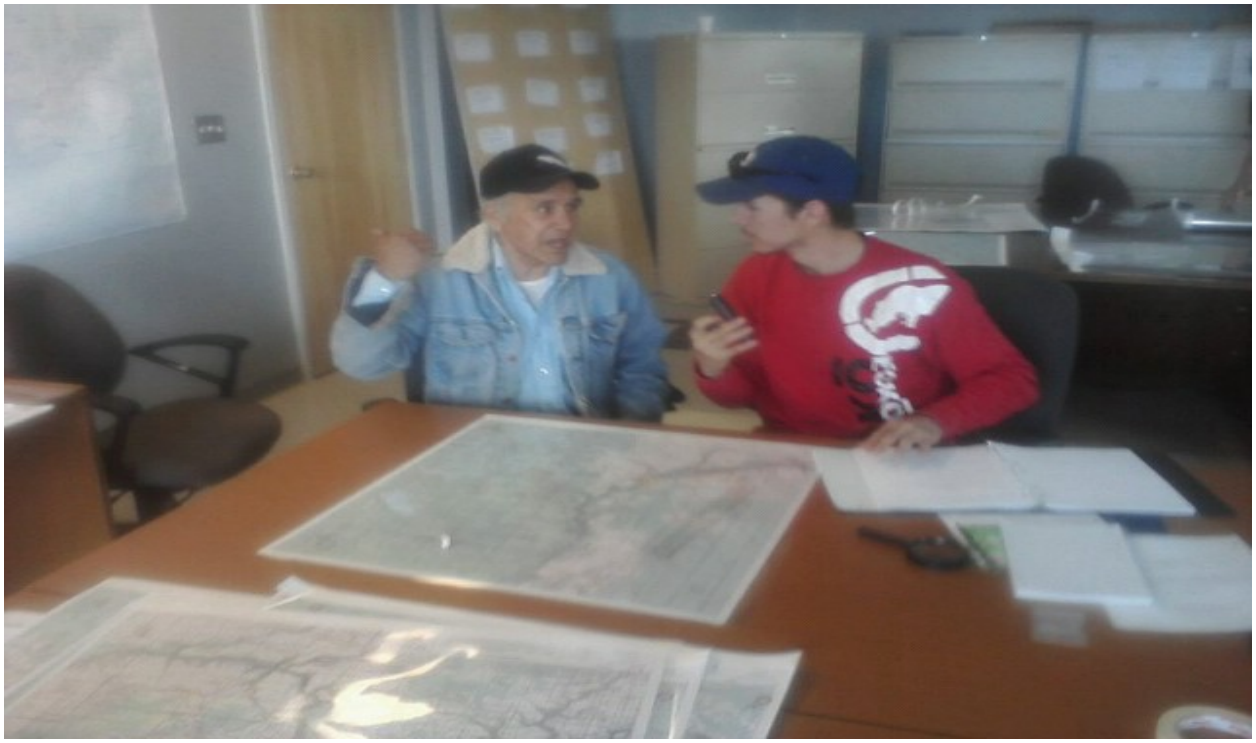
The Map Biography Survey Area: Large Enough Area to Take in the Majority of Community Use in NE BC and NW ALTA

Who Was Involved in the Map Survey?

At the outset of the research, the DFN had to determine who was going to be involved in the survey and why? First the DFN had determine the number of people that would be considered as the sample – the body from which interview participants or

respondents would be drawn from. DFN took into account population statistics from the band and from Indian and Northern Affairs Canada (INAC). The DFN based the survey on the number of community members reported as living on the Brownvale Reserve. This was held to be 284 people.

The DFN then determined criteria that would be used to select people for interviews. The goal is to attempt to have the map biography survey results as being representative of the community as a whole. This is important given that First Nations generally never have the funding to interview everyone in the community, as was the case for the DFN. It had the funding to interview up to 50 people – or approximately one – fifth of the community membership ordinarily residing on the reserve.



DFN: Planning to Ensure that all Family, Age Groups and Males and Females Involved in Map Biography Survey

The DFN was aiming to involve in the interviews, people that were representative of Duncan's families, males and females and all key age groups. However the people selected had to also ensure that DFN collected data in relation to the primary research objective. Given this, generally more men were interviewed than women. The criteria used to select people from the sample population frame included:

<u>Respondent Selection Criteria</u>

- Respondents can be a Status Indian registered to the DFN, a DFN Band Member, a Non Status Indian, Métis or a Non Band Member residing on the DFN reserve

- Respondents must reside within the bounds of Alberta. Non band members must reside on the DFN reserve
- Respondents can male or female and must be of 15 years of age or older
- Respondents must be physically and mentally capable of doing a map biography
- Respondents must report that they have or continue to actively utilize lands and resources to some degree

At project end, the DFN interviewed 46 respondents out of 284 community members translating into a response rate of 16.9%. TLUS projects should aim to achieve a 70 – 80% response rate, thus DFN did not achieve this benchmark and the survey results cannot be held to be representative of the community as a whole. Many community members have called in and are interested at being involved in another map biography survey and other forms of community led research.

When – Recall Interval - What Time Period Should be Studied and Why?

The DFN had to think about the recall interval for the map biography survey. Should the survey focus on the present and current use of lands by community members, or historic use? Should the survey questionnaire be designed to look at different time periods of people's lives? The DFN opted to base the map biography survey on the recall interval of "within living memory". Thus community respondents would be asked to indentify examples of their land use activities over their lifetime or within their living memory.

This was done so as not overly complicate the interview process for the respondents and the community researchers. Adding differing and artificial time periods would have added complexity and result in interviews lasting up beyond the desired two hour mark. Also this recall interval was chosen to help capture both historic and current use patterns and potentially document the changes and variations in land use patterns of community respondents through time. Factors such as climate, presence and absence of wildlife in a given area, mode of travel, personal preference and age are all inter – related factors having a bearing on where a respondent elected to (e.g. hunt) through their life and where they actually killed game.

What – Choosing What Data and Information to Capture and Record

Mr. Terry Tobias, author of *"Living Proof"* cautions that First Nations, while tempted, should avoid trying to get all the potential levels of information and data all at once, within survey. Experience shows that when this is attempted, the resulting maps can be weakened and open to more question. What is also important is that every community member or respondent needs to be asked the exact same questions about the same types of things.

The DFN opted to focus on mapping examples of Wildlife Kill Sites, Fish Catch Sites, Plant and Earth Material Gathering Sites, Overnight Sites and Sacred Sites. The 44 categories selected were as follows:

MAMMALS

MO	moose	CU	caribou
EK	elk	MD	mule deer
WD	white tailed deer	BB	black bear
GB	grizzly bear	XM	other mammal

BIRDS

DK	ducks	GE	geese
GR	grebes	GR	grouse
PT	ptarmigan	CR	cranes
XB	other bird		

FISH

WE	walleye	JF	jackfish (northern pike)
DV	dolly varden	BT	bull trout
RT	rainbow trout	AG	arctic grayling
WT	whitefish	GY	gold eye
LC	ling cod (burbot)	XF	other fish

PLANT and EARTH SITES

BR	berries	FP	food plants
MP	medicine plants	SP	sacred plants
CL	construction logs	FW	fire wood
SR	specialty rock	DW	drinking water
XP	other plant/earth site		

OVERNIGHT SITES

CB	cabin	TT	tent site
LT	lean to	XOS	other overnight site

CULTURAL SITES

BS	birth sites	BP	burial places
OS	old settlements	CS	cache sites
SS	sacred sites	XCS	other cultural site

The above categories were then taken and developed into specific questions about each category, which were then included into a Questionnaire. In this way, all 92 community respondents were all asked the same questions about the same categories.

The DFN TLUS Interviews were based on a set group of questions based on a set group of categories

It should be noted, that some flexibility was built into the resulting questionnaire based on the above categories. If a respondent identified an activity, country food or forest product that was not one of the selected categories, community researchers had the ability to document it as “other”. As we found out, many have killed buffalo or caught suckers that weren’t included in the above list. These were then recorded as “XM” – Other Mammal or “XF” – Other Fish, as not to miss this unique activity.

It is important to note that DFN did not set out to document or ask people general questions about where they generally hunt or generally fish. When First Nations do this, it can lead to researchers marking huge circles on maps – while important and valid to mark – this approach often does not have the site specific data (such as Moose Kill Sites or Elk Kill Sites) to back up the large circle drawn on the maps.

Also, another problem can arise. If DFN asked community members where they hunt, we might have got very different answers and data from person to person. To one person, asking them where they hunted might have resulted in marking mineral and salt licks, or where they actually killed a moose or white tailed deer. In other words, to another person where they hunt could involve the routes they take to go hunting, the places the scan and hunt as they travel; tracking and scouting out places where wildlife sign is observed, setting up camp as a base for the hunt, stalking areas for wildlife, the places and habitats were moose might be found, the location where a kill was made and where the kills was processed. Choosing to mark examples of moose kill sites ensured that every community respondent could understand the question and respond in the same way as all other interviewed community members.

Marking Data on Maps and Recording the Interviews

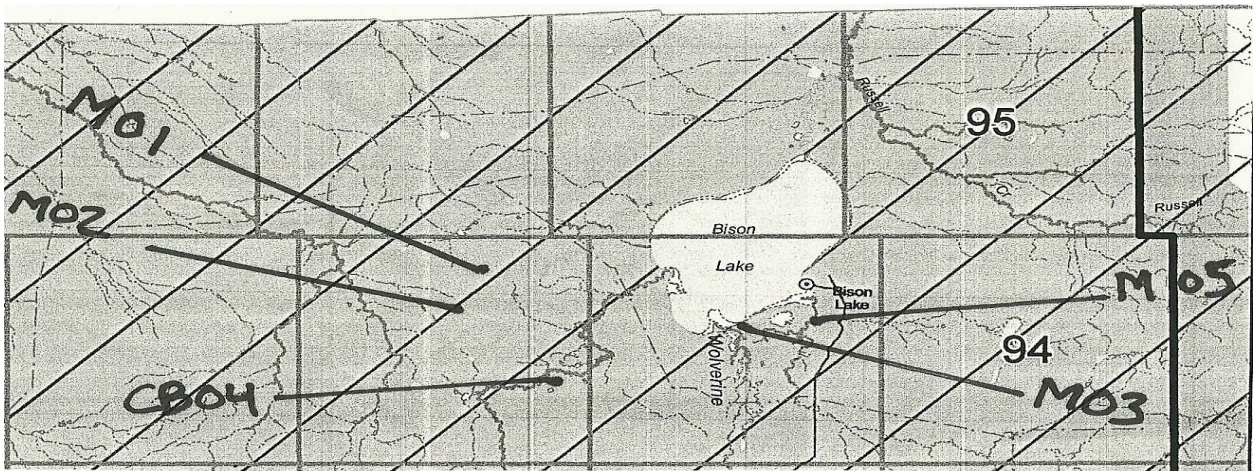
What happened in the interviews? What was the result of the interviews? This is important to note as it reveals how the interviews were conducted, and how the data on the maps were marked. As noted the interview process was planned to ensure that each interview was conducted in the same way, each time and that all respondents were asked the same questions about the same categories.

Another critical aspect of the interview process was to ensure that the community respondent's answers and resulting data were all marked in the same way, each and every time. As noted each researcher was trained and provided the exact same tools to record the interviews and mark data on the base maps. Each researcher was taught to use a fixed set of conventions or rules so that data was marked on maps in a correct and consistent way.

Methodology Tools and Conventions: Community Researchers Used the Same Set of Tools and Rules to Ensure that the Map Data Marked Was Consistent Way in Every Interview

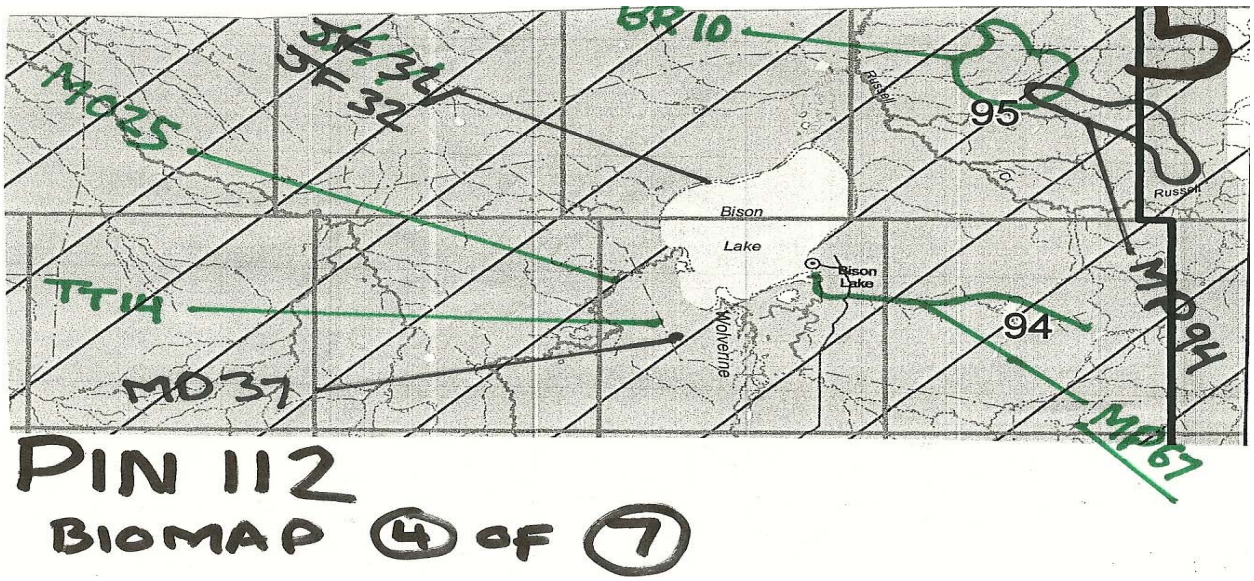
During the interviews, each person was asked a series of questions about whether they e.g. killed moose, elk, white tailed deer, jackfish, walleye, picked berries, stayed overnight etc. These were marked on clear plastic (mylar) overlays over top of base maps using a consistent code. When the interview started, the first site was marked as 01, then next 02, 03 and so on until the respondent had identified as many sites as they could recall or examples of those sites. Every category had its own unique code – Moose was "MO", Elk was "EK, Walleye was "WE", Berry Picking was "BR" and

camping overnight in a Tent Site was labelled as “TT”. Thus the marking on the mylars and base maps appeared as follows:



Community Researchers Used a Set Coding System in Every Interview to Record Community Member Land Use Activities – Above “M01” is was the first Moose Kill Site Identified in the Interivew, “M02” was the Second, “M03: the Third, then they the fourth site was Cabin – “CB04_.

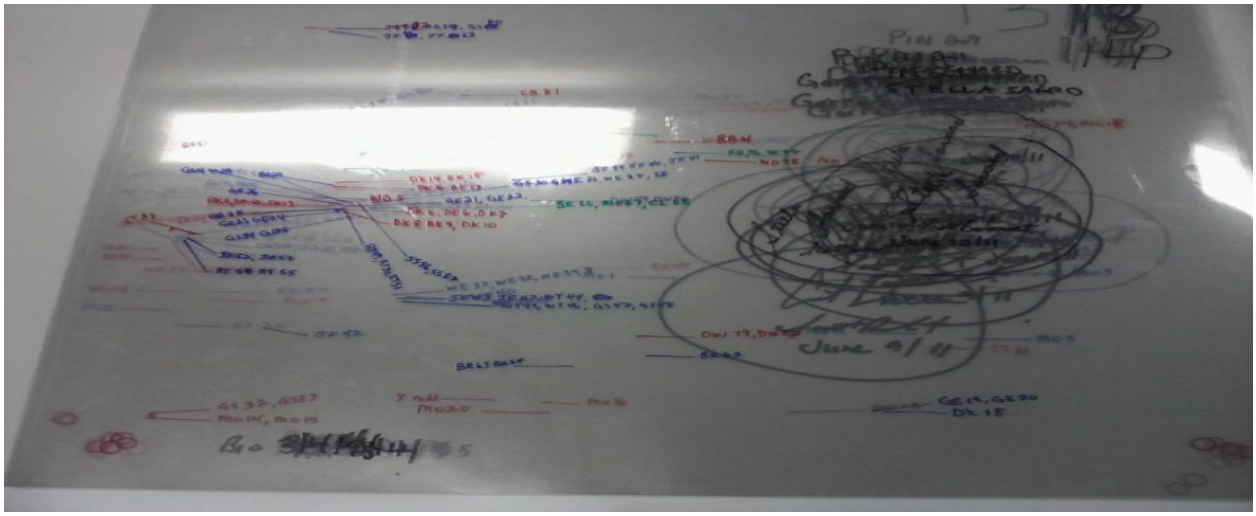
BioB



The Coding System Used a System of Points, Lines and Small Polygons to Document Different Types of Land Use Activities

In some cases, community respondents identified dozens of such sites and some cases a couple of hundred. At the end of all 46 interviews, the DFN documented over 2600

sites. A fresh set of mylars were used in every interview to ensure that only that community's respondents' data was on the set of maps or what are called "Bio Maps".



During Every Interview, Researchers Marked People's Land Use Activities Using Agreed to Set of Codes – At the end of the interview process, 92 people identified over 6600 examples of land uses. Every community respondent had their own set of maps – or Bio – Maps.

In addition, every interview was recorded using an older style audio cassette recorder to document what was being discussed in the interviews. Following the interviews, a community researcher wrote up a transcription or written record of every interview. In this way the data on the end maps that DFN produced could be linked to the respondent's Bio Maps and written transcript. This step is also important as it provides evidence of how the research was conducted and whether there were any flaws or departures from the proposed standard methodology by community researchers. As such the data showing on the DFN maps, is backed up with documented evidence.

F) Survey Results: The Maps and Community Data

At the end of the interview process, all the Bio Maps were checked against the audio recordings and interview transcripts. A careful check was done to see where community researchers did a good job at following the set research conventions and agreed upon methodology. Where there were situations where the standard methodology wasn't followed, such instances were documented and noted and analyzed in the DFN TLUS Methodology Report.

At the end, the DFN had all the data in the Bio Maps combined into differing community mapping products through computerized mapping with use of a Geographic Information System (GIS). Different end mapping products were created. These include:

- Map Biographies – One map displaying data for all questionnaire categories for a single respondent. As required by confidentiality measures and provisions (strongly advocated within *"Living Proof"*) , the Map Biographies or personal Bio Maps will not be depicted or contained within this Methodology Report, the Public Report or any other document shared with external parties, unless written consent is provided and obtained by the respondent. Each respondent will be provided a copy of their map.

- Category Map – One map displaying all data for all respondents for a single questionnaire category (e.g. Moose Kill Sites, Bull Tout Kill Sites) **(Appendix L)**

- Thematic Map – One maps displaying data for all respondents for a selected group of related questionnaire categories (e.g. Large Game Kills, Ungulate Kill Sites, Fish Kill Sites) **(Appendix L)**

- Hodgepodge Map – A single map displaying all data for all questionnaire categories from all respondents **(Appendix L)**

- Respondent Extensively Map – A single map where the outer most data points of every respondent's Map Biography is joined to form a polygon demonstrating extensively of use for each respondent. All polygons for all respondents are then set out on one map. **(Appendix L)**

- Collective Extensively Map – A single map where the outer most data points identified in all the interviews are mapped to form one polygon demonstrating extensively of use by the community as a whole. The one polygon is set out on one map. **(Appendix L)**

Sometimes First Nations will attempt to provide a detailed analyses of the resulting map data, discussing what the maps mean and what trends and patterns they reveal. In this case, the DFN has opted to produce the maps and let the maps speak for themselves as being a baseline inventory of information. In the future, the DFN will begin to discuss and write about what this information may mean within the context of project consultations, environmental assessments and government resource management decision making processes.

G) Analysis: Looking at We How Did?

The DFN made best efforts to conduct the map biography survey within the framework of science and according to social science research standards. The initial Research Proposal set out DFN's proposed plan for the collection and documentation of data. The Methodology Report document sets out how the data collection process unfolded on the ground. The two documents are companion documents that will assist the DFN and other parties by providing a record of the methodology employed in this research effort which will demonstrate how the resulting map data was arrived at. It also helps ensure that the end map products and the data they contain are considered in an appropriate way.

At the end of the project, a proper methodology requires researchers to look at how they designed the research, how the actual research was undertaken, the resulting differences and whether the differences between the planned and actual had any potential impact on the end results. The DFN looked and seriously considered any places where there were departures in standard methodology to see if there were any weaknesses in the maps and end results.

An Important Task – Measuring Up How Close the Actual Research Went According to Plan

In short the DFN examined the Bio Maps, the Audio Recordings, the Interview Transcripts and other records made during the interviews. The DFN carefully considered examples of where there were issues in relation to the following key areas:

- Categories: Did we identify all the categories that could / should have been marked. What ones did we miss out on?

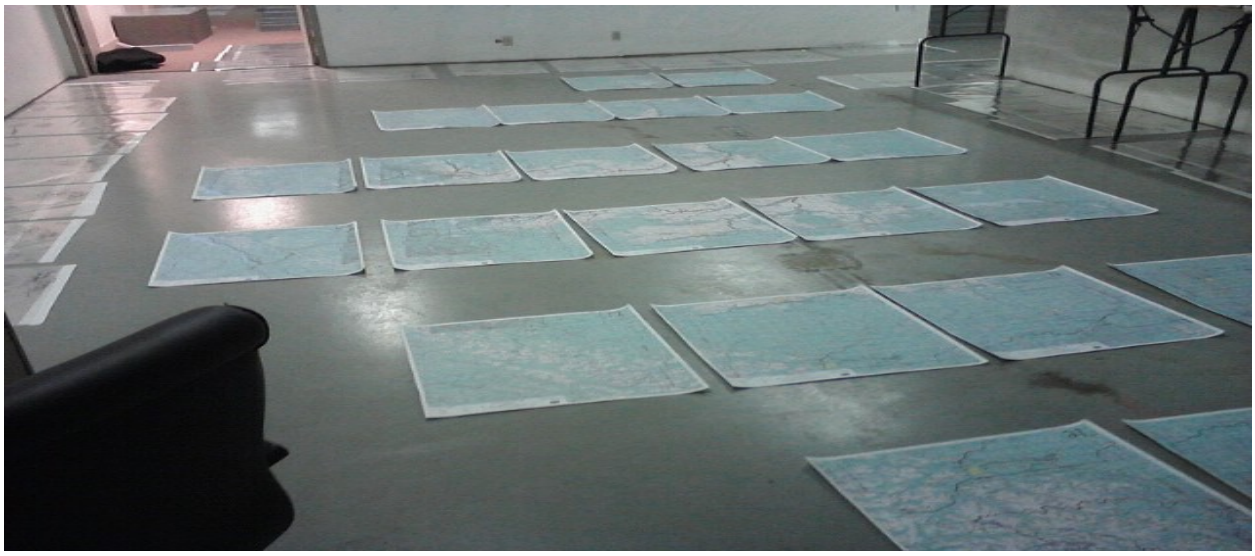
- Geographic Scope: Did the base maps we have cover all of the areas that DFN community members generally use. Did we miss any areas?

- Marking of Habitat: Where there situations were community respondents and interviewers started to mark animal habitat vs. places where wildlife was killed and plants gathered?

- Species Identification: Did we run into situations where interviewers had a hard time in naming actual species?

- Use of Large Polygons: Where there instances, where interviewers started to draw large circles on maps rather than marking very specific sites and small areas

- Map Scale: Did the map scale (1:250 000) pose any problems for community respondents? Did the maps contain enough detail to allow the specific indentification of sites?



A Sound Methodology Required DFN to Carefully Check Over All Data Recorded During the Interview to Determine Potential Strengths and Weaknesses of the Map Biography Survey – Above: Checking Data on All Maps

- Temporal Precision / Data Diamonds: Did we record enough detail about specific sites and would the survey benefited from detail about the time when a certain activity was taken and whether there were other people present at the time?

- Recall: Did memory cause problems for community respondents – did they have trouble in recalling sites

- Rushing / Burn Out: Where there examples where interviews were impacted by either the interviewer or community respondent felt rush, tired or frustrated with the process?

- Missing Data – Audio Tapes and Transcripts – Did we capture all the data in the interviews or are there any gaps in the interview records

- Map Numbering and Labelling – Were all the maps labelled and numbered properly to ensure that they are not misplaced or digitized incorrectly?

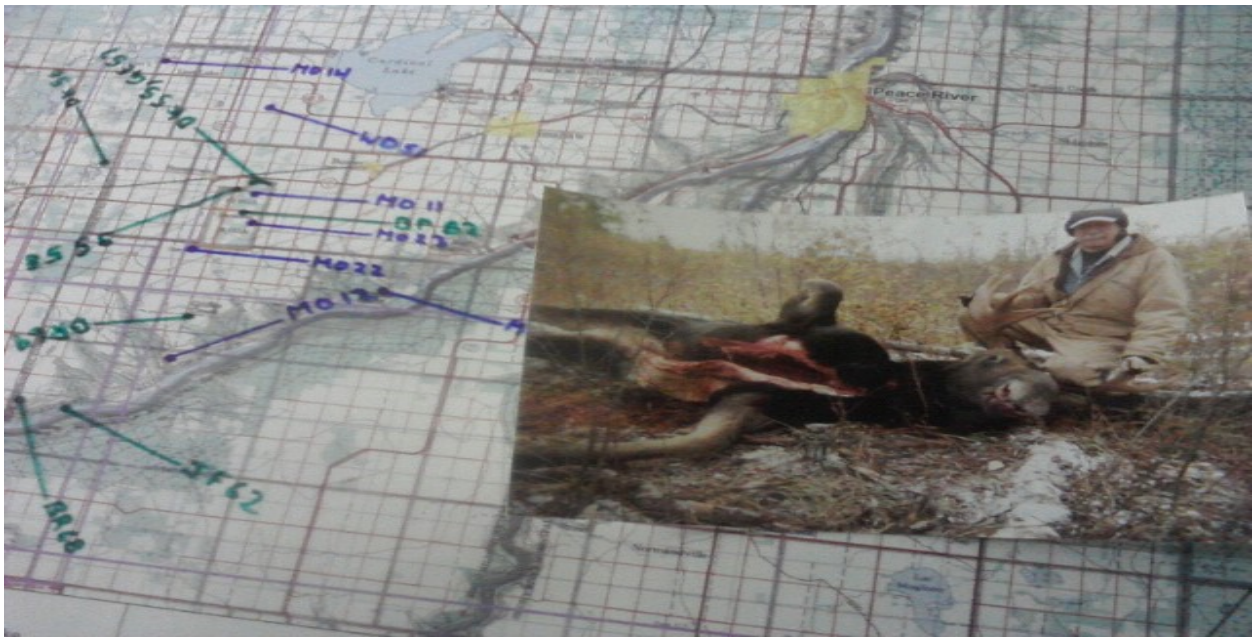
- Data Marking Conventions – Did the interviewers work hard to record the data according to the agreed to set of conventions or rules?

Ultimately, it will be up the DFN community and outside parties to judge whether the DFN maps are believable and based upon a defendable and supportable set of land use facts. The gap analysis undertaken by the DFN provides some strong indication that DFN researchers carried out and implemented the research in a manner consistent with its original research design. Clearly, there were departures from the set methodology as there is in most research programs which results in some level of impact on the end results.

There were some limited instances of departures from the planned and set methodology which produced varying results in the interviews. In some cases, equipment didn`t work properly or a series of data from an interview lost. Thus the question is whether these instances happened a great deal, greatly affecting the study results or where there few instances, not having a great impact on the end mapping results?

The DFN takes the view that its TLUS research project was designed according to a recognized social science standards and the best practices. Its review and analysis of the actual way in which the land use data was documented, strongly indicates that the research was undertaken as intended and planned. As a result, the DFN takes the view that the resulting TLUS maps are believable and that data marked on the maps are:

Objective	*Reliable*	*Validity*	*Precise*
Accurate	*Having Integrity*	*Auditable*	*Representative*



Map Biography Method – Documenting the Community's Life on the Land as Facts

H) Confidentiality and Community Ownership of Their Cultural Information

An important aspect of social science research is that of informed consent and confidentiality. First of all, a person who is participating in such research should know the purpose of the research, what is going to happen within the research process and be told what the information gained in the research will be used for. Research participants should feel that they are making a free choice to be involved in research and provide their written permission and consent prior to the outset of the research.

The DFN developed a permission form that set out the above information and reviewed this prior to the start of the interview. The interview would only occur if the permission form was signed.

Another important aspect of social science research is that of confidentiality. The DFN wanted to provide a measure of confidentiality by not disclosing community respondents names on public materials such as the end product maps, the Methodology or this Community and Public Report. Instead, every respondent was assigned their own Personal Information Number (PIN) which is their research number for this map biography survey and should DFN undertake other types of research in the future. Community researchers were assigned blocks of PINs (numbers), which in turn assigned a new PIN to every community respondent they interviewed.

There are other layers of confidentiality built into the map biography survey as well. It needs to be made very clear that the Bio Maps (that the original map data was marked on) are not public documents and are treated as confidential. Only the end product maps – the Category, Thematic and Hodgepodge Maps are the only maps that are considered a public document and record. All of the general or generic data of all community respondents are placed on these maps and there is no label or marking on these maps that would reveal who provided that specific data point or feature.

Further community respondents' audio recordings and interview transcripts are also considered confidential. Given this, the community respondent must provide their agreement or consent to have their personal interview products (Their Bio Maps, Audio Recording and Interview Transcript) to DFN to release these to an outside party. There may be circumstances where such information requires an outside party to see such information for auditing purposes.

One thing the DFN can do is to provide unnamed excerpts and samples from these materials to allow for outside parties to assess the data quality standards of the DFN TLUS project. There are ways of doing this to maintain confidentiality and allow for the auditing and assessing of DFN's research.

This project has been conducted by the Duncan's First Nation for the Duncan's First Nation and the people of Duncan's. All information, data and maps presented and depicted belongs to, and is held to be intellectual property of the DFN. The maps, data and all supporting documents produced under the auspices of this map biography survey may not be distributed and reproduced without the express consent of the DFN. Full and named Map Biographies, Audio Recordings and Interview Transcripts are not be release without the permission and consent of the community respondent who provided that information.

I) Limitations

This DFN 2011 TLUS achieved the primary objective and key research needs of the DFN. In short, the DFN has produced a baseline set of socio – cultural data and a set of maps which reveal some important land and resource use community trends and patterns. This map biography survey was designed and undertaken in a way to meet important data quality standards within the field of social science. With that said, there are some limitations with the map biography approach, the DFN project and resulting data that need to be indentified, acknowledged and discussed. These include:

Map Biographies as a Form of Quantitative Research

The map biography survey method is form of quantitative research, as opposed to qualitative research. There are many benefits with quantitative research but there are also some important limitations or drawbacks. Within *"Living Proof"*, Mr. Terry Tobias states the map biography surveys are limited - what they do is allow a First Nation to gather data about land use activities, events, occurrences trends and patterns. In the DFN map biography survey, the research team was able to shed some light on ongoing community land use patterns and trends. However the map biography method doesn't provide much in the way of explanation as to:

- Why the community undertakes land use activities?
- How it undertakes these activities?
- What the cultural, social and economic importance of such activities are?
- What forces and factors are making it harder or easier for the community to use the land?
- How are land use patterns and trends changing with time?
- What would the consequences be to the community if they can't use large portions of the land over time?

Such important research questions must be the subject of future qualitative research – research aimed at providing observation and potential explanation of trends and patterns. Thus the 2011 DFN TLUS cannot be held as study that addresses the whole array of much needed research.

Mapping Extensivity and Use

The map biography method lends itself to documenting land and resource use over a wide ranging area – rather than mapping occupancy – the ongoing habitation or effective control of a given area through time. There are different forms of qualitative research that First Nations and academics have adopted that are better suited to mapping and documenting land use occupancy. The 2011 DFN TLUS is a survey that documents land use and land use extensivity by the community.

Traditional Use Survey vs. Traditional Ecological Knowledge Study

There is an important difference between traditional land use surveys and traditional ecological knowledge or traditional knowledge studies. Traditional Ecological Knowledge (TEK) or Traditional Knowledge (TK) a type of qualitative research that generally seeks to understand community understanding about the environment, where

wildlife tends to be found, wildlife and plan community habitats and long term trends and changes in habitats etc. As such, the 2011 DFN TLUS is not a TK or TEK study.

It is also important to note that DFN took steps to avoid mixing the two research streams. Within the map biography survey, the DFN set out to identify kill, catch, gathering, camping and cultural sites NOT – the documentation of plant and animal habitats.

Mapping of Specific Activity Sites and Not Larger Use Areas

What DFN achieved in this map biography survey was gather and map traditional or socio – cultural use data. The survey generally mapped kill, catch, gather and camping sites. At its very best, the survey sheds light on examples of community land use patterns and trends. Specific instructions were included to map SOME of the sites a person could recall, not all. Further, the DFN did not map hunting areas, or the broader areas in which people hunt, fish or gather using broader polygons or circles on maps. Such work should likely be undertaken in the future, given the importance of these lands in supporting the ability to kill specific species.

The TLUS: Documenting Kill, Catch, Gathering Sites – Not Wildlife and Plant Community Habitats

Option to Not Map Travel Routes and Traditional Place Names

Based on the advice in *"Living Proof"*, the DFN opted to not to map travel routes and traditional place names within this survey. This additional level of detail would have made the interview and data marking process more complex, possibly taking way from

the focus of the community researchers. Clearly data layers from travel routes would be an important and useful to have, and DFN might consider undertaking this kind of research in the near future.

Related to the topic of travel routes is that of mapping traditional place names. The DFN simply opted to not undertake this. Rather, the DFN should engage a Typonomy expert in the future to work with community elders and community members.

Survey Focused Structured Around Primary Research Objective

Again, as Mr Terry Tobias cautions First Nations not try and “get it all at once”, the DFN opted to map a limited set of categories. Thus DFN opted to keep the project manageable in keeping with its primary research objective and decided to map no more than 50 information categories (e.g Moose, Elk , White Tailed Deer, Walleye, Jackfish, Berries, Overnight Tent Sites etc). Given this, this survey didn’t document the full range of community socio – cultural activities and use of lands and resources

Recall Interval

The DFN decided to document land use activities undertaken over a community member’s lifetime or within “living memory”. It is possible to attempt to document far past, recent past and more current activities however, the DFN opted to not water down in its focus on methods and mapping standards by creating artificial time frames. However, what was good in this approach is that it captured land use trends and patterns over a community respondent’s lifetime.

Survey Population, Representativeness and Limited Budget

Given the opportunity, the DFN would have wanted to interview all community members to gather as accurate a picture of land use patterns and trends. However, as in all types of research, DFN researchers needed to do as much work as they could with the budget they had. Within *“Living Proof”,* Mr. Terry Tobais suggests that a map survey can be considered representative if a response rate of 70% - 80% can be achieved. Within this map survey research project, the DFN was able to reach a response rate of 16.9% or close to one fifth of the community. While DFN feel short of the desired target, by asking one fifth of the community the same questions about the same categories, did achieve a degree of representativeness.

“Ground Truthing” or Site Verification

The map biography was a map exercise. It did not involve ground truthing or going into the field to take GPS readings of sites. Clearly, if DFN had the resources and the time, it would have been useful and beneficial to attempt to verify all sites mapped during the TLUS with GPS coordinates. The resulting data and map set produced within the DFN TLUS could be utilized as a base to conduct more detailed on the ground assessments of proposed projects and areas that are deemed to be of critical community use by the community. However, agreements between the DFN and third parties would need to be reached to support and commission such detailed ground truthing and field work.

General Caveats and Limitations

On one hand the 2011 DFN TLUS project was a much needed and very important piece of research for the community. The resulting maps and supporting data show a definite land use and trends and patterns for one fifth of the community stretching covering a period of up to eighty years. However, as discussed, along with the strengths of the survey there are some inherent limitations with the quantitative research approach taken. It must understood that the survey, at best, scratches the surface of the DFN community’s social, cultural and economic relations within this landscape.

Viewed alone and isolation, the data points on the maps can potentially convey the wrong impression. The data points or dots on the map are at best indicators of use and ongoing relationship of the land, but cannot and do not in of themselves represent the breadth and scope of DFN uses, land utilization or rights held by the DFN. DFN’s use of the lands and rights they exercise are dependant on and rest on a functioning and healthy eco-system.

Thus, while the fact that Jeff Napoleon may have killed one moose in a specific location is important, concentrating merely on the site in isolation misses the point all together. Jeff’s right to hunt moose, the rights that his family exercise on the ground and the collective rights held by the DFN are not confined to this one dot on a map or even a series of dots on a map. Rather, they result from and are dependent on large inter-connected, functioning landscapes – thus the spaces between the dots on the DFN map can be said to carry more significance than the dots themselves. The dots are merely an indicator of use and utilization.

Such matters are important and need to be considered when viewing and considering the meaning of the maps. The maps need to be read in concert with the Methodology Report and understood with the proper context.

The DFN has undertaken this survey and produced the maps it has with the objective of having this baseline data considered, incorporated and utilized within lands and

resource decision making processes. The data could potentially be relevant and helpful in relation to environmental assessment reviews, planning processes and resource allocation and management policy decisions. However, it can only be helpful to the parties if it seen and taken for what it is – a useful set of baseline data that is indicative of community land use and resource utilization trends and patterns. These resulting maps can only be of assistance and of value if they are viewed with the appropriate context and inherent limitations in mind.

It's Not Just About the Dots on Maps: When Looking At TLUS Maps Parties Must Consider the Activities and Sites Marked on the Maps but also the Broader Area that Hosts Those Sites and Makes Land Use Activities PItossible

J) Moving Forward: Community Stewardship and a Research Agenda

As noted, the real critical part of the TLUS now begins. The DFN must now begin to use this research in productive and positive ways. The data and maps produced can and should be used by the DFN in its engagements with industry and government for a variety of reasons. Already in the boreal area of Canada, First Nations that have such bodies of research and bring them to table are starting to see better environmental and socio – economic results for their community.

Putting the DFN's Map Biography Research to Use to Address Community Needs and Priorities in Relation to Resource Development

Secondly, the DFN needs to develop a community stewardship and data maintenance plan. As DFN and too many other First Nations have seen in the past, all the hard work put into such studies can be impacted with successive political and administrative change. Major portions of the studies can be misplaced, removed or damaged impacting the usefulness of the maps and the studies. There are various ideas and measures that can and should be taken to protect, preserve and utilize the maps and its raw research materials. The community needs to set a standard of care and stewardship that all future DFN governments are bound to uphold to preserve the data for this and future generations.

Thirdly, more than anything, it is hoped that this map biography survey may create a renewed interest within and by the community for conducting its own research programs to meet its research priorities and needs. More specifically, it is hoped that science will be seen and taken in a positive light and as potential ally for the DFN as it moves forward with a research agenda that tackles the very real and compelling challenges that it faces within the northwest region of Alberta and north eastern region of BC.

Planning for Future Use and Care of Community Data – A Need for Ongoing Community Care and Stewardship of its Cultural Use Data

K) Thanks and Acknowledgements

The DFN wishes to acknowledge all those who have assisted and helped in carrying this research project through from its inception to its conclusion. First of all, it wishes to acknowledge and thank all those community members who agreed to participate in this map biography survey. Their contributions and knowledge will now always be there to assist their families, community and nation into the future.

The DFN also wishes to acknowledge its elders and knowledge holders who have given support to this initiative though providing guidance and participation in the research.

Thanks and acknowledgement also need to be extended to the Duncan's First Nation Chief and Council who have supported and provided encouragement to make this important cultural research project a priority a reality for the community.

The DFN TLUS Was In House Effort Based in the DFN and Staffed by Trained Community Researchers

The DFN wishes to acknowledge and thank the community research team who ultimately made this project work, be responsible to and conducted for the community. Thanks and gratitude go to Audrey Lawrence, Keith Lawrence, Denise Testawich, Malcolm Testawits, David Testawich and Eric Anderson.

Last of all, the DFN wishes to extend its thanks and acknowledgements to Mr. Terry Tobias. This map biography survey work is based on his life`s work and contribution the field of traditional land use and occupancy mapping.

L) Appendices

Attached

Appendices

- Category Maps
- Thematic Maps
- Hodgepodge Map
- Respondent Extensively Map
- Collective Extensively Map

Duncan's First Nation
Traditional Land Use Survey
Methodology Report

January 2012

Table of Contents

1.0 Project Summary

2.0 Methodology Report Purpose

3.0 Map Biography Background Context and Proposed Research Design Plan

3.1Traditional Land Use Research Need

3.2 Traditional Land Use Research Context

3.3 Community Vision, Support and Guidance

3.4 Research Team and Community Capacity Building Approach

3.5 Community Research Project Office

3.6 DFN Proposed Research Design Plan

4.0 Methodology

4.1 Framework

4.2 Framework: Research Principles

4.3 Framework: Data Quality Standards

4.3.1 Objectivity

4.3.2 Reliability

4.3.3 Validity

4.3.4 Precision

4.3.5 Accuracy

4.3.6 Integrity

4.3.7 Audit ability

4.3.6 Representativeness

4.4 Method

4.5 Parameters

4.5.1 Primary Research Objective

4.5.2 Study Population

4.5.3 Recall Interval

4.5.4Study Area

4.5.5 Data Layers and Categories

4.5.6 Questionnaire Design

4.6 Tools

4.6.1 Mapping Tools

4.6.2 Data Marking Tools

4.6.3 Audio Recording Tools

4.6.4 Questionnaire Tool

4.6.5 Interview Forms Package Tools

4.7 Conventions

4.7.1 Conventions Related to Use of Key Interviewer Tools

4.7.2 Conduct of Interview

4.7.3 Verbal Anchoring

4.7.4 Data Marking Conventions

5.0 Data Collection: Quality Assurance

5.1Data Collection Manual

5.2 Interview Procedure Checklist

5.3 Community Researcher Training and Questionnaire /

Data Collection Manual Pre-Test

5.4Interview Record Forms

5.5 Research Notebook

5.6 Interview Master List

5.7 Interview Transcription

6.0 Data Digitization

7.0 Results

- Map Biographies
- Hodgepodge Map
- Category Maps
- Thematic Maps

8.0 Limitations

9.0 Analysis

10.0 Country Food Harvest Survey

11.0 Community Stewardship and Data Management Plan

12.0 Confidentiality and Information Ownership

13.0 Acknowledgements

14.0 Sources

15.0 Appendices

A. DFN TLUS Research Proposal
B. Confidentiality Directive
C. Category Quick Reference Sheet
D. Interview Procedure Checklist
E. Questionnaire
F. Photos of Community Researcher Tool Kit
G. Index Map
H. Interview Forms Package
    -Interview Procedure Checklist
    -Consent Form
    -Confidentiality Directive
    -Honoraria Form
    -Interview Record Form
I. Data Collection Manual
J. Interview Transcript Example
K. Photos from Training Week and Bio Map Check
L. Interview Master List
M. Maps
    - Hodgepodge Map
    - Category Maps
    - Thematic Maps

1.0 Project Summary

In 2010, the Duncan‟s First Nation (DFN) identified a critical need to undertake a traditional land use research project to document historic, current and ongoing traditional and cultural land use and resource utilization by its community members. Project research design and planning occurred through the winter and spring of 2011, with project implementation occurring through the summer and fall of 2011.

The DFN opted to use the map biography process – a well established form of quantitative research and approach to the conduct of traditional land use surveys. A project team consisting of a research director, two community researchers and one transcriber were hired and trained. Over the course of the survey project, DFN interviewed 46 community members or respondents. Data was recorded on 1:250,000 topographic maps overlaid by transparent Mylar sheets, and by way of audio recordings and written transcripts. The resulting spatial data was digitized and organized into differing end mapping products such as Map Biographies, Thematic Maps and a Hodgepodge Map.

This Methodology Report documents in detail, both the research design and implementation phases of the DFN Traditional Land Use Survey (TLUS) project. It also provides an analysis of the gaps between the planned research and how the research was actually implemented on the ground.

2.0 Methodology Report Purpose

The DFN set out to undertake the TLUS project based on demonstrable and defendable social science research methods and standards. Given this, it was imperative that DFN"s final mapping products were accompanied and supported by a comprehensive methodology report. This document is intended to satisfy that requirement. Thus the overarching purpose of this Methodology Report is to provide the community, future band administrations and external audiences an informed understanding of how DFN arrived at the mapping results it did. Further, it is intended to provide a detailed account of the methodological rigour applied in the research design and implementation phases of the project. This report can also assist the same audience to assess and weigh the relative merits and potential deficiencies of the survey"s data.

At the outset, DFN developed an initial Research Proposal that set out how it planned to conduct the map biography research. This Methodology Report sets out how the research was actually conducted and accounts for the differences between the initial plan, the actual research as implemented on the ground, the differences between planned and actual and the potential effect on the data outcomes resulting from this gap.

With both the Research Proposal and Methodology Report in hand, the DFN community and external audiences should be able to view the end product maps with a high level of transparency and re-trace the research path that DFN took and why? Further, it is important that DFN"s end map products be viewed with the necessary context, understanding and interpretation. The Methodology Report is intended to provide this much needed context and documents some of the important limitations associated with map biography research.

The balance of this report walks the reader through how DFN approached research design – taking into account basic, but critical research assumptions and principles to the very detailed procedural steps and agreed to rules that DFN adopted and applied through the implementation of the research program.

3.0 Map Biography Need, Background and Context

3.1Traditional Land Use Research Need

The DFN is an adherent to Treaty #8. It collectively holds Treaty and Aboriginal rights in relation to north – western Alberta, north – eastern British Columbia, Alberta and the historic Treaty #8 area. DFN community members, individually exercise these rights on the ground within portions of these geographic zones. The community has and continues to utilize lands and resources within these areas for a range of cultural, sustenance, socio – economic, spiritual, commercial and other purposes. Successive

band administrations, staff and community members have felt confident in making such assertions in the past and to this day, given they have constructive knowledge of their community members who continue to travel out onto, and stay on land to undertake these vocations.

Need to Build Inventory of Traditional and Cultural Use Data

Within the past three years, the DFN conducted a traditional land use scoping exercise, where a limited number of community members identified key hunting, fishing and general land use and resource utilization areas on maps. The interviews where semi – structured where participants responded to a fixed set of questions but were also allowed to speak to land and resource use issues that they deemed of importance. Thus the interviews convey information related to:

- historic land and resource use
- contemporary land and resource use
- participant observations regarding the changes they are observing in ecological conditions and their ability to access and utilize their traditional lands, and
- participant perceptions as to the potential stressors and factors giving rise to ecological change and the corresponding challenges in accessing and utilizing their traditional lands

Hunting, fishing and resource use areas were demarcated on maps by way of large polygons. Interview summaries of each interview were also prepared, reviewed and approved by community participants. In preparing for the study, the DFN utilized and gave consideration to the recommendations and information set out in a Government of Alberta‟s *"Best Practices for Traditional Use Studies"* published in 2003.

While this initial survey was a useful scoping exercise, the DFN wished to build on this effort and compare and contrast these findings through a subsequent traditional land use research effort. The DFN deemed that it needed to establish a baseline set of cultural and traditional land and resource use data that was site, species and activity specific.

The Proposed Site C Hydroelectric Project

A further driver for the need to carefully document traditional land use by the DFN is the potential for the development of a third dam on the Peace River near Ft St John in British Columbia. This dam is called the Site C Dam and if it is constructed it may influence river flows,

fish and mammal distribution in and associated with the project footprint area and potentially land use and resource utilization by aboriginal communities. The careful documentation of use by the DFN will improve the community"s ability to participate in the assessment process and will provide the project proponent with the tools to better assess potential impacts to DFN land use and resource utilization and an improved ability to propose, plan and conduct mitigation measures to mitigate potential project effects.

The project proponent is BC Hydro and in recognition of these drivers as well as the obligations that BC Hydro holds as a crown corporation, BC Hydro met with the DFN and negotiated an agreement for DFN to conduct a traditional land use study. The resulting document was called *the "Traditional Land Use Study Agreement for Site C Clean Energy Project"* and it set the initial framework for the study including objectives, methods and work planning as well as a set of deliverables from the work. The agreement also identified a budget which DFN could use to conduct the work. While the Site C project was a key driver for the TLUS project, the DFN opted to plan and implement a map biography survey that would address both the data and planning needs of Site C project as well as the longer term TLUS data needs of the community. BC Hydro"s project funding will support the DFN in engaging other resource development, environmental assessment and management scenarios into the future.

Need to Document Historic and Ongoing Use in Face of Development

The DFN also determined a critical need for an expanded body of traditional and cultural use data, given the pace and scope of development occurring within north-western Alberta and north-eastern BC. Based on repeated community anecdotal accounts, it appears that community members are finding it increasingly difficult to successfully hunt, fish and gather earth materials within this region over time. In the community"s view, their ability to exercise their rights, maintain their culture and feed their families is dependent upon healthy and diverse fish, wildlife and plant communities which in turn are predicated upon healthy and functioning eco-systems.

DFN elders, hunters and fishers posit that this perceived decline in ecological conditions and the drop in wildlife populations correlates with the concomitant rise in industrial development and agricultural expansion. The state of the Peace River block and the state of Peace River itself has been the subject of various government case studies and modelling exercises. Government generated data strongly indicates that the Peace River and Peace River block has and will be subjected to increased number of stressors with the proliferation of farming, urban expansion, oil and gas and forestry development. The DFN"s reserve has been surrounded by farmed lands over the years, requiring DFN hunters to travel greater distances to less disturbed areas where they have improved opportunities for successful hunting. However, some of these areas that support larger wildlife populations are now also under stress and potentially at risk with expanding forestry, mining, conventional and unconventional oil and gas production. One example

of this trend is the east side of the Peace River. This area is witnessing rapid expansion in oil sands / heavy oil exploration and production. The DFN have called upon government agencies to investigate these observed trends and the consequences of the cumulative impact of development.

In the interim, a proactive measure would be to move forward with research that can be conducted within DFN"s sphere of influence. Establishing an inventory of quantitative land use data now is an important first step. From here, it may be possible for the DFN and other research partners to build on this foundation and launch future lines of qualitative inquiry to address the pressing concern of eco-system stressors and the cumulative impact of industry and land use change.

Need for Historical and Current Use Data to Trigger Duty to Consult

In parallel, Canada"s courts have determined that the Crown carries certain consultation, accommodation and reconciliation responsibilities in respect to the rights and interests of First Nations. If such obligations are to be triggered, the courts have held that a First Nation must present evidence of its traditional and cultural uses and potential impacts on such uses. The depth of consultation and level of accommodation that occurs is determined by the extent of use by a First Nation and the potential impact of an activity or decision on that use. Given this, the DFN must have a readily available and accessible source of baseline data that it can present to statutory decision makers to establish the community"s use and utilization of lands and resources. Given this, DFN decided to document historic, current and ongoing community land use by way of the 2011 TLUS Project.

Historical and Cultural Posterity

While there are many compelling external factors and forces that are driving the need to undertake map biography research, the DFN had its own important internal reasons for commissioning the 2011 TLUS Project. The transmittal of culture and history to new generations is deemed as an important priority by the DFN and one of the key drivers for the current TLUS project.

Impetus for Future Indigenous Side Research

Time seems to be of the essence and DFN needs to embrace a culture of research to address the many pressing challenges and objectives of its community members. However, as shall be made very evident, there are certain research objectives that the

current TLUS project can help realize, others it cannot. This quantitative research project cannot and has not been designed to address the full array of study and data needs of the DFN, government or proponents.

Notwithstanding some of the inherent limitations of the map biography method, it is hoped that this TLUS project and its results will help demonstrate that research, undertaken within the framework of social science, can be an ally and a powerful tool to the DFN. Moreover, it is hoped that this research effort will embolden DFN and future generations of DFN to embrace a culture of scientific research and chart a course designing and managing their own cultural research agenda.

3.2 Traditional Land Use Research Context

Traditional land use surveys (TLUS) have a long established history within Canada where a considerable amount of research effort was driven by specific and comprehensive land claim processes, evidentiary needs for litigation and controversial development projects. The courts have established tests and the overarching principle is that First Nations are required to produce evidence of their historic and ongoing use and occupancy of their ancient territories to establish the existence of Treaty and Aboriginal Rights and Title.

Despite the sheer volume of traditional land use research work conducted to date within Canada, there are not a great many of publically available studies or methodology reports available to help in the assessment of such studies and best practices. This has largely resulted from the confidential environment in which such studies are funded and practitioner isolation. Further there have been few, academic sources and reviews produced on best practices and academically defendable approaches to designing and conducting studies. Some government agencies have produced TLUS guides and handbooks however these have been found to woefully inadequate and providing questionable advice to guide First Nations TLUS research efforts. (Tobias Pg. 134)

What has been absent from field of study and discipline, has been a set of written academic standards that sets out sound methodological approaches and detailed best practices to guide the creation of maps that are defendable and derived from the stringent application of scientific methods. (Tobias Pg 34).

Given the lack of written standards and academic review of the field, traditional use studies and practice has varied, producing a wide array of results. TLU studies are being subjected to increased regulatory and judicial review and scrutiny. What was once deemed as acceptable is now being questioned. There has never been a greater need for First Nations to produce sets of believable and supportable maps derived from data that is “demonstrably objective and reliable”. (Tobias Pg 47)

In 2009, this existing gap was narrowed with the release of *Living Proof: The Essential Data Collection Guide for Indigenous Use and Occupancy Map Surveys* by Terry N. Tobias. This text is held as setting a new benchmark for the design, planning and implementation of traditional use research given its adherence to the principle that such research can only held to be credible and ultimately useful if it is soundly rooted in, and conducted within the paradigm of science. Project proponents are already moving to adopt this new standard and are basing TLUS contribution agreements on the exacting methods and practices set out in *"Living Proof".* The DFN took the time to review the "*Living Proof"* text in detail to determine what recommendations and practices it would incorporate within this TLUS. Upon a thorough review and in the absence of any other authoritative text, it decided to base the current TLUS on the prescriptive step by step process as advocated by Tobias.

DFN"s acceptance of this approach and adherence to the scientific method within the map biography survey"s research design and implementation phases is documented in two key documents. This first is the Research Proposal, prepared at the outset of the project, which set out how DFN proposed to design and undertake the research project. This second is this Methodology Report - the companion document that sets out how the quantitative research program was actually undertaken. It purports to provide an analysis of the gaps between the two (proposed and actual) and the potential influence of these gaps on research outcomes and collected data.

3.3 Community Vision and Support

The DFN community has expressed alarm at the increasing pace and scope of development within their traditional territory and their views of how this is impacting on their utilization of lands and resources. Numerous community meetings have been held over the past three years where community members and the DFN Council have stated the need to address the perceived decline in the quantity and quality of lands available for the exercise of their treaty rights.

However, DFN"s ability to engage the Crown and proponents has been generally hampered by the lack of data and evidence on the traditional and cultural uses and practices undertaken by the DFN community as a whole. In a community workshop, an understanding and acceptance was developed where DFN knew that it needed to sponsor a new traditional research effort.

The onus of proof was one of the issues discussed by the community. Several community members questioned why the DFN is required to undertake studies to prove

their use and occupancy of their ancient lands to settler governments? While it seems counterintuitive and objectionable that a group of indigenous people are required to produce evidence of the fact of their existence on the land, in the end it was decided that DFN should proceed with this survey in support of community‟s research and data needs.

Another issue raised by the community also related to the site specific approach advocated within *"Living Proof*". Within the text, the identification and documentation of specific sites is advocated over the identification of broader use areas by way of map polygons. As with most First Nations, a general fear was expressed by the DFN, that the production of a map with a set of dots will create the impression of a vastly underutilized landscape. This view was generally exacerbated by the apprehension that subsequent consultations with industry and government will deteriorate into a mere exercise of "show us your dots". With this done, industry and government then proceeds to move ahead on a business as usual basis occasionally amending project plans to dodge and avoid ploughing over a berry bush or camp site. The apprehension within the community is well founded given government agency and proponent‟s predilection for reducing the scope of consultation, accommodation and reconciliation to a discussion about how the project can be mitigated to avoid a camp site, moose lick or a berry bush.

As discussed by the community, clearly the fact of DFN‟s history, traditional uses, cultural practices and the exercise of rights are not confined to a series of isolated spots on the land. Rather, those places or dots on the map are indicative of an overall relationship with the land that is dynamic and dependant on a healthy, functioning eco – system and a range of cultural, socio – economic and ecological factors.

Thus the map biography is then held to be a starting point which provides some insight into the complex relationship of the DFN with its lands, which can only be truly be understood by further in depth qualitative research led by and commissioned by the community with appropriate research partners.

The discussion of the inherent limitations of the map biography approach and the role of this Methodology Report helps address some of these well founded concerns and apprehensions.

There was considerable discussion about the differences between anonymity and confidentiality within social science research. The DFN was supportive of the proposed confidentiality measures built into the survey and the rules governing the use of end mapping products. In summary the following rules provide a level of confidentiality in respect access to information:

<u>Map Biographies</u>

Only a respondent (the person interviewed) is allowed to view and access their individual map biography along with selected DFN staff or community stewards. The respondent must consent to the release or viewing of their map biography by an external audience.

Interview Transcripts

Only the respondent and selected DFN staff or community stewards are to view and access their interview transcripts or listen to the recording that the transcript is based on.

Thematic, Category and Hodgepodge Maps

These end product maps, containing the aggregated traditional use data of the community can be released to an external party, where there is an appropriate information sharing agreement in place. Such maps may also need to be released to government agencies and each circumstance will be weighed by the DFN band administration on a case by case basis.

Public and Methodology Reports

These reports will be released in conjunction with Thematic, Category and Hodgepodge maps to ensure that these maps are interpreted and understood in the correct context by external audiences. Thus they are public reports and can be made available to external parties where there is an appropriate information sharing agreement to do so. Personal information of respondents (such as names) or information that can link data to actual respondents will be withheld in these public reports.

Once these interests had been addressed and set out within the Research Proposal, the DFN issued a Confidentiality Directive indicating its overall support for the map biography survey and a description of the measures that would be taken to address the matter of confidentiality. **(Appendix B).** The Confidentiality Directive was read out to respondents prior to the conduct of their interviews.

By the end of interviewing phase, the DFN interviewed 46 participants. This translates into 46 out of a sampling frame of 284 people within the community or an overall response rate of 16.9 % or involving close to one fifth of the community. The participation rate for the survey effort (based on the target goal of conducting 50 interviews) translates into 92%. DFN has never before achieved such a high level of community participation in such a map biography research exercise. Since the

completion of this TLUS project, there are ongoing calls from the community expressing interest in participating in further interviews and in other research initiatives.

3.4 Research Team and Community Capacity Building Approach

The primary research goal of map biography survey was to build a baseline set of hunting, fishing, gathering, overnight and other site specific data and end product maps based on demonstrable social science methods and practice. This primary research objective guided all key and subsequent decisions about the project. Notwithstanding, the DFN also established other secondary and tertiary project objectives.

One of these sub-objectives was to build the DFN"s capacity and skills in engaging in social science research and cultural research. The planning and implementation of this project was designed around this objective to train several community members in social science research skills and the utilization of the map biography method. Five community members were hired as community researchers.

Another sub - objective was to utilize and test the methods, standards and best practices set out within "Living Proof". A considerable amount of time was spent by DFN in understanding and analyzing the advocated methods and standards being advocated within the text, then in ensuring that the project followed the prescribed standards throughout both the research design and implementation phases.

Given these goals, the DFN assembled the following research team based of the following people:

- Denise Testawich – Community Researcher
- Malcolm Testawich – Community Researcher
- David Testawich – Community Researcher
- Audrey Lawrence – Office Support and Interview Transcriber
- Keith Lawrence – Part Time Interview Transciber
- Matthew General – Research Director

3.5 Community Research Project Office

The DFN established a community research project office at the DFN community school to support the design, planning and implementation of the project. Training, the organization of interview materials and the conduct of interviews occurred at the office.

Each interviewer was assigned a work station and a completely stocked interview tool kit containing all required data marking and recording materials to facilitate interview preparation, the conduct of the interviews and post interview activities.

The office was set up to ensure the consistent storage, logging and preparation of materials. For example, a mylar cutting station was in place along with a place where each interviewer stored their audio cassettes and interview record forms. Organization of office space contributed to a clutter free work environment and an organized and methodological approach to the conduct of each interview. Appropriate well lit and quiet spaces were set up in the DFN community building for the conduct of interviews.

The school building also acted as a base for the dissemination of information about the project, building awareness of the project, addressing questions and queries from community members and ultimately securing community participation in the map biography research process.

3.6 DFN TLUS Proposed Research Design Plan

During the research design phase and in the lead up to research implementation, the DFN developed a Research Proposal that set out DFN"s early methodology design considerations and proposed measures to ensure a methodologically sound approach to the design and conduct of the survey.

This was a beneficial exercise to go through as it helped clarify for DFN, the key components and measures to address key research principles and data quality standards. It was in effect, a road map that required the DFN to think through all key aspects of research design and create more detailed plan at an early stage.

The DFN prepared an initial plan in February 2011. This plan was then amended in March 2011, a full two months prior to hiring and training of community researchers and a full three months prior to the commencement of community interviews. It was amended as a result of DFN consideration and reconsideration of certain aspects of research design. The amended TLUS Research Proposal is attached. **(Appendix A).**

4.0 METHODOLOGY

The DFN endeavoured to construct a methodology predicated and built upon a scientific foundation. Specifically, the methodology itself was comprised of five interlocking layers of research design as described by Tobias. These five increasingly detailed methodological components were in essence, a sequence of research design decisions. These decisions ranged from the broadest assumptions and principles that guided the research to the very specific details related to the conduct and recording of the research. (Tobias Pg. 48). In summary, these five layers were as follows:

Framework

The framework relied upon was founded upon a scientific approach and positivistic world view - where the resulting survey data could be confirmed and rationally proven.

Methods

Methods are the general means or mode and process used to conduct the research and collect data.

Parameters

Parameters place stricture and bounds on the research, providing shape and defining the extent of the research. These include the critical who, why, when, where and what of the research.

Tools

Tools are the actual devices and materials with which data are collected during the research.

Conventions

Conventions constitute the detailed, agreed upon and consistently applied set of rules and steps through the research and that govern the use of research tools.

4.1 Framework

A quick comment must be made about western science and the matter of indigenous knowledge, lands rights and traditional land use research. The two paths clearly meet, but have often been seen as being in conflict and at odds with each other. In respect to the matter of proof, First Nations are often incredulous when they understand that they are required to provide proof of their ongoing existence and use and occupancy of their lands to settler governments.

In the Canadian judicial system, the onus and burden of proving aboriginal title and rights is placed on First Nations. Given this, some indigenous peoples reject the notion of undertaking traditional land use research and instead take the view that it should be up to modern jurisdictions to prove how they have come to acquire their powers, land rights and tenure systems. However, many other indigenous groups and First Nations within Canada have opted to undertake TLUS research to support their efforts in having their Treaty and Aboriginal Rights recognized, acted upon and enforced.

Also, the application of “science” in respect to environmental assessment and resource development decisions has tended to constitute another contentious area in the realm of First Nations – Crown – Industry relations. Governments and industry establish laws and policies designed to regulate the development and management of natural resources. Environmental assessment decisions and processes are generally held to be based upon and rely on the process of scientific inquiry and the paradigm of science.

First Nations and other parties have taken the view that such processes are not so much based on the application of empirical science but rather on the appearance of scientific inquiry, which is then relied upon to justify pre – determined lands and resources decisions and political imperatives.

Such views have become accentuated with the discounting of traditional knowledge held by First Nations. First Nations pose the question - what is more accurate – a predictive environmental impact assessment based on one or two years of field studies supplemented with the best professional judgement of experts that live hundreds of miles away, or the observations of an entire community who has observed the state of a given land base and values contained therein over several decades and in all seasons?

While DFN (as other First Nations do) questions how rigorously scientific methods are applied to natural resource decision making, it opted to approach the TLUS project and research tasks with an open mind and being receptive to the merits of scientific inquiry and open to adopting scientific method in this case.

DFN understands that the goal of social scientific inquiry is to explain and develop an informed understanding of social phenomena. As science does not equate with common sense, an intuitive or introspective approach to arriving at that understanding had to be ultimately rejected. In the world of scientific inquiry, knowledge and data gained must ultimately be testable and proved by way of deductive research. Ultimately research should be observable with the human senses and research must be proven with deductive logic. Given this, the DFN understands that its approach to this research program had to free of bias and value neutral to the extent possible.

In *Living Proof*, Terry Tobias advocates the imperative that traditional land use surveys must be grounded within a process that is fundamentally scientific – more specifically, that of social science. (Tobias Pg.47) The DFN opted to base and structure its traditional use research project within the framework of science with the goal of having its research held to be transparent and the resulting maps to be based on testable and provable evidence.

4.2 Framework: Research Principles

As DFN set out to produce a set of traditional use maps based on quality data, it considered, understood and incorporated a set of sanctioned research principles.

Tobias holds that the following 16 fundamental research principles should guide and underlie all map biography surveys (Tobias Pg. 126) and if adopted, will go long way towards generating quality data (Tobias Pg 134):

Respect	*Confidentiality*
Informed Consent	*Minimizing Response Burden*
Minimizing Interviewer Burnout	*Common Sense and Experience*
Focus	*Flexibility*
Simplicity	*Consistency*
Organization	*Caution*
Self Reporting	*Data Diamonds*
Fun	*Posterity*

In the following description, DFN demonstrates its understanding and adoption of these key principles. Hallmarks and examples are provided to show how these research principles were operationalized and are manifest within key components of the research design and implementation:

<u>Respect</u>

While there were various land and resources management issues driving the need for a further TLUS research, the DFN ultimately set out to design a research program to address the community‟s most immediate and pressing research needs. DFN rejected ideas to map certain areas to address environmental impact assessment priorities of proponents. Rather, it set out to address its needs, which was to create a baseline of quantitative data upon which the community could build on in future years. In turn, such a database could be utilized within the context of major project environmental assessment reviews and other resource management consultation processes. As such, the primary research objective and research agenda was designed to respect and address the interests and most pressing needs of the community.

The principle of respect was also grounded in the interview process with time being taken to explain the purpose of the research and to listen to the views of the respondents at the outset. These people‟s views were respected and they were not coerced into the research. If people did not wish to participate or expressed serious concerns about the nature and purpose of the research, they were free to not participate. As noted, in one case at the outset of the interview process, one DFN elder

was frustrated and not supportive of the rigid nature of the map biography method. Out of respect, the interview was stopped and DFN committed to following up with an elder in a way that he felt was appropriate and respectful.

Respect was also ingrained into the construction and administering of the questionnaire. For example, when it came to the category of identifying grave sites, spiritual sites and medical plant gathering sites, special care was taken to ensure that the respondent was comfortable in providing this information. Even though respondents were required to answer all questions, they had the option of not providing an answer to this set of category questions. This occurred in one case, where a respondent elected to not speak of medicinal plants or sacred sites.

The conduct of the interviews was set to meet the Two Hour Rule of Thumb (THROT) principles to ensure that respondents were not overburdened with too much questioning resulting in frustration. Further, interviewers were also instructed to allow the respondent to depart from the main line of questioning, if they wanted to discuss something that was of importance to them (e.g. personal anecdotes and family history). This was documented within the scribble pads, Interview Record Forms and in the audio recordings for follow up and for further inquiry.

Confidentiality

As is often the case with TLUS projects and cultural information, there is an instinctive need and urge to share information and to protect it. This project was no different with the community expressing a need to document and share its information with external parties while also safeguarding it against wrongful use and one-sided interpretation.

In a pre – project community workshop, it was pointed out that the courts have answered this question to some extent. If the DFN wants to have its traditional vocations and treaty rights considered within resource development and management decisions, it must be prepared to share a reasonable level of information with proponents and government decision makers.

Comfort in the TLUS project approach was developed and built with the notion of providing for a level of confidentiality through the use of Personal Information Numbers (PINs) for respondents rather than disclosing their names within final mapping products and reports. In addition, the measure to only provide the community‟s consolidated data via Category, Thematic and Hodgepodge Maps was strongly supported. Respondent‟s Map Biographies or Bio Maps and transcripts would not be shared with external parties, unless the consent of that individual was obtained.

The DFN Confidentiality Directive set out the principle of confidentiality for respondents prior to all interviews. **(Appendix B)** The Confidentiality Directive was to read to respondents prior to the commencement of their interviews.

Informed Consent

The DFN treated the issue of informed consent with due seriousness and utmost consideration. Research participants were clearly informed of the purposes of the TLUS project and the potential range of end uses of the Category, Thematic and Hodgepodge Maps. The Permission Form was reviewed with each respondent prior to the start of the interview so as to allow people to make a free and informed decision regarding their participation as research participants – a fundamental principle in social science research. **(Appendix H)**

Minimizing Response Burden

DFN structured its approach to interviews with the goal of obtaining reliable information while reducing response burden to the extent possible. This was achieved with constructing the questionnaire around the primary objective with no more than 45 categories being selected for inclusion.

Further, to keep the interview manageable and ensure that focus was kept on the application of repeated procedures and application of conventions, the DFN opted to not strive for a high level of descriptive precision. While the data diamond model was adopted to establishing land use facts, it was done so at a higher level. For example dates and the names of third parties were not requested on every site as such an approach would become too burdensome, lead to frustration and was not required given the primary research objective.

The Two Hour Rule of Thumb (THROT) principle was adhered to minimize response burden and to respect people"s time and their contribution to the project. In some cases, interviews went beyond two hours; however the vast majority were completed within two hours given the tightly prescribed research focus.

Minimizing Interviewer Burn Out

DFN set out to interview up to 50 respondents over the course of the map biography project. So as not to overburden interviewers and help in managing potential burn out, three interviewers were hired for a four week period. In this way, each interviewer could

interview one respondent per day, allowing them to focus on preparing for, conducting and appropriately closing down the interview. However, one community researcher was not able to complete the interviewing and DFN fell back on the two researchers.

During training, emphasis was placed on interviewers not administering more than two questionnaires per day to guard against burn out and to support focus on pre – interview set up, the appropriate utilization of tools and repeated application of conventions.

The focus of the questionnaire on the primary research objective, a condensed set of categories and the adherence to the Two Hour Rule of Thumb principle went some way keep the work load of interviewers manageable, which in turn allowed them to focus on the consistent application of the core research ground rules and research conventions.

Common Sense and Experience

The notion that TLUS research is intuitive and is easy to do was rejected at the outset, given DFN‟s need to produce a model set of maps. While the DFN notes Tobias‟ caution that no appropriate "one size fits all" template exists for a TLUS, the DFN took into consideration that Tobias‟ text is the first written comprehensive treatment of the subject and would be ignored at DFN‟s peril. Given this, nothing was left to chance. As can be noted in the initial Research Proposal and this Methodology Report, all aspects of research design and implementation mirror and follow the prescriptive set of standards and best practices advocated in *"Living Proof".* In this context, common sense manifests itself in following best practices and learning from Mr. Tobias‟ contribution to the field of TLUS research.

Focus

DFN based the research on a well defined primary objective that kept the project manageable with a realistic set of outcomes and expectations. In a pre – project community workshop, several elders noted the need to map trails, access routes and traditional place names. Some community hunters wanted to document people‟s preferred hunting, fishing and resource use areas. Others felt that it was important to document some of the remaining intact habitat areas that support successful hunting by the DFN.

All these needs and priorities have been noted by DFN for next steps, however DFN resisted the temptation to attempt to map all of these areas within the context of this survey. The community was supportive of this iterative approach.

Flexibility

Flexibility and the ability to adapt was important in the case of this survey. Given the multitude of procedural steps and conventions that had to be applied, community researchers were at first, somewhat apprehensive in taking on the interview task. At first blush, administering the questionnaire seemed to be a daunting task as people don‟t necessarily approach life or can recount what they have done on an activity by activity or in this case, a category by category basis.

While the Questionnaire had to be administered in a consistent manner in every interview, measures were taken to address the situation where a respondent was more comfortable in relating traditional use information on an area basis as opposed to a category basis. For example, in some cases, respondents began to answer questions relating to the first category (Moose Kill sites). However, as they started to talk about Moose Kill sites that occurred in one area, they started to relay information about other categories (e.g. White Tailed Deer Kill Sites, Jackfish Kill Sites, Overnight Camping Sites and Earth Material Gathering Sites). Once the respondents had completed an area, they would cast over other areas of the base map or other base maps and discuss other areas.

This of course required a level of flexibility and adaptability by the community researchers. First they were prepared for such an occurrence in the training phase. It was also addressed by having a Quick Reference Feature Code Sheet where they could quickly select the correct acronyms to keep up with the respondent and mark the required features. **(Appendix C)**

Flexibility was also introduced to allow respondents to make departures from the Questionnaire as they wanted to. In some case, they did so to relay some aspect of family and community history about an area. In other cases, it was to relay their direct observations of induced changes in habitats and the ability to successful hunt, fish or gather in a given area. However, the flexibility was also paired with rigour, as the community researchers were trained to ask and close out each category question. This

was done by returning the respondent to whether they could identify any other particular sites pertaining to categories they had discussed.

Flexibility was also built into the research design phase. Initially, DFN prepared a Research Proposal that appeared to be definitive and all encompassing. As DFN moved through the research process, ideas and rethinking of certain aspects of the Research Proposal occurred. DFN prepared an amended Research Proposal in February 2011, well before the interview process was underway in May 2011.

One example of such as change was the decision to include some basic questions on the reliance of country foods by respondents.

Simplicity

While complex and involving numerous sub steps, key project tasks were broken into learnable and manageable tasks so that community researchers could concentrate on the consistent application of procedures and use of research tools or conventions.

Examples of this includes the training phase, were key concepts and tasks were broken down and practiced through in class training, mock interviews and actual supervised interviews. Another example included the creation of separate work stations where actual Took Kits (with actual bins containing all their required interview tools) were assembled for each community researcher interviewer. This allowed people to focus on the key tasks regarding the selection of respondents, coordination of interviews, conducting and documenting the interviews.

Simplicity is also manifest in the packaging of interview forms. While the Data Collection Manual contained all the necessary forms, DFN opted to break out all the key forms that had to be reviewed and signed off during the interview into a discreet Interview Forms Package. One package was provided for each interview. This also guarded against the tendency to want to pull apart one"s Data Collection Manual to use those forms.

Further each interviewer was provided a discreet place to file their completed and labelled Mylar overlays, binders to store their completed and filled out Interview Forms and their own storage boxes for their completed audio cassette tapes.

Data Marking Conventions and Category Codes, as set out within Living Proof are very straight forward and can learn within a week of training, as DFN did. However, so as not to put community researchers in a place where they had to memorize all the codes and conventions, prompts were provided in various places such as the Questionnaire (e.g. Elk – EK), the Quick Reference Category Code Sheet and the Data Collection Manual.

Consistency

The DFN map biography project was planned and executed in a way so that researcher could strive to achieving data reliability, accuracy, integrity, representativeness and precision. Consistent use and application of working definitions, Categories, the Questionnaire, Tools and Conventions occurred throughout. An example of DFN‟s consistent approach and application of consistency is clear in the design and administering of the Questionnaire in interviews. All respondents were asked the exact same category questions, every time, in every interview, across the entire project.

Training, provision of support and oversight also helped cement the consistent use of research tools and conventions. Conventions were set out, discussed, taught and applied. The Data Collection Manual bears this out, along with a review of the interview transcripts, the Interview Master List and resulting map biographies.

Organization

A project management structure was implemented to ensure an efficient and organized approach to research design, project planning and implementation. This Methodology Report bears witness to the exhaustive attention paid to organization to ensure that traditional land use data was collected in a consistent and demonstrably reliable manner.

The need for organization also drove the set up and management of the community research office. In short there was a place for everything and everything related to the project had a home. This included:

- community researcher work stations
- community researcher tool kits containing all interview tools
- storage places for copies all key interview forms to ensure that an ample supply was always available
- a Mylar storage area with a cutting station for Mylar overlays
- a place to display the Index Map and examples of Map Biographies
- a storage bin for completed audio tapes organized by PIN
- discreet binders for community researcher to file their interview forms (e.g. Interview Record Forms, notes from Scribble Pad and other key forms), signed permission and honoraria forms upon completion
- quiet and well lit places in which to conduct interviews

Pre interview training with community researchers focused on the critical importance of preparing for interviews, conducting the interview and closing down the interview. Community researchers were provided and trained to use an actual Interview Procedure Checklist and physically fill it out as they moved through the interview process with each respondent.

Caution

DFN community researchers employed caution in various ways and means. Caution was also employed in the construction of Questionnaire by using clear unambiguous wording to ensure that questions could be clearly understood by interviewers and respondents. Key words were used within the questionnaire to eliminate confusion around meaning of words and questions (e.g. asking respondents to mark some of the sites where they killed a specific species rather than demarcating general hunting areas).

Caution was also manifest in the approach to data marking. The use of large polygons was avoided in favour the identification of specific sites and small polygons where required. Where respondents had difficulty in locating a site with precision and accuracy, instruction was given to not mark the site or to add the suffix “A” (approximate) to the marked feature code. Respondents were not rushed and provided time to be certain about the identification of a site. The use of pencils as pointers and illuminated magnifying glasses helped ensure the “zeroing in on” sites.

Self Reporting

In undertaking this map survey project, DFN saw the opportunity and importance of supporting DFN elders and community members in documenting the knowledge and history that has been passed on to them from previous generations. This is a fundamental aspect of the DFN‟s community that allows for the transmittal of culture.

Flexibility and respect governed the interview process to allow and support respondents to convey the information and knowledge that they feel should be recorded. With this said, the map biography process demanded that respondents had first knowledge of the site they were referring to.

First, the reliance on one-on-one interviews ensured that respondents were providing information that they had firsthand knowledge of. Workshop settings and interviews with multiple respondents were decided against early on, as the DFN did not wish to have second hand information as being deemed as hearsay at later time by an external party.

Further DFN wished to guard against the potential for conflation – where respondents essentially feed off of each other‟s responses. DFN needs to make this clear – there is clearly a time and place for group work and settings; however the map biography process adopted called for one-on-one interviews and the documenting of first-hand knowledge of sites and activities undertaken by the respondent themselves.

Use of Data Diamonds

DFN understands that the map biography research is about establishing facts in relation through the documentation of a respondent‟s use of lands and resources over their life time. Thus every identified site within a map biography and end product maps must be supported by the following:

- What activity took place?
- Who undertook the activity?
- Where did the activity take place?
- When did the activity take place?

Within *"Living Proof"*, Tobias asserts that all data points indentified within a map biography survey must meet this test and exhorts First Nations to gear all of their research effort to "chasing data diamonds" that establish these four facts in relation to each site.

DFN understood this to be a critical aspect of map biography research and explicitly embedded the data diamond approach in the research design and implementation phases of the project. However, DFN had to balance the need of chasing data diamonds (achieving greater levels of descriptive prescription) with the need to meet the primary research objective and manage the very real problem of response burden – which too can impact on data quality.

The interview process would have bogged down if DFN sought to obtain exact dates and third parties present at every site identified by a respondent. Tobias advocates that the level of descriptive precision should also be driven by the primary objective of the research. The DFN is of the view that the data diamond model was applied to the research process and each identified site is supported by these four legs.

Fun and Posterity

This research effort constitutes a serious undertaking by the DFN and the focus of all aspects of the project on the collection and documentation of reliable, precise and accurate data. Generally, community feedback in relation to the DFN 2011 TLUS project has been positive. Some people wished to be interviewed but could not as DFN did not have the required resources. Further, other community members noted that what the exercise triggered many old memories of being on the land with family, often occurring days after the interview had ended. In addition, other community members noted the need for more a free flowing research format, where community members and especially elders could convey what they felt was of most relevance and importance in relation to community land and resource use. Considerable interest was expressed in expanding the survey to involve a greater segment of the community.

Following the completion of this research phase of the survey, the DFN will work with the community to develop a community stewardship plan to ensure the ongoing perpetual care and maintenance of community data.

4.3 Framework: Data Quality Standards

Supportable and credible TLUS maps are ultimately dependant on good quality data (Tobias Pg 142). Within *"Living Proof"*, Tobias goes a great distance in trying to address the gap that has existed with the absence of explicit written data quality standards or quality indicators for field of map biography research. DFN has carefully considered the following data quality standards set out by Tobias and has deliberately incorporated them into its research design, planning and implementation. In summary, those data quality standards are:

Objectivity	*Reliability*
Validity	*Precision*
Accuracy	*Integrity*
Audit ability	*Representativeness*

In the following summaries, the DFN demonstrates its understanding of the critical importance of these principles and identifies hallmarks or examples of how these data quality standards were applied and are manifest in research design and data collection phases of the TLUS project.

4.3.1 Objectivity

The DFN set out to eliminate bias and eliminate potential pathways in which bias and subjectivities might potentially creep into the project during the project design and data collection phases. Objectivity then can be defined as the absence of subjectivity or measures taken to eliminate and guard against the potential of bias.

Use of Map Biography Process

DFN"s selection of the map biography survey approach itself was a sound research choice given that it results in quantitative research and data. In the map biography process, respondent"s land use activities were logged as data points. This differs from a qualitative research framework where research participants are responding to a more open ended line of inquiry providing observations on land use phenomena and personal opinions about the potential causes and induced change in relation to those phenomena.

Further, the resulting maps of the DFN TLUS are, at the end of the day, a baseline inventory. Reviewers of the survey and this Methodology Report will note, that at this stage, the DFN has not attempted to go too far in respect to the interpretation and analysis of the survey results. The resulting map data and this accompanying methodological analysis simply establishes an objective baseline set of data for DFN (and other parties) to consider within the context of future resource management decision making scenarios and upon which to base future DFN cultural land use research. The DFN may opt, at a later date to undertake further, more detailed and subsequent analysis of the results.

Questionnaire Design and Use

The Questionnaire was designed in a way to ensure that all respondents were asked the same set of questions for all categories. Key words were used to avoid creating expectations amongst respondents. For example, at the outset of every category question, respondents were asked if they had ever undertaken a certain type of land use activity (e.g. “Have you ever killed moose.....”). It was not taken as a given that respondents had. If they had undertaken such an activity, then the respondent and researcher proceed to locate and mark specific sites. If the respondent has not killed a moose, then the line of questioning would end and their negative response would be documented by way of audio recordings and interview transcripts. The researcher would then proceed to the next category question.

Further the identification and marking of general land use activities such as “hunting”,” fishing”, “trapping”, and “gathering” was to be avoided wholesale. Rather, DFN opted to

import Tobias" recommendation to make the interview process category (species and activity) specific.

For example, respondents were not asked to mark where they had generally "hunted" which could result in the mapping of large polygons, but rather to identify specific sites where specific wildlife species were actually "killed" or "caught". Further, in instances where a respondent responded to a category question and indicated a general area or "all over", such a response was to be rejected. Instead community researchers worked to identify specific sites, within the area under discussion. The objectivity adopted in the design of the Questionnaire guarded against the potential for such an occurrence and provide options to researchers if and when they came to such a place with a respondent. The Questionnaire is attached for reference purposes. **(Appendix E)**

Data Marking

DFN went to considerable lengths in the research design and implementation phase to eliminate subjectivity and guard against bias when it came to the marking of data.

When identifying sites with respondents, DFN researchers took considerable effort to precisely and accurately identify and mark site locations. Where a respondent was unsure, sufficient time was allocated so that both respondent and researchers were sure of the sites. If there was uncertainty around a particular site, the general location was to be noted with an "A" denoting that the sites location was approximate (e.g. EK43 A). If too much uncertainty existed as to the location of a site, researchers were instructed to not mark the site and note it within their scribble pad.

Subjectivity was also guarded against by providing a pencil to the respondent and having the respondent indicate specific sites, not the community researcher.

In respect to the use of small polygons, community researchers were trained, directed and observed to work with respondents to seek precise and accurate bounds of polygons for resource procurement areas. Where large polygons were employed, they were the exception rather than the rule and justification was provided for their usage.

Where a respondent needed some extra time, researchers were trained and instructed to not lead the respondent or make assumptions about marking a site. The respondent had to be sure and clearly been able to mark that on the map. This avoidance of assumption and care taken in documentation can be observed by reviewing audio recordings and interview transcripts and is summarized in the Interview Master List.

4.3.2 Reliability

Reliability speaks to the manner in how data was collected in a consistent manner. DFN worked to produce reliable maps based on data that was collected in a consistent manner.

Data Collection Manual and Training

Evidence for reliability can be determined in the design and use of the Data Collection Manual (DCM) and the heavy reliance on the DCM that occurred during the training and interview phases. The DCM and its companion training provided step by step instructions to researchers on the overall research framework, research methods, tools and conventions. The DCM **(Appendix I)** provided specific guidance and instruction on the use of all research tools such as markers, Mylar overlays, audio recorders, the Questionnaire, the Interview Checklist, Scribble Pad and Interview Record Forms and further detailed instruction on their specific use.

Audio Recordings and Transcripts

Evidence of the application of methodological rigour can be determined through an audit of interview tapes and transcripts. In a review of the transcripts, one can pick out the level of consistency applied during the interview process, where a few deviations in methodology occurred and how they were documented. Noted deficiencies and deviations from standard methodology are documented and summarized in the Interview Master List.

Questionnaire

Every written question within the Questionnaire was accompanied by visual prompts for community researchers. These included the correct data marking conventions (point, line or polygon) and the Category Code to mark on the Mylar overlays. Respondents were trained in the use and administering of the Questionnaire to ensure that all questions were asked of all respondents.

Categories and Category Codes

The use of fixed and universally accepted and understood category codes supported the consistent collection and marking of data.

Data Marking Conventions

The established and unalterable rules that governed the marking of data on maps, supported DFN community researchers in collecting and documenting data in a consistent and reliable manner. Consistency occurred within interviews and across all interviews. These were set out in the Data Collection Manual and community researchers received in class and hands on instruction in their use.

4.3.3 Validity

Validity speaks to the need to ensure that the data depicted on the TLUS maps depict what they purport to do and actually contribute to the intended research objective.

Community Input into Research Design,

Community input into the research design ensured that the primary research objective addressed the research priorities and needs of the community. As noted, it was agreed that the goal of the map survey would be to confirm sites where actual land use activities and events occurred. Thus, the questions (within the Questionnaire) were constructed so that respondents and community researchers would have shared understanding of their intent and meaning.

This went some way in ensuring that respondents and community researchers understood that the task and outcome of each question, which was to precisely and accurately mark the locations of on the ground events (e.g. Food Plant gathering sites, Whitefish kill catch sites) as opposed to traditional ecological knowledge held in relation to wildlife habitats. Thus researchers and respondents had an explicit understanding of what they were setting out to map (e.g. Elk kill sites where a respondent had actually killed an Elk) and not where they understood suitable Elk habitat to exist or where they might find elk at certain times of the year.

Categories, Questionnaire and Data Marking

The early decisions made in relation to research parameters were structured into more refined and detailed levels of methodological design and implementation. As noted above the decision to record facts and events vs. habitat was cemented into the subsequent selection of the research parameters, tools and conventions. For example the primary objective of recording events and activities filtered down the hierarchy of research decisions and steps in the following way:

Hierarchy of Research Decisions

Selection of Primary Objective

Early decision to mark events and activities undertaken by community members

❖

Selection of Categories

Elect to include an activity and event as a discreet category to be mapped

❖

Selection of Questionnaire Questions

Construction of specific question around each category to illicit specific response

❖

Selection of Tools and Data Marking Conventions

Recording of responses with established and consistent rules

4.3.4 Precision

Precision is a measure of how precisely data is marked on maps and the fineness with which researchers mark data on the maps. DFN set out to create precise maps utilizing appropriate tools and conventions as noted in the following:

Selection of Map Scale

The DFN opted to map at a scale of 1:250 000 rather than 1:50 000 to reduce the sheer numbers of maps that would have been required. Mapping at 1:50 000 would have resulted in higher degrees off complexity and response burden, raising the potential for error and more departures from the standard methodology. The scale of 1: 250 000 permitted the DFN to document extensivity while achieving the goal of positional precision.

Tobias sanctions the use of this scale to manage response burden and reduce the amount of complexity involved in mapping vast land use areas such as the DFN community does. The information available on the selected 1:250:000 base maps were sufficient to allow the vast majority of respondents to identify use sites with precision and respondents to mark data with precision. Visual aids and back up maps also helped in the precise identification of sites where some respondents had difficulties.

Respondents were prompted and given adequate time to locate the correct site. Verbal anchoring present within the audio recordings shows demonstrates how researchers worked to pin point the site with the respondent and confirmed that exact location with follow up questioning.

Use of Data Marking Conventions and Appropriate Sized Markers

The use and selection of appropriate data marking conventions allowed researchers to precisely mark data. The correct use of points, lines and small polygons as set out in the Data Collection Manual and as instructed during the training created a situation where data would be marked consistently and precisely from interview to interview.

The use of appropriate tools within the interview process also contributed to the precise recording and marking of data. For example, researchers used Staedler permanent fine point markers for the drawing on of features and labelling of feature codes. Training and advice was provided via the Data Collection Manual, training and in follow up to ensure that blunted markers were thrown out and to ensure that sites were being marked with positional precision.

4.3.5 Accuracy:

Accuracy is defined as the measure of the closeness of fit between the location of a feature as marked on a map and its real position on the earth. (Tobias Pg 143). Ultimately, the only way to ensure absolute positional accuracy would be to ground truth each recorded site via a GPS reading. However, the task of fixing hundreds to thousands of sites via GPS would prove to be cost prohibitive and not supported by funders. Given this, absolute positional accuracy is a data standard that is extremely hard to satisfy. Notwithstanding, the DFN took steps to achieve as high as level of positional accuracy within the map survey. Some of these steps and measures include:

Selection and Use of Appropriate Base Maps

1:250:000 base maps were selected that included sufficient detail that would allow the accurate locating and marking of data, while being free of extraneous details. Standard topographic maps were used given that they have contour levels and free of shading. DFN experimented with such maps but found that the colours might have interfered with the clear identification of feature codes.

Interviews were conducted in a well lit room and magnifying glasses were used to assist respondents in accurately pin pointing features. Respondents were also provided pencils to use as pointers so that the location under discussion could be clearly viewed and confirmed.

Where respondents had difficulty in identifying features accurately, the letter “A” to denote approximate location was to be added to the recorded feature code. Where a respondent had extreme difficulty in recalling and precisely locating where an event occurred, community researchers note this site on their scribble pad and declined to mark the site.

Use of Registration Marks

As noted, base maps and mylars were marked with red registration marks. This measure ensured that each Mylar overlay corresponded exactly to its companion base map so as to support the goal of precision.

4.3.6 Integrity

“Integrity refers back to the traceability of data back to their sources”. (Tobias Pg. 144) The DFN has undertaken and set up the TLUS project to ensure that that data points on the hodgepodge, category and thematic maps can be linked to the appropriate respondent via their map biography, audio tape and interview transcript in which each feature is discussed and marked.

Audio Recordings and Transcripts

While not a strict requirement, the DFN opted to record all respondent interviews to provide a back up record to prevent against data loss but also with the expressed purpose of supporting audits of the map survey‟s data integrity. The verbatim transcripts serve as back up and co-berates the data marked on the maps.

Verbal Anchoring

Related to the practice of recording interviews and the production of transcripts is that of the practice of verbal anchoring that occurred during the interviews. Community researchers were taught and trained in the practice of verbal anchoring. As interviewers marked feature codes, they would say the code out loud. In this way the sites being marked would be linked to the feature codes via the transcripts. As, DFN was not seeking to achieve higher levels of descriptive precision, the basic objective was to document each feature code in relation to each marked site.

Interview Record Forms and Interview Master List

Interview Record Forms, and the Interview Master list are the nexus of the TLUS project – the literal project key that ties all aspects of the research together. These tools can allow an external audience to assess integrity of data by being able to link data points on all end product maps with respondent‟s bio maps, their audio tape and written transcriptions. The Interview Master List is attached for reference purposes. **(Appendix L)**

4.3.7 Auditability

“Auditability is the measure of the extent to which the research is transparent and accountable”. (Tobias Pg. 145). DFN adopted one of Tobias‟ fundamental recommendations and principles, which is that First Nations should not share respondent‟s Bio Maps, audio recordings and interview transcripts with external parties. Ensuring this level of confidentiality was a key to obtaining community participation in,

and support of the project. However, external parties can be granted access to the end product maps such as the Hodgepodge Map, Thematic Maps and Category Maps.

If this is the case and if the DFN‟s goal is create a believable set maps, there must be means and ways of assessing the methodological rigour that was applied in the map survey. As Tobias notes, there are means and ways of testing and auditing the strength of DFN‟s research, without breaking the critical principle and commitment of confidentiality. Useful tools that support data auditability were created during the research process. These include:

Research Plan and Methodology Report

This Methodology Report and original Research Proposal **(Appendix A)** allows the community and an external audience to assess, retrace and understand how the survey findings were arrived at. Both documents set out key matters such as the primary research objective, early decisions made in relation to the scoping of the study and more detailed research design decisions related to the selection of the framework, method, parameters, research tools and conventions. The Methodology Report documents how DFN applied the agreed upon rules and standards within the interview process and how the resulting data was systematically transferred from map biographies to the actual final end mapping products.

Interview Master List

The Interview Master List **(Appendix L)** is a complete listing of all interviews, related meta-data and provides a summary commentary of where departures in standard methodology were observed based on a review of map data marking, interview transcripts and audio recordings.

Audit / Test of Randomly Selected Data Sets

The map biography survey has been conducted in a manner that would allow for testing of the map data. It would be possible for DFN to select given maps on consolidated Hodgepodge map, link it to the same data in a Thematic Map, trace it back to a respondent‟s map biography, and link that to point in the interview where the feature is discussed and documented in the audio recording and interview transcript.

4.3.8 Representativeness

"Representativeness is the extent to which research findings represent an entire community, rather than just individual respondents". (Tobias Pg 145) Clearly a response rate of 70 % - 80% is desirable for map biography surveys so that resulting data can held to be representative of a community as a whole. The DFN considered this, however it was clear that DFN could not meet this goal as discussed by Tobias given budget limitations.

Rather DFN set out to interview up to 50 community members out of a sampling frame comprised of 251 people. Given that DFN actually interviewed 46 community members out of 251 eligible community members, it achieved a response rate (number of respondents as a percentage of the study population) of 16.9%.

Thus the DFN TLUS cannot be held to be as meeting the representativeness standard set by *"Living Proof".* However, the fact is that DFN was able to involve up to one fifth of the community and posing all category questions to each respondent. This is not insignificant. Measures undertaken to strive towards representativeness include:

Categories and Questionnaire

The Categories selected and Questionnaire structure is important. Within this survey, each question within the Questionnaire was structured around an established and set number categories. Further each question was put to each respondent. In this way, a measure of representativeness was achieved given that all respondents were asked the same questions about the same categories.

Sampling Frame and Protocol

Given that the prime objective primarily relates to the identification of ungulate and fish kill sites, the exercise tended to involve more males within the community, resulting in more interviews with males than females. With that said, women within the community also undertake such activities within the community and their contribution to the traditional subsistence and socio - economic mode of life was documented.

A suitable sampling protocol, protocol and selection criteria was put into effect to achieve a representative mix of the population by age, gender, family and residence. This was further refined and defined through the development of interview selection criteria which was applied to the sampling frame. Thus steps were taken to achieve a

level of representativeness in the face of the reality that survey was naturally skewed and resulted in the selection of more men than women.

The process and rationale for establishing the sampling frame and study population is set out and discussed within the Parameters section of this Methodology Report.

4.4 Method

The research method is the general means or process by which the research is conducted and data collected. The method employed in this case was the map biography survey method – a form of quantitative research that permits the empirical identification and investigation of socio – cultural activities. As such the research the process was rigid, highly structured and focused on the acquisition of set categories of socio – cultural data.

It bears mentioning that the map biography survey method, as a form of quantitative research, stands in stark contrast to other forms of qualitative research that seek to explain and describe socio – cultural phenomena. Thus in this survey project, the DFN set to document socio – cultural activities occurring on the landscape by DFN community members, *not* setting out determine why these activities are occurring, the importance of such activities and how such activities are changing in response to various ecological stressors and bio – physical changes.

There are of course benefits and limitations with the quantitative research and map biography approach. One of the benefits, and why DFN (and so many other First Nations have done so) elected the map biography research method is that it permits the collection of large amounts of data in an orderly and time and cost effective manner. The relative strengths, weaknesses and most importantly limitations of the map biography method and the DFN TLUS project will be discussed within the Limitations section of this report.

The map biography is specific type of use and occupancy survey method. Tobias describes the map biography as *"an account of person's life on the land, sea or ice as recorded on maps (and audio recordings) during a face to face interview. Respondents indicated places where they have personally travelled, stayed and procured resources.....a map biography is really a map autobiography because each person tells his or her own story....for rigorous use and occupancy projects, the individual map – biography interview is the standard collection* event". (Tobias Pg. 38)

The Map Biography survey is a way of documenting the facts of person"s use and utilization of the land, and in doing so converts them into data subject to verification. The key components of this method and the map biography method that DFN employed involved:

- Obtaining community input and direction on research priorities
- Defining the Primary Research Objective
- Identifying specific categories or cultural activities that were consistent with the Primary Research Objective that DFN saw as relevant and important to map (e.g. Moose kill sites, Jack Fish catch sites, Food Plant gathering sites)
- Preparing a Research Proposal that sets out the methodology to be employed containing a description of the research framework, method, parameters, tools and conventions
- Developing a Data Collection Manual that sets out clear rules on how the research is to be conducted
- Selecting community researchers and undertake sufficient training in the use of research tools and consistent application of research conventions
- Developing a standardized, fixed Questionnaire with questions aimed at gathering data in relation to all selected Categories
- Undertaking ongoing communication with the community as the purpose and timing of the survey research program
- Defining the Population Sampling Frame and interview selection criteria
- Coordinating interviews with selected respondents and administer the Questionnaire with all respondents in one on one Interviews
- Recording and documenting interviews and marking cultural use data (activities and events) on Mylar overlays utilizing a standardized coding system and according to fixed rules and convention
- Preparing verbatim interview transcripts from the audio recordings
- Transferring data from Mylar overlays and digitize them onto end mapping products including:

- Map Biographies – One map displaying data for all questionnaire categories for a single respondent

- Category Map – One map displaying all data for all respondents for a single questionnaire category (e.g. Moose Kill Sites, Bull Tout Kill Sites)

- Thematic Map – One maps displaying data for all respondents for a selected group of related questionnaire categories (e.g. Large Game Kills, Ungulate Kill Sites, Fish Kill Sites)

- Hodgepodge Map – A single map displaying all data for all questionnaire categories from all respondents

- Developing Draft Methodology and Public Reports

- Implement the research results and utilize the mapping products

4.5 Parameters

Parameters places stricture and bounds on research providing shape and defining the extent of the research. *"Parameters are the definable factors that govern virtually every aspect, large and small, of a map survey. They delineate the research. Parameters give the map biography concrete shape. They are the bridge between the research principles and quality standards applied and the tools and conventions used"***.** (Tobias Pg 172)

In short, the parameters of social science research can be conceptualized as box with shaped by five joined and mutually supported sides. These include:

- Why – What are we opting to research and why?

- Who – Who is going to be the study population?

- When – What period of time are we going to conduct research on?

- Where – What area are we going to conduct research in relation to?

- What – What kind of data are we attempting to gain?

The following describes and sets out DFN‟s thought process and critical choices made about these critical research parameters.

4.5.1 Primary Objective (Why)

Why did DFN wish to conduct a traditional land use survey? What did DFN want to achieve by having a new baseline set of cultural use data? These were critical questions that DFN posed at the outset of the research program. The answers to these questions ultimately guided all subsequent DFN research decisions.

The drivers and needs for a new TLUS research project were noted at the outset of this report. In short, if DFN is to have is to have it treaty rights acknowledged and acted upon, it needs a baseline of land and resource utilization data that establishes the exercise of such rights. The core of DFN‟s way of life has been based on the utilization of bush resources and commodities. Hunting, fishing, trapping and gathering has sustained generations of DFN families and such socio – cultural activities continue to play a key role in the way of life of the community. Thus it made sense to gear the research to document key activities such as hunting, fishing, gathering and other key cultural activities.

Thus DFN‟„s initial primary research objective of the traditional land use survey is as follows:

"The Duncan's First Nations will conduct the Duncan's First Nation Fish and Wildlife Traditional Land Use Survey to document historical and current hunting and fishing kill sites occurring within riparian forests within the its traditional territory".

The primary research objective was then refined at an early stage to provide greater clarity and focus for the research effort:

" The primary objective of the Duncan's First Nation Traditional Land Use Survey is to document some of the DFN's hunting and fishing kill sites and earth and plant material gathering sites with the overall goal of identifying areas of historical and ongoing critical community use".

The defined and agreed upon research objective then drove all subsequent and more detailed aspects of research design.

4.5.2 Study Population (Who)

Unit of Analyses and Unit of Observation

"The Who parameter defines the study population". (Tobias Pg 173). Within the field of social science, the unit of analysis must be decided upon and selected at the outset of the research process. The decision of who the study population was in this case was tied to the primary objective. Further, as the map biography survey method entails the interview of individuals to obtain first hand data, the individual ends up being both the subject of analyses and the unit of observation.

Sampling Frame

With the individual established as the unit of observation and analyses, the DFN research team then had to turn its mind to the larger population base from which individual respondents would be selected – the DFN community at large.

An important note needs to be made here in relation to the uncertainties that can arise when attempting to determine and analyze the population statistics of Indian Bands (First Nations). One can enumerate populations of Indian Bands by various ways and means based on the total number of Status Indians registered to an Indian Band (pursuant to the *Indian Act*), Band Membership as defined by individual Indian Bands (pursuant to their specific band membership codes) and overall community population (which can include Registered Indians, Band Members, Non – Status Indians, Metis and non – aboriginal people residing at the reserve).

Thus statistics provided by agencies such as INAC can and do vary with those kept and provided by a First Nation. Such was the case with DFN. To further complicate matters, one can often find inconsistencies within the aggregate figures and statistics provided by both sources.

The survey research team considered the statistics provided by the DFN (as of February 2011 and updated as of October 2011), statistics kept by the Western Cree Tribal Council, of which the DFN is a member and INAC (based on the 2006 census). As predicted, the DFN research team found inconsistencies between both official sources and within the individual set of statistics provided by each INAC and the DFN. Thus the survey team had to make use of the most accurate information available. The DFN adopted the statistics provided by the DFN, which was congruent with information provided by the Western Cree Tribal Council.

Duncan"s First Nation Derived Statistics (As of October 2011)

Total Registered Population:	251
Total Registered Male Population:	117
Total Registered Male Population as % of Total Pop.	49%

Total Registered Female Population	134
Total Registered Female Population as % of Total Pop.	53%
Total Number of People Living on Reserve	157
Total Number of Band Members Living on DFN IR	124
Total Number of Non Band Members Living on DFN IR	33
Total Number of People Living off Reserve	Undetermined
Age Distribution (By Age Groups):	
Ages 0 – 16	63
(22% of total population)	
Ages 17 – 30	54
(19%of total population)	
Ages 31 – 55	85
(30%of total population)	
Ages 56 – Up	35
(12% of total population)	

In this case, the DFN determined that the population sampling frame should be based on all Status Indians Registered to the DFN residing within Alberta and non – band members residing on the DFN reserve. This was done given that DFN wished to be inclusive of Registered Indians and Band Members that reside off reserve and that may undertake traditional activities and those non Band members residing on DFN IR lands who may play an important role in feeding DFN families and the traditional economy of the community as a whole.

Before moving onto a discussion of the criteria that was used to select respondents from this sampling frame, an important point needs to be made about the relationship of the sampling frame to the primary objective. This survey set out to document land and resource utilization trends and patterns by the DFN community as a whole.

Given this, the research team might have only considered those people of DFN that are registered Status Indians who are the beneficiaries of DFN"s treaty rights - essentially Status Indians who are also considered Band Members according to the DFN band membership code. In the alternative, the research team had the option of taking a broader view of the role of individuals within the traditional economy of the DFN

community, which could encompass Status Indians registered to the DFN, DFN Band Members, Non – Status individuals and Metis. Non band members were also included.

Thus one definition would be rather limiting and other more expansive. In this case, the DFN research team opted to look at the broader context and consider those individuals who have and continue to actively use the land and play an important role in procuring bush commodities for DFN families. An important principle still in effect within the DFN culture, is that people share what they kill and take from the land with others, as others do with them. To a large extent, DFN people procure bush commodities and bring those commodities into the community to meet their own purposes, their family"s their extended family and that of fellow community members. Given this, the DFN opted for the broader context which would capture this important reciprocal relationship practiced by the community at large.

Thus the important figure that the DFN research team keyed on is 284: the total number of Status Indians registered to the DFN (251) and the total number of non band members living on DFN reserve lands (33).

Thus, as the DFN had the budgetary resources to interview up to 50 respondents out of a sample population frame of 284. At project end, the DFN interviewed 46 out of 284 representing 16.19% of the sample population frame, translating into a response rate of 16.19%.

Population Sampling Criteria

With the population sample frame established, the DFN then moved to consider the criteria that would be used to govern the selection of individual interview respondents – in other words, to determine who would be eligible to be interviewed.

One point of clarification is needed. The DFN ruled out probability sampling methods where every person within the sampling frame has an equal chance of being selected for an interview. Rather, judgement sampling was determined as the appropriate approach, which involves selecting the unit of observation based on one"s own judgement of what will be most useful or representative given the project"s focus. Such an approach is strongly advocated within Living Proof. (Tobias Pg. 174).

Clearly, given that Primary Objective of the research was to obtain data in relation to hunting, fishing and gathering activities, it was clear that generally more men, than women would be interviewed given that more men than woman tend to spend time on the land undertaking traditional vocations and pursuits. However, some level of gender balance was to be achieved given that many DFN women actively participate in hunts, fish and procure food plants and medicines. There was also a need to achieve representation from all age groups. Thus while, the selection criteria would be

systematically applied to the sampling frame to ensure a systematic and representative approach to selection, the primary objective would clearly tend to favour the interviewing of more men than women.

DFN defined selection criteria well in advance of the interview commencement. Considerable attention was given to the matter with selection criteria being addressed as a priority item in a project workshop held in March 2011. The importance of having defined and rigid selection criteria was explained, understood and accepted. Community researchers opted to set the following criteria that would be set and unchanged during the entirety of the research initiative:

The survey sample population will be based on the systematic application of the following set of criteria:

Respondent Selection Criteria

- Respondents can be a Status Indian registered to the DFN, a DFN Band Member, a Non Status Indian, Métis or a Non Band Member residing on the DFN reserve

- Respondents must reside within the bounds of Alberta. Non band members must reside on the DFN reserve

- Respondents can male or female and must be of 15 years of age or older

- Respondents must be physically and mentally capable of doing a map biography

- Respondents must report that they have or continue to actively utilize lands and resources to some degree

The above criteria that DFN opted for are referenced within *"Living Proof".* However, DFN differed in respect to the last bullet – that Respondents must report that they or continue to actively utilize lands and resources to some degree. While it could be argued that this criterion skewed the study towards land users, DFN felt that there was little point in going to the time and expense of administering an interview to someone who doesn"t undertake cultural land use practices. If DFN had the budget and ability to interview the totality of the community, then DFN could have potentially adopted such an approach. However, DFN did not have the option to undertake such an exercise.

Survey Respondent Statistics, Participation and Response Rate

Funding and timing limitations were realities that DFN needed to weigh and the survey results need to be reviewed and understood within this context. Tobias asserts that community TLUS research projects should attempt to achieve an overall participation rate of between 70% - 80%. Given that DFN interviewed 46 community members out of 284 eligible community members, it achieved a response rate (number of respondents as a percentage of the study population) of 16.9%

Tobias notes that the response rate can only be considered as a useful indicator of representativeness if all respondents are asked to provide answers for all categories in the questionnaire. Thus if a 70 – 80% response rate achieved, then the survey"s findings might be found to representative of the community as a whole. Given that DFN was only achieved a response rate of 16.9 % with available resources and budget, the survey results point to and highlight some clear trends, but cannot ultimately be held to be representative of the community as a whole. In respect to the participation rate, as the DFN set out to interview up to 50 respondents and actually interviewed 46, the participation rate for the TLUS can be held to be at 92%.

The actual statistics relating to those that participated in the survey are as follows:

Actual Respondent Statistics

The following sets out the actual numbers of respondents that DFN interviewed and what these numbers represent in terms of overall community population.

Overall for DFN:

Population Frame	284
Total Respondents interviewed:	46
Total Males Interviewed	29
Total Females Interviewed	17
Youngest Respondent Interviewed(Age)	15
Oldest Respondent Interviewed (Age)	74

Total Respondents Interviewed by Age

Ages 0 – 16	3
Ages 17 – 30	12
Ages 31 – 55	17

Ages 56 and Up	7
Unknown	7
Total	46

Total Male Respondents Interviewed by Age

Ages 0 – 16	3
Ages 17 – 30	3
Ages 31 – 55	12
Ages 56 and Up	6
Unknown	5
Total	29

Total Female Respondents Interviewed by Age

Ages 0 – 16	0
Ages 17 – 30	9
Ages 31 – 55	5
Ages 56 and Up	1
Unknown	2
Total	17

Total Number of Respondents Interviewed

Sampling Frame	284
Total Number Interviewed	46
Overall Response Rate	16.9%
Overall Participation Rate	92%

4.5.3 Recall Interval (WHEN?)

The recall interval establishes the time frame that the interviews and ultimately the research will based upon. Respondents were asked a consistent set of questions that

probed how far in past they undertook traditional and cultural land and resource practices.

There are different views and priorities on what TLUS data is most important and relevant to collect. First Nations, historians, researchers often place emphasis on placing First Nations within their traditional lands with the aim of demonstrating levels of historical and ongoing use and occupancy of lands. First Nations, government agencies and project proponents also place importance on gathering current and ongoing use and occupancy data as they want to determine the level of infringement of a policy or project on the current use of lands by aboriginal people. The *Canadian Environmental Assessment Act* and its supporting policies are an example of the trend in placing weighting on obtaining data about current use of traditional lands and resources**.**

Within *Living Proof*, Tobias describes the increasing level of complexity and difficulty in mapping different periods of people"s lives. *"Attempts to add temporal precision often results in poor data as respondents often inadvertently telescope significant time periods together"*. (Tobias Pg. 177)

Response burden and interviewer burnout were important factors that DFN considered and planned for. For this baseline survey, DFN wanted to undertake the interview process in the easiest manner that contributed to the goal of documenting accurate, reliable, precise and auditable data. Introducing differing and artificial time periods within the interview process would have made the interview process more complicated which could have potentially detracting from meeting data quality standards. Given this, mapping respondents" utilization of lands and resources over their lifetime (within living memory) was deemed to the most straightforward and appropriate recall interval.

This recall interval was deemed to help capture both historic and current use patterns. While not an objective of the survey, using the within "living memory" recall interval may help capture the changes and variations in land use patterns of respondents through time. Factors such as climate, presence and absence of wildlife in a given area, mode of travel, personal preference and age are all inter – related factors having a bearing on where a respondent elected to (e.g. hunt) through their life. Given this, electing the survey"s recall interval as within living memory is congruent with, and supports the primary research objective.

Further, in parallel with this TLUS research project, the DFN commissioned an ethno – historical scoping exercise. This literature search may help in shedding light on DFN historical patterns of use and occupancy and help in comparing and contrasting historical and current cultural land use and occupancy patterns.

4.5.4 Study Area (WHERE?)

Like many First Nations, the DFN has demarcated a traditional territory or a use and occupancy area on a map. One of the first decisions that DFN undertook was to ensure that no such boundary was depicted on the interview base maps. Further, no traditional territory map was present or posted in the interview room or community research office. Rather, the only map that was available prior to viewing was the Index Map – a mosaic of large number of unmarked base maps. This was done so as to avoid unduly influencing respondents, conveying expectations or potentially creating a bias in survey results.

Further, no maps depicting the location of proposed major resource development projects or oil and gas fields were posted or available for viewing to guard against influencing respondents‟ in anyway. Base maps were also free and clear of any such indications and map data.

In early scoping work with the community, there was considerable discussion regarding the extent of DFN family use in the past and to the present day. References were made to family use extending as far south to areas near Slave Lake to areas as far north as Keg River and Paddle Prairie on the Peace River. References were made to family use extending west into BC in the Chetwynd and Fort St. John areas and as far east Bison Lake, Cadotte Lake and Seal Lake. The DFN opted to select a set the base maps that would encompass these above noted areas.

This choice determined the use of mapping tools. Ideally DFN could have selected 1:50:000 base maps however the sheer number of maps required to map extensivity would have been too cumbersome for both community researchers and respondents. Thus 1:250 000 maps were selected to reduce the response burden.

In all DFN used 9 base maps in total. The National Topographic System (NTS) code or listing for the utilized maps were:

94h)	84e)	84f)
94a)	84d)	84c)
93 p)	83m)	83n)

Thus the survey can be held to be inclusive of the areas demarcated within the above NTS maps. The total geographic extent of this survey area was also set out on the research team‟s Index Map**. (Appendix G)**

4.5.5 Data Layers and Categories (WHAT?)

Data Layers

The primary objective of the research drove key decisions about what information and data DFN wished to document. As noted, there were many areas and types of information that the DFN wanted to document. Understanding was built about the need to establish a comprehensive survey or baseline of data, but a survey with important bounds and limitations. The problem of the "trying to map it all at once" was discussed, understood and this precautionary principle was adopted, which in turn set limits on what data was to be mapped.

Internal community discussion and deliberation led DFN to making one of the key decisions about its map biography research – determination of the primary objective of the research. Again this was:

" The primary objective of the Duncan's First Nation Traditional Land Use Survey is to document some of the DFN's hunting and fishing kill sites and earth and plant material gathering sites with the overall goal of identifying areas of historical and ongoing critical community use".

Thus the research was focused on a certain set of activities undertaken for subsistence, sustenance, socio-cultural and spiritual purposes. For example hunting, fishing and gathering activities was the predetermined focus of the survey.

Specifically, DFN made a concrete decision to not map those activities that community members might undertake for commercial purposes such as commercial trapping, guide outfitting and fishing activities. While these activities play an important role in the mixed economy of the DFN, an important fire wall was built into the research design and into the interview process to ensure that only activities undertaken for subsistence, sustenance, socio-cultural and spiritual purposes were identified, recorded and mapped.

Further, despite the important need to document and record traditional ecological knowledge / traditional knowledge data, DFN opted against this within this survey. This was done to ensure that the research team collected data related to the killing of wildlife, catching of fish, gathering of earth and plant materials and not the habitats and eco – systems that host and support such values and activities. To be clear, the survey was designed, planned and executed in a way to document use and procurement activities, not habitat or traditional or local knowledge held in relation to eco-system conditions.

Further, DFN opted to not mark travel routes and traditional place names given that the quantitative basis of the map biography approach does not necessarily lend itself to the qualitative type of research that is better suited to such lines of inquiry. The DFN will

need to map such information in the near future. Given this, the current survey"s focus was built to gather and map data and produce three key data layers:

- Animal (fish and wildlife) harvest sites
- Plant, wood and earth material gathering sites
- Fixed cultural sites (Over night habitation, spiritual, and sacred and legend sites)

Another important distinction is that given the recommendations set out in *"Living Proof"*, DFN opted to not map general resource use and procurement activities. Rather, interviews and resulting data were mapped based on specific questions / categories that were species, activity and bush commodity specific. For example, the DFN did not set out to document general areas where people hunt and procure bush commodities.

Rather, the survey was predicated on a line of inquiry that sought to identify where a respondent specifically killed and procured a specific animal species. Thus within the interview, the question, *"Can you show me where you hunt*" or "*Can you show me where you hunt moose"* does not occur. Rather, the respondent was asked*, "Have you ever killed moose to feed yourself and family...if so, can show me some of the spots".* The questioning then preceded to all other selected species, such as elk, white tailed deer, mule deer, caribou, whitefish, walleye, jackfish etc. Thus the survey is based on a species and activity specific approach. The survey records events. The same occurred with earth and plant materials, overnight sites, sacred sites and so forth.

Research and Questionnaire Categories

Once DFN had decided the general type of on the ground procurement activities it wished to document, it needed to further refine that line of inquiry. DFN proceeded to define detailed research categories that it wished to illicit information about. As noted, in addition to being site specific, the categories were also species, activity and bush commodity specific.

Examples of categories that are species specific include jackfish or whitefish catch sites. Examples of categories that are commodity specific include firewood or food plant gathering sites. Examples of categories that were activity specific include overnight camping at a tent site. Examples of a specific procured bush commodity include food plants or medicinal plants.

By approaching the research in this manner, DFN had the ability to identify potentially several hundreds of distinct activities, bush commodities or species (or categories) that

it wished to obtain data on. There was clearly a desire to document as much as possible within this survey and “get it all” at once. However, DFN paid heed to the warning set out in *Living Proof* – that it is both impossible and unwise to attempt to document a community“s complete range of land and resource use within one research program.

Given this, DFN opted to limit the number of research categories with the aim of keeping the project manageable, on track and in keeping with the primary objective. Thus, the DFN opted to gather and map data for the following categories:

MAMMALS

MO	moose	CU	caribou
EK	elk	MD	mule deer
WD	white tailed deer	BB	black bear
GB	grizzly bear	XM	other mammal

BIRDS

DK	ducks	GE	geese
GR	grebes	GR	grouse
PT	ptarmigan	CR	cranes
XB	other bird		

FISH

WE	walleye	JF	jackfish (northern pike)
DV	dolly varden	BT	bull trout
RT	rainbow trout	AG	arctic grayling
WT	whitefish	GY	gold eye
LC	ling cod (burbot)	XF	other fish

PLANT and EARTH SITES

BR	berries	FP	food plants
MP	medicine plants	SP	sacred plants
CL	construction logs	FW	fire wood
SR	specialty rock	DW	drinking water
XP	other plant/earth site		

OVERNIGHT SITES

CB	cabin	TT	tent site
LT	lean to	XOS	other overnight site

CULTURAL SITES

BS	birth sites	BP	burial places
OS	old settlements	CS	cache sites
SS	sacred sites	XCS	other cultural site

The above 44 distinct and important categories were identified and formed the basis of the line of inquiry. These categories cannot be held to be all encompassing or exhaustive however in obtaining data on these key areas, DFN produced some excellent insights and data on important cultural activities. These categories then formed the basis for the interviews and interviewers asked every respondent questions about each of the above noted categories.

It should be noted, that some flexibility was built into the resulting questionnaire based on the above categories. Should a respondent identify an activity, bush commodity or resource that was procured, that was not one of the selected categories, community researchers had the ability to document it as “other”. (e.g. Other Mammal - XM, Other Fish - XF, Other Bird - XB, Other Overnight Site - XOS).

4.5.6 Questionnaire Design

The Questionnaire is the primary tool that is used within the map biography method to gather data in one-on-one interviews with respondents. The questions are framed around each of the identified subject areas or Categories that HFLN wished to obtain data on. The complete listing of Categories that DFN determined in consultation with the community were set out in the prior section 4.5.5.

The DFN designed and administered the Questionnaire in a manner that ensured all respondents were asked the same questions about the same Categories. The DFN Questionnaire contains all recommended components and features as set out in *“Living Proof”*:

Categories

A one to four word that describes an action or activity which has it own coding. It identifies the specific kinds of features to be mapped.

FROM DFN QUESTIONNAIRE - *“Did you ever **KILL MOOSE** to feed your family or community?”*

Definitions

A definition for each category to ensure that there is an understanding between interviewer and respondent on what action or activity they are being asked about. Definitions provide specifity in relation to the activities.

FROM DFN QUESTIONNAIRE - *``I`m now going to ask you questions about where you killed different kinds of animals – fish, mammals and birds. For this part of the interview we want to map only places where you **KILLED animals and took some home for eating purposes**. We don`t want to mark a spot where you killed animals for commercial or barter purposes unless you took some of it home to eat. We don`t want to mark spots where you killed animals for tourists while you were guiding, unless you took some of the meat to eat.”*`

Examples

Examples can help provide clarity when the category might be more complex or open to interpretation. In almost all cases, the categories and definitions selected by DFN were very straight forward so as not to give rise to such situations.

Questions

A specific question is framed around each category to specifically illicit the who, what, where and when for each category.

FROM DFN QUESTIONNAIRE – ***"Did you ever kill MOOSE to feed your family or community? Can you show me some spots"?***

Keywords

A word that is consistently used in relation to all categories that supports good data validity and manages response burden.

FROM DFN QUESTIONNAIRE – *"Did you ever **kill** moose to feed your family and community? (If affirmative then proceed) Can you show me **some** spots?".*

Interviewer Specifications

Instructions that are embedded / written into the questionnaire to support good data validity and application of data marking conventions. Underlining of the category and prompts for the abbreviated category form and data marking convention are provided immediately next the question.

FROM DFN QUESTIONNAIRE –

Did you ever kill MOOSE to feed your family or community? ***MO***

Can you show me some spots? ***.*** *only*

Respondent Specifications

Instructions, reminders and clarifications provided for the respondent.

FROM DFN QUESTIONNAIRE – *"For this part of the interview we want to map only places where you KILLED animals and **took some home for eating purposes**."*

It was critical that questions were understood clearly by both the respondent and community researcher. The approach adopted by DFN in questionnaire design reduced ambiguity that could in turn give rise to differing interpretations and the mapping of inconsistent data. An important example of this is related to the word *hunting.* Asking a respondent "*where they hunt"* could have resulted in a variety of responses that differ

from respondent to respondent. The word *hunt* can and does mean different things to different people as the act of hunting involves a series of inter- related activities such as:

- scouting out broad areas for wildlife sign
- travelling to wildlife features such as licks and corridors to determine the recent presence of game
- travelling to a preferred area to commence a hunt, scanning and actively hunting for animals as one travels
- stalking and tracking an animal through a broad area
- shooting and animal, pursuing a wounded animal
- cutting up and processing an animal in a place
- setting up a camp to support the hunt or a camp to process the kill
- undertaking supporting and incidental hunting activities such as fishing, snaring, gathering, obtaining firewood and water – those activities that sustain one in the bush while hunting

While the above activities are clearly valid hunting activities and could and should be mapped, the methodological approach taken by the DFN in this map biography research and this methodology seeks clarity and specificity. Thus, respondents were not asked where they "*hunt"* but where they whether they "*have ever KILLED a MOOSE, and if so, could they indicate SOME of the spots?"*

As noted, an important consideration in the design of the questionnaire was to elect the identification and mapping of kill, catch and gathering sites rather than where mammals, fish and earth materials can be found and procured. There can be tendency of community hunters in TLUS projects to switch back and forth between a discussion of where they have killed animals and the habitats that they can be found in. The DFN TLUS was deliberately designed to not map habitat. Given this, specific reminders were written into the questionnaire which reminded both the community researcher and respondent so as to guard against this potential occurrence.

Another important consideration carefully weighed was the level of detail that DFN should strive for within an initial baseline survey. While it was imperative to adhere to the data diamond model, balance was also needed. DFN opted to not seek a high level of descriptive precision to guard against interviewer and respondent burn out.

The Questionnaire utilized by the DFN is attached for reference purposes. **(Appendix E)**

4.6 Research Tools

The DFN research team employed numerous devices and materials that supported data collection during map biography sessions. As Tobias notes in "Living Proof", the *"tools selected and made available can profoundly influence the outcomes of the map biography".* **(Tobias Pg 204).** The research tools that DFN opted to employ are those directly advocated within the *Living Proof* text.

The Map Tool Kit used by community researchers can be said to have been comprised of the main key research areas and tools:

Mapping Tools

- Base Maps
- Mylar Over Lays
- Index Map
- Map Guides
- Mylar Overlays

Data Marking Tools

- Markers
- Ruler
- Pencil
- Code pieces
- Lamps
- Illuminated Magnifying Glasses

Audio Recording Tools

- Audio Recorder
- Baby sock and recorder stand
- Audio Cassettes
- Audio Cassette Storage Container

Questionnaire Tool

- Interview Questionnaire

Interview Form Package Tools

- Interview Checklist
- Consent, Confidentiality Directive and Honoraria Forms
- Category Quick Reference Sheet

- Scribble Pad
- Interview Record Form
- Researcher Binder

Data Collection Manual

- Manual

4.6.1 Mapping Tools

The above tool kit contents are physical devices that every DFN community researcher was provided. Orientation and training in their appropriate use and application was also provided. Photos were taken to document the training session. **(See Appendix F)** Researchers were provided ample supplies and tools were made readily available in the community research office, to ensure that research principles and data quality standards were being applied consistently, in every interview. A short description follows of the each of the interview tools:

Base Maps

DFN utilized colour National Topographic System maps (NTS 2009) produced by Natural Resources Canada. Data was marked on clear plastic mylar sheets that was overlain on each base map sheet (See below). A scale of 1:250 000 was chosen given that apparent and reported far flung use of lands and resources through north western Alberta and north eastern BC. The 9 base maps selected were as follows:

94h)	84e)	84f)
94a)	84d)	84c)
93 p)	83m)	83n)

These maps were marked and customized. These measures will be described in the Conventions portion of this Methodology Report.

Index Map

DFN assembled an Index Map – a reference composite that contained all the above base maps as they occur in their real world position. **(Appendix G)** The map was set at a scale of 1:500 000 that set out all 9 maps available for recording data. This map was

then posted on the community research office wall. When interviews commenced, the community researchers brought each respondent before the map and asked the respondents to identify which maps they would need for their interview session. Each base map was numbered 1 through 9 for ease of reference and tracing onto mylars during the interview process.

Mylar Over Lays

DFN utilized Mylar overlays to reduce the overall cost of base map purchases and to reduce the sheer amount of base maps that will be needed to record data upon. DFN utilized Hewlett Packard Clear Film Mylar rolls. (Non Matte Both Sides / 36 Inches X 75 feet / HP C3875A)

A cutting station was set up in the community research office so that researchers could cut sheets to match the dimensions of the base maps. Maps were cut with exacto knives and cutting template was used.

The marking of these Mylar sheets prior, during and after the interview session will be described in the Conventions section of this report.

Map Guides

There were some draw backs in mapping at 1:250 000. Sometimes, respondents had a hard time in pinning down locations given the large scale used and the lack of detail such as new access roads and seismic lines. Map reference books were on hand to assist both respondents and interviewers if and when they needed to confirm sites with an extra reference.

4.6.2 Data Marking Tools

Markers

Permanent markers were used to mark data on the Mylar overlays and for labelling the maps. Permanent markers were needed to guard against data and labels being erased through extensive handling of the mylars during the interview process and following the research project.

Thus DFN used permanent Staedler Lumocolour pens. Fine nib markers (0.6mm) were to be used to mark the sites, leaders and feature codes and registration marks to

achieve precision in marking data. Medium nib markers (0.8 – 1.0 mm) were to used to label base maps and the Mylar overlays with key information such as PIN numbers, names, dates and map numbers and number of maps in the series. Medium markers were used so important labels would stand out. Again, certain rules were employed in the use of the markers which set out in the Conventions section of this report.

Ruler

A clear plastic ruler was used for drawing leaders – the lines that connect marked sites with their feature codes on the Mylar sheets.

Codepieces

Researchers used a marker (a game board piece) to keep track of their last marked feature code. As the respondent moved or jumped around a map, the interviewer left the marker at the last marked feature code. When the new site was identified the marker was moved to the new location. The codepiece was a device that allowed interviewers to keep track of the rising code sequence in an easy way, while not distracting them from other key interview duties).

Pencil

A pencil was provided so that respondents could point and refer to sites easily and so that locations of sites were made clear to community researchers. Also in this way, the interviewer could lead in the identification of sites, not the interviewer.

Lamps

Small desk lamps were made available to ensure that the interview / mapping working surfaces were well lit and so that maps could be readily seen and understood by both respondent and interviewer.

Illuminated Magnifying Glasses

Battery powered illuminated magnifying glasses were provided to assist respondents in concentrating on an area and to pin point and confirm exact locations of sites.

4.6.3 Audio Recording Tools

Audio Recorder

As advised by Tobias, interview sessions were recorded with audio recorders. Video recorders are deemed as being too intrusive, and can often result in people under reporting cultural use information and often require an additional person to supervise the recording.

DFN opted to utilize an analogue tape recorder over a digital recorded to reduce the number of operating steps, complexities and complications that come with the operation of digital equipment. Data loss can more readily occur with digital recorders than with the older cassette technology. DFN tested a type of recorder with an external microphone; however the recording was not clear enough. Thus DFN opted for another brand that resulted in clear recordings that would allow for accurate written transcription. DFN purchased Sony Clear Voice M - 570 V micro –cassettes recorders. Pre – tests of the equipment resulted in satisfactory volume and clarity so as to ensure accurate production of interview transcripts.

Training in the use of the recorder and rules on their use is set out in the Conventions section of this Methodology Report.

Sock and Recorder Stand

A sock was used to cover the audio recorder when the audio was not in use and recording ceased. This step guarded against data loss, as it was clear visual queue for the community researchers to ensure that they turned the audio recorder on to record the sessions and off when the recording ceased. A recorder stand was also fashioned out of the ends of Mylar spools to ensure that the audio recorder could be positioned directly between the interviewer and respondent and to ensure that internal microphone was pointed upwards towards those speaking.

Audio Cassettes

An ample supply of micro audio cassettes were on hand in the community research office and within the community researcher"s tool kits. Tapes were used with a total duration of 90 minutes. Tapes were stored in their clear storage cases and labels on both the tapes and the storage case were used and marked with clear identifying labels and descriptions.

Audio Cassette Storage Cases

Each community researcher was provided with their own distinct box for their completed and labelled audio cassette tapes. Each bin was marked with their assigned block of PIN numbers. This allowed for the orderly storage and retrieval of audio cassette tapes for transcription, auditing and storage of raw data.

4.6.4 Questionnaire Tool

"The questionnaire is a categorized, ordered listing of all questions that will be asked of respondents". (Tobias Pg 194) The questionnaire was the key tool that guided each interview and ensured that each interview was conducted in a consistent manner. A key goal of the interview questionnaire is to ensure that each respondent was asked the same set of questions about the same subjects or categories (e.g. Moose Kill Sites, Elk Kill Sites, Whitefish Kill Sites, Food Plant Gathering Sites). As a quantitative type of research, the map biography approach is rigid and relatively inflexible, which is a strength in this case.

The interview questions were constructed around all key categories and designed to keep most interviews under the two hour time frame and meet the "Two Hour Rule of Thumb Principle" advocated within "*Living Proof".* The questionnaire was structured utilizing key words that were consistent with the primary research objective, geared to obtaining data regarding the specified categories and to avoid in posing leading questions to respondents. The DFN TLUS Questionnaire is attached. **(Appendix E)**

The Conventions section of this report provides detail on how the Questionnaire Tool was used in the interviews and what rules were in place, governing its usage.

4.6.5 Interview Form Package Tools

Interview Procedure Checklist

An interview checklist was prepared to help provide a step by step guide to community researchers to ensure that they undertook an organized and consistent approach in every interview. The checklist was set up to ensure that interviewers conducted every key step in preparing for, conducting, closing down and following up on the interview.

The Interview Procedure Checklist is attached. **(Appendix D)**

Consent, Confidentiality Directive and Honoraria Forms

DFN used three main forms to document the respondents understanding of, support for and consent to participate in the research program. These forms were reviewed and signed off with respondents prior to the commencement of their interviews. The Consent Form is a standard feature of participatory research that explains the purpose of the research and what uses the products of the research will be put to. A key principle is that respondent provides their explicit consent to participating in the research process and signs of on the Consent Form prior to the commencement of the interview.

The Consent Form is attached. **(Appendix H)**

The HFLN also passed a Confidentiality Directive which demonstrated the priority that DFN placed on matters of confidentiality during the design and implementation of map biography process. The rules that govern what level of information is disclosed to third parties are set out in the Directive.

The Confidentiality Directive is attached**. (Appendix H)**

Interview respondents were remunerated for their participation in the map biography research. **The Honoraria Form** was signed prior to the commencement of each interview.

The Honoraria Form is attached**. (Appendix H)**

Category Quick Reference Sheet

Every Interview Form Package contained a Category Quick Reference Sheet. This contained the short forms or abbreviations for all Category Codes (e.g. MO – Moose,

EK - Elk). This helped the interviewer in cases where respondents tended to identify numerous categories in one area, vs. proceeding through the questionnaire, category by category. The reference sheet allowed the interviewer to keep pace with the respondent, focus on methodology and ensure that the right Category Codes were being applied to the identified sites.

The Category Quick Reference Sheet is attached. **(Appendix C)**

Scribble Pad

A scribble pad was used to support interviewers keep track of important points within interviews that require follow up, noting information that falls outside the set categories and observations regarding factors that may contribute to or detract from data reliability. Key pieces of Meta data were recorded on the Scribble Pad that would allow for the tracking and linking of all key interview products.

Interview Record Form

The Interview Record Form is a one page form that was provided to interviewers for every interview. The Interview Record Form documents all key interview information and that tracks and ties all products of each interview together in one place (PINS, Respondent Name, Base Maps used, audio cassettes used, starting and end Code Sequence and Catch All (X) Codes used.

The Interview Record Form is attached. **(Appendix H)**

Researcher Binder

All completed Interview Forms and the Interview Record Forms were filed in binders. Each researcher had their own binder and they filed their interview forms by PIN number.

Interview Form Package

Packages containing all key interview forms were made of available to ensure that interviewer had a complete package of required forms for each interview. This package included the Confidentiality Directive, Consent Form, Honoraria Form, Interview Record Form and Feature Code Sheet and Interview Checklist. This ensured that proper forms

were always on hand to support the consistent conduct and documentation of each interview.

Data Collection Manual

The Data Collection Manual provides guidance on the conduct of every aspect of the interviews and the collection of data. The DFN used this document to assist interviewers with the systematic and effective collection of data and the application of consistent procedures and habits in relation to each interview. *"Distilling a well constructed methodology into a data collection manual is a must. The manual is the concrete expression of research design; it is consistent with the principles of good social science, early decisions about the map survey, and unique project parameters. The DCM contains the questionnaire and is built around a set of map tools. It includes descriptions of all the conventions and procedures that govern the use of the toolkit".* (Tobias Pg. 278). The DCM is listed within the Appendices. **(Appendix I)**

4.7 Conventions

Conventions are the smallest details that DFN considered in research design. Conventions are the agreed upon rules that govern the use each research tool that ensures their consistent use and application. DFN worked to ensure that the following set of rules were not altered and followed as closely as possible, all the time so as to meet critical data quality standards.

4.7.1 CONVENTIONS RELATED TO USE OF KEY INTERVIEWER TOOLS

Base Maps

Key conventions related to the use of topographic base maps included:

- Ensure that the selected set of base maps were the only maps used by researchers in the interviews and ensure that each researcher used the same set of base maps as all other researchers

- Each base map was customized where red registration marks and arrows where drawn onto four corners of the base maps. This was replicated for each set of base maps – all fixed on the same four points. This allowed for the accurate positioning of the Mylar overlays over the base maps and provided subsequent

direction to the digitizers. Registration marks were drawn on with a pre – set circle from a draftsman"s template

- Each base map was assigned a numeric value in the upper right hand corner to denote its order in the series of base maps used in the survey. The order and numbering of maps corresponded the order and numbering as appearing on the wall Index Map.

- Prior to the commencement of the interview, researchers ordered their set of base maps according to its order and numbering in the series to ensure that all maps were accounted for and organized prior to interview commencement

<u>Mylar Overlays</u>

Key conventions related to the use of the clear Mylar overlays included:

- Cutting mylars to correspond to size and dimensions of the base maps. The bottom of the Mylar was to be edged flush with the bottom right hand corner of the base map

- Clamps were used to clip the Mylar to the map, to ensure that the Mylar overlay did not slip during the interview

- A full set of mylars were cut to size and registration marks were added. The map number was traced on the top right hand corner of the Mylar overlay. If the base map was numbered, "7", then the researcher would trace that number "7" on the upper right hand corner of their map. This ensured that the interviewer was organized. The same circle on the draftsman"s template was also used on the base maps

- At the conclusion of each interview, while the audio recording was still on, the respondent and interviewer signed and dated each Mylar overlay

- At the conclusion of each interview and once the respondent had left, the interviewer then placed the following labels on each Mylar overlay:

  - Printed PIN number of respondent in area on Mylar so it is clear an legible

  - Printed name of respondent in area on Mylar so it clear and legible

- Printed total number of maps used in the interview (e.g. Bio Map 1 of 4, Bio Map 2 of 4, Bio Map 3 of 4, Bio Map 4 of 4)

- Permanent Medium nib, black Staedler markers were used for labelling

- Mylars were clipped and carefully stored by PIN number

Markers and Ruler

Key conventions related to the use markers and rulers included:

- Staedler permanent Lumocolor markers were used to prevent against erasure and wearing off of features and labels and data loss

- Fine nib markers were used for marking features to ensure data precision

- Feature codes, leaders and features were marked with fine nib markers to ensure clarity

- Interviewers instructed to use green, red, blue and black markers for marking features and to alternate use of markers to create a level of visual contrast. Light coloured markers such as orange and yellow and brown were to be discarded

- As noted within the Mylar Overlay section, black medium nib markers were used to print labels on maps

- Interviewers were provided an ample supply of markers to ensure that markers that were running dry or getting dull were thrown out to ensure clarity, legibility and precision

- Only colours that stood out on the mylars were used such as red, green, blue

- Clear plastic rulers were used to draw leaders (lines that connect features to feature codes) to ensure that all key elements are tied together and to allow interviewer to extend leaders when needed to create room when a map becoming crowded with data

Audio Recorders

Key conventions related to the use of the recorders included:

- Ensure that Voice Activation Mode function turned off all the time and this status was checked prior to the start of every interview. This guarded against the audio drop out that occurs and prevented against data loss

- Ensure that recorder batteries are in good working order. Interviewers conducted audio pre – tests at the commencement of interviews, following breaks in interviews and when flipping the audio cassette over. The interviewer was instructed, prompted and trained in playing back test recording to ensure unit and batteries in good working order

- Even though DFN did not use external microphones, a visual device was used to ensure that the audio recorder was turned on at interview commencement, turned off in breaks and off when the interview was concluded and the respondent left. This guarded against data loss. Thus the sock was placed over the recorder when the recorder was not in use and record button off and the sock taken off when the recorder was in use and recorder turned on

- Use of a fabricated stand ensured that the audio recorder and its internal microphone was pointing upwards towards the interviewer and respondent to ensure the best possible sound quality

Audio Cassettes, Cassette Storage and Labels

Key conventions related to the use of audio cassettes included:

- Discarding of any the free 60 minute tapes that came with recorders or any other tapes

- Use of tapes 90 minutes in length (45 MIN / Side)

- The decision was made to use a fresh tape to start every interview and use a second tape if required

- Used masking tape to temporarily mark tape side during interview

- When interview was completed, researchers were to use store issued tape labels and were to mark on the PIN, Name, Date of Interview, Project Name, Session # and Tape Sides (1 of 3, 2 of 3, 3of 3). Researchers were to repeat the same on the store issued cassette storage case.

- Researchers were to use the clear cassette storage container provided for storing tapes post interview. A distinct shelf for each interviewer was provided and the completed cassettes were stored in order by PIN number

Interview Form Package

The following package of documents was provided to interviewers and formed part of their tool kit. There was complete package of documents allocated for use in each interview. Ample supplies of these packages were pre – printed and made available at all of the interviewers work stations:

Interview Checklist

Interviewers were trained in the use of, prompted to use and provided with the Interview Checklist. Boxes were actually ticked off in all phases as to remind and prompt interviews on all key steps that must be undertaken and completed as part of the interview process. **(Appendix H)**

Consent, Confidentiality Directive and Honoraria Forms

The Consent Form, Confidentiality Directive and Honoraria Form were read out allowed to each respondent prior to the commencement of the interview. The Consent Form and Confidentiality Directive were signed by the respondent and witnessed by the interviewer. These forms were stored in the Interview Binders following the interviews and appended to the completed Interview Transcripts as they were completed. All of these forms are included within the Appendices. **(Appendix H)**

Category Quick Reference Sheet

The interviewer was instructed, trained and prompted to have the Category Quick Reference Sheet to the left of the mapping surface so that they could quickly find the

short forms or abbreviations for all Category Codes (e.g., MO – Moose, EK - Elk). **(Appendix H)**

Scribble Pad

Scribble Pads were provided to each interviewer to mark down the following information as the interview progressed:

- Interview Date
- Participant Name
- PIN
- Base maps identified and selected by respondent at outset of interview
- Use of Catch all Codes
- Recording of comments and notes
- Starting code feature and ending code sequence

Key data from the Scribble Pad was then transferred to the Interview Record Form at the completion of the interview by the community researcher

Interview Record Form

Interview Record Forms were provided to each interviewer to mark down the following information following the completion of the interview:

- Interview Data
- PIN #
- Participant Name
- Interview Location
- Lead Interviewer
- Observers Present
- Cassette SIDES used
- Duration
- Map Sheets Used
- Notes on Departures in Standard Methodology
- Comments
- Use of Catch All Codes

- Starting and end code sequence

The Interview Record Form is attached. **(Appendix H)**

Researcher Binder

- Each researcher was provided their own binder. Following the completion of the interview, all of their Interview Package Forms and relevant pages from the Scribble Pad were stored and separate by PIN number

- Interview transcribers also filed their completed transcriptions with the matching Interview Package Forms

Data Collection Manual

- The Data Collection Manual was utilized and guided training of the community researchers and each researcher was prompted and trained to have the DCM with them at all times and during the conduct of interview, in case they needed to refer or clarify a matter of methodology. **(Appendix I)**

Other Tools for Staying Organized

Index Map

- The Index Map was posted in easily visible and well lit location. Prior to interview commencement, respondents were shown the map and asked to select which maps they would need to mark their data. Familiar land forms and cities and villages were drawn into the Index Map to assist in identifying geographic areas. **(Appendix G)**

Code Pieces

- Interviewers were provided or chose their own unique code piece for use during an interview. Once an interviewer marked a feature code, the code piece was moved to that feature. The code piece remained in that spot until the next feature

code was marked. The code piece was then moved to that spot. This procedure was repeated until the interview was complete

Map Reference Books

- Map reference books were on hand to provide the interviewer and respondent to provide a more detailed view of an area under examination

Pencils – Pointers

- At the commencement of each interview, the respondent was provided a pointer to assist them locating and pointing to a site that needed to be identified and mapped. Only the respondent used the pencil / pointer, not the interviewer

Magnifying Glasses

- At the commencement of each interview, respondents were shown a magnifying glass and encouraged to use it to assist in the identification of sites or examine an area carefully. The glass was provided to the respondent

4.7.2Conduct of Interview

There were some important general conventions that were implemented in relation to the conduct of the interviews that require mention given their importance. These include:

- Only one person was interviewed at a time. Interviews were conducted on a one on one basis. While observers could be present, observers were asked and instructed to be simply observe and not provide any prompts to the respondents

- Data from one interview was marked on one distinct set of Mylar overlays / base maps. Data from one or more interviews were not to be marked on the same set of Mylar overlays to guard against data loss and conflation

- While respondents pointed to the features to be marked, the interviewers marked the data

- Each respondent was assigned their own unique Personal Information Number (PIN) at the outset of each interview. That PIN was marked on molars, the Interview Record Form, Scribble Pad, Audio Cassettes and Audio Storage cases. That person is to hold and keep that research number for the future

- Every interview started with Part 1 of the questionnaire. The questionnaire was read out and followed from start to finish and every question was to be asked of each respondent

- All respondents were to respond to all six (6) parts of the questionnaire. A map biography was only deemed completed once the respondent has been asked about all the questions

- All written parts (except for the interviewer prompts) of the Questionnaire were to be read aloud and clearly to the respondent

- While the Questionnaire was designed to be administered within a two hour time frame, if an interview took a long time and the participant appeared to be getting tired or frustrated, then the interview was adjourned and resumed the next day or as soon as possible. Such breaks were noted and recorded in audio recordings

- While discreet interview rooms were set up, the interview could be conducted in any location provided that there the interview room was quiet, that there was an adequate, flat working surface of sufficient size to map and work in an orderly fashion and that the room and map surface was well lit

4.7.3 Verbal Anchoring

"A verbal anchor is an audible cue, captured on an electronic recording. Its purpose is to enable a listen to match a respondent's site descriptions with the corresponding feature marked on a map or overlay" (Tobias Pg. 224)

During the interview, once a feature had been identified by a respondent, the interviewer, as they are marking the feature code, repeated out loud the feature being marked. For example:

"Jeff Napoleon has just indentified a Moose Kill Site at the north side of the Weyerhaeuser Haul Road at KM 36. I am marking this site as MO 25....MO 25", or

"Alphonse Fox has just noted a site where he built an overnight camp – it was a tent site that he stayed in October 2009. I am now marking this tent site as TT112, Tent Site 112...TT112."

This practice is done to link the marked feature to the spoken description, which was picked up in the interview transcription. This helped guard against potential data loss. A considerable period of time was allocated to this unfamiliar procedure during training with community researchers. Thus the convention employed within the interviews was thus:

- Every time a feature was marked on a map, it was to be verbally anchored. This means speaking the code out loud as it is being marked. As your pen is actually laying down the line of ink for "MP 59", "the words" medicine plant eighty six" should be passing your lips. Speak clearly and in a normal voice when you anchor sites. Don"t mumble, and don"t drop your voice as you do it.

4.7.4 Data Marking Conventions

There was a whole suite of established, set and agreed to rules or conventions that applied to the marking of data on the Mylar overlays. These included:

<u>General Description of Coding System Employed</u>

DFN adopted the Alpha Numeric Coding system advocated within "Living Proof" given its relative strengths over other forms of TLUS coding that has been employed such as the use of symbols and colors. This system allowed for an extremely high level of specificity, precision and auditability. For example, a site appearing on a Hodgepodge, Category, Thematic or Map Biography can distinguish what feature is being depicted (e.g. Moose), the sequence that site was mapped in a respondent"s interview (the 56th site) and which specific respondent identified that site.

As interviews occurred, sites or features were marked on Mylar overlays with a point, line or polygon. Within the DFN survey, the vast majority of features were marked as points, however line features and some small polygons were also used.

Each mapped feature was given its own unique code to distinguish it from every other site mapped during the interview, and all the interviews undertaken as part of the overall map biography. Thus interviewers assigned an alphanumeric code to each mapped feature.

E.G. GE 124

The letters of code represent the questionnaire categories and the numbers indicated the sequence – representing the order in which the features are mapped. The pair of letters denoting the category is called code category. The complete list all of the Categories and their abbreviations are set out in Section 4.5.5 of this Methodology Report. Examples the categories and corresponding abbreviations are:

- MO – Moose
- WD – White Tailed Deer
- GE – Geese
- WE – Walleye
- BR – Berries
- TT – Tent Site
- OS – Old Settlement

In relation the sequence, numbers ascend from 1 to the highest number of features mapped during the interview. Thus if a respondent identified 145 sites, the first site to be marked would be “1” and the last “145”.

Thus an example of a completed Feature Codes appear as:

DIAGRAM

Feature Code

MO 15

Category / Sequence

The above code would denote a moose kill site identified in that interview with MO – denoting Moose (kill site) and 15 as denoting the 15th site marked in the interview. Another example of a completed Feature Code would be:

Feature Code

WE 93

Category / Sequence

The above code would represent the Walleye (kill or catch site) and the ninety – third site marked during the interview.

Specific Data Marking Conventions

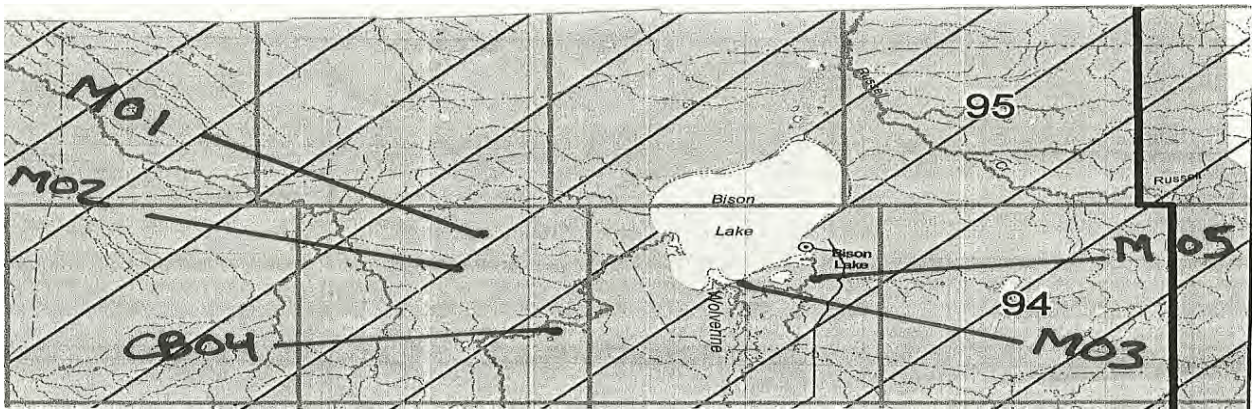
The following data marking conventions appear in the Data Collection Manual **(Appendix X)**, however are set out here to create a seamless description of all conventions employed during the map biography TLUS. Note that actual colours are used were used in marking the Mylar overlays during the interviews. Below the diagrams are marked with black marker.

Feature Codes

- Each feature was identified by a code. The code was made up of two parts. The first part of the code is a pair of upper case letters representing the Questionnaire Category. The second pair of the code is number that indicated where the feature fits in the sequence of data marking. When the interview is conducted with a respondent, the interviewer starts with 1, then 2, then 3 and so on.

- The code sequence for each interview ascends or goes up, starting with the number “1”. The sequence follows the ascending order that features are mapped, regardless of whether the respondent is jumping back and forth between questionnaire categories, or back and forth between base maps or between points, lines and polygons. The first feature marked during an interview is numbered “1”. (e.g. MO1). The second feature indicated is two (MO2). The third feature is three (MO3). The fourth is four (CB4). The fifth is five (MO5) and so on.

DIAGRAM



- Each separate feature has its own code. Two or more features cannot share the same code. There cannot be – for any given participant – duplicate sequence numbers. For instance, the same person‟s maps should never display two MO12‟s or two CB5‟s.

- If a second interview is required with a respondent and follow up session is required - interviewers must pay close attention to the last code assigned. These will be recorded on the last code assigned. These will be recorded on the interview record form. Start the follow up interview with the next available 3 digit "hundreds value" plus 1). For instance, if the last feature number assigned during Jeff Napoleon"s interview is 185, the first number assigned during his 2nd session would be 200 plus 1 = 201.

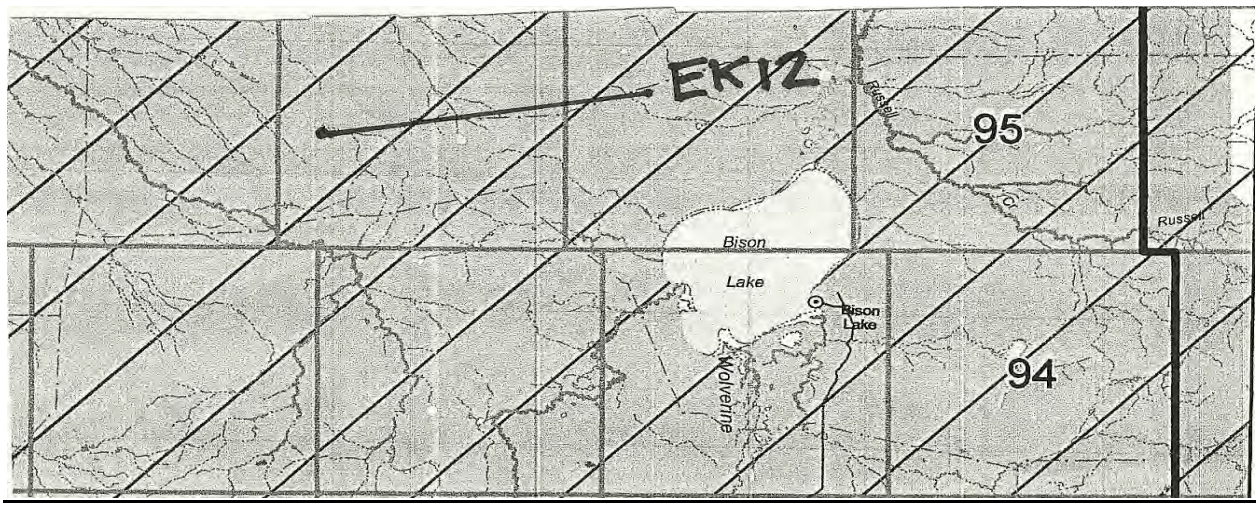
- Use the "approximate convention" – add a capital A to the end of the code – to indicate locations the participants is unsure about. Use it when the person either cannot point to the site, if a polygon"s involved, cannot show the interviewer its perimeter. This convention is used to indicate that the respondent is confident the site is in the general vicinity, but not necessarily at the precise spot marked

Marking Features

- Features are to be mapped using the agreed to symbols adopted by DFN. Each feature marked on a map will take one of three forms: point, line or polygon (area).

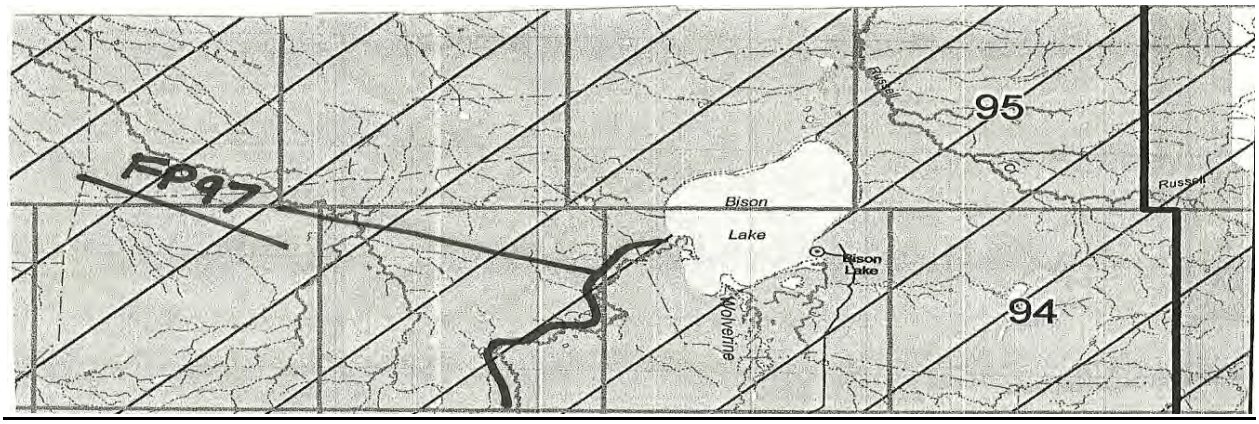
POINT: A site can be marked with point (2MM in diameter). For example an Elk kill site can be marked in the following way:

DIAGRAM



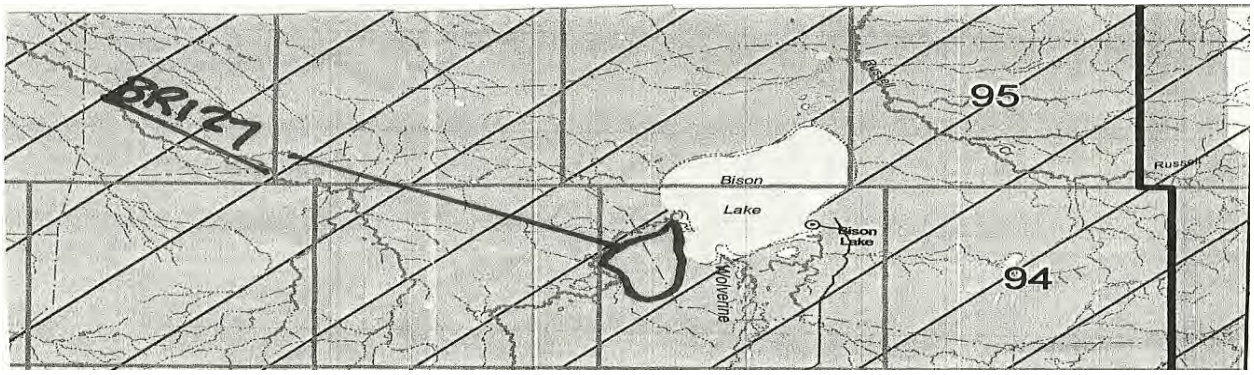
LINE: A linear feature can marked with a line. Often people will blaze a trail, walk a path or follow a linear feature like a road, path or river. They might hunt chickens, snare or gather plants along this trail or line. Such features are marked with a line feature. However their Feature Code is always underlined to make it clear that it is a line feature that is being mapped. For example the respondent walked up one side of the river and back down along the same line, gathering Food Plants along the way. This was the 47th site identified by the respondent. The feature code was to be marked in the following way:

DIAGRAM



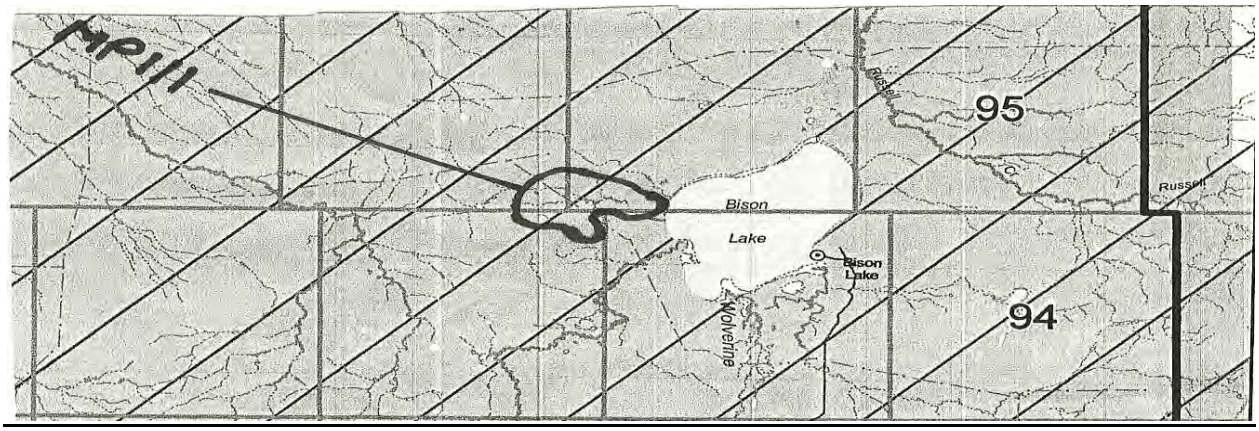
- Whenever an interviewer codes a line feature, they must underline the code. This lets the digitizers know that a feature is a line and not a polygon. Sometimes a line feature joins back on itself, in which case it‟s not clear whether it‟s a line or a polygon. Perhaps a respondent indicates that she has picked berries all along the trail that loops back on itself. The absence or presence of the oval tells the digitizer how to process the feature.

DIAGRAM



POLYGON: A small area where a resource activity occurs can be marked with a small polygon. Often people will undertake an activity over a small area such as collecting Medicine Plants. This was the 11^{1th} site identified by the respondent. In such cases, a small polygon can be used to indicate such an activity. Note, that it is not underlined. This could be shown in the following way:

DIAGRAM



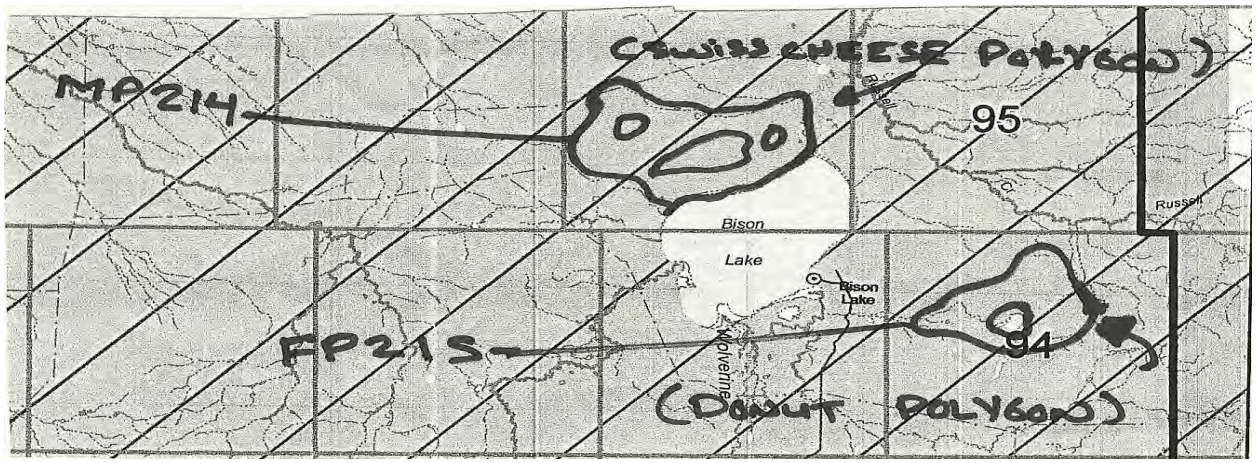
- Each polygon must be completely closed. The line forming each boundary must come back on itself, creating a closed loop. If it doesn"t, there will be two dangling ends. Sometimes a polygon will end abruptly at the edge of a map sheet, creating dangling ends. Make sure that before the session is over you take out the adjoining map and complete the polygon.

- Make sure that any polygon or line that covers parts of two or more base maps lines up at the edges correctly. Make sure the feature is coded the same on all maps on which a portion is drawn. If a polygon or line covers parts of two sheets,

the same code should appear twice, once on each sheet. If it covers parts of three maps, it should appear three times.

- Avoid at all times, the use of large polygons. Instead, the interviewer needs to work with the respondent to identify specifically the bounds of the specific area where a given activity occurs. Donut polygons and Swiss cheese polygons can be used to provide further accuracy, detail and precision to the exact areas used vs. drawing a larger polygon. Areas should be deleted from the polygon where activity does not occur. Below examples of both are depicted:

DIAGRAM



<u>Multi Coded Sites</u>

- In the real world, often a respondent often undertakes more than one activity at a site or within an area. For example a person may have caught both Walleye and Jackfish at the same site or they may have killed a Moose and also set up a Tent Site at the kill site and gathered Drinking Water from a same site. There are ways of recording data at multi – coded sites – where there is one site or feature and several categories associated with the site

- Sometimes a mapped point feature represents more than one questionnaire category. For instance, a respondent might have killed a “Moose” (MO) and a Grouse (GS) at the same site. All such features require multiple codes. The number of codes must match the number of categories

- A variety of leader configurations can be used. Whenever possible, use a single leader and a string of codes, with each separated by a comma. Another option includes marking the site, then having multiple leaders to separated feature codes. Below a respondent caught and killed a Walleye, Jackfish and Lingcod at a site. Below both marking options are demonstrated:

DIAGRAM

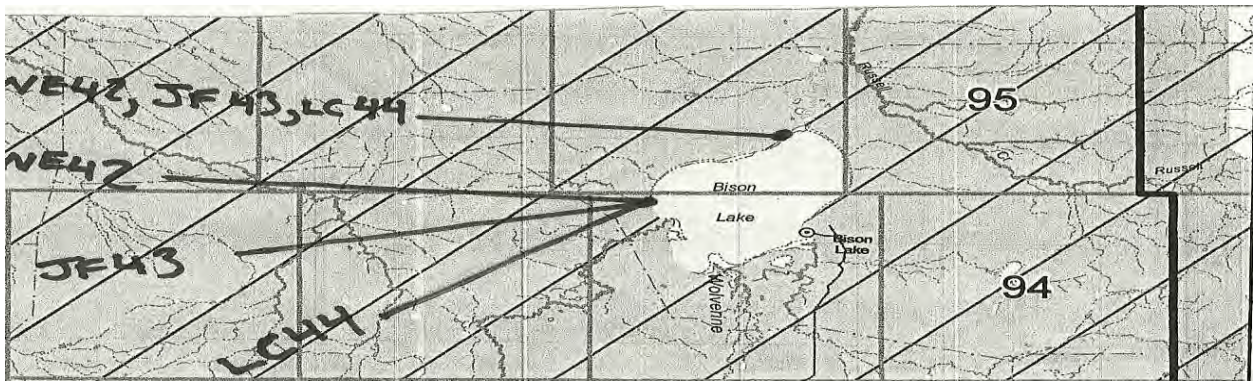


DIAGRAM: LINE - E.G. Here a respondent collected Medicine Plants and Berries collected along trail and returned on the same trail– Note underlined feature codes and feature codes separated by commas)

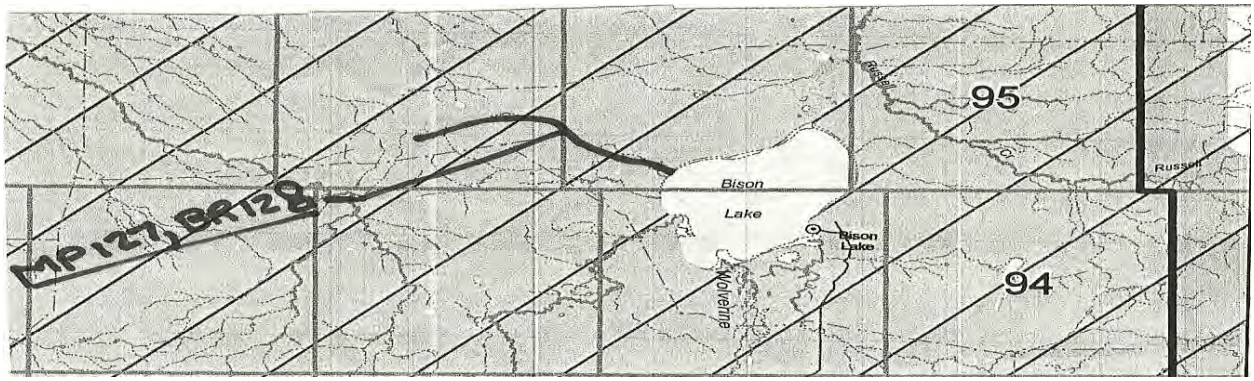
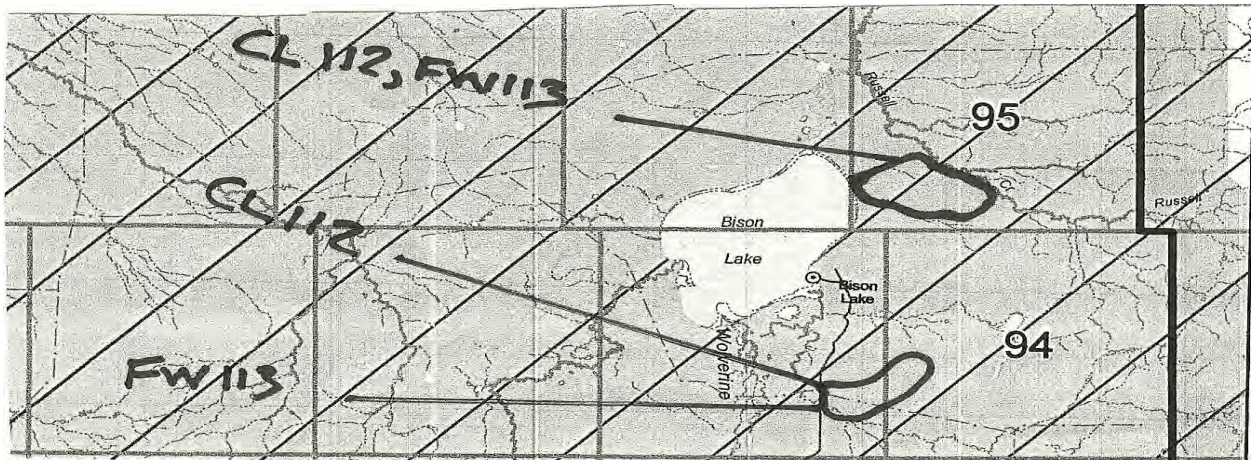


DIAGRAM: POLYGON - E.G. Here a respondent has noted that they have gathered both Construction Logs and Firewood from an area. As above, this can be depicted

in two different ways shown below.



Code Legibility

- Use only pens that are in good working order and where the nibs are still sharp and not dull.

- Use upper case letters as capitals are more distinctive

- Leave plenty of open space of daylight in the loops of letters and numbers

- Extraneous Markings are absent to eliminate any confusion such as putting in periods

- Errors are corrected with diagonal cross hatching using a different colour than the writing / code / feature that is being corrected

- The code must be attached to the feature with a line called a “leader” and floating codes are always to be avoided (floating code – where a feature is not attached the code). The feature, its code and its leader are to be marked in the same colour ink.

- Each feature, code and leader is to be of the same colour

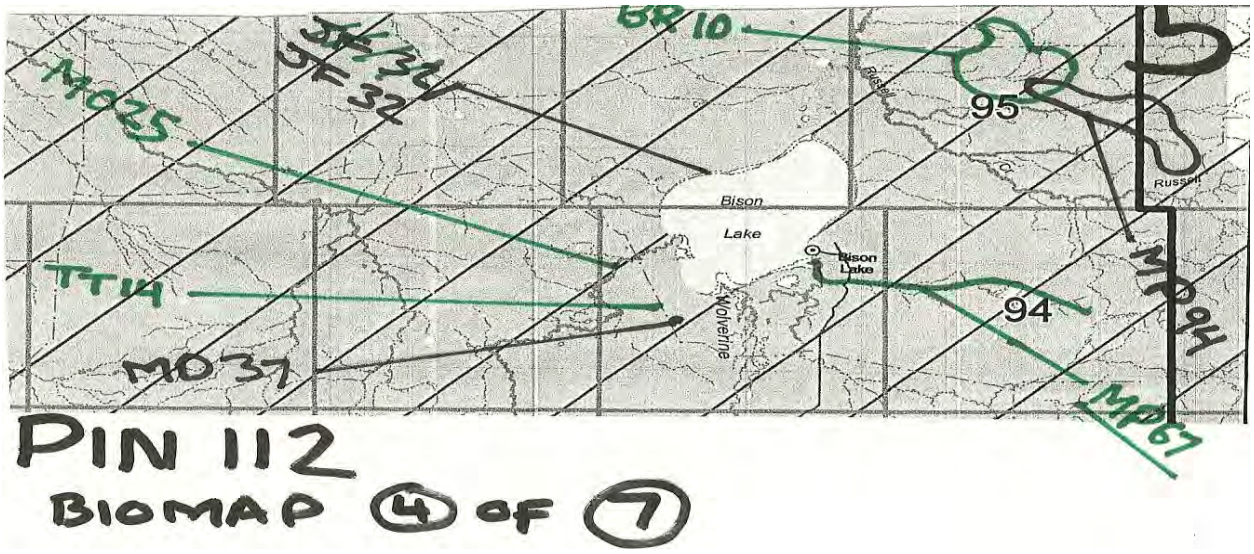
- A variety of colours can be used – switch colour when map area becomes crowded

- Different colours are used for overlapping features

<u>Leaders</u>

- Leaders are marked neatly and are to be attached to features and there is only a small gap between the leader and the code
- Floating codes are absent – each code must be attached to a leader and feature
- Crossing of Leaders is avoided
- Every leader is an appropriate length thus overly long leaders or short leaders are avoided. Leaders can be extended to create more room when working in a more confined space of the map with a large number of features

DIAGRAM: Examples of below Conventions demonstrated below.



5.0 Data Collection: Quality Assurance and Documentation

As documented within the preceding sections of this Methodology Report, DFN undertook considerable effort and time to understand the imperative of building the traditional land use survey on and around the principles of social science. Every effort was made to ensure that research principles and data quality standards were carefully weighed and imbedded within every aspect of research design and implementation.

Thus, while the objective of the map survey is to produce quality maps, it became very clear to DFN that this goal could only be realized if all aspects of data collection met the data quality standards of:

Objectivity	*Reliability*
Validity	*Precision*
Accuracy	*Integrity*
Auditability	*Representativeness*

Thus all efforts taken by DFN in respect to research design and planning all led up to the core event in the research process – the interview and how the interview was prepared for, conducted, overseen and evaluated.

Much came down to the community researchers and their understanding of the key aspects of data collection, why methodology was critical and the rationale for collection of data within a rigorous, consistent, precise and documentable manner. Thus a high level of quality assurance could be heightened through careful preparation and training of the community researchers. Quality assurance could also be evaluated and documented through other research measures.

5.1 Data Collection Manual

The Data Collection Manual (DCM) was a tool that was created to document and instruct how data was to be collected on the ground – within the community setting. The DCM is essentially a handbook designed specifically for the project that sets out rules and procedures on the use of key research tools. It boils down the most crucial aspects of the conventions to be employed in the interview by community researchers.

As a handbook, it was reviewed and studied prior to commencement of interviews, serves as a training tool and as quick reference rule book to provide ongoing support and consistent application of key research tools. It can also be taken as indicator of data quality standards manifest within the project"s data collection phase.

The DCM designed by the DFN contained a brief description of the tools to be used and was organized in a manner that walks users through a step by step approach to their use and consistent application. While there were many conventions employed through research design and implementation, the DCM contained a distilled version of those most pertinent to the interview process. It was written in plain language to help provide ongoing and consistent guidance to community researchers as they prepared for

interviews, administered interviews and undertook key follow up tasks post interview. The DCM addressed the following core interview areas:

- Assigning Respondent PIN (Numbers)
- Permission Form
- Confidentiality Resolution
- Honorarium Form
- Interview Procedure
- Interview Procedure Checklist
- Using Your Questionnaire
- The Questionnaire
- Guidelines for Coding and Marking Data
- Category Codes
- Labelling Audiocassette Sides
- Interview Record Form Template.
- Index for Base Maps
- Examples of Mapping Products / BIOMAPS

The DCM utilized by the DFN during its TLUS has been attached for review and comparison purposes. **(Appendix I)**

One of the important strengths of the design and use of the DCM, was that it meant the community researchers did not have to remember every convention by rote and rely on their memory. As it was set out in lay person"s language and task orientated, it facilitated early and ongoing use by the community researchers. The layout and use of a clear table of contents allowed for easy and quick access by a reader. The descriptions of the conventions were not encumbered by too much detail or explanation as to why the convention is important or must be employed. Rather it simply set out the core rules – how the research tools were to be used and applied.

Each community researcher was provided with a copy of the DCM in a durable three ringed binder. Additional copies were also stockpiled in the community research office, should someone misplace a copy.

5.2 Interview Procedure Checklist

Another key tool that was described in the Tools and Conventions section of this report and was attached to the Data Collection Manual was the Interview Checklist. The Interview Checklist was provided to community researchers for training purposes but to

actually fill out as part of organizing and documenting the interview process undertaken with each respondent.

The Checklist was divided up into those critical tasks that must be preformed prior to the respondent arriving for the interview, those tasks that must be undertaken during the interview once the respondent arrived and the critical steps that had to be undertaken once the respondent left and the interview was concluded.

Every step within the Interview Checklist was cross-referenced with its expanded explanation within the Data Collection Manual, should the researcher need to seek additional clarification. The Interview Checklist is set out below (Note – The Interview Procedure Checklist references original pages within the DFN Data Collection Manual). **(Appendix D):**

The Interview Procedure Checklist was present within the DCM but was also broken out and included in the Interview Forms Package which each researcher had for every interview. They were directed to actually fill it out as they prepared for, conducted and completed the interview. The completed form was filed by PIN number along with other key interview forms, the interview transcriptions of the respondents.

5.3 Community Researcher Training and Questionnaire and DCM Pre - Test

DFN determined that training of community researchers was a must, to facilitate understanding of the project‟s, science based approach, primary objective and methodological framework. Familiarization and use of tools and application of conventions in the lead up to, conduct of and follow up to the interview was the focus of the training.

Comprehensive training occurred over a six day period in May 2011 conducted within the community research office. The four community researchers and transcriber were present and the training was led by the Research Director.

Training was broken into key components to ensure there was a sensible balance between verbal and hands on instruction, so as not overwhelm participants with information.

TRAINING SCHEDULE

Day 1 Introduction to TLUS Project

Purpose and Goals of Project

Concentration on Research Methodology

Community Consultation and Primary Objective

Methodology – Framework, Method, Parameters, Tools and Conventions

Introduction to Interviewer"s Tools

Practice in use of Base Maps, Mylars, Markers

Day 2 Introduction to the DCM

Review Sections of DCM – Interviewers to take turns reading

Practice in use of Recorders and Tapes

Review of Data Marking Conventions and Hands on Map Work

Research Director to conduct first training interview with community member with community researchers observing

Community Researchers to Assemble Their Interview Tool Kits

Day 3 Review sections of the DCM

Detailed Review of Interview Procedure Checklist

Research Director to Conduct Second Interview with Community Researchers Observing

Community Researchers to Interview Each Other – 2 Interviews

Day 4 Review Sections of the DCM

Detailed Review of Interview Record Form and Other key interview documents

Community Researchers to Interview Each Other - 2 Interviews

Review of Sample Population and Interview Criteria

Day 5 Community Researchers to Conduct First Interviews – Research Director Observing and Providing Direction

Daily Activity Sheets – Workload to Prevent Interviewer Burnout

Q and A Session

Day 6 Community Researchers to Conduct First Interviews – Research Director Observing and Providing Direction

Within the interview week, the DFN was able to conduct a pre-test of both the DCM and the Questionnaire. The DCM and Questionnaire was reviewed in detail by community researchers in three ways. First, within the training week, the researchers took turns in reading out loud all sections. Second, the DCM and Questionnaire were reviewed and subjected to a pre – test, when the Research Director conducted two interviews. The community researchers followed the interview process step by step using the DCM. Third, the DCM was reviewed as "homework: each night during the training. Some small modifications were made as a result of feedback provided by the community researcher"s review and application of the DCM and Questionnaire.

Taken together – the DCM, its review, training and the pre-test – allowed for suitable and comprehensive training for community researchers – a measure and indicator of quality assurance. Photos taken during training week are attached **(Appendix K)**

5.4 Interview Record Forms

As reviewed and discussed, the Interview Record Form is a one page document which community researcher filled out following the completion of the interview. It allows for the collection of metadata and to ensure that anyone (now and in the future) could determine what interviews occurred with whom, who conducted the interviews, the assigned PIN, base maps used, number of cassette sides used, use of catch all codes, whether all key Interview forms like the Consent Form were filled out and notes on departures in the standard methodology. **(Appendix H)**

5.5 Research Notebook

The research director maintained a research notebook to document the research – design and data collection phases of the DFN TLUS project. The project notebook is a confidential record and must be treated with the same measures and principles in respect to respondent"s map biographies and interview transcripts. A copy of the

research notebook should be appended to this Methodology Report, for future use and reference by the First Nation, but should not be shared with external parties.

Daily entries related to key project decisions being arrived at, key milestones being met, issues encountered and addressed and the overall progress as the project moves forward.

The research notebook also contains key inventories such as list of audio recordings.

5.6 Interview Master List

An Interview Master List was produced as the interviews progressed and interviews were completed. The interview master list is a key document that is critical to interpretation of the map survey and the methodology employed by the First Nation.

Two copies exist of the Interview Master List – one where each interview is listed by research PINs and respondent name, and one that is listed just by research PINs. The former is a confidential document and latter is appended to this Methodology Report to assist in the evaluation of the application of the methodology in the interview phase. Thus it is critical as it as one stop shop containing and listing all key inventories of information for now and in the future.

It is also an adjunct tool that can be used to assess, evaluate and as an indicator of how thorough the data collection was and can assist in assessing data quality. There is a space for recording any departures from standard methodology that are transferred from the Interview Record Forms. This is the place that any strategic response bias can be recorded in summary form and assessed against all other interviews undertaken. The Interview Record Form is attached. **(Appendix L)**

5.7 Interview Transcription

All respondent interviews were recorded by way of audio recordings. The DFN opted to transcribe interviews for three key purposes. The first was to ensure that a written record would survive, should the audio recordings be lost and degrade over time. Secondly, the written transcriptions record the key facts needed to establish and build data diamonds – the who, what, where and when of the data being documented. The transcription allows the data to be more readily accessed and assessed. Thirdly, the transcriptions, while treated as a confidential document, can be used to assess the application of sound methodology and support the key data quality standard of auditability.

Interview transcripts were also checked against the data recorded on map biographies to ensure that the data discussed within the interview, recorded on the audio tape, and appearing in written transcription are congruent with the data appearing on the map biographies.

An actual example of a transcription from an actual interview is attached as a working example. The name has been eliminated as a measure of confidentiality. **(Appendix J)**

6.0 Data Digitization:

As set out in prior sections, the DFN used a set of base maps overlaid with clear Mylar overlays. In every interview, feature codes were marked onto maps for every site identified by each respondent. Thus every interview resulted in a discreet set of Mylar Bio Maps - one for each respondent. Each map set was labelled, collated and clipped together. These then had to be digitized. As DFN did not have the in house capacity and financial resources to undertake this task, it obtained in kind digitizing support and GIS services from BC Hydro"s Photogrammetry Department and GIS group.

The DFN met with representatives of both groups to build and ensure that there was a shared understanding of the applied data marking conventions, map labelling and desired end mapping products.

The following provides a technical description of the steps, equipment and process used to convert the data recorded on the Mylar Bio Maps to the completed end product maps contained within this report:

Step 1) Photogrammetry Department Creation of Digital Map Files:

Platform used Microstation (dgn files)

a) Scanned the reference map sheet (Mylar Bio Map Sheets) to jpg format using a large format scanner

b) Downloaded and opened a geo-referenced version of the same map sheet

c) Imported the jpg of the reference sheet and matched it to the geo-referenced version, copied the reference circles

d) Scanned each layer into a jpg file

e) Opened a unique dgn file for each overlay using the reference circles and matched each layer to its corresponding reference map circles

f) Digitized all pertinent data (point with associated text for each interview)

g) This unique file was then converted to shapefile format using FME to a point with attribute information

h) The file was then checked against the original for completeness

This product was then transferred to BC Hydro"s GIS group

Step 2) GIS Department Creation of End Product Maps

a) The provided shapefiles for each interviewee were merged into one shapefile, maintaining all attribute information.

b) New blank columns called Province, Category and Group were created in the merged shapefile. For each record, the Province attribute was populated with the appropriate code (alb or bc) after intersecting the data points with provincial boundary polygons. The code in the FEAT_ID_CO attribute was then used to populate the Category column after comparing values with the category codes document. These were then grouped in the Group column (e.g. the Cabin, Lean To and Tent Site categories were grouped into the Overnight Sites group).

c) In the maps, the merged shapefile was displayed so that only the desired data showed and symbolized accordingly using the PIN, Category and Group attributes

d) The finalized maps / end mapping products were then reviewed with the DFN. Two products were provided to DFN – the resulting digitized map data that could be incorporated into a GIS based in the community, shared with external parties if and when DFN deemed that appropriate and the attached PDF version of the maps

7.0 Results

The objective of the DFN TLUS was to develop a set of baseline data that provided indicators of community use and utilization patterns. As a baseline survey, the intent was to provide a body of spatially explicit data that documents phenomena or, in this case, the occurrence of socio – cultural activities or phenomena within a given landscape.

This has been achieved through the undertaking of 46 interviews in the DFN community where data was recorded by way of audio recordings, converted into transcripts and marked as data points on individual Map Biographies. The data from the 46 Map Biographies has been compiled into differing end product maps – Category Maps, Thematic Maps and a Hodgepodge Map. These maps are the results of the map

biography survey, which are supported and provided context through this Methodology Report. In short the results of the survey are the data on the maps or the maps themselves.

DFN could attempt to provide a detailed analysis of what it believes that the emergent land use patterns and trends indicate or reveal about DFN land use through the past 70 year period. However DFN has opted to defer this step at this stage, being satisfied with the resulting maps at this time. The DFN does not wish to mar these results with observations and opinions that could be held as being detrimental or detracting from the resulting baseline data and overall integrity of the survey. The purpose of a baseline survey is to collect, enumerate and display resulting data, not to analyze the results. Rather the results of a baseline survey are then incorporated into other levels of assessment and study, where queries and questions are posed. The maps and data of the DFN map survey will be applied in differing project management and resource management scenarios where such queries belong.

Thus the DFN takes the view that it is enough to have produced the maps and concentrated on the methodology required to arrive at the results at this stage. The HFLN may opt to update this survey or prepare a supplemental report in the future that will speak more to the results of the data.

As noted within prior sections of this report the resulting data has been broken out and presented into different end mapping products. These include:

- Map Biographies – One map displaying data for all questionnaire categories for a single respondent. As required by confidentiality measures and provisions (strongly advocated within *"Living Proof"*) , the Map Biographies or personal Bio Maps will not be depicted or contained within this Methodology Report, the Public Report or any other document shared with external parties, unless written consent is provided and obtained by the respondent.

- Hodgepodge Map – A Hodgepodge Map is a single map displaying all data for all questionnaire categories from all respondents. **(Appendix M)**

- Category Maps – A Category Map is one map displaying all data for all respondents for a single questionnaire category. The DFN prepared maps for the following categories:

    - Moose Kill Sites
    - Elk Kill Sites
    - Deer Kill Sites
    - Jackfish Kill Sites

- Walleye Kill Sites
- Bull Trout Kill Sites

(Appendix M)

- Thematic Maps – A Thematic Map is one map displaying data for all respondents for a selected group of related questionnaire categories. The DFN prepared maps for the following themes:

  - Cultural Sites
  - Cultural Sites
  - Overnight Sites
  - Plant and Earth Material Gathering Sites
  - Fish Kill Sites
  - Bird Kill Sites
  - Mammal Kill Sites

  (Appendix M)

The DFN may opt to undertake to present the aggregated TLUS map data in other ways not yet determined. For example, a TLUS density analysis or heat mapping might be a useful companion document to be produced to assist DFN and other parties to determine areas of critical and ongoing community use. Further, the DFN may opt to convert the data into polygons to demonstrate extensivity by each respondent and the community as a whole.

8.0 Limitations

This Methodology Report has documented the beneficial aspects of the map biography approach and the DFN TLUS project and how the resulting data and maps can be subjected to key data quality standards. In short, the DFN has produced a baseline set of socio – cultural data that reveals some important land and resource utilization community trends and patterns. With that said, there are some also some limitations with the map biography approach and the DFN project and resulting data that need to be indentified, acknowledges and discussed. These are set out in the following sections:

Map Biographies as a Form of Quantitative Research

The map biography survey method is a form of social science research. The methods and standards applied in data collection can be demonstrably reliable, which all speak to the derived land use data. This is a clear strength, however quantitative research must be compared and contrasted to qualitative research. As a form of quantitative research, map biographies must be rigid, somewhat inflexible and geared to collection and aggregation of data from a large number of survey respondents in a relatively short period of time. This contrasts to qualitative research approach that tends to focus on eliciting and documenting views, observations and opinion from a selected group of research participants. The research process is as different as the results. Within *"Living Proof"*, Tobias offers the view that surveys have limitations, can only scratch the surface of a research topic and seek to gather descriptive information whereas qualitative studies should seek to provide explanation. **(Tobias Pg. 43)**

This is critical to understanding of what the DFN map survey focused on and the resulting data. The quantitative research approach adopted within the map biography method is geared to the collection of data that can shed light in indentifying socio cultural patterns and trends but are limited in that they are not capable of describing or providing an explanation of those phenomena.

This is key, given that the land use data that DFN documented is a result of a series of inter-locking factors that ultimately have a significant bearing on community land use patterns and matters such as the spatial distribution and density of data within a given area. The advent of large scale forestry, energy development, agriculture, oil and gas in additional to government land use policies have an effect on where the DFN can go and hunt, fish, gather and undertake other activities. Thus the survey method *"cannot describe important socio – cultural phenomena such as land use alienation".* (Tobias Pg. 44) Other forms of qualitative research would need to be undertaken to understand this inter – related and relevant matters.

Mapping Extensively and Use

The map biography method lends itself to documenting lands and resource use over a wide ranging area – rather than mapping occupancy – the ongoing habitation or effective control of a given area through time. There are different forms of qualitative research that First Nations and academics have adopted to map occupancy such as Typnomy, however in this case, the DFN has opted to map extensivity of use and utilization of lands and resources.

Traditional Use Survey vs. Traditional Ecological Knowledge Study

There is an important distinction that needs to be made between what traditional land use surveys document and explain as opposed to what traditional ecological knowledge studies aim to study and understand. Traditional ecological knowledge (TEK), traditional knowledge or local knowledge studies are a form of qualitative research that generally seek to understand community understanding of habitats, wildlife utilization of habitat, wildlife movements, the presence or absence of wildlife or cultural values, hosting environmental conditions and change affecting hosting environments.

DFN opted to limit the field of inquiry so as not to mix the two streams of documenting of kill, catch, gather and camp sites with the documentation of habitats. This Methodology Report documents how DFN took determined steps and implemented measures to ensure that community researchers and survey respondents mapped the former rather than the latter. There is a clear need to commission TEK studies; however that will have to be added to the research menu of the DFN.

Mapping of Specific Activity Sites and Not Larger Use Areas

What DFN achieved in this map biography survey was gather and map traditional or socio – cultural use data. The survey generally mapped kill, catch, gather and camping sites. At its very best, the survey sheds light on examples of community land use patterns and trends. The map biographies document sites where a DFN community member undertook a certain land use act or activity – e.g. “I killed a moose at this site on the north west side of Cardinal Lake in October 2005”.

In contrast, the DFN elected to not map areas where people hunt or undertake a range of other activities. This is a critical distinction. As noted in a prior section, the DFN heeded the advice set out in “Living Proof” and steered away from mapping larger land use areas by way of polygons.

Instead specific sites were DFN maps actually killed wildlife, caught a fish, gathered earth material or camped overnight. The research was designed and implemented in a way to ensure that researchers and respondents had a clear idea of this objective of the research. As noted, when you ask a person where they have killed a moose – you obtain specific responses and data that address the specific question. If you ask a person where they hunt, you would get varying responses from respondent and across interviews impacting the data reliability, accuracy and other key data quality standards. This would result given the differing thought process and definitions that come to people about what hunting entails and the differing components of the overall activity of hunting. If you asked a person where they hunt, you would likely end up with a larger

polygon resulting from that individual"s unique notion of the acting of hunting and the area involved.

Defining DFN hunting, fishing and other key cultural use activity areas by way of mapping lager polygons would be a useful and valid exercise that could help document land use and potentially assist in test the data gathering under the auspices of this map biography research project.

Option to Not Map Travel Routes and Traditional Place Names

Based on the advice in *"Living Proof"*, the DFN opted to not undertake to map travel routes and traditional place names within this survey. It was deemed that the additional level of complexity added with mapping travel routes would add a layer of complexity that could compromise data quality standards that DFN was striving to meet. Clearly data layers from travel routes would be an important and useful to have, and DFN might consider undertaking this in the near future.

Related to the topic of travel routes is that of mapping traditional place names. The DFN simply opted to not undertake this activity as it felt that the subject and practice of Typonomy deserves a special treatment by an expert within this discipline. The DFN could consider seeking funding and commissioning such a study in the future.

Survey Focused Structured Around Primary Research Objective

Tobias cautions researchers to avoid the urge to try and "get it all at once" – trying to map as many subject areas and information categories in one survey / study. Rather conventional wisdom and best practice counsels that map biography surveys should be predicated and constructed around a primary research objective. DFN opted to do this thus the primary objective and information categories aim to gather data that are indicators of key hunting, fishing, gathering, camping and other incidental activities. Thus DFN opted to select no more than 50 information categories.

Given this deliberate approach to mapping data consistent with the primary objective, the survey does not result in an exhaustive documentation of the full range and totality of community socio – cultural activities and usage of lands and resources

Recall Interval

One of the important parameters set in research design was the recall interval – the time period over which respondents undertook activities on the ground. As noted, DFN opted to base the set the recall interval on "within living memory". Thus a respondent would recount activities taken throughout their life. Tobias holds that adding layers of

complexity during interviews with artificial time periods and asking people to recall dates for every site, can increase response burden and can impact on data reliability and accuracy.

While some testing of recall occurred within the interviews, the data does not carry a high degree of temporal specificity. However, mapping events within living memory had benefits as it captured variations in land use patterns over a respondent"s lifetime and a general land utilization pattern over a person"s lifetime.

Survey Population, Representativeness and Limited Budget

Given the opportunity, DFN would opt to interview all community members to gather as accurate a picture of land use patterns and trends. However, as in all types of research, researchers need to do as much work as they can within given budget limitations. Within *"Living Proof",* Tobias suggests that a good degree of representativeness can be achieved if all respondents answer questions on all categories and when a participation rate of between 70% - 80% can be achieved.

Within this map survey research project, the DFN was able to reach a response rate of 16.9% or close to one fifth of the community. While DFN did ensure that all respondents were asked all questions about all categories, it clearly fell short on the participation target. Thus, this while this survey cannot purport to be entirely representative of community use, the methodology adopted and number of people interviewed is clearly indicative of community land use patterns and trends over a substantial period of time.

Confidentiality

As described in this Methodology Report, DFN strove to undertake advocated best standards in relation to confidentiality and addressing confidentiality principles. As noted, DFN committed to meeting participatory research confidentiality principles. In meetings, workshops, in written communications and at the outset of interviews with respondents, community researchers set out how DFN proposed to ensure confidentiality through measures such as employing PIN (numbers), not sharing map biographies, audio recordings and interview transcripts with external audiences.

Further, DFN discussed the matter of sacred sites and medicinal plants with respondents and noted that they did not have to share information about these category areas if they felt it was inappropriate.

Thus, concerns about these specific matters and issues with confidentiality in general may have had the effect of limiting the amount and types of information that respondents felt very strongly about.

“Ground Truthing” or Site Verification

Ground Truthing general refers to the verification of mapped data, or mapped GIS data on the ground through field visits to the actual sites and fixing their precise location with use of a Geographic Positioning System (GPS). Clearly, if DFN had the resources and the time, it would have been useful and beneficial to attempt to verify all sites mapped during the TLUS with GPS coordinates. The benefit of taking the respondent out on the land would be considerable, as not only would they be able to recall more aspects about the use of that site, but the mere exercise of being out on the land could also lead to the recall of additional use and utilization sites and values.

However, the task and cost of attempting to ground truth all sites identified within the map biography phase would be daunting to say the least.

However when considering this, one also needs to consider the degree of positional accuracy that is required given the primary objective and intent of the map survey which was to create a baseline inventory of data providing insight into land utilization patterns and trends.

The resulting data and map set produced within the DFN TLUS could be utilized as a base to conduct more detailed on the ground assessments of proposed projects and areas that are deemed to be of critical community use by the community. However, agreements between the DFN and third parties would need to be reached to support and commission such detailed ground truthing and field work.

General Caveats and Limitations

While the DFN TLUS and map biography is an absolutely important and mandatory piece of research that needed to be conducted. What it reveals is how much more study is needed and the associated limitations inherent in qualitative research. Cleary the survey results cannot purport or be taken as describing or explaining the totality of DFN use and utilization of the land and the community‟s socio – cultural relationship and dependence on the regional eco-system. At best this survey scratches the surface of such matters while revealing a compelling story of inter-dependence worthy of further in depth study led and commissioned by the DFN itself.

Viewed alone and isolation, the data points documented in this survey can potentially convey the wrong impression. The data points or dots on the map are at best indicators of use and ongoing relationship of the land, but cannot and do not in of themselves represent the breadth and scope of DFN uses, land utilization or rights. DFN‟s exercise

rights in relation to lands and resources that are in turn dependant and rest upon on a functioning and healthy eco-system.

For example, while the fact that Jeff Napoleon killed one moose in a specific location is important, concentrating merely on the site in isolation misses the point all together. Jeff‟s right to hunt moose, the rights that his family exercise on the ground and the collective rights held by the DFN are not confined to this one dot on a map or even a series of dots on a map. Rather, they result from and are dependent on large inter-connected, functioning landscapes – thus the spaces between the dots on the DFN map can be said to carry more significance than the dots themselves. The dots are indicators of use and utilization.

Such matters are relevant and need to be considered when viewing and contemplating the meaning and import of the maps resulting from the DFN TLUS. The maps need to be read in concert with this Methodology and understood with the proper context.

The DFN has undertaken this survey and produced the maps it has with the objective of having this baseline data considered, incorporated and utilized within lands and resource decision making processes. The data could potentially be relevant and helpful in relation to environmental assessment reviews, planning processes and resource allocation and management policy decisions. However, it can only be helpful to the parties if it seen and taken for what it is – a useful set of baseline data that is indicative of community land use and resource utilization trends and patterns. These resulting maps can only be of assistance and of value if they are viewed with the appropriate context and inherent limitations in mind.

Overall, this map biography survey builds on prior traditional use mapping work undertaken within DFN. More importantly it reveals how much more community led and sponsored socio – cultural research is required. Further it is hoped that this survey may reveal that science and the scientific framework can be a helpful tool and ally that DFN can opt to take up with confidence and courage in support of its rights and interests and to support the goals and aspirations of the Duncan‟s people.

9.0 Analysis

The DFN did its utmost to conduct this map biography survey within the framework of science and according to social science research standards. The initial Research Proposal set out DFN‟s proposed plan for the collection and documentation of data. This Methodology Report sets out how the data collection actually occurred. The two documents are companion documents that can assist the DFN and external parties by providing a record of the methodology employed in this research effort and demonstrate how the resulting map data was arrived at. It also helps ensure that the end map

products and the data they depict are considered and viewed within an appropriate context.

Thus the purpose of this section is to provide a level of analysis regarding the differences or gaps between the proposed and actual data gathering activities, the potential effects of these gaps on the research outcomes and the quality of data depicted on DFN"s end mapping products. Specifically, this section generally confines itself to dealing with the areas where the DFN identified deficiencies in implementation and departures from standard methodology.

Deficiencies and departures from standard methodology where documented in the research director"s research journal and summarized within the Interview Master List. The Interview Master List is an important document as it sets out all key information pertaining to each interview including pertinent metadata. It also functions as an audit tool that was used to document instances within the interviews where departures in the established methodology occurred. The Interview Master List also documents and notes some examples of adherence to standard methodology and where consistent application of conventions occurred within the interviews. The observations recorded in the "Departures from Standard Methodology" and the "Comments" section of the Interview Master List were based on a DFN review of:

- Observations made during audited interviews
- A Review of Interview Record Forms and notes on the Scribble Pad Sheet
- A review of a selected number of audio recordings and or sections of audio recordings
- A review of the full written version of each interview transcript of each respondent, and
- A review of each completed Bio Map for each respondent

The Interview Master List is attached. (Appendix L)

In addition, the DFN has considered identified gaps and deficiencies and has broken them out into the following key areas to support the analysis of the relative strengths and weaknesses of the survey and data depicted on the end product maps:

- Geographic Extent
- Overall Challenges with Map Biography Method
- Marking of Habitat VS Kill Sites
- Marking and Use of Large Polygons
- Lack of Use "A" – Approximate Location Coding
- Map Detail
- Fish Species Identification and Commercial Fishing

- Interview Burn Out / Cases of Rushing
- Verbal Anchoring and Chasing Data Diamonds
- Audio Recorder Errors, Malfunctions and Transcription Issues
- Specific Data Marking Conventions

9.1Geographic Extent

Generally, the base maps selected took in the geographic extent of sites identified by respondents. In the case of one interview (PIN 107), the respondent and interviewer were not able to mark a site just off the western boundary of the Peavine Metis Settlement given the base maps did not extend that far over. In another case, (PIN 119), the respondent identified a group of sacred sites at Pinto Creek, however the sites were not marked as the area was just to the south of the southernmost base map edge. In one other instance (PIN101), the respondent identified a moose kill site at Pink Mountain, BC however the base maps did not take in this area.

9.2 Overall Challenges with Map Biography Method

Generally, the map biography method employed worked in the vast majority of interviews, where respondents understood the purpose of, and were able to complete the exercise. In an initial interview held with one respondent (PIN not assigned), the respondent was unable to recall specific sites and was frustrated with the format of the exercise. The interview was discontinued and the interview not completed, where DFN opted to interview the respondent in another manner. In this case the respondent was an elder with a vast knowledge of DFN history and who has and continues to be one of the most active land users within the DFN community. The elder reports that he still continues to kill scores of large mammals per year.

The difficulty appeared to stem from the respondents‟ ability to relate to the exercise itself and being able to pin point or perhaps recall individual sites. The elder could indicate large areas where he has hunted, fished, trapped and camped however had great difficulty in identifying specific sites. The interview was stopped as the elder felt that the line of questioning and the exercise of pin pointing sites was somewhat pointless and disrespectful.

It is highly likely that this elder could have identified several hundred sites. A follow up session has been scheduled with the elder where a more open ended line of questioning will occur. Should small polygons and specific sites be indentified as part of exercise, the data will be appended to this map biography survey.

9.3 Marking Of Habitat Vs Kill Sites

The primary objective of the DFN TLUS was to mark wildlife kill, fish catch, gathering and overnight camping sites. The research was consciously designed to specifically exclude the marking of wildlife and plant community habitats. The measures taken to guard against this is documented throughout this Methodology Report.

This important distinction was discussed at length with DFN staff and community researchers. Considerable time was taken to being attention to the implications if the survey diverted from marking kill, catch and gather sites to marking the habitats that support and make these activities possible. Specific cues and prompts were imbedded into the Questionnaire and the Data Collection Manual.

In a review of Bio Maps, interview transcripts and audio tapes, it is evident that community researchers stuck with the primary objective and adhered to standard methodology in virtually all cases. For example, in the interview with one respondent (PIN 108), the audio recording and transcripts picks up an exchange between respondent and interviewer regarding the goal of marking kill sites vs. habitat. The respondent is an active hunter and likes to hunt at lick sites. It is clear that the interviewer is working to confirm that the respondent is marking actual kill sites that occur at licks, and not licks themselves.

The DFN has clearly identified this limited occurrence as it relates to the above interviews. Overall, the incidence of habitat marking appears to be very limited and the overwhelming majority sites identified and marked on the maps were kill sites and not mineral or salt licks or other larger habitat areas.

9.4 Marking and Use of Large Polygons

As noted, the DFN invested considerable time and effort into considering the merits and drawbacks of undertaking a map biography that was predicated on the identification of specific activity sites. In the end and for purposes of this specific survey, it opted to follow the recommendations set out in *"Living Proof"*, which recommends against large polygon mapping**.**

Various measures were implemented that guarded against the adoption of large polygons. The matter was discussed at length with community researchers where buy in was created to mark specific kill, catch, gathering sites as opposed to large areas and landscapes in which such activities occur.

The first instance this occurred was in the abandoned interview of the first respondent. The DFN notes that the elder was able to identify polygons, however as the interview was not included, the large polygons on the respondent‟s Bio Maps were not included or digitized.

In the case of respondent 101 (PIN 101), a large polygon was marked on the map to the south of Cadotte Lake to demarcate an area where the respondent has killed many moose over his lifetime. The polygon was coded as MO10.

In the case of respondent 107 (PIN 107), a smaller polygon was used to demarcate an area on the north side of Snipe Lake, where the respondent had killed seven (7) moose.

Another instance was documented in the interview of respondent 209 (PIN 209). A place where numerous elk kills as coded as EK 43.

The polygons identified will clearly stand out within the DFN end product maps and these two areas may be subject to some scrutiny given they do represent a significant departure into the standard methodology and agreed upon conventions. However they are also important given that they stand in contrast to the rigour in which all community researchers employed in the vast majority of interviews, for the vast majority of sites identified, throughout the research process.

9.5 Lack of Use of “A” – Approximate Location Coding

One of the agreed to data marking conventions was to add the suffix “A” to feature codes where a respondent did their best but could only identify the best approximate location of a kill, catch, gather, overnight or other category site. This useful and important convention was discussed in training and included within the Data Collection Manual. However the Research Director failed to reinforce the importance of this device in follow up auditing of researcher‟s work. Rather he made the assumption that this convention would have been employed when relevant.

As interview transcripts began to be produced and reviewed during the interview process, it became clear that the convention could have been employed in numerous cases and that the Bio Maps and end product maps would have benefited from this visual clarification.

The DFN undertook a careful review of the interview transcripts and noted where the Approximate code could have been employed within the Interview Master List:

PIN 112: In reference to site M07, the respondent says *"pretty much over here"*. This indicates a degree of uncertainty, potentially resulting in a lack of precision. The site

should have been marked as "A" – Approximate. The same lack of uncertainty is revealed in relation to site DK21, where the respondent says *“pretty much there"*. Again, the suffix “A” should have been added to the code to indicate the approximate location.

Pin 113: In relation to site BB52, the respondent states *“right around here”* which suggest that the site should have been marked as approximate.

PIN 119: Some uncertainty is revealed as to the exact location of marked sites M06 and M024. There is also discussion of Caribou kill site near the Peace River airport but site was not marked for some reason, potentially indicating care being taken to not mark other sites where some uncertainty exists.

PIN 203: The audio recording and transcript indicates that care is being taken in marking of some sites and marking precise locations. In an exchange, the respondent is given the pencil, notes that he needs to put on his glasses and initially states that at M02, that *“it’s somewhere along in here”.* The interviewer does not accept this, gives more time to the respondent and prompts him to be sure. The site is then marked and verbally anchored.

PIN 204: The respondent appears to be quite unsure as to the location of MO12, noting she *"thinks they killed a moose there”*. In this case, the site should not have been marked at all. At BR21, the respondent is again unsure, but in this case, the researcher gives time and the respondent is able to locate the site with some degree of certainty. Again at RB 29, the audio recording and transcript reveals a higher degree of uncertainty and the site should not have been marked.

PIN 205: The audio recording and transcript reveal that the respondent is a little uncertain as to the exact location. This site should have been codes as “A” – approximate.

PIN 206: Site MD53 should have been coded as “A” - approximate.

PIN 208: The audio recordings and transcripts indicate some uncertainty as to the precise location of MO14 thus the site should have been marked as “A” - approximate.

PIN 212: Prior to M03 and BR33, the respondent talks about going to Elk Island and they "hunted and fished". The researcher marks this site without actually confirming whether the respondent actually killed a Moose at M03. It is questionable whether this site should have been marked at all.

From a review of the transcripts it appears that the use of the approximate code could have been employed in eleven (11) instances. The DFN surmises that if the use of the “A” code had been more thoroughly engrained in training, more sites would have been

coded as such, providing a higher confidence level in precision in relation to the above referenced sites.

However a review of transcripts and audio tapes also reveal a high level of diligence by interviewers in prompting and some cases pushing, respondents for precise locations for the vast majority of sites.

9.6 Map Detail

Based on feedback provided by respondents and a review of audio recordings and transcripts, it appears that the base maps used were suitable and did not present issues in the interviews hampering the clear and precise identification of sites.

In one case with a respondent, (PIN 119) access roads data on the maps had an unexpected effect in hindering the identification of sites. The elder, who had lived out on the land near on the BC – Alberta border area, found that the influx of new access roads in watersheds (marked on the maps) confused him.

9.7 Fish Species Identification and Commercial Fishing

The vast majority of respondents were able to identify what specific fish species they caught and killed at specific sites. There were a limited number of instances where respondents had difficulty in distinguishing fish species. These are as follows:

- In the case of PIN 110, the respondent was not sure whether the fish he caught and killed was a Bull Trout or Dolly Varden. At one time these species were held to be one and the same, and there is often confusion in the fishing community in distinguishing between the species.

- In the case of PIN208, the respondent identified that she had caught and killed an “Eel”. It is likely that the eel was actually a Ling Cod, however there is no way to be certain. The interviewer erred in creating a new code / non – existent code for eel, when they should have labelled the site as “XF” – Other Fish.

- In one interview (PIN209), the respondent discusses a species he caught and killed which he refers to as “Chubbies”. The audio recording and transcript captures discussion between respondent and interviewer whether what they call Chubbies are in fact Ling Cod. The interviewer marks the site as LC03. Another site – “OS27” is a perch kill site. Perch was not broken out as a specific category, thus the site should have been labelled as “XF27”.

- In the case of respondent 209 (PIN 209), it needs to be noted that person has been engaged in commercial fishing through his early life and had a fishing licence of Isogen, Snipe and Smoke Lakes near Fox Creek Alberta. While the transcript provides strong indicators that the respondent is identifying sustenance fish kill sites, there is possibility that the respondent may have been identifying both fish caught for commercial and sustenance purposes in the above named lakes. Follow up is to occur with the respondent to confirm this.

- In the case of interview 217 (PIN 217), the respondent identifies Bull Trout catch and kill sites – BT08,BT13 and BT30. The transcript indicates some uncertainty over trout species and it may be likely that the respondent was referring to Rainbow Trout or other kinds of trout rather than Bull Trout. A subsequent check against provincial stream data base also indicates some potential mis - identification of other trout as Bull Trout.

- One respondent (PIN 218) identifies two fish kill / catch sites - (WT31 and JF32) however she notes she *"imagines they were Whitefish and Jackfish".* In the case of this, these two sites should have been marked XF31 and XF32

- Another respondent (PIN220) identifies fish kill sites RT6, LC7 and WF12, however the transcript reveals some uncertainty over fish species. These sites should have been marked as “XF” – Other Fish.

A fish identification guide was made available, however it was clearly not used as much as it could have been. In any future work, a fish identification guide should be built directly into each category question to assist respondents in providing as many assured responses as possible.

9.8 Interviewer Burn Out / Cases of Rushing

In the case of one community researcher, the Research Director saw a pattern of data marking and map labelling issues emerge indicating some lack of attention to detail in relation to certain aspects of data marking and possibly moving too quickly through interview process. This was evident in the interviews of PIN 210 and PIN 223. It is possible that if the respondents felt rushed, this may have resulted in a level of under reporting.

9.9 Verbal Anchoring and Chasing Data Diamonds

Community researchers employed verbal anchoring through their interviews. The audio tapes and transcripts clearly capture the process of the identification of a site by a respondent, then the community researcher confirming the location and announcing the feature code as they marked the site. This habit and data marking convention was applied well and consistently though out the majority of all interviews (with the rare exceptions of where audio recorders failed and did not capture portions of the interview).

As noted, the DFN set out document land use facts by employing the Data Diamond model, however at very basic level. The research and questionnaire was designed to capture the who, what, where and when for every identified land use site. However the DFN did not attempt to capture exact dates of activities at sites to guard against burn out and address response burden issues. The Primary Objective required that respondents be able to identify those sites where they undertook land use activities within living memory. DFN did this so as not to create an additional level of complexity that may have made the exercise more difficult to manage and result in failure to accurately document the spatial aspects of land use facts. In retrospect, given that the community research team was able to implement the research plan and established conventions, DFN feels that it could have added a more detailed temporal aspect to the research.

9.10 Audio Recorder Errors, Malfunctions and Transcription Issues

Overall, recorders functioned as designed and the vast majority of interviews and interviews themselves were recorded appropriately allowing verbatim transcription. However, in a limited number of cases, there were recording errors resulting from oversight and errors.

It should be noted that the DFN opted to replace its initially purchased recorders as the microphones had to be passed from interviewer to respondent. This was to cumbersome and could have impacted the interview process. Thus, the DFN purchased the Sony Clear Voice cassette recorders as a replacement.

Issues in recording, possible equipment malfunctions and transcription issues are noted as follows:

PIN 002 – Four limited instances where the recording is inaudible, however the vast majority of interview is intact. Verbal anchoring of sites is clear.

PIN 003 – Five limited instances where the recording is inaudible, however the vast majority of the interview is intact. Verbal anchoring of sites is clear.

PIN 111: In this case the respondent had a very quite and low speaking voice and in many places, the respondent\s voice is inaudible. However, the interviewer is verbally anchoring all sites under discussion and repeating the codes as they are being marked.

PIN 119: There a limited number of instances where the discussion between the respondent and interviewer is too faint, however the vast majority of the interview is captured. All verbal anchoring is clear, as the interviewer repeats the sites being identified , coded and marked.

PIN 121: There a limited number of instances where the discussion between the respondent and interviewer is too faint, however the vast majority of the interview is captured. All verbal anchoring is clear, as the interviewer repeats the sites being identified , coded and marked.

PIN 201: This interview was being conducted during the training phase. The instructor was required to leave the room to attend to a band request at the outset of the interview. On his return, he listened to the audio recording and found that the recorder volume had been reset to zero. The result is the data for the first 47 sites is not recorded.

PIN 115: At the conclusion of the project, the band was required to set up the school for the coming summer period. An agreement had been reached where by all project materials would be treated extremely carefully to avoid damage to materials and data loss. However in this move it appears that the audio tape for this respondent was misplaced during this time. This was unfortunate as the Bio Maps cannot be substantiated with back up source materials.

Overall, the DFN did an excellent job with producing verbatim transcriptions creating a very clear record of the interviews being documented. However, a comparison of the audio recordings to the written transcriptions revealed a pattern in relation to sections noted as “inaudible” in the transcripts. The research director spoke with the transcriber and it was learned half way through the project that she was having some difficulty in hearing some sections of some tapes where the respondent‟s spoke in a very low volume. However given the transcriber was doing such an excellent job in the transcriptions, it was decided to keep her on the task. In the view of the DFN the vast majority of the data and verbal anchoring is captured clearly on the audio recordings and within written transcriptions so as not to impact or detract from data quality standards in a significant way.

9.11 Specific Data Marking Conventions

Overall, community researchers did a very good job at applying the agreed to set of rules and data marking conventions throughout the map survey. However, as part of its methodological analysis, the DFN reviewed and identified instances where there were departures from standard methodology. These can be viewed in detail by viewing the Interview Master List (Appendix L). A summary of some of the infrequent but common mistakes made are listed below:

- Points being drawn too large effecting precision

- Marking of sites and feature codes at times with medium markers vs. fine somewhat degrading precision in these cases

- Not using a second map when map data becoming too crowded – in some cases researchers did a good job in using good appropriate length leaders to lessen crowding. However in some cases, portions of a few map sheets were crowded. While the feature codes are clear, a less crowded map would have assisted digitizers down the road

- A few cases of floating codes however the leaders do point to the sites and visually connect sites with feature codes

- In some cases, researchers began to use single colours to mark feature codes that detracted from the contrast that could be achieved through using runs of colours

- Complete and clear map labelling was an ongoing issue / challenge for one community researcher. However, these were amended and corrected as the interview process proceeded by the research director so there was minimal impact to data quality.

9.12 Feature Code Inconsistencies

An additional review of all mylars sheets revealed a limited number of instances where incorrect / non – existent feature codes where recorded by interviewers. the following codes were identified on the maps, however there were no categories associated with these codes. Many of these were identified in the review of the interview transcripts. However, these are broken out and indentified for reference purposes.

AT
BJE BK
blank
BU
BV
CD
CE
CO
Copy
Default
DR
E
EI
FN
GS
GU
JI
M
ME
MI
MWT
NP
NP
OF
OM
OT
PK
PR
RB
RD
RR
RS
SB
ST
TF
TL
TP
WF
WY
XA

In addition to the above noted deficiencies, there were 26 features identified on the mylars which did not have numbers associated with it.

Thus, overall there were 68 inappropriately applied feature codes / missing feature codes found to occur within the 46 interviews that resulted in the identification of a total number of 2682 sites. In another way, there were approximately 1.5 feature code labelling mistakes made per interview on average. 2614 of the 2682 sites were marked with appropriate and set feature codes.

9.13 Analysis Summation

Ultimately, it will be up the DFN community and external parties to determine whether the DFN maps are believable and based upon a defendable and supportable set of land use facts. The gap analysis undertaken above provides some strong indication that DFN researchers carried out and implemented the research in a manner consistent with its original research design. Clearly, as noted, there were departures from the set

methodology as there is in most research programs. As noted, there were some limited instances of methodological deviation which produced varying results in the interviews. In some cases, equipment didn`t work properly or a series of data from an interview lost.

Thus the question is whether these departures and variances represent the exception rather than the rule and to what extent did they negatively affect the map survey`s results and the resulting maps themselves.

The DFN takes the view that its TLUS research project was designed according to a recognized social science standards and the best practices and prescriptive standards set out by Tobias within ``*Living Proof*``. Its subsequent review and analysis of the actual way in which the land use data was elicited and documented, strongly indicates that the research implementation mirrored the initial research plan and that the map data goes a long way in satisfying the data quality standards of Objectivity, Reliability, Validity, Precision, Accuracy, Integrity, Auditability and Representativeness. Thus DFN takes the view that the resulting TLUS maps are believable and purport to represent what they say they do. The aim of this Methodology Report and its companion Research Proposal document is to support other parties in considering, testing and hopefully validating this view.

10. Country Food Harvest Survey Questionnaire

While the DFN concentrated on collecting species and activity specific data on traditional and vocational land use within the map biography research, it opted to add in a section with its Questionnaire related to the consumption of, and reliance on country foods. From HFLN"s perspective, it made sense to utilize this opportunity (where up to 50 community members were being interviewed) to gather some quantitative data in relation to respondent"s consumptive patterns.

Questions were designed and posed to illicit information in relation to preferred fish and wildlife species, the numbers of days in week / month in which country foods are consumed and average estimated serving portions. Questions were also posed in relation to berries.

It should be noted that this effort was undertaken incident to the traditional land use survey and cannot be considered as a full, bonafide country food harvest survey. Notwithstanding, the DFN have gathered some important data that will be broken out, analyzed and written up as a supporting document to the TLUS.

11.0 Community Stewardship and Data Maintenance Plan

The DFN has begun to undertake research on how successful First Nations have been able to act as stewards of their community‟s data over the long term and protect the data from being degraded or lost through time. The DFN is aware of the situation of the Gitskan – Wet‟suweten of north – western BC. Decades of land claims and TLUS research was lost due to an act of theft and arson.

More importantly, DFN undertook this research for an important purpose. DFN needs to rely on, use and build on this initial set of baseline data. Thus while no TLUS community stewardship plan is in place yet, some of the components under considered include:

- Preserving primary research materials (e.g. copying end copy maps and accompanying reports, copying or photographing the Mylar Bio Maps, making backup copies of the audio tapes on computer disc and making copies of interview transcripts)

- Creating an onsite secure (on reserve) and off site (off reserve) secure repository for all TLUS related data. A redundant back up site would protect the information, should either site be compromised (e.g. through fire, flood, damage, theft etc)

- Creating a community stewardship positions (outside of Chief and Council and the Administration) who would be charged with the task of acting as curator and steward for the information

- Potentially consider publishing the maps and key reports so copies could continue to exist in public archives (however, such an option would have to be carefully weighed and considered by the community)

12.0 Confidentiality and Information Ownership

This project has been conducted by the Duncan‟s First Nation for the Duncan‟s First Nation and the people of Duncan‟s. All information, data and maps presented and depicted belongs to, and is held to be intellectual property of the DFN. The maps, data and all supporting documents produced under the auspices of this map biography survey may not be distributed and reproduced without the express consent of the DFN.

Further the Map Biographies (Bio Maps), Audio Recordings and Audio Transcripts produced during interviews with DFN community members are considered as

confidential, and all third parties are expressly prohibited from distributing or reproducing these without the express consent of the DFN and the DFN community members / individuals who contributed this information during the interview process. At no time will DFN disclose the name of participating respondents, unless that respondent consents in writing, to such disclosure.

The DFN can and will share unnamed an limited samples of Map Biographies, Audio Recordings and Audio Transcripts with third parties to assist the auditing of map biography data and assessment of methodological rigour applied during the research process.

13.0 Acknowledgements

The DFN wishes to acknowledge all those who have assisted and helped in carrying this research project through from its inception to its conclusion. First of all, it wishes to acknowledge and thank all those community members who agreed to participate in this map biography survey. Their contributions and knowledge will now always be there to assist their families, community and nation into the future.

The DFN also wishes to acknowledge its elders and knowledge holders who have given support to this initiative though providing guidance and participation in the research.

Thanks and acknowledgement also need to be extended to the Duncan"s First Nation Chief and Council who have supported and provided encouragement to make this important cultural research project a priority a reality for the community.

The DFN wishes to acknowledge and thank the community research team who ultimately made this project work, be responsible to and conducted for the community. Thanks and gratitude go to Audrey Lawrence, Keith Lawrence, Denise Testawich, Malcolm Testawits, David Testawich and Eric Anderson.

The Duncan"s First Nation Chief and Council also wishes to acknowledge and thank BC Hydro and the BC Hydro Site C Team for supporting this project and working with the DFN in proactive way on this project so that DFN"s values, goals and principles guided this project and underlay the end results. BC Hydro"s financial, in kind and co-operative planning support enabled this project to succeed in meeting its objective and the interests of both parties. Specifically, the DFN wishes to acknowledge and thank BC Hydro employees Debbie Seto-Kitson, Michelle Macdonald, Hugh Smith, Darcy Hill, Anre McIntosh and Trevor Proverbs.

Last of all, the DFN wishes to extend its thanks and acknowledgements to Mr. Terry Tobias. This map biography survey work is based on his life`s work and contribution the field of traditional land use and occupancy mapping.

14.0 Sources

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Tobias, Terry N. 2000. *Chief Kerry`s Moose: A Guidebook to Land Use and Occupancy Mapping, Research Design and Data Collection.* Vancouver: Union of BC Indian Chiefs and Ecotrust Canada.

Tobias, Terry N. 2009. *Living Proof: The Essential Data-Collection Guide for Indigenous Use-and-Occupancy Map Surveys*. Vancouver: Union of BC Indian Chiefs and Ecotrust Canada.

15.0 Appendices

A. DFN TLUS Research Proposal

B. Confidentiality Directive

C. Category Quick Reference Sheet
D. Interview Procedure Checklist
E. Questionnaire
F. Photos of Community Researcher Tool Kit
G. Index Map
H. Interview Forms Package
    -Interview Procedure Checklist
    -Consent Form
    -Confidentiality Directive
    -Honoraria Form
    -Interview Record Form
I. Data Collection Manual
J. Interview Transcript Example
K. Photos from Training Week and Bio Map Check

L. Interview Master List
M. Maps (Hodgepodge Map / Category Maps / Thematic Maps)

Appendix A

DFN Traditional Land Use Survey

Research Design Proposal: Amended

Duncan's First Nations

Traditional Land Use Survey

Research Design Proposal: Amended

Duncan's First Nation 2011 Traditional Land Use Survey

March 2011

M. General

Background

The Duncan"s First Nation (DFN) has identified a critical need to undertake a traditional land use survey to document historic, current and ongoing traditional and cultural land and resource use activities. The DFN has opted to use the map biography process – an established form of quantitative research and approach to traditional land use surveys.

This Research Design Proposal documents early research design decisions and sets out, at a higher level, how the DFN intends to undertake further detailed research planning and implement the research plan. A key focus of this document is on the methodology to be employed both in the research design and implementation phases.

The DFN has opted to predicate this specific TLUS project on the methods and standards described and advocated in the comprehensive text, *"Living Proof: The Essential Data Collection Guide for Indigenous Use and Occupancy Map Surveys"* written by Mr. Terry Tobias. This text represents one of the first comprehensive academic efforts to describe and set out best practices and written standards in relation to the conduct of traditional land use survey mapping projects grounded within social science framework.

The Map Biography Survey

The elected research method (the means by which data will be documented and collected) will be the map biography survey method – a form of quantitative research that permits the empirical identification and documentation investigation of socio – cultural activities. As such the research the process is rigid, highly structured and focused on the acquisition of socio – cultural data.

As a form of quantitative research, stands in stark contrast to other forms of qualitative research that seek to explain and describe socio – cultural phenomena. Thus in this survey project, the DFN set to document socio – cultural activities occurring on the landscape by DFN community members, *not* setting out determine why these activities are occurring, the importance of such activities and how such activities are changing in response to various stressors and bio – physical changes.

There are of course benefits and limitations with the quantitative research and map biography approach. One of the benefits, and why DFN (and so many other First Nations have done so) elected the map biography research method is that it permits the collection of large amounts of data in an orderly and time and cost effective manner.

The key components of the map biography method that DFN will employ involves the following key components:

- Obtaining community input and direction on research priorities
- Defining the Primary Research Objective
- Identifying specific categories or cultural activities that were consistent with the Primary Research Objective that DFN saw relevant and important to map (e.g. Moose kill sites, Jack Fish catch sites, Food Plant gathering sites)
- Developing a Data Collection Manual that sets out clear rules on how the research is to be conducted and data collected
- Selecting community researchers and undertake sufficient training in the use of research tools and consistent application of research conventions
- Developing a standardized, fixed Questionnaire with questions aimed at gathering data in relation to all selected Categories
- Undertaking ongoing communication with the community as the purpose and timing of the survey research program
- Defining the Population Sampling Frame and interview selection criteria
- Coordinating interviews with selected respondents and administer the Questionnaire with all respondents in one on one Interviews
- Recording and documenting interviews and marking cultural use data (activities and events) on Mylar overlays utilizing a standardized coding system and according to fixed rules and convention
- Preparing verbatim interview transcripts from the audio recordings
- Transferring data from Mylar overlays and digitize them onto end mapping products including:
    - Map Biographies – One map displaying data for all questionnaire categories for a single respondent

- Category Map – One map displaying all data for all respondents for a single questionnaire category (e.g. Moose Kill Sites, Bull Tout Kill Sites)

- Thematic Map – One maps displaying data for all respondents for a selected group of related questionnaire categories (e.g. Large Game Kills, Ungulate Kill Sites, Fish Kill Sites)

- Hodgepodge Map – A single map displaying all data for all questionnaire categories from all respondents

- Developing Draft Methodology and Public Reports
- Review with community
- Implement the research results and utilize the mapping products

As noted, given that there has been a dearth of academic source work to guide the design of TLUS methodology and planning and implementation of TLUS project, the DFN feels compelled to base this map biography survey project on the prescriptive set of standards contains with Terry Tobias" *Living Proof: The Essential Data – Collection Guide For Indigenous Use – And – Occupancy Map Surveys.* The full citation of the text is as follows:

"Living Proof: The Essential Data – Collection Guide For Indigenous Use – And – Occupancy Map Surveys": Terry Tobias

Published by Eco – Trust Canada / Union of BC Indian Chiefs

2009: British Columbia

ISBN 978 – 896866 – 07 - 0

Primary Research Objective

The DFN is at an important and critical juncture in its history. Like many other First Nations of the Upper Peace, the DFN have witnessed unprecedented changes within Upper Peace region and much of its traditional territory over the past fifty years. Oil and gas, agriculture, mining, forestry, hydro development and urban – rural expansion has

transformed the boreal forest, it"s critical habitats and consequently the eco-system relied upon by indigenous people of the region.

Such rapid change has resulted in health, cultural, socio – economic and overall societal change for the DFN. DFN has and continues to make the case to Crown representatives for the need to study, assess and address such impacts and change on their community and their rights. As such, DFN has a very large research agenda with the need to collect data and information on an array of inter-related cultural research subjects and values. Given this long term goal of conducting qualitative and quantitative interlinked, it makes sense for DFN to begin with establishing an initial baseline map survey of traditional and current usage of its lands.

Thus when approaching the map biography survey project, DFN feels compelled to identify and capture as much data as possible. Notwithstanding, it is abundantly clear to DFN that it cannot and should not attempt to map all of its cultural use information, so as not to make the task unmanageable and dilute its research efforts and focus. Given there is a need to define the Primary Research Objective for the research as this time.

The core of DFN"s way of life has been based on the utilization of bush resources and commodities. Hunting, fishing, trapping and gathering sustained generations of DFN families and such socio – cultural activities continue to play a key role in the way of life and the community. As with other First Nations in north eastern BC and north western Alberta, trapping as an economic pursuit poses has declined. Thus it makes sense to focus on categories (specific land use events, actions and activities undertaken by DFN community members) that are representative of the over arching activities of hunting, fishing and gathering. Categories need to be based on those species that are of critical cultural importance to the DFN – such as Moose hunting.

Initially (in February 2011) DFN articulated the following as its primary research objective for the traditional land use survey:

"The Duncan's First Nations will conduct the Duncan's First Nation Fish and Wildlife Traditional Land Use Survey to document historical and current hunting and fishing kill sites occurring within riparian forests within the its traditional territory".

The primary research objective was refined, prior to the conduct of interviews and researcher training in March 2011 to provide greater clarity and focus for the research effort:

" The primary objective of the Duncan's First Nation Traditional Land Use Survey is to document some of the DFN's hunting and fishing kill sites and earth and plant material gathering sites with the overall goal of identifying areas of historical and ongoing critical community use".

The Primary Research Objective will shape all subsequent and more detailed aspects of research design to come.

Project Principles for the DFN TLUS

The following sets out the key principles and a brief overview of the measures that DFN will undertake to engage those principles in all facets of the project:

Respect: While there are many external reasons driving and creating the need for this map survey project, DFN is ultimately designing a product and tool to address the community"s research needs and goals. The foundation of the project will be based on respect for DFN community members – those who hold the knowledge and exercise their rights on the ground. In conducting a map survey project that is grounded in respect of its community members, DFN will incidentally produce a set of maps that support DFN in producing evidence and data of its historical and current use of lands and resource. Such information will also be used to support DFN efforts to engage government agencies and project proponents in project consultations, environmental assessments and be used as solid basis for future community driven research efforts.

Confidentiality: DFN is undertaking this survey project with the aim of creating of a spatially explicit data base of cultural and traditional uses of its community. One of the reasons for doing so is share this critical and important information with external parties to support DFN"s participation in environmental assessment and consultation process. And ultimately have its community"s concerns, rights and interests addressed.

Thus a certain level of information must be shared with external parties if the data is to achieve the desired goal. However, DFN intends to do so in a way that ensures confidentiality of respondents. As such DFN will share certain end products with external parties to support the goal of having its rights, interests and concerns addressed with consultation processes. Thus DFN will share the end mapping products – the Hodgepodge Map, Thematic and Category Maps with parties where an appropriate information sharing agreement is in place. The DFN will not share Map Biographies, Audio Recordings and Interview Transcripts of respondents. It would only share portions of this information for auditing purposes and the above components in full only where the respondent consents to do so.

A Confidentiality Directive has been developed and issued by the Chief of the DFN to set out the above principle and the importance that DFN is attaching to the principles of confidentiality. This directive will be reviewed with all interview participants at the outset of each interview to ensure that there is a shared understanding of the purpose,

objectives of the survey, intended uses of end mapping products and the measures to be implemented to achieve a high level of confidentiality.

Informed Consent : An important principle is to ensure that research participants understand the purpose of the research, how the data and information they provide will be utilized and providing their explicit free and informed consent to be engaged in the research. DFN will draft and utilize a permission form in the interviews. It will be reviewed at the outset of every interview and signed off prior to the commencement of the interview. The Consent Form will be reviewed with participants in concert with the Confidentiality Directive. .

Minimizing Response Burden: DFN will structure its approach to interviews with the goal of obtaining reliable information while reducing response burden, so as to avoid impacting key data quality standards. This will be achieved through the focused research based on the Primary Objective, a reduced number of categories and utilizing the "Two Hour Rule of Thumb" – where interviews generally don"t exceed two hours in duration.

Minimizing Interviewer Burn Out: DFN will hire four community interviewers to reduce over reliance on one interviewer. It will also hire an individual to prepare transcripts of the audio recordings to avoid over burdening the interviewers and allowing them to focus on methodology and the consistent application of research conventions. As the interview process has been geared to guard against response burden through the Two Hour Rule of Thumb principle, it has been geared to avoid burning out the community researchers. Further, utilization of tools such as the Questionnaire, Data Collection Manual and other key forms will help reduce the amount of memory work that community researchers will have to take on – rules and conventions will be set in clearly written prompts to assist researchers along the way.

Focus: DFN has a well defined primary objective that will keep the project manageable with a realistic set of outcomes and expectations. The limited number of categories set out in the CA will assist in maintaining the research focus.

Flexibility: While DFN will strive to adhere to the methodological approach set out in Living Proof, it will apply flexibility where it makes sense to do so and in the interest of completing the project in a reasonable time frame. Flexibility will be built into key tools that will allow interviewers to conduct the interviews in a flexible manner to match participant"s response preference, while ensuring that the Questionnaire is administered consistently and that all methodological rules and procedures are followed.

Simplicity: Questionnaires will be kept straightforward with questions structures around the required categories – which will produce the sought after data that is consistent with the research objective.

Consistency: DFN will take considerable effort in all interviews to apply the same methodological approach. Within the training, agreement will be obtained about the application of critical research conventions. Again, a careful approach to training, provision of support and rigorous use of tools such as the Data Collection Manual will assist in the implementation of a consistent approach and application of data recording conventions. The project‟s research design and implementation will be predicated and focused on achieving a high level of methodological rigour.

Organization: Tools such as the Interview Procedure Checklist will support an organized and consistent approach to each interview. In addition, the Research Notebook and Interview Master List, Interview Record Form will support the conduct of sound project management.

Caution: In the past, DFN has utilized government handbooks that provided guidance on the conduct of map surveys, where the use of larger polygons was deemed as acceptable. The approach taken to (e.g. hunting) was to have a community members identify the extent of key hunting areas they utilized through their life and the various activities associated with the act of hunting. DFN will guard against over reporting through the use of site specific data where appropriate.

Self Reporting: In undertaking this map survey project, DFN sees the opportunity and importance of supporting DFN elders and community members in documenting the knowledge and history that has been passed on to them from previous generations. This is a fundamental aspect of the DFN‟s community that allows for the transmittal of culture. Flexibility and respect will govern the interview process to allow and support respondents to convey the information and knowledge that they feel should be recorded. DFN will focus on marking specific sites where they have personally killed animals, caught fish, gathered earth material and overnight sites that they stayed at. However, community researchers will also make notations in interviews, within the tapes and scribble pad of knowledge that has been passed on to respondents from others that academia would regard as “second hand”.

Use of Data Diamonds: DFN has carefully reviewed the data diamond model for TLUS data recording set out in Living Proof. This approach will be discussed in training and will act as the basis for information gathering data for each category capturing the who, what, where and when related to each land use data point or fact.

Fun and Posterity: While this map biography research project is a serious undertaking designed to gather data related to DFN community land use patterns, at the same time the DFN is embarking on this process to engage the community in a constructive exercise to document is collective history on the land for future generations.

Achieving Data Quality Standards

DFN will conduct the map survey within the framework of social science with the goal of having its historical and current uses of the land understood and acted upon. If it is to achieve this and have it maps be perceived and taken as credible, a key focus of the project will be on obtaining and recording quality data.

DFN will aim for data quality assurance through a consistent application of methodological detail and striving to ground all aspects of the project in the following eight quality standards:

1) **Objectivity:** DFN will guard against the perception of bias to the degree possible by setting out the steps its project staff will take to strive for an objective approach in the research design and collection phases of the project. Examples of this include the design and administering of a questionnaire to avoid the asking of leading questions. The exacting use of data marking conventions will demonstrate diligence in recording data on maps and in audio recordings.

2) **Reliability:** DFN will work to produce reliable maps based on data that will be collected in a consistent manner and based on a data collection method applied consistently across the board. DFN will provide sufficient detail on the use of the Data Collection Manual, recording equipment and maps as evidence of the research method and survey tools were used consistently.

3) **Validity:** DFN will ensure community input into research design and administer an interview questionnaire that is consistent with the project"s primary objective and build in steps as proof of the application of a consistent approach. Auditing of mapping via audio recordings act as one test of data validity. Another test of validity would be a defendable approach to sampling within the study population. Adequate training for interviewers will be another indicator of validity.

4) **Precision:** DFN will set out to create precise maps utilizing appropriate tools and conventions such as maps with an appropriate scale and data marking conventions to achieve the goal of having the mapped data"s location equate to its actual position on the earth. Appropriately sizes pens will also be utilized to ensure a higher degree of precision in data recording.

5) **Accuracy**: DFN will take steps to strive towards positional accuracy of data. Magnifying glasses and Google earth maps will also be projected on walls to assist respondents in pin pointing locations. Clear base maps void of

unnecessary detail will be utilized to assist respondents in providing true positions for data. Registration marks will also be used on Mylar overlays.

6) I**ntegrity**: DFN will strive to ensure that data points in hodgepodge, category and thematic maps can be linked to the respondent via their bio map and audio recordings. DFN will conduct one – on – one interview to ensure that data is traceable and attributable to the firsthand knowledge of a particular respondent. A key tool that will assist in tracking and linking data back the sources of information will include the Interview Master List.

7) **Auditability:** DFN wants external audiences to hold its map products as credible and reliable. In ensuring this, DFN will need to assist those audiences to understand how it came to such findings through transparent and accountable research. The Research Methodology Report will be the key document that allows external audiences to follow the methodology used, where the actual methodology diverged with this Research Plan and an assessment of the results of that divergence.

8) **Representativeness**: Overall, DFN will be aiming for as a high a rate participation rate that is achievable with its budget. Given that the prime objective primarily relates to the identification of ungulate and fish kill sites, the survey will tend to document data from males, however, women within the community also undertake such activities within the community. A suitable sampling protocol will be used to achieve a representative population that will subdivide the population by age, gender, family and residence.

Detailed Research Plan and Methodological Detail

The following is a forward looking plan and description setting out how the DFN intends to conduct its map survey its methodology – or the underlying approach, principles and working assumptions:

Project Name

Duncan"s First Nations Traditional Land Use Survey – 2011

Project Acronym

DFN TLUS 2011

Research Framework

DFN proposes to undertake the proposed quantitative map survey project within a social science framework. The goal is to document specific historical and current usage to produce spatially explicit maps based on data obtained an derived through a science based approach.

Research Method

The Map Biography survey is a way of documenting the facts of person"s use and utilization of the land, and in doing so converts them into data subject to verification. The key components of this method and the map biography method that DFN employed involved:

- Obtaining community input and direction on research priorities
- Defining the Primary Research Objective
- Identifying specific categories or cultural activities that were consistent with the Primary Research Objective that DFN saw relevant and important to map (e.g. Moose kill sites, Jack Fish catch sites, Food Plant gathering sites)
- Preparing a Research Plan that sets out the Methodology to be employed containing a description of the research framework, method, parameters, tools and conventions
- Developing a Data Collection Manual that sets out clear rules on how the research is to be conducted and data collected

- Selecting community researchers and undertake sufficient training in the use of research tools and consistent application of research conventions

- Developing a standardized, fixed Questionnaire with questions aimed at gathering data in relation to all selected Categories

- Undertaking ongoing communication with the community as the purpose and timing of the survey research program

- Defining the Population Sampling Frame and interview selection criteria

- Coordinating interviews with selected respondents and administer the Questionnaire with all respondents in one on one Interviews

- Recording and documenting interviews and marking cultural use data (activities and events) on Mylar overlays utilizing a standardized coding system and according to fixed rules and convention

- Preparing verbatim interview transcripts from the audio recordings

- Transferring data from Mylar overlays and digitize them onto end mapping products including:

    - Map Biographies – One map displaying data for all questionnaire categories for a single respondent

    - Category Map – One map displaying all data for all respondents for a single questionnaire category (e.g. Moose Kill Sites, Bull Tout Kill Sites)

    - Thematic Map – One maps displaying data for all respondents for a selected group of related questionnaire categories (e.g. Large Game Kills, Ungulate Kill Sites, Fish Kill Sites)

    - Hodgepodge Map – A single map displaying all data for all questionnaire categories from all respondents

- Developing Draft Methodology and Public Reports

- Review with community

- Implement the research results and utilize the mapping products

Research Parameters

The following Research Parameters will place stricture and bounds on the research providing shape and defining the next level of research design and detail:

Survey Primary Research Objective (Why)

There are many pressing needs and drivers that have given rise to this map biography project. A primary consideration is the need to produce a data set that provides examples and on the ground evidence of community use of lands and utilization of resources consistent with its treaty rights of hunting, fishing, gathering and other incidental activities. Further, a base line of defendable and supportable spatially explicit data is needed on which to base future qualitative research efforts.

Thus the Primary Research Objective for the map biography survey is proposed as:

" The primary objective of the Duncan's First Nation Traditional Land Use Survey is to document some of the DFN's hunting and fishing kill sites and earth and plant material gathering sites with the overall goal of identifying areas of historical and ongoing critical community use".

The defined and agreed upon research objective will drive all subsequent and more detailed aspects of research design.

Survey Population (Who)

The map biography survey method entails the interview of individuals to obtain first hand data, the individual ends up being both the subject of analyses and the unit of observation.

With the individual established as the unit of observation and analyses, the DFN will undertake a level of statistical analysis of the community – the larger population base from which individual interview participants will be selected.

With the population sample frame established, the DFN will establish criteria that will be to govern the selection of individual interview participants - in other words, to determine who will be eligible to be interviewed. Criteria will address key considerations sex, age,

residency, membership and contribution to the traditional economic of the community. Once the criteria are established, it will not be changed to ensure that it is applied equally to the sample population.

The DFN will strive to obtaining as a high as participation rate as possible, however must do so within budgetary constraints.

Survey Time Parameter (When)

The DFN proposes to utilize ``within living memory`` as the appropriate recall interval to address natural cycles and guard against response burden and interviewer burnout. Within Living Proof, Tobias spends some time cautioning communities about the complexity involved in trying to map different uses based on artificial divisions in a person"s life. In the case of this project, the focus is being placed on creating a data set that is reliable and to keep the project as simple as possible to guard against issues that could cloud key data quality standards. Thus, interview participants will be asked to recall activities and events that have occurred within their lifetime.

This recall level will also capture both historic and current use patterns, which were and continue to be widespread. In the past (pre 1970), many DFN members travelled many days in all directions, hunting, fishing and trapping as they travelled. Today, while land use patterns have changed, DFN members find they now have to cover the same or greater distances given the reduction of fish and wildlife habitats and populations – the material difference is that they now use vehicles to travel to and from resource use areas.

Survey: Data Layers, Categories and Questions (What)

First and foremost, DFN will set out to map extensivity rather intensivity. It will do so, given the wide ranging activities that have been documented to date by the DFN in initial TUS research.

The TLUS will solely focus on those activities undertaken for subsistence, cultural and spiritual purposes and will not deal with those activities undertaken for commercial purposes such as commercial trapping and fishing activities. Further, DFN purposely steer away from mapping habitat or those data layers generally associated with traditional knowledge or traditional ecological knowledge. Specific measures, prompts, preparation and community researcher training will be geared to key on kill sites, catch sites, gathering sites and overnight sites.

Thus the DFN will focus its efforts and gear the Questionnaire and interviews on eliciting data on the following species specific and activity specific Categories: categories:

CATEGORIES

MAMMALS

MO	moose	CU	caribou
EK	elk	MD	mule deer
WD	white tailed deer	BB	black bear
GB	grizzly bear	XM	other mammal

BIRDS

DK	ducks	GE	geese
GR	grebes	GR	grouse
PT	ptarmigan	CR	cranes
XB	other bird		

FISH

WE	walleye	JF	jackfish (northern pike)
DV	dolly varden	BT	bull trout
RT	rainbow trout	AG	arctic grayling
WT	whitefish	GY	gold eye
LC	ling cod (burbot)	XF	other fish

PLANT and EARTH SITES

BR	berries	FP	food plants
MP	medicine plants	SP	sacred plants
CL	construction logs	FW	fire wood

SR	specialty rock	DW	drinking water
XP	other plant/earth site		

OVERNIGHT SITES

CB	cabin	TT	tent site
LT	lean to	XOS	other overnight site

CULTURAL SITES

BS	birth sites	BP	burial places
OS	old settlements	CS	cache sites
SS	sacred sites	XCS	other cultural site

These questionnaire categories will form the basis for the interviews and interviewers will ask every respondent about each of the above categories. In doing so, DFN can ensure that the survey is representative of cultural use activities that have, and continue to happen on the ground.

In respect to the construction and administration of the questionnaire / interview questions, DFN will utilize the “data diamond” approach to fact collection advocated within Living Proof to establish the following for each site / features:

- What activity is taking place?
- Who is undertaking the activity?
- Where the activity is taking place?
- When the activity occurred?

Questionnaire

DFN will develop and administer a questionnaire in interviews with all respondents to ensure consistency across all interviews and to ensure that all identified categories are addressed. The questionnaire will be structured utilizing key words that are consistent

with the primary research objective and obtaining data regarding the specified categories and will avoid asking leading questions

It should also be noted that DFN interviewers will be asking respondents to indicate "some" and not all of the sites where they undertook a particular activity to manage the response burden and to attempt to have interviews undertaken within a two hour window and meet the " Two Hour Rule of Thumb" (THROT) principle.

The DFN TLUS questionnaire will also be constructed with the following key ideas in the mind:

- naming of categories indentify the specific kinds of features to be mapped during the interviews

- definitions for each category so that respondent and interviewer have the same understanding of what is being asked and answered to support good quality data

- provision of examples in cases of possible ambiguity to support good validity

- question based around each category and the data diamond model for fact finding and detailing to achieve prescriptive precision

- utilize key words to assist in assisting to define specificity of activities to manage response burden and support good quality data

- include prompts and reminders for interviewers to support good validity data and consistency in approach of conventions (e.g. through data collection manual)

- include helpful prompts and clarifications to assist respondent

Research Tools

DFN will employ numerous devices and materials that will support data collection during map biography sessions. DFN will undertake care in the utilization of the correct tools to ensure that the "map tool kit" to support the exercise of identifying, gathering and documenting precise and accurate data. At this time, DFN proposes to employ the following tools:

<u>Base Maps</u>

DFN will utilize the National Topographic System 2009 series of 1:250 000 scale maps. DFN will opt to map at a scale of 1:250,000 due the following reasons:

- scale suitable for mapping large areas
- scale suitable for extensivity mapping and baseline inventories of large areas
- small number of maps that will keep costs lower and response burden low
- small number of maps easier to manage at interviews

DFN will also purchase and assemble an Index Map at 1:500 000 to support interviews and provide additional organization at the outset of interviews.

Plastic Overlays

DFN will utilize Mylar overlays to reduce the overall cost of base map purchases and to reduce the sheer amount of base maps that will be needed to record data upon. Specifically DFN will use pre – cut polyester Mylar that is non – matte both sides and is .0005 inches thick.

DFN will undertake due care to use registration marks prior to interviews to assist GIS technicians in accurately aligning overlays on base maps following the interview process. This will be done by:

- Identifying a pair of intersecting UTM grid lines that is closest to the corner of the four corners of the map

- Use a draftsman‟s‟template and mark a circle around each of the four intersections

- Given that there will be multiple interviews, ensure that four circled UTM grid intersections are exactly the same for all copies of the same map

Writing Utensils for Marking Data

DFN will utilize the following:

- Permanent Staedtler Lumocolour pens and will use a fine nib size to mark data and registration cross hairs and medium nib size to label maps and overlays
- Will utilize four contrasting colours to create contrast with the base map and between coded sites (e.g. black, blue, green, red)

Interview Recording Equipment

DFN will employ the following tools:

Audio Recording

DFN has opted to utilize an analogue tape recorder over a digital recorded to reduce the number of operating steps and problems that can come with the operation of digital equipment.

Baby Sock and Mouse Pad

DFN interviews will be trained to place the microphone inside a sock every time they turn the mike off. The mike and audio recorder will be placed on mouse pads.

Audio Tapes

Tapes will be used that have a total duration of 90 minutes and will be stored in boxes with translucent lids. Labels will be used along with masking tape to label tapes in the appropriate way during the interview and in interview follow up activities.

Codepieces

Codepieces will be used to assist in marking feature codes and avoid assigning the same code more than once.

Scribble Pad

A scribble pad will be used to support interviewers keep track of important points within interviews that require follow up, noting information that falls outside the set categories and observations regarding factors that may contribute to or detract from data reliability.

Research Conventions

DFN has considered the considerable advice and guidance in *Living Proof* in respect to research / data marking conventions. DFN will apply the following rules to ensure that the survey tools and data marking rules are applied in a consistent way:

Verbal Anchoring of Data

Interviewers will use verbal cues / anchors to highlight and allow for the easy cross referencing of features between maps and the audio tape. Interviewers will be trained to

repeat codes out loud as they are being discussed and marked on maps during the interviews.

Use of Alphanumeric Coding

Interviewers will assign each site and alphanumeric code comprised a pair of letters followed by a number. The following is an example:

Feature Code

PR	**141**
Category	**Sequence**

Data Marking Conventions

DFN has carefully reviewed all recommended data marking conventions as outlined from Pgs 228- 255 within Living Proof and will adhere to the outlined conventions. DFN has opted to not replicate the conventions within this Research Proposal as it will need to list the conventions in the Data Research Manual and training materials to be provided during interview training.

In summary, DFN notes the following to document its understanding and acceptance of some of the critical data marking conventions:

- Each feature to have its own separate code
- All line codes and polygon codes to be underlined
- Multi coded sites to capture different activities at same site
- Use of multiple codes attached by single leader
- Complete closure of polygons
- Features covering two or more base maps edge matched
- All codes to be printed and use of upper case letters
- Utilize open space in character loops
- Eliminate extraneous markings in codes
- Correct errors with diagonal hatching

- Each feature, code and leader is of the same colour
- Use variety of colours when map overlay is becoming crowded with data
- Use different colors for over lapping features
- Leaders attached to features
- Ensure each point is 2 mm in diameter
- Avoid crossing of leaders
- Consistent leader length
- Leaders attach at linear base map features at right angles
- Donut polygons to use circled code and attached by a leader
- Utilize numerous codes for one feature where mapping a complex feature
- Accuracy – Asking what specific portions of an area is utilized vs. demarcating large polygon
- Utilize a Code Basics Chart to as reminder to interviewers
- Utilize multiple codes for travel routes for clarity"s sake
- End travel routes with single square brackets
- Direction of travel to be shown with arrows
- Utilize line textures to differentiate travel routes

Interview Tool Kit and Associated Conventions

PIN Numbers

DFN will assign a Participant Identification Number (PIN) to every respondent made up of three numbers. The four community interviewers that will be hired will each be assigned a block of PIN numbers to assign in their interviews. Each PIN will be assigned to respondents in ascending order.

Interview Record Form

DFN will utilize a one page document as a checklist to ensure that interviewers capture and record all key information of respondents. It will also serve as a confidential record that ties the PIN number to the respondent and the person who conducts the interview. The document will track and make note of all key pieces of information and ensure that labelling of raw data occurs after every interview. The IRF will also be utilized to document pertinent comments and observations about reliability and of the respondent and to document both the weak and strong points of the interview.

Research Notebook

The DFN survey project manager will utilize a daily log to record and document progress, issues encountered and resolved and key matters considered by the survey team in the research design and data collection phases of the project. Key data inventories will be kept and tracked in the Research Notebook such as the audio cassette inventory list.

Interview Master List

An Interview Master List will be built as data from interviews are completed and information from interview record forms is amassed. The IML will provide a complete list of the particulars of the interview, records an cross referencing to audio cassettes and maps, interview forms completed and logged, notes on methodology departures and numbers of features documented and the range of codes for the features.

Interview Procedure Checklist

An interview checklist will be used by each interviewed to support the consistent application of critical actions in the Interview Set Up, Interview and Interview Cleanup phases of each interview. Key actions to be undertaken in every interview include:

INTERVIEW SET UP:

- Tape overlay to each base map
- Arrange entire set of base maps in ascending order
- Select an audio cassette
- Set up recorder
- Organize the rest of the map toolkit
- Organize and tidy interview room
- Determine the feature number for the first feature
- Determine the respondents‟ PIN

INTERVIEW:

- Review the honorarium form
- Review the confidentiality form
- Get the respondent to sign the consent form
- Identify the required base maps
- Give the respondent a pencil to use as a pointer

- Check the recording equipment
- Make a verbal interview introduction on tape
- Administer questionnaire
- Verbally anchor all mapped features
- Move codepiece every time a feature is marked and coded
- Use scribble pad at every interview
- Break off security tab every time a cassette side is removed
- Add a temporary label to every cassette sides
- Check the recorder every time a new cassette side is about to be started
- Introduce the beginning of every cassette side using a verbal label
- Write down the highest code sequence number
- Check features crossing from one map to another for edge matching
- Make a verbal crossing from one map to another for edge matching
- Make a verbal interview closure on tape
- Date and sign every overlay
- Complete the honorarium form
- Switch off the audio – cassette machine

INTERVIEW CLEANUP

- Print respondents name and PIN on every overlay
- Print the date on every overlay
- Print the project acronym on every overlay
- Print the respondents PIN once more on every overlay
- Print a map sequence number on every overlay
- Print the base maps name and index number on every overlay
- Print the base map name and index on every overlay
- Print the base map ratio scale on every overlay
- Draw a large north arrow in the margin of every overlay
- Print the map index number once more on every overlay
- Add registration cross hair to every corner of every overlay
- Add permanent label to every cassette side
- Fill in the interview record form
- Double check work

Data Collection Manual

The DFN will use this document to assist interviewers with the systematic and effective collection of data and the application of consistent procedures and habits in relation to each interview. DFN will not set out the outline of the proposed manual at this time however notes that it will base its manual on the example Data Collection Manual found within Living Proof (Pgs. 282 – 293).

Confidentiality Directive

DFN will use this document to demonstrate to participants of the commitment by the First Nation to the principle of confidentiality and will set out how confidentiality will this will be achieved within the project.

Consent Form

DFN will use this form to inform participants about the purpose of the project and the potential use of the information they provide and will set out their consent to participate in the research project.

Honorarium Form

This document will confirm payment for the participants and acceptance of the rate of remuneration.

Training and Methodology Pre – Test

The need for traditional use surveys has risen with changes in constitutional and common law and DFN has a need to be able to conduct them as part of environmental assessment and consultation processes. DFN has articulated the need and interest in buildings its internal capacity to conduct its own research in a manner consistent with social science principles. The development of *Living Proof*, puts the tool in the hands of the community that can make this possible.

With this in mind, DFN has opted to manage the project in house..

In respect to training DFN proposes to:

- Retain a Research Director to provide overall supervision and direction to the project

- Hire two community interviewers who will undertake the interviews

- Hire one interview transcriber to prepare verbatim transcripts from the audio recordings of the interviews

- Undertake intensive training over a seven day period focused on the understanding, support for and application of the outlined methodology

The training to be delivered will focus on:

- The link between legal developments, consultation requirements and the need for rigour and methodology in TUS studies

- The need for a detailed, consistent application of tools and conventions

- Review of the Data Collection Manual

- Observe model / initial interviews and discuss approach – conduct pre – test with three community participants

- Undertake interviews with interviewers

Country Food Harvest Survey

DFN proposes to conduct a country food harvest survey in parallel with the map survey component of the project. A distinct portion of the interview and the Questionnaire will be devoted to documenting a preliminary level of data to assist the DFN in quantifying the type and amount of country foods / bush resources / bush commodities utilized by the DFN community with a given period of time.

Appendix B

Confidentiality Directive

CONFIDENTIALITY DIRECTIVE

Whereas the Duncan's First Nation is:

Undertaking this Traditional Land Use Survey (TLUS) to provide a snapshot of how community members have and continue to use lands and resources

Undertaking one –on –one interviews with some community members to document some of their land use activities and practices on maps, audio tapes and interview transcripts as examples of overall community land and resource use patterns

Supporting this important community research project to help preserve the record of our use of our lands and resources, support consultations on proposed projects, help identify impacts on our culture and rights from development and support DFN's efforts to preserve, protect and assert our Treaty and Aboriginal Rights and Title

Documenting land and resource information with the goal of sharing portions of research with external parties such as government agencies and companies to support DFN's participation in consultations, environmental assessment studies, land use studies, environmental and cultural and regulatory hearings, and

Implementing the appropriate measures and controls to safeguard community members personal information, confidential and sensitive information they share during this research

Therefore this DFN Administration Directs and Commits:

That only the consolidated TLUS maps and data (general maps showing overall community data) will be reviewed and shared with external parties only where there is an appropriate information sharing agreement in place, and

That research participant's Map Biographies (their personal maps), Audio Recordings and Transcripts of their interviews will not be shared with external parties. These materials will only be viewed and shared with external parties with each participant's agreement or consent.

_____(Original Signed)

Appendix C

Quick Reference Category Code Sheet

QUICK REFENCE CATGEGORY CODE SHEET

ANIMAL KILL SITES

Questionnaire Part 2

MAMMALS

MO	moose	CU	caribou
EK	elk	MD	mule deer
WD	white tailed deer	BB	black bear
GB	grizzly bear	XM	other mammal

BIRDS

DK	ducks	GE	geese
GR	grebes	GR	grouse
PT	ptarmigan	CR	cranes
XM	other bird		

FISH

WE	walleye	JF	jackfish (northern pike)
DV	dolly varden	BT	bull trout
RT	rainbow trout	AG	arctic grayling
WT	whitefish	GY	gold eye
LC	ling cod (burbot)	XM	other fish

PLANT and EARTH SITES

Questionnaire Part 3

BR	berries	FP	food plants
MP	medicine plants	SP	sacred plants
CL	construction logs	FW	fire wood
SR	specialty rock	DW	drinking water
XM	other plant/earth site		

OVERNIGHT SITES

Questionnaire Part 4

CB	cabin	TT	tent site
LT	leanto	XOS	other overnight site

CULTURAL SITES

Questionnaire Part 5

BS	birth sites	BP	burial places
OS	old settlements	CS	cache sites
SS	sacred sites	XCS	other cultural site

Appendix D

Interview Procedure Checklist

INTERVIEW PROCEDURE CHECKLIST

SETTING UP FOR INTERVIEW (BEFORE PERSON ARRIVES)

1. Put Base Maps in Order _____
2. Select Audiocassette _____
3. Set Up Recording Equipment _____
4. Organize Rest of Tool Kit _____
5. Organize Interview Space _____
6. Note the Starting Code Sequence Number _____
7. Assign Participant`s PIN _____

CONDUCTING INTERVIEW (AFTER PERSON ARRIVES)

8. Review Honorarium Form _____
9. Discuss Confidentiality Directive _____
10. Sign Permission Form _____
11. Identify Base Maps Needed _____
12. Set Up Mosaic _____
13. Give Respondent a Pencil to Use as Pointer _____
14. Check Recording Equipment _____
15. Introduce Session _____

16. Administer Questionnaire _____

17. Remember to Verbally Anchor Data _____

18. Remember to Use the Codpiece _____

19. Remember to Use the Scribble Pad _____

20. Remember to Remove Side Tabs _____

21. Remember to Add Tape Side Labels _____

22. Remember to Double Check Recording Equipment _____

23. Remember to Introduce Cassette Side _____

24. Record Last Code Sequence Number _____

25. Check Data Along Map Edges _____

26. Ask Participant if Ever Trapped _____

27. Administer Country Food Harvest Survey Portion _____

28. Close Interview _____

29. Date and Sign Maps _____

30. Fill Out and Sign Honorarium Forms _____

31. Turn Off Recording Equipment _____

CLEANING UP AFTER INTERVIEW

32. Print Name and PIN on Maps _____

33. Print Date on Maps _____

34. Print PIN Again on Maps _____

35. Print Map Sequence Number on Maps _____

36. Add Permanent Cassette Side Labels _____

37. Fill Out Interview Record Form _____

38. Double Check Labels and Record Form _____

Appendix E

Questionnaire

QUESTIONNAIRE

Introduce Session

My name is _____ and today is_____, 2011. I have just reviewed the Confidentiality Directive, Consent Form and Honoraria Form with _____ that he / she has just signed. We're in the

community arena (or other location) at the Duncan's First Nation reserve to do a traditional land use survey map biography session. Our data will be marked on clear Mylar overlays that are sitting over top of 1:250,000 scale base maps. We'll be starting with map sheets_____.

PART I

CATEGORY – BIOGRAPHICAL INFORMATION

1)What is your birth date? Where you were you born? What are your parents names? Where were your parents born? What is your mother's maiden name?

PART 2

CATEGORY – ANIMAL KILL SITES

``I`m now going to ask you questions about where you killed different kinds of animals – fish, mammals and birds. For this part of the interview we want to map only places where you KILLED animals and took some home for eating purposes. We don`t want to mark a spot where you killed animals for commercial or barter purposes unless you took some of it home to eat. We don`t want to mark spots where you killed animals for tourists while you were guiding, unless you took some of the meat to eat. Also I want to point out that we are only looking to map actual locations where you killed animals. We are not mapping wildlife habitat – the places where you tend to find animals or where you know that animals go. We are marking kill sites.

Kill sites for all animal categories below are only mapped as points. Not lines or polygons.

MAMMALS

2) Did you ever kill MOOSE to feed your family or community? **MO**

Can you show me some spots? ▪
only

3) Did you ever kill CARIBOU to feed your family or community? **CU**

Can you show me some spots? ▪
only

4) Did you ever kill ELK to feed your family or community? **EK**

Can you show me some spots? ▪
only

5) Did you ever kill MULE DEER to feed your family? **MD**

Can you show me some spots? ▪
only

6) Did you ever kill WHITE TAILED DEER to feed your family or Community? **WD**

Can you show me some spots? ▪
only

7) Did you ever kill BLACK BEAR to feed your family or community? **BB**

Can you show me some spots? ▪
only

8) Did you ever kill GRIZZLY BEAR to feed your family or community? **GB**

Can you show me some spots? ▪
only

BIRDS

9) Did you ever kill DUCKS to feed your family or community? **DK**

Can you show me some spots? ▪
only

10) Did you ever kill GEESE to feed your family or community? **GE**

Can you show me some spots? ▪
only

9) Did you ever kill GREBES to feed your family or community? **GR**

Can you show me some spots? ▪
only

10) Did you ever kill GROUSE to feed your family or community? **GS**

Can you show me some spots? ▪
only

11) Did you ever kill PTARMIGAN to feed your family or community? **PT**

Can you show me some spots? ▪
only

12) Did you ever kill CRANES to feed your family or community? **CR**

Can you show me some spots? ▪
only

FISH

13) Did you ever kill WALLEYE to feed your family or community? **WE**

Can you show me some spots? ▪
only

14) Did you ever kill JACKFISH to feed your family or community? **JF**

Can you show me some spots? ▪
only

15) Did you ever kill DOLLY VARDEN to feed your family or community? **DV**

Can you show me some spots? ▪
only

16) Did you ever kill BULL TROUT to feed your family or community? **BT**

Can you show me some spots? ▪
only

17) Did you ever kill RAINBOW TROUT to feed your family or community? **RT**

Can you show me some spots? ▪
only

18) Did you ever kill ARCTIC GRAYLING to feed your family or community? **AG**

Can you show me some spots? ▪ only

19) Did you ever kill WHITEFISH to feed your family or community? **WT**

Can you show me some spots? ▪
only

20) Did you ever kill GOLDEYE to feed your family or community? **GY**

Can you show me some spots? ▪
only

21) Did you ever kill LINGCOD to feed your family or community? **LC**

Can you show me some spots? ▪
only

PART 3

CATEGORY – PLANT AND EARTH SITES

I`m now going to ask you questions about where you collected different kinds of plants, wood and earth materials. Again, we are looking to map only those actual sites and places where you have actually gathered plants, wood and earth materials. We are not mapping places where you tend to find those plants, wood and earth materials.

Plant and earth material sites are to be collected as points, lines or polygons depending on the extent of the area used.

22) Did you ever collect wild BERRIES? Show some spots. **BR**

▪ or

O

23) Did you ever collect FOOD PLANTS? Show some spots. **FP**

▪ or

O

24) Did you ever collect MEDICINE PLANTS? Show me some spots? **MP**

▪ or

O

25) Did you ever collect CONSTRUCTION LOGS? Show me some spots. **CL**

▪ or

O

26) Did you ever collect FIRE WOOD to heat your home? Show me some spots. **FW**

▪ or O

27) Did you ever quarry or collect SPECAILTY ROCK? Show me some spots. **SR**

▪ or O

28) Did you ever collected DRINKING WATER to bring back to your house, cabin or camp site? Can you show me some spots?

DW

▪ or O

PART 4

OVERNIGHT SITES

I'm now going to ask you questions about places where you personally stayed out overnight while you were hunting, fishing, gathering, travelling or working in region.

All overnight sites to be mapped as points.

29) Have you ever stayed overnight in a CABIN? Show me the spots. **CB**

Do you know who built the cabin? Is it still being used? ▪only

30) Have you ever stayed overnight in a TENT? Show me the spots. **TT**

▪only

31) Have you ever stayed in a LEANTO? Show me the spots. **LT**

▪only

PART 5

CULTURAL SITES

I'm now going to ask you questions about other kinds of cultural sites. For this part of the interview we want map only places that you know for sure have been used in your lifetime or the life times of your parents or grandparents.

The cultural sites below are to be mapped as points, lines and polygons

32) Do you know of any Duncan's or Duncan's family Burial Places? **BP**

Do you feel comfortable in showing me those spots. If so, show the spots. Do you know who was buried at this place?

▪ or O

33) Do you know of any Duncan's or Duncan's family Birth Sites? If so show the spots. **BS**

▪ or O

34) Do you know of any Old Settlements? If so, show them. **OS**

▪ or O

35) Do you have or have used Cache Sites. Can you show me where these

are? **CS**

▪ or O

36) Do you know of any Sacred Sites that you would be comfortable in talking about? Can you show me where these are? **SS**

▪ or O

PART 6

COUNTRY FOOD HARVEST SURVEY

I am now going to ask you some questions about the foods that you kill and gather from the land. I am going to ask you what kinds of country foods you eat such as moose and fish and berries, how often and in what amounts. In asking this question, we are trying to get a sense of how important country foods are to you and your family. You need to answer as accurately as you are able.

Fill in the answers below the question in neat printing.

MAMMALS

37) How many times in a week on average do you eat moose? Or how many times a month on average do you eat moose?

38) How many times in a week on average do you eat deer or elk? Or how many times a month on average do you eat deer or elk?

39)How many times in a month do you eat other animals, but not moose, elk and deer?

40) When you eat wild game what size of portion do you eat? A portion size of one palm, two palms, three palms or more? When I say palm – what I mean is the palm of your hand.

41) In what months do you seem to eat wild game the most?

42) How do you generally prepare / cook wild meat?

43) Do you dry or can wild game? Do you freeze it?

44) Do you share wild meat that you kill with your extended family or the community?

45) How much of a kill do you share with your extended family or the community?

46) Do members of your extended family or the community share what they kill with you? How much of the kill do they share with you?

FISH

47) How many times in a week on average do you eat fish? Or how many times a month on average do you eat fish?

48) When you eat fish what size of portion do you eat? A portion size of one palm, two palms, three palms or more? When I say palm – what I mean is the palm of your hand.

49) In what months do you seem to fish the most?

50) How do you generally prepare / cook fish?

51) Do you dry, can or freeze fish?

52) Do you share fish that you kill with your extended family or the community?

53) Do members of your extended family or the community share the fish they kill with you?

54) What species of fish do you eat the most? What species of fish do you enjoy the most.

BERRIES

55) Can you tell what types of berries you gather and eat?

56) What type of berry do you eat the most? What is your favourite type of berry?

57) Do you dry, can or freeze berries??

58) How many times a week do you eat berries? Or how many times a month do you eat berries?

59) When you eat berries, generally how much do you eat in one sitting? One cup? Two cups? Three cups or more?

60) Do you share the berries you gather with your family?

61) Do other people / families share berries with your family?

62) Have you ever trapped for sustenance or commercial purposes? We are not going to map trapping in this specific study but will come in another study to map those places. Did your family actually have a trapline number or can you recall the general areas in which they trapped?

Appendix F

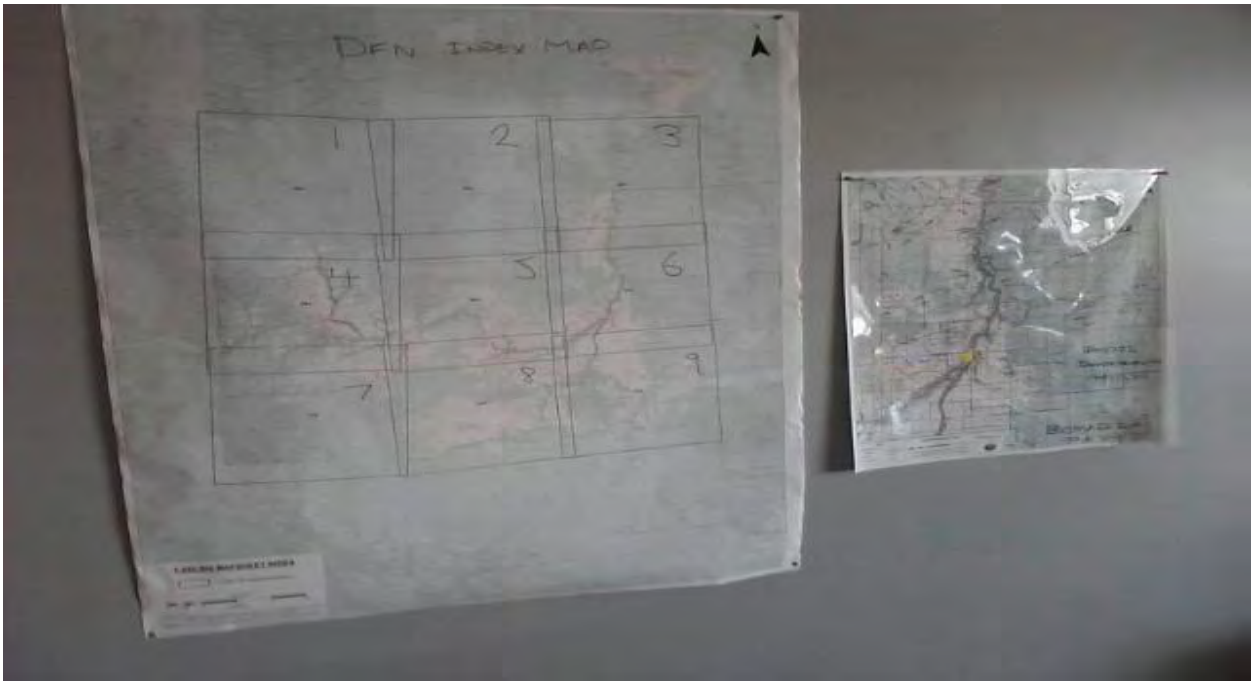
Pictures of Community Researcher Tool Kit

Tool Kit: Each Researcher Provided Required Tools to Ensure Consistent and Accurate Recording of Data

Leaving Nothing to Chance: Complete Tool Kit Ensures That Community Researchers Organized and Equipped for Each Map Biography Session

Mylar Overlays Used Over Top of Base Maps – The Cutting Station – Helped Ensure that Mylars Ready for Each Interview

Office Organization – A Key to Success for Preparing for, Conducting and Completing Each Interview

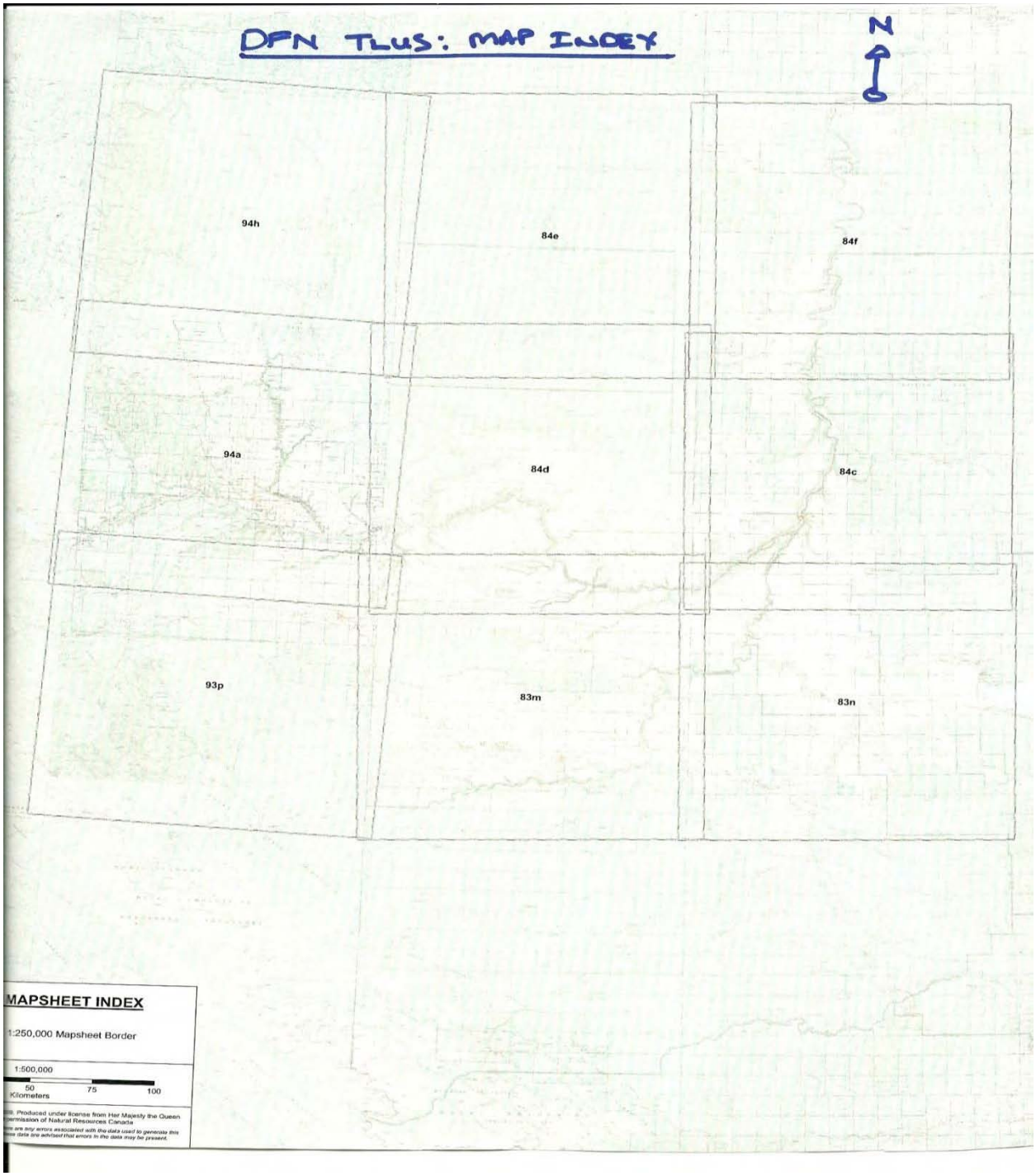


The Index Map on the Community Research Office Wall – Respondents Picked What Base Maps They Would Use Prior to the Start of Their Interviews

Interview Transcripts Prepared From Each Interview Audio Recording – Verification that Data Marked on Bio Maps is Valid and Based on Facts

Appendix G

Index Map



Prior to start of interviews, respondents were shown this Index Map. The respondents selected which maps they would want to use during the interviews. The maps numbers in the right hand corner correspond to numbered base maps each interviewer had. DFN utilized 9 NTS base maps.

Appendix H

Interview Forms Package

TLUS INTERVIEWER FORM PACKAGE

Ensure that you have a complete package for every interview to ensure you are prepared for every interview

Ensure that you review and fill out each form with the respondent

These are the key documents that you will need to prepare, conduct and close out your interview.

These documents are contained in your Data Collection Manual.

INTERVIEW PROCEDURE CHECKLIST

SETTING UP FOR INTERVIEW (BEFORE PERSON ARRIVES)

1. Put Base Maps in Order _____
2. Select Audiocassette _____
3. Set Up Recording Equipment _____
4. Organize Rest of Tool Kit _____
5. Organize Interview Space _____
6. Note the Starting Code Sequence Number _____
7. Assign Participant`s PIN _____

CONDUCTING INTERVIEW (AFTER PERSON ARRIVES)

8. Review Honorarium Form _____
9. Discuss Confidentiality Resolution _____
10. Sign Permission Form _____
11. Identify Base Maps Needed _____
12. Set Up Mosaic _____
13. Give Respondent a Pencil to Use as Pointer _____
14. Check Recording Equipment _____
15. Introduce Session _____

16. Administer Questionnaire _____

17. Remember to Verbally Anchor Data _____

18. Remember to Use the Codpiece _____

19. Remember to Use the Scribble Pad _____

20. Remember to Remove Side Tabs _____

21. Remember to Add Tape Side Labels _____

22. Remember to Double Check Recording Equipment _____

23. Remember to Introduce Cassette Side _____

24. Record Last Code Sequence Number _____

25. Check Data Along Map Edges _____

26. Ask Participant if Ever Trapped _____

27. Administer Country Food Harvest Survey Portion _____

28. Close Interview _____

29. Date and Sign Maps _____

30. Fill Out and Sign Honorarium Forms _____

31. Turn Off Recording Equipment _____

CLEANING UP AFTER INTERVIEW

32. Print Name and PIN on Maps _____

33. Print Date on Maps _____

34. Print PIN Again on Maps _____

35. Print Map Sequence Number on Maps _____

36. Add Permanent Cassette Side Labels _____

37. Fill Out Interview Record Form _____

38. Double Check Labels and Record Form _____

Duncan's First Nation

2011 Traditional Land Use Survey

PERMISSION FORM

The Traditional Land Use Survey (TLUS) is a community research project being undertaken by the Duncan's First Nation (DFN). The purpose of this project is to map our people's historic, current and ongoing use of our traditional lands.

The information gained from this research project will help preserve the record of our use of our lands, support consultations on proposed projects, help to identify impacts on our culture and rights from development and support DFN's efforts to preserve, protect and assert our treaty and aboriginal rights and title.

I, _____ agree to participate in the traditional land use survey. I agree that the Duncan's First Nation may use the information gained from my interview for the preservation, protection, assertion and advancement of our rights.

Interview Participant Signature:_____

Interviewer Signature:_____

Date:_____

CONFIDENTIALITY DIRECTIVE

Whereas the Duncan's First Nation is:

Undertaking this Traditional Land Use Survey (TLUS) to provide a snapshot of how community members have and continue to use lands and resources

Undertaking one –on –one interviews with some community members to document some of their land use activities and practices on maps, audio tapes and interview transcripts as examples of overall community land and resource use patterns

Supporting this important community research project to help preserve the record of our use of our lands and resources, support consultations on proposed projects, help identify impacts on our culture and rights from development and support DFN's efforts to preserve, protect and assert our Treaty and Aboriginal Rights and Title

Documenting land and resource information with the goal of sharing portions of research with external parties such as government agencies and companies to support DFN's participation in consultations, environmental assessment studies, land use studies, environmental and cultural and regulatory hearings, and

Implementing the appropriate measures and controls to safeguard community members personal information, confidential and sensitive information they share during this research

Therefore this DFN Administration Directs and Commits:

That only the consolidated TLUS maps and data (general maps showing overall community data) will be reviewed and shared with external parties only where there is an appropriate information sharing agreement in place, and

That research participant's Map Biographies (their personal maps), Audio Recordings and Transcripts of their interviews will not be shared with external parties. These materials will only be viewed and shared with external parties with each participant's agreement or consent.

_____(Original Signed)

Chief Donny Testawich: Duncan's First Nation

Duncan's First Nation

2011 Traditional Land Use Survey

PIN:_____

HONORARIUM FORM

I,_____ have agreed to participate in the Duncan's First Nation Traditional Land Use Survey and acknowledge that I will be paid for my participation in the survey.

I acknowledge and accept that I will be paid on the date that DFN generates cheques following the date of this interview.

Participant Signature: _____

Interviewer Signature:_____

Date:_____

INTERVIEW RECORD FORM

1)Interview Date_____ 2) PIN_____

3)Participant Name_____

4) Spelled _____Correctly ___Incorrectly

5) Interview Location: Community_____
Building_____

6)Lead Interviewer_____

7)Other Interviewers_____ None_____

8)Observers_____ None_____

9)Cassette SIDES used (circle) 1 2 3 4 5 6 7 8 9 10 10) Duration_____MIN

11)Map Sheets
Used_____

---

12)Map Biography Completed _____Y_____N

13) Parts **NOT**
Done:_____

_____
_____

14) Departures from standard methodology:_____Y_____N

If Yes
Specify_____

_____
_____

15) Comments (Use back of page if
necessary):_____
_____
_____

_____
____

16) Use and catch all codes____Y _____N If yes, list them and specify:

_____
_____

17) List 1st and Last codes
numbers:_____

18) Interviewer
Signature_____

Appendix I

Data Collection Manual

Duncan's First Nation

2011 Traditional Land Use Survey

Data Collection Manual

Community Interviewer Training and Interview Guide

Matthew General 2011

Based on DCM Outline set out in "Living Proof" by T. Tobias (2009)

NOTE: ORIGINAL PAGE NUMBERS OF DCM DO NOT CORRESPOND WITH THIS VERSION OF THE DCM GIVEN ITS INCORPORATION INTO METHODOLOGY REPORT

Contents

Assigning Respondent Numbers	Pg. 3
Permission Form	Pg. 5
Confidentiality Directive	Pg. 6
Honorarium Form	Pg. 7
Interview Procedure	Pg. 8
Interview Procedure Checklist	Pg. 19

Using Your Questionnaire	Pg. 22
The Questionnaire	Pg. 26
Guidelines for Coding and Marking Data	Pg. 38
Category Codes	Pg. 46
Labelling Audiocassette Sides	Pg. 48
Interview Record Form Template	Pg 50.
Index for Base Maps	Pg 51
Examples of Mapping Products / BIOMAPS	Pg 52

ASSIGNING COMMUNITY PARTICIPANTS PIN NUMBERS

We will assign PIN Numbers – Personal Identification Numbers to DFN members participating in the TLUS. Each community member will have their own number. No one else will have the same number.

Each interviewer will be assigned a separate block of PIN numbers that they will use during their interviews and assign / give to participants:

DFN TLUS Interviewers

Interviewer 1:	**1 – 100**
Interviewer 2:	**101 – 200**
Interviewer 3:	**201 – 300**

Each interviewer will assign / give a new PIN number to each community participant starting with their first number, then moving onto the next.

Example:

Let's say Denise Testawich has been assigned PIN numbers 101 – 200. In her first interview, she will assign PIN 101 to her first interview participant. She will then assign PIN 102 to her next interview participant, then PIN 103, to the next and so on.

If Donny Testawich was her first participant to be interviewed, she would assign PIN 101 to Donny Testawich. If Mel Testawich was the next participant to be interviewed, Denise would assign him PIN 102.

Never change the PIN number during this survey. Each participant should always keep this PIN number for any future research. (e.g. Donny Testawich will always be PIN 101)

PIN Numbers are critical and will be written on people's forms, maps and audiocassette tapes to ensure that all parts of the participants map biography can be found and cross – referenced.

Duncan's First Nation

2011 Traditional Land Use Survey

PERMISSION FORM

The Traditional Land Use Survey (TLUS) is a community research project being undertaken by the Duncan's First Nation (DFN). The purpose of this project is to map our people's historic, current and ongoing use of our traditional lands.

DFN needs to record if, how, when and where community members have used the land in their lifetime. We are asking community members to identify as many sites where they have killed animals, fish and birds, where they have gathered wood and plants, camping sites and other important cultural sites they have first hand knowledge of. Your interview along with other community members will help identify those important sites.

The information gained from this research project will help preserve the record of our use of our lands, support consultations on proposed projects, help to identify

impacts on our culture and rights from development and support DFN's efforts to preserve, protect and assert our treaty and aboriginal rights and title.

I, _____ agree to participate in the traditional land use survey. I agree that the Duncan's First Nation may use the information gained from my interview for the preservation, protection, assertion and advancement of our rights.

Interview Participant Signature:_____

Interviewer Signature:_____

Date:_____

CONFIDENTIALITY DIRECTIVE

Whereas the Duncan's First Nation is:

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That research participant's Map Biographies (their personal maps), Audio Recordings and Transcripts of their interviews will not be shared with external parties. These materials will only be viewed and shared with external parties with each participants' agreement or consent.

Unsigned Copy

_____

Chief Donny Testawich: Duncan's First Nation

Duncan's First Nation

2011 Traditional Land Use Survey

PIN:_____

HONORARIUM FORM

I,_____ have agreed to participate in the Duncan's First Nation Traditional Land Use Survey and acknowledge that I will be paid for my participation in the survey.

I acknowledge and accept that I will be paid on the date that DFN generates cheques following the date of this interview.

Participant Signature: _____

Interviewer Signature:_____

Date:_____

INTERVIEW PROCEDURE

Setting Up For the Interview

It is important that interviewers be prepared and organized for each new interview. You need have your tool kit ready so you can focus on what the participant is saying and so that the interview does not run on past two hours. Having all the proper tools at the ready, will ensure that you follow the same important procedures in every interview.

Step 1 – Put Base Maps in Order – Your set of based maps consists of 25 base maps. Make sure it is organized in a way that allows you to easily find the maps you need.

Step 2 – Select Audio Cassette – Use the first available blank cassette side to start the interview. It doesn't matter whether it's SIDE A or SIDE B. Use a new audio cassette for each new interview participant.

Step 3 – We will be using Sony recorder with good internal mikes in this project. Take your fresh audio tape out of storage box. Label with temporary small masking tape - - "1" and "2" on the other side. Insert the audiocassette. Ensure that volume button is turned up to maximum volume. Make sure the AVR is always set on "OFF". Record at NORMAL speed. Make sure that your batteries are working. Make sure that you have spare batteries on hand. Check to make sure the recorder is off. Whenever the recorder is off, place the split sock over top of the recorder. Sock on = Recorder OFF. Sock off = Recorder ON. Have masking tape handy (for temporary cassette – side labels).

Make sure the tape timer is set at zero every time you start the interview. Note the tape time on your scribble pad.

Step 4- Organize the rest of the Tool – Kit – Here are the toolkit items you should have ready:

- Index Map on the wall (showing the 25 base maps that can be chosen)
- All of your NTS base maps 1 - 25)
- Mylar overlays to cover the base maps 1 - 25
- Audio cassette
- Spare audio cassette
- Tape recorder
- Baby sock
- Masking tape

Now make sure you also have the following:

- 8 Fine Nib marker pens (GREEN, RED and BLUE)
- 2 Medium Nib marker pens (BLACK)
- Scribble pad
- Ballpoint pen
- Magnifying glass
- Game pieces – code markers
- Pencil (for participant to use a pointer)

And make sure you have all the forms and documents you are going to need:

- Data Collection Manual
- Interview Package Forms – that include:

    - Permission Form
    - Honorarium Form
    - Interview Record Form
    - Interview Checklist

Step 5 – Organize Interview Space – Tidy the interview table / work space. Make sure the index map is up on the wall where the participant can view it at the outset of the interview.

Step 6 – Assign Starting Code Sequence Number for Interview - Start with code sequence 1, then 2, then 3, then soon as you mark the features.

Example:

After you do Part 1) of the interview (Biographical Information), you will move on to Part 2) of the Questionnaire. At the start of Part 2, you ask Donny Testawich about if and where he killed moose? His first moose kill site would then be MO1. His second moose kill site would be MO2:

CODE

CATEGORY (MOOSE)	**SEQUENCE**
MO	**01**
MO	**02**

Mark the starting Feature Code number on your scribble pad – “1”.

Step 7 – Assign the Participant’s a PIN Number – For example if Donny Testawich is your first participant – his PIN number will be 101.

Example:

Donny Testawich: PIN 101

Mark his name and PIN number on your scribble pad along with the date.

CONDUCTING THE INTERVIEW

(after the participant arrives)

Step 8 – Review the Permission Form – Review the Permission Form with the respondent. This is important. Respondents must know, understand about the research project they are to participate in, what end uses the data will be used and agree to participating in it of their own free will.

Review the Permission Form and let the participant sign the form.

Step 9 – Review the Honorarium Form – Tell the respondent that DFN wishes to pay people for their time, expertise and knowledge.

Review the Honorarium Form with respondent. If they agree with the proposed term, let them sign the form.

Step 10 – Review the Confidentiality Directive – Review the Directive with each respondent. It is important that the respondents know that DFN has built in safeguards to provide a high level of confidentiality in the survey. While maps will be produced and shared showing all the community's combined data (sites), the respondents personal map biography, interview transcript or audio tape will not be shared with anyone without their permission. The PIN – Number also protects provides a measure of confidence.

If the respondent agrees with the principles and safeguards, let the person sign their form.

Step 11 – Identify the Base Maps Needed – Ask the participant to look at the Index Map on the wall and let them tell you which maps are needed. (E.G. Maps 9, 8 ,4 and 3 or Maps 2 and 3 or all of the maps) Ask which area they have and continue to use the most? Ask about other areas they have been. Select these maps. If they are unsure of where to start, perhaps start with the maps around the Duncan's reserve.

Write the starting maps you are going to use on the scribble pad. Arrange the base maps.

Step 12 – Tape the Mylar overlays to your base maps – with white border at the bottom and squared with the right hand bottom corner of the map. Use two small pieces of tape and tape the edge of the Mylar to the base map. Do not wrap tape around back of side of the map.

Mark your registration marks on the four corners of your Mylar overlays. The registration marks are the four red circles in all four corners.

Each of your base maps is marked with a number in the top right hand corner of your map. Example 1, 2, 3, 4 etc. Trace over top of this number on your Mylar overlay so that your Mylar has the same number as your base map. Example: If your base map has the number "6" on it. Trace the "number" 6 on the Mylar.

(NOTE - YOU CAN DO THIS BEFORE THE INTERVIEW STARTS and have all your base maps ready to go)

Step 13 – Give participant a Pencil – Tell the participant that you want them to use the pencil as pointer so that they can point to sites as carefully as possible. Also give them the magnifying glass, so that they can use it to look at areas in more detail if they want.

Step 14 – Check the Recording Equipment – Ask if the participant is ready to start the interview. If they are, check the recording equipment. Take the sock off the recorder. Turn the record button on. In a normal voice say "Testing, One, Two, Three. Testing One, Two , Three". Rewind and listen to the playback. If the

playback is weak or you hear static, change the battery and repeat. Once you get the right volume and clarity hit the “STOP” button on the recorded. Then hit “RECORD” and start the interview.

Keep the recorder between yourself and the interview participant with the mike pointing towards you. Keep it as close to both of you as possible. Use the recorder stand that we have built out of the Mylar role end to ensure the recorder and mike is always pointed upwards towards your voice and the voice of the respondent.

Step 15 – Introduce the Session – Start the interview by making an introduction. Include:

- Your name – the Interviewer;
- Interview Date;
- Participant’s Name;
- That you’ve reviewed the Permission Form’
- The interview location;
- Other’s present such as an assistant or observer;
- That we are doing a map biography interview;
- That we will be marking data on 1:250,000 base maps, and
- The maps that we will be starting with are numbers.....

EXAMPLE:

“My name is Malcolm Testawits. Today is Monday, May 12 – 2011. I have just reviewed the permission form with Donny Testawich that he’s just signed. We are in the Duncan’s First Nation community hall. We are here to do a map biography session. I will be marking data on Mylar overlays sitting over top off 1:250,000 paper base maps. We will be starting with maps 5, 9, 12 and 24.

Step 16 – Administer Questionnaire – Turn to the Questionnaire on **Page 26.** Administer questionnaire.

Step 17 – Verbally Anchor Data – You must verbally anchor every feature you mark. Read the feature’s code out loud, as you are marking it on the map. This

is so that each feature is highlighted on the audiocassette. It is important to verbally anchor all features that you mark. If you wish to add some detail as to the location of the site, do so. (Example – Donny Testawich has just identified a moose kill site on the north end of Cardinal Lake. I'm now marking this site as M014...Moose Kill Site 14".

(See Items 1 and 2 on PG 41)

Step 18 **–** Use Codepiece **–** Move the codepiece every single time you mark the feature code on a map. This helps you remember your last Feature Code.

(See Item 3 on Page 38)

Step 19 – Use Scribble Pad – The pad already shows a record starting code number. (Step 6) and the base maps indentified by the participant (Step 11). Use it to keep track of loose end, Catch All Codes or other things that seem important to you – items you'll want to come back to later in the interview or to discuss with Matt.

Step 20 – Remove Audio Cassette Side Tabs – Each time you take a tape out of the machine – either to flip and re-insert it or to replace it with a new one – break the cassette's plastic tab. The tab on the TOP LEFT side (as the tape comes out of the machine) is the one to remove. Do this immediately.

Step 21 – Add Temporary Cassette Side Labels – Immediately after removing a cassette add a temporary label. The label is simply a small piece of masking tape just big enough to write a number on. The interview's first cassette is labelled "1". The second is labelled "2" and so on.

Step 22 – Double Check Recording Equipment – Each and every time you flip and re-insert a cassette or replace it with a new one, check the recording equipment. Say again, "Testing, One, Two, Three, Testing One, Two, Three" Rewind and listen to make sure it's working.

Step 23 – Introduce Each Cassette Tape – Each time you flip and re-insert the cassette or replace it with a new one, make a one sentence introduction. Specify the cassette side, interview type, participant and date. For example:

"This is the beginning of the 2nd cassette of the traditional land use survey interview with Donny Testawich on May 15, 2011"

Step 24 – Record Last Code – Sequence Number – When it's been decided to end the session, the codepiece will be left standing beside the last (highest) code number that was used. Write that number down on the scribble pad.

Step 25 – Check Data Along Map Edges – Check all polygons and line features that cross from the edge of one map sheet onto the other. Place the two maps together and make sure the lines and polygons line up directly.

Step 26 – Ask if Participant Ever Trapped – Ask whether the participant ever set snares or traps for fur bearers. Ask them if they are any member of their family holds or held a trapline, registered fur management area. Ask him or her to name any DFN member that did.

Write the information down on the scribble pad.

Step 27 – Administer Country Food Harvest Survey portion of the questionnaire.

Step 28 – Close Interview – Close the interview by repeating the same basic information that you provided when introduced the start of the interview. For example:

"We've just completed the traditional land use survey interview with Donny Testawich in the DFN community arena. We've marked data on four 1:250,000 maps using Mylar overlays."

Step 29 – Date and Sign Maps – Date and sign each map on which data and information was marked. Have the participant sign each map. Also say:

"The last thing we are going to do is to date and sign the maps. I'm writing the date – May 21, 2011 – and signing my name – Denise Testawich – near the date, on each of the maps. I'm now asking you Donny, to also sign the maps next to my name."

Step 30 – Fill Out the Honoraria Form – Fill in the person's name, PIN number and dollar amount.

Step 31 – Turn Off Recording Equipment – Switch off the audio cassette machine. Turn of the recorder. Put the split sock back over top of the mike.

CLEANING UP AFTER THE INTERVIEW

(after the participant leaves)

Step 32 – Print Name and PIN Number on Maps – Print the participant's name and PIN on each map, on the appropriate lines in the map's bottom margin. (The interviewer prints his or her name on the interviewer line. Print and print in letters 1 inch high. Use the BLACK medium size nib pen.

Step 33 – Print Date on Maps – Print the date on each map, on the appropriate line in the map's bottom margin. Print and print in letters 1 inch high. Use the BLACK medium size nib pen.

Step 34 – Print PIN again on Maps – Print the PIN once more, this time in large characters, somewhere on the map that doesn't display TLUS data. Using a medium marker, print in upper case, 4 inch high letters.

Step 35 – Print Map Sequence Number on Maps – Print the map sequence number on the appropriate line in the map's bottom margin. Start with **"BIOMAP 1**". It doesn't matter which map gets which sequence number. Indicate the assigned map number and also the number of maps in the set. For example **"BIOMAP 1 OF 4, BIOMAP 2 of 4, BIOMAP 3 of 4, BIOMAP 4 of 4."** Using the BLACK medium marker, print in upper case, inch high letters.

Step 36 – Add Permanent Cassette – Side Labels – Replace the temporary cassette labels (Step 21) with permanent ones. Each label must indicate six (6) pieces of information:

- The participant's name
- The participant's PIN
- The Project Title
- The Date
- The Number of Tape Side in the sequence of tape sides (E.G.1of 2, 2 of2). The project assistant will later add the TAPE ID number to each of the tape's two sides.

Print the information using a ballpoint pen, Make sure there's daylight in the loops of numbers and letters. Spell the respondent's name correctly and don't use nicknames. Print the name or abbreviation for month.

Look at the example tapes in the tape storage boxes to see how to fill out the tape labels.

Step 37 – Fill Out the Interview Record Form – Make an official record of the interview by filling in an interview record form. All fields must be filled in. Don't forget to transfer both the lowest and highest code numbers from the scribble pad to the form.

Step 38 – Double Check Labels and Interview Record Forms – Check to ensure all maps and audiocassettes are labelled correctly. Make sure your interview record form is complete and consistent with what you see on the maps and cassette side labels.

Place your tape in your tape storage box in order.

Staple all of your interview forms together and place in your file in order in a file folder with the PIN and participants name in a file folder.

INTERVIEW - PROCEDURE CHECKLIST

The list starting on the next page contains 37 items. Each of them corresponds to a step that's described in the "Interview Procedure". Each of them corresponds to the steps described in the "Interview Procedure" section of this manual on Pages 7 - 15.

Start every interview with a fresh photo copy of the interview checklist. Using a pen, check off the items as you do them.

SEE NEXT PAGE

INTERVIEW PROCEDURE CHECKLIST

SETTING UP FOR INTERVIEW (BEFORE PERSON ARRIVES)

1.Put Base Maps in Order / Cut Mylars to Size (Pg. 7) _____

2.Select Audiocassette (Pg. 7) _____

3. Set Up Recording Equipment (Pg.7) _____

4. Organize Rest of Tool Kit (Pg. 7) _____

5. Organize Interview Space (Pg.8) _____

6. Note the Starting Code Sequence Number(Pg. 9) _____

7. Assign Participant`s PIN (Pg.9) _____

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CONDUCTING INTERVIEW (AFTER PERSON ARRIVES)

8. Review Honorarium Form (Pg.10) _____

9. Discuss Confidentiality Directive(Pg.10) _____

10. Sign Permission Form(Pg.10) _____

11. Identify Base Maps Needed (Pg. 10) _____

12. Set Up Mosaic (Pg. 10) _____

13. Give Respondent a Pencil to Use as Pointer (Pg.11 _____

14. Check Recording Equipment(Pg.11) _____

15. Introduce Session (Pg. 11) _____

16. Administer Questionnaire (Pg.12) _____

17. Remember to Verbally Anchor Data (Pg.12) _____

18. Remember to Use the Codepiece (Pg.12) _____

19. Remember to Use the Scribble Pad (Pg. 12) _____

20. Remember to Remove Side Tabs (Pg. 12) _____

21. Remember to Add Tape Side Labels (Pg. 12) _____

22. Remember to Double Check Recording Equipment (Pg. 12) _____

23. Remember to Introduce Cassette Side (Pg. 12) _____

24. Record Last Code Sequence Number (Pg. 13) _____

25. Check Data Along Map Edges (Pg. 13) _____

26. Ask Participant if Ever Trapped (Pg.13) _____

27. Administer Country Food Harvest Survey Portion (Pg.13) _____

28. Date and Sign Maps (Pg.13) _____

29. Close Interview (Pg.13) _____

30. Turn Off Recording Equipment (Pg. 14) _____

CLEANING UP AFTER INTERVIEW

31. Print Name and PIN on Maps (Pg.14) _____

32. Print Date on Maps(Pg.14) _____

33. Print PIN Again on Maps (Pg.14.) _____

34. Print Map Sequence Number on Maps(Pg.14) _____

35. Add Permanent Cassette Side Labels (Pg.15) _____

36. Fill Out Interview Record Form (Pg.15) _____

37. Double Check Labels and Record Form(Pg. 15) _____

38. Place Audio Cassettes in Your Tape Box _____

39. Return Your Base Maps and Tool Kit to Storage _____

40. Return Completed Mylar Overlays to Your Place _____

41. Place Your Scribble Pad Page and Completed
And Interview Record Forms to the Project Binders _____

USING YOUR QUESTIONNAIRE

1. The questionnaire has five (6) parts:

Part 1

Biographical Information – about participant

Part 2

Animal Kill – Collecting Sites – where participant killed or collected animals, fish and birds

Part 3

Plant, Wood and Earth Material Harvest Sites – Where participant collected plants, wood and earth materials for community use

Part 4

Overnight Sites – Where respondent stayed overnight while trapping, hunting, fishing, gathering, travelling or working in the study area

Part 5

Cultural Sites – other significant places that the participant has either used or has knowledge about

Part 6

Country Food Harvest Survey – about what types and what amounts of country or bush foods the participant consumes

2. Start every interview with Part 1 of the questionnaire. Follow the questionnaire from start to finish and ask every question of each participant.

3. All participants are to respond to all six (6) parts of the questionnaire. A map biography is completed once the respondent has been asked about all the questions. If the interview is taking a long time and the participant appears to be getting tired or possibly frustrated, then close of the interview and resume again the next day or as soon as possible.

4. The purpose of Part 2. of the questionnaire is to map places where the participant killed animals to feed his or her family. The purpose of Part 3. is to map places where he or she harvested plants and earth materials for their family's direct use. We are mapping KILL and HARVEST sites. *Do not make the common mistake of mapping where you can find the animals and materials. We are not mapping habitats in this study.*

5. The purpose of Parts 2 and 3 is to map where the participant has done harvesting over their lifetime. We are mapping where they have and continue to hunt – even if that hunting is banned in that area.

6. The purpose of Parts 2 and 3 is to map where the participant has done harvesting – even if it's no longer possible to harvest at that site – E.G. If the site area has been flooded, covered with a road or lease site. We still mark those sites.

7. The purpose of Part 2. Is to map the places where the participant killed or collected animals to feed his or her family. The person needed to be directly involved in getting the animal (shooting it, helping cut it up and packing it in and taking the whole kill or a portion of the kill to their household and family). We are also not marking activities undertaken for commercial purposes such as guide outfitting activities.

8. Map all the participant`s use of the area within their living memory (past, historic and recent). We are going to interview people that live on and off the reserve.

9. When starting Part 2), read the following introductory paragraph to the participant:

``I`m now going to ask you questions about where you killed different kinds of animals – fish, mammals and birds. For this part of the interview we want to map only places where you KILLED animals and took some home for eating purposes. We don`t want to mark a spot where you killed animals for commercial or barter purposes unless you took some of it home to eat. We don`t want to mark spots where you killed animals for tourists while you were guiding, unless you took some of the meat to eat.

The above statement helps explain what we want them to indicate. At first read this in your first few interviews. When you get used to saying it, use your own words.

10. Pay close attention the questionnaire key words. Use the word **`KILL``** for all Part 2 questions about fish, birds and mammals. Don`t use the words ``hunted, fished, trapped. Looked for, tracked, harvested, got and gone for``.

11. When doing Parts 2 and 3, ask only for **``SOME``** of the participants kill sites. Never ask for all sites. This will be too much to map for some people and we don`t want to burn them out. We want to map as much as we can but we can`t get it all.

12. Every questionnaire item – except the first and sixth – contains at least one questionnaire category. For example**,** look on Pg. 46 – each category has its own unique code.

    (E.G. Moose = MO, Elk = EK, Mule Deer = MD).

    Each category code is shown in capital letters. When coding a feature on the maps, never guess about the category code. It should almost be impossible for you to get it wrong because the code appears in the right hand margin of the questionnaire. Have a photocopied list of Category Codes on the table when you are mapping. (Pgs 46 – 47).

13. Pay attention to the specific language in each questionnaire question. Key words that you must ask are underlined such as “KILL” and “COLLECTED”.

14. Your research instrument is a questionnaire. It is important to ask about all questionnaire categories.

15. Mapped features can be marked as points, lines or polygons depending on which questionnaire part you are working with:

PART	**POINT – POLYGON**
1)Biographical Info	Doesn`t apply
2) Animal Kill Sites	Point
3) Plant or Earth Sites	Point, Line or Polygon
4) Overnight Sites	Point
5) Cultural Sites	Point, Line or Polygon

The questionnaire has built in reminders so you can`t go wrong. These appear in the right hand margin, immediately above the category codes. Each code appears with one of the following reminders:

Points Only = ■ .

Points or Polygons Only = ■ or O

16) Sometimes you`ll see information underlined in the questionnaire.

Information underlined like this is a reminder for you. Read it quietly to yourself.

17) In Part 4 – the section about Overnight Sites. Ask some additional detail such as when the participant built the camp, the exact location, when did they build and who they built it with. In this case, you will be chasing Data Diamonds were you trying to get as much detail about the feature as possible.

E.G. **WHAT** – Have you ever stay overnight in a Tent Site?

WHERE – Where exactly was that Tent Site?

WHO – Did you stay there by yourself or did someone else stay there with you?

WHEN – Can you remember when you stayed at this Tent Site?

18) Every time you mark a feature you must verbally anchor it. This creates a link between the feature you are marking on the map to that tape recording.

QUESTIONNAIRE

Introduce Session

My name is _____ and today is_____, 2011. I have just reviewed the Confidentiality Directive, Consent Form and Honoraia Form with _____ that he / she has just signed. We're in the community arena (or other location) at the Duncan's First Nation reserve to do a traditional land use survey map biography session. Our data will be marked on

clear Mylar overlays that are sitting over top of 1:250,000 scale base maps. We'll be starting with map sheets_____.

PART I

CATEGORY – BIOGRAPHICAL INFORMATION

1)What is your birth date? Where you were you born? What are your parents names? Where were your parents born? What is your mother's maiden name?

PART 2

CATEGORY – ANIMAL KILL SITES

``I`m now going to ask you questions about where you killed different kinds of animals – fish, mammals and birds. For this part of the interview we want to map only places where you KILLED animals and took some home for eating purposes. We don`t want to mark a spot where you killed animals for commercial or barter purposes unless you took some of it home to eat. We don`t want to mark spots where you killed animals for tourists while you were guiding, unless you took some of the meat to eat. Also I want to point out that we are only looking to map actual locations where you killed animals. We are not mapping wildlife habitat – the places where you tend to find animals or where you know that animals go. We are marking kill sites.

Kill sites for all animal categories below are only mapped as points. Not lines or polygons.

MAMMALS

2) Did you ever kill MOOSE to feed your family or community? **MO**

Can you show me some spots? ▪
only

3) Did you ever kill CARIBOU to feed your family or community? **CU**

Can you show me some spots? ▪
only

4) Did you ever kill ELK to feed your family or community? **EK**

Can you show me some spots? ▪
only

5) Did you ever kill MULE DEER to feed your family? **MD**

Can you show me some spots? ▪
only

6) Did you ever kill WHITE TAILED DEER to feed your family or Community? **WD**

Can you show me some spots? ▪
only

7) Did you ever kill BLACK BEAR to feed your family or community? **BB**

Can you show me some spots? ▪
only

8) Did you ever kill GRIZZLY BEAR to feed your family or community? **GB**

Can you show me some spots? ▪
only

BIRDS

9) Did you ever kill DUCKS to feed your family or community? **DK**

Can you show me some spots? ▪
only

10) Did you ever kill GEESE to feed your family or community? **GE**

Can you show me some spots? ▪
only

9) Did you ever kill GREBES to feed your family or community? **GR**

Can you show me some spots? ▪
only

10) Did you ever kill GROUSE to feed your family or community? **GS**

Can you show me some spots? ▪
only

11) Did you ever kill PTARMIGAN to feed your family or community? **PT**

Can you show me some spots? ▪
only

12) Did you ever kill CRANES to feed your family or community? **CR**

Can you show me some spots? ▪
only

FISH

13) Did you ever kill WALLEYE to feed your family or community? **WE**

Can you show me some spots? ▪
only

14) Did you ever kill JACKFISH to feed your family or community? **JF**

Can you show me some spots? ▪
only

15) Did you ever kill DOLLY VARDEN to feed your family or community? **DV**

Can you show me some spots? ▪
only

16) Did you ever kill BULL TROUT to feed your family or community? **BT**

Can you show me some spots? ▪
only

17) Did you ever kill RAINBOW TROUT to feed your family or community? **RT**

Can you show me some spots? ▪
only

18) Did you ever kill ARCTIC GRAYLING to feed your family or community? **AG**

Can you show me some spots? ▪ only

19) Did you ever kill WHITEFISH to feed your family or community? **WT**

Can you show me some spots? ▪
only

20) Did you ever kill GOLDEYE to feed your family or community? **GY**

Can you show me some spots? ▪
only

21) Did you ever kill LINGCOD to feed your family or community? **LC**

Can you show me some spots? ▪
only

PART 3

CATEGORY – PLANT AND EARTH SITES

I`m now going to ask you questions about where you collected different kinds of plants, wood and earth materials. Again, we are looking to map only those actual sites and places where you have actually gathered plants, wood and earth materials. We are not mapping places where you tend to find those plants, wood and earth materials.

Plant and earth material sites are to be collected as points, lines or polygons depending on the extent of the area used.

22) Did you ever collect wild BERRIES? Show some spots. **BR**

■ or

O

23) Did you ever collect FOOD PLANTS? Show some spots. **FP**

■ or

O

24) Did you ever collect MEDICINE PLANTS? Show me some spots? **MP**

■ or

O

25) Did you ever collect CONSTRUCTION LOGS? Show me some spots. **CL**

■ or

O

26) Did you ever collect FIRE WOOD to heat your home? Show me some spots. **FW**

■ or O

27) Did you ever quarry or collect SPECAILTY ROCK? Show **SR**

me some spots. ▪ or O

28) Did you ever collected DRINKING WATER to bring back to your

house, cabin or camp site? Can you show me some spots?
DW

▪ or O

PART 4

OVERNIGHT SITES

I'm now going to ask you questions about places where you personally stayed out overnight while you were hunting, fishing, gathering, travelling or working in region.

All overnight sites to be mapped as points.

29) Have you ever stayed overnight in a CABIN? Show me the spots. **CB**

Do you know who built the cabin? Is it still being used? ▪ only

30) Have you ever stayed overnight in a TENT? Show me the spots. **TT**

.only

31) Have you ever stayed in a LEANTO? Show me the spots. **LT**

.only

PART 5

CULTURAL SITES

I'm now going to ask you questions about other kinds of cultural sites. For this part of the interview we want map only places that you know for sure have been used in your lifetime or the life times of your parents or grandparents.

The cultural sites below are to be mapped as points, lines and polygons

32) Do you know of any Duncan's or Duncan's family Burial Places? **BP**

Do you feel comfortable in showing me those spots. If so, show the spots. Do you know who was buried at this place?

▪ or O

33) Do you know of any Duncan's or Duncan's family Birth Sites? If so show the spots. **BS**

▪ or O

34) Do you know of any Old Settlements? If so, show them. **OS**

■ or O

35) Do you have or have used Cache Sites. Can you show me where these are? **CS**

■ or O

36) Do you know of any Sacred Sites that you would be comfortable in talking about? Can you show me where these are? **SS**

■ or O

PART 6

COUNTRY FOOD HARVEST SURVEY

I am now going to ask you some questions about the foods that you kill and gather from the land. I am going to ask you what kinds of country foods you eat such as moose and fish and berries, how often and in what amounts. In asking this question, we are trying to get a sense of how important country foods are to you and your family. You need to answer as accurately as you are able.

Fill in the answers below the question in neat printing.

MAMMALS

37) How many times in a week on average do you eat moose? Or how many times a month on average do you eat moose?

38) How many times in a week on average do you eat deer or elk? Or how many times a month on average do you eat deer or elk?

39)How many times in a month do you eat other animals, but not moose, elk and deer?

40) When you eat wild game what size of portion do you eat? A portion size of one palm, two palms, three palms or more? When I say palm – what I mean is the palm of your hand.

41) In what months do you seem to eat wild game the most?

42) How do you generally prepare / cook wild meat?

43) Do you dry or can wild game? Do you freeze it?

44) Do you share wild meat that you kill with your extended family or the community?

45) How much of a kill do you share with your extended family or the community?

46) Do members of your extended family or the community share what they kill with you? How much of the kill do they share with you?

FISH

47) How many times in a week on average do you eat fish? Or how many times a month on average do you eat fish?

48) When you eat fish what size of portion do you eat? A portion size of one palm, two palms, three palms or more? When I say palm – what I mean is the palm of your hand.

49) In what months do you seem to fish the most?

50) How do you generally prepare / cook fish?

51) Do you dry, can or freeze fish?

52) Do you share fish that you kill with your extended family or the community?

53) Do members of your extended family or the community share the fish they kill with you?

54) What species of fish do you eat the most? What species of fish do you enjoy the most.

BERRIES

55) Can you tell what types of berries you gather and eat?

56) What type of berry do you eat the most? What is your favourite type of berry?

57) Do you dry, can or freeze berries??

58) How many times a week do you eat berries? Or how many times a month do you eat berries?

59) When you eat berries, generally how much do you eat in one sitting? One cup? Two cups? Three cups or more?

60) Do you share the berries you gather with your family?

61) Do other people / families share berries with your family?

62) Have you ever trapped for sustenance or commercial purposes? We are not going to map trapping in this specific study but will come in another study to map those places. Did your family actually have a trapline number or can you recall the general areas in which they trapped?

GUIDELINES FOR CODING AND MARKING

FEATURE CODES

1) Each feature must be identified by a code. The code is made up of two parts. The first part of the code is a pair of upper case letters representing the Questionnaire Category. The second pair of the code is number that indicated where the feature fits in the sequence of data marking. When you do the interview a participant you start with 1, then 2, then 3 and so on.

DIAGRAM A

MO1

Questionnaire Category / Sequence

MO2

MO3 and so on

2) The code sequence for each interview ascends or goes up, starting with the number “1”. The sequence follows the ascending order that features are mapped, regardless of whether you are jumping back and forth between questionnaire categories, or back and forth between base maps

or between points, lines and polygons. The first feature marked during an interview number 1. (example: MO1). The second feature indicated is two (MO2). The third feature is three (MO3). The fourth is four (CB4). The fifth is five (MO5)

DIAGRAM B:

ORIGINAL DIAGRAM NOT PROVIDED IN THIS VERSION OF THE DCM

3) There cannot be – for any given participant – duplicate sequence numbers. For instance, the same person's maps should never display two MO12's or two CB5's. Ideally, if the 250 features are mapped during an interview with sequence would go from 1 – 250.

   Get in the habit of using the codepiece. Every time you mark a feature code, place the codpiece beside it. This will make it easy for you to keep track of the last sequence number used. If you forget to use the codepiece and find you've lost track of the assigned number, don't worry about trying to determine precisely where it was. Simply skip ahead a few to a number that you know for sure is not a duplicate. It is okay to have breaks in sequence continuity, but not duplicate code numbers.

4) The code is always attached to the feature with a line called a "leader". (Do not create floating codes). The feature, its code and its leader are always marked in the same colour ink.

DIAGRAM C:

ORIGINAL DIAGRAM NOT PROVIDED IN THIS VERSION OF THE DCM

5) Whenever you code a line feature you must underline the code. This lets the digitizers (the people that will do the computer mapping) know that a feature is a line and not a polygon. Usually this is obvious but not always. Sometimes a line feature joins back on itself, in which case it's not clear whether it's a line or a polygon. Perhaps a respondent indicates that she

has picked berries all along the trail that loops back on itself. The absence or presence of the oval tells the digitizer how to process the feature.

DIAGRAM D

Line Feature **Line Feature that Loops Back on Itself**

ORIGINAL DIAGRAM NOT PROVIDED IN THIS VERSION OF THE DCM

6) If you go back to the same participant to do a second interview – a follow up session – you must pay close attention to the last code assigned. These will be recorded on the last code assigned. These will be recorded on the interview record form (Pg. 48). (Also Matt will have a master list of respondents, PINS and last assigned feature numbers). Start the follow up interview with the next available 3 digit "hundreds value" plus 1). For instance, if the last feature number assigned during Donny Testawich's 1st interview is 185, the first number assigned during his 2nd session would be 200 plus 1 = 201.

7) Sometimes a mapped point feature represents more than one questionnaire category. For instance, the participant might have killed "Moose" (MO) and Grouse (GS) at the same site. Or maybe he indicated a particular Cabin (CB) also as a Tent (TT). All such features require multiple codes. The number of codes must match the number of categories.

   A variety of leader configurations can be used. When possible, use a single leader and a string of codes, with each separated by a comma. Having options provides flexibility that minimizes crowding.

   In the diagram below, the moose (MO) kill site shown in the example above was the interview's 45th coded item, while the Tent Site (TT) was the 46th. This can also be drawn in another way – with one site, with two leaders extending from the site to two separate feature codes.

   DIAGRAM E

ORIGINAL DIAGRAM NOT PROVIDED IN THIS VERSION OF THE DCM

8) Sometimes a mapped polygon or line feature represents more than one questionnaire category. An example below represents a site where the participant harvested both Berries (BR) and Medicine Plants (MP). A polygon is appropriate in this case. Note, this is not underlined. Another shows a trail along which the person picked Food Plants (FP) and Berries (BR), then returned to the same pointThe features and their respective codes and leaders are always the same colour.

DIAGRAM F) Polygon with Multiple Categories / Line with Mutliple Categories

ORIGINAL DIAGRAM NOT PROVIDED IN THIS VERSION OF THE DCM

VERBAL ANCHORING

9) Every time you mark a feature on a map you must verbally anchor it. This means speaking the code out as you mark it. As your pen is actually laying down the line of ink for “MP 59”, “the words” medicine plant eighty six” should be passing your lips. Speak clearly and in a normal voice when you anchor sites. Don’t mumble, and don’t drop your voice as you do it.

MORE BASICS

10) Each feature marked on a map will take one of three forms: point, line or polygon (area). Each point is 2mm in diameter – large enough to recognize from the leader but not so big to cause imprecision. When using a line code – ensure that you are underline the feature code, so that it can be distinguished from a polygon. Only use polygons where necessary and for a small area. The polygon must be drawn as accurately as possible to capture the activity being undertaken. Note – polygons are not underlined.

DIAGRAM G

ORIGINAL DIAGRAM NOT PROVIDED IN THIS VERSION OF THE DCM

11)Each polygon must be completely closed. The line forming each boundary must come back on itself, creating a closed loop. If it doesn't, you've got two dangling ends. Sometimes a polygon will end abruptly at the edge of a map sheet, creating dangling ends. Make sure that before the session is over you take out the adjoining map and complete the polygon.

12) Make sure that any polygon or line that covers parts of two or more base maps lines up at the edges correctly. Make sure the feature is coded the same on all maps on which a portion is drawn. If a polygon or line covers parts of two sheets, the same code should appear twice, once on each sheet. If it covers parts of three maps, it should appear three times.

CLARITY - PRINTING CLEARLY

Each of the dozens of hundreds of codes you mark during a map biography has to be readable, at a glance. This guaranteed if you acquire the following habits:

13) Print all letters. Do not write.

14) Use only upper case capital letters.

15) Make sure you can see "daylight" in the loops of your letters (B, D, R and so on) and numbers 6, 8 and 9. This ensures that your codes are printed large enough.

16) Be conventional with your printing. Don't add punctuation or make it fancy with mysterious loops and wild flourishes. No extra markings.

17) Use pens that are in good shape. Permanent markers with fine nibs are the only acceptable instruments when it comes to marking data. When a nib starts to flatten from overuse or the pen begins to run out of ink, discard it.

CLARITY – COLOUR

In our system, colour is only used to enhance clarity. Colour does not signify any particular questionnaire category. However, let's agree to use RED, BLUE AND GREEN for marking our feature codes.

We will only use the BLACK medium markers for marking the PIN numbers, BIOMAP #, dates and signatures on maps

18) Make sure each feature and its code and leader are the same colour.

19) Take advantage of the four pen colours included in your toolkit. Whenever a portion of a map starts to get the slightest bit busy or crowded, switch colour. Variety makes a tremendous difference in readability, especially in areas where there are clusters of data.

20) Make sure overlapping polygons and lines that cross are different colours.

CLARITY - LEADERS

21) Mark leaders neatly. Attach them to features in a consistent, crisp manner. Each leader should connect to – actually touch – the feature; don't leave gaps.

There should, however, be a small gap between the other end of the leader and the code.

22) Avoid crossing leaders. If you find it necessary to draw a leader across another one, make sure there are different colours.

23) When marking data along the base map's linear features – rivers, shorelines, roads, and so on – mark the leaders perpendicular (at right angles) to the linear features.

24) Mark each leader an appropriate length. This caries depending on how much data you have already marked. Leaders can be too long. Sometimes, it's OK to use to use a really long leader. The right length for a leader is one the minimizes clutter.

DIGARAM H) Examples of correct recording of feature codes and labelling

ORIGINAL DIAGRAM NOT PROVIDED IN THIS VERSION OF THE DCM

<u>CLARITY – SECOND MAP</u>

It sometimes happens that clarity of mapped data is inadequate even after careful use of the conventions governing legibility, use of colour, and leader placement. At some point it can become difficult to read the information due, simply, to the quantity of the data. It's important to develop a sense for when you are approaching that point, and to do something about it before you get there. Consult with Matt, to learn how to recognize how much on a single map is too much.

25) That "something" is to replace the map you've been using with a clean on. It's OK, if necessary, to even use a third map.

ACCURACY

26) You should be the person marking the data on the maps. It's good for the respondent to have a pencil in hand, so that he or she can point out the locations off features as precisely as possible. The participant doesn't mark the data.

27) Make sure the participant indicates – and not just nominally – the location and extent of sites. Have him or her indicate sites using a pencil as pointer, and show you the perimeter or polygons, Ask questions, What part of the bog did you pick medicine plants in"? Do not whip off polygons carelessly. Base them on the participant's information, not your assumptions. What you've marked should make sense to you. Don't settle for things like grouse sites in the lake, burial grounds on the sides of cliffs, or cabins in rivers. If something doesn't make sense, ask questions until it does, or the location is revised.

28) Make sure that sites with multiple codes – especially polygons – are valid. Let's say the participant points out berry site BR 94. When you get to the food plant category she indicates the same site for FP 99. Still after, responding to your questions about medicine plants, the respondent says – "The same place as those other two" and you code it MP 119"

Unskilled interviews – but not you guys – might make unwarranted assumptions, and make the three sites likes this.

The above is an example of interviewer bias, (It would not be interviewer bias if the respondent had clearly specified she'd collected all three categories over the exact same area. Usually, an accurate depiction would show overlapping polygons, perhaps as seen below. Its your job to be as accurate as you can.

29) Use the "approximate convention" – add a capital A to the end of the code – to indicate locations the participants is unsure about. Use it when the person either cannot point to the site, if a polygon's involved, cannot show you its perimeter. This convention is used to indicate that the respondent is confident the site is in the general vicinity, but not necessarily at the precise spot marked.

30) Pay attention to the questionnaire specifications that tell you a particular category must be marked as a point, or whether it can be marked as point, line or polygon.

LARGE POLYGONS

Avoid using large polygons.

CORRECTING MISTAKES

If you are making any kind of mistake when marking data – or and revision is needed – simply cover the error with diagonal hatching. Do this using a colour that's different than that of the original. Then add the correction using the same colour as the original.

CATGEGORY CODES

ANIMAL KILL SITES

Questionnaire Part 2

MAMMALS

MO	moose	CU	caribou
EK	elk	MD	mule deer
WD	white tailed deer	BB	black bear
GB	grizzly bear	XM	other mammal

BIRDS

DK	ducks	GE	geese
GR	grebes	GR	grouse
PT	ptarmigan	CR	cranes
XB	other bird		

FISH

WE	walleye	JF	jackfish (northern pike)
DV	dolly varden	BT	bull trout
RT	rainbow trout	AG	arctic grayling
WT	whitefish	GY	gold eye
LC	ling cod (burbot)	XF	other fish

PLANT and EARTH SITES

Questionnaire Part 3

BR	berries	FP	food plants
MP	medicine plants	SP	sacred plants
CL	construction logs	FW	fire wood
SR	specialty rock	DW	drinking water
XP	other plant/earth site		

OVERNIGHT SITES

Questionnaire Part 4

CB	cabin	TT	tent site
LT	lean to	XOS	other overnight site

CULTURAL SITES

Questionnaire Part 5

BS	birth sites	BP	burial places
OS	old settlements	CS	cache sites
SS	sacred sites	XCS	other cultural site

LABELLING AUDIO CASSETTE SIDES

For purposes of labelling cassettes and keeping records, it's important to be very clear about these terms:

- MAP BIOGRAPHY
- INTERVIEW or SESSION
- Audiocassette side

1) The participants MAP BIOGRAPHY is completed when all six (6) questionnaire parts have been completed. That it, it's done when he or she has been asked about all six categories. The average participant should complete his or her biography in less than two hours. However, there will be some who require more than one interview. In other words, some map biographies will require more than one interview – more than one session.

2) An INTERVIEW is the same thing as a SESSION. These words refer to the time spent interviewing a participant on a given day, regardless of how many breaks in the interviewing process there are on the particular day.

   For instance, let's assume Jayme starts interviewing Donny Testawich on the afternoon of May, 14. That's when he starts Donny's map biography. Then Jayme and Donnyy take a break, go and have supper, and come back to continue the interview and map biography in the evening. When they stop working on the evening of the 14th, Donny's biography is not complete. But his first interview session is over. Because Donny's map biography isn't finished, Jayme needs to do a follow up interview with him. Let's assume he does that follow up on the morning May 15. By the time they break for lunch on 15th, the second interview is completed and Donny's biography is complete. Donny Testawich's interview then requires two sessions – one on the 14th and one on the 15th. He does two interviews.

   THE INTERVIEW or SESSION, NOT THE MAP BIOGRAPHY IS THE UNIT TO KEEP IN MIND FOR PURPOSES OF LABELLING AUDIOCASSETTES.

3) Each audio cassette or cassette tape has two sides. Each audio cassette SIDE needs to be labelled. The cassette tape cover does not need a label because we are using translucent plastic covers that you can see through. All map session are recorded on standard 90 minute tapes (45 minutes per side) analogue audio cassettes.

   Any given audiocassette side is to be used for only a single map session. Do no record portions of different sessions – different interviews – on the same tap side.

   THE CASSETTE SIDE - NOT THE CASSETTE - IS THE UNIT TO KEEP IN MIND FOR PURPOSES OF LABELLING AUDIOCASSETTES.

4) Label the audiocassette sides right after the session is finished. Do not leave the labelling for the following day.

5) Print the information on the cassette-side label. Do not write. Make sure you can see daylight in the loops of all letters and numbers.

6) The label you make for each audio cassette side needs to indicate six (6) pieces of information:

   - The participants PIN
   - The participants name
   - The Survey Project Title – DFN TLUS
   - Interview date – (do not use a number to represent the month
   - Cassette – side number
   - Total number of cassette sides used to record the session

INTERVIEW RECORD FORM

1)Interview Date_____ 2) PIN_____

3)Participant Name_____

4) Spelled _____Correctly ___Incorrectly

5) Interview Location: Community_____
Building_____

6)Lead Interviewer_____

7)Other Interviewers_____ None_____

8)Observers_____ None_____

9)Cassette SIDES used (circle) 1 2 3 4 5 6 7 8 9 10 10) Duration_____MIN

11)Map Sheets
Used_____

---

12)Map Biography Completed _____Y_____N

13) Parts **NOT**
Done:_____

_____
_____

14) Departures from standard methodology:_____Y_____N

If Yes
Specify_____

_____
_____

15) Comments (**Use back of page if necessary**):_____
_____
_____

_____
____

16) Use and catch all codes____Y _____N If yes, list them and specify:

_____
_____

17) List 1st and Last codes numbers:_____

18) Interviewer Signature_____

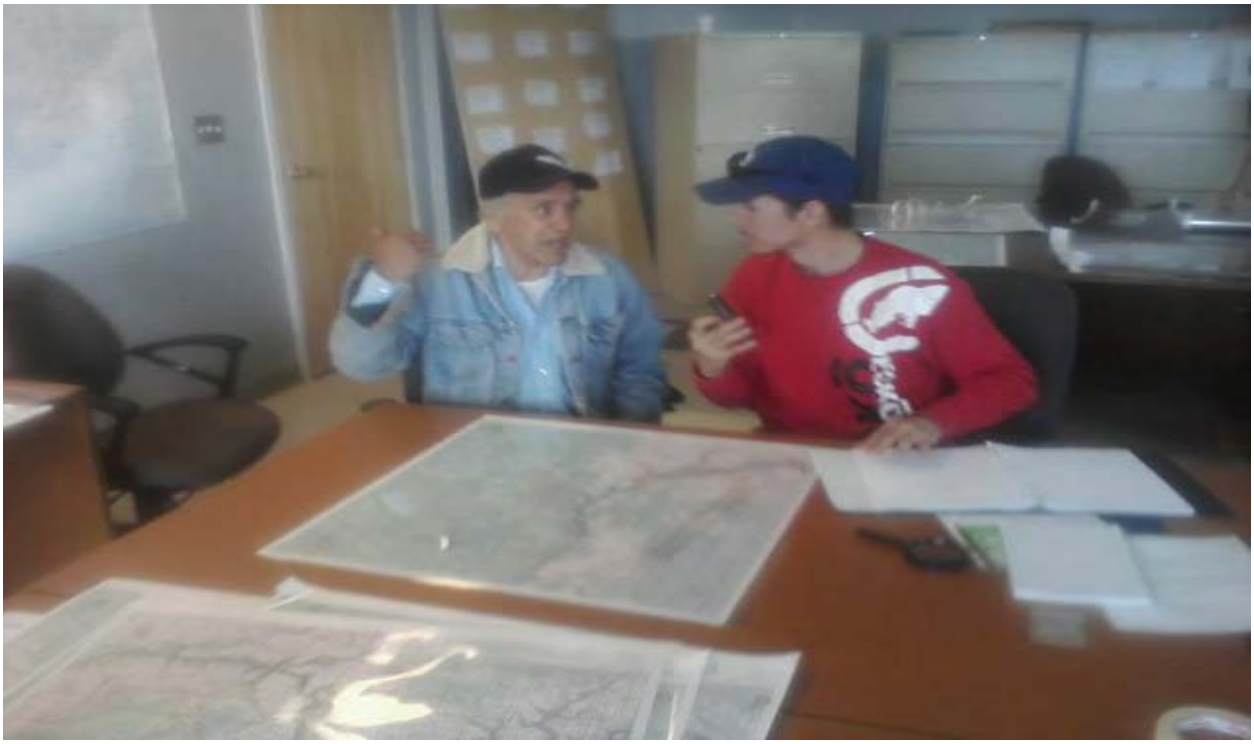
Appendix K)

PHOTOS FROM COMMUNITY TRAINING WEEK
And Map Sort

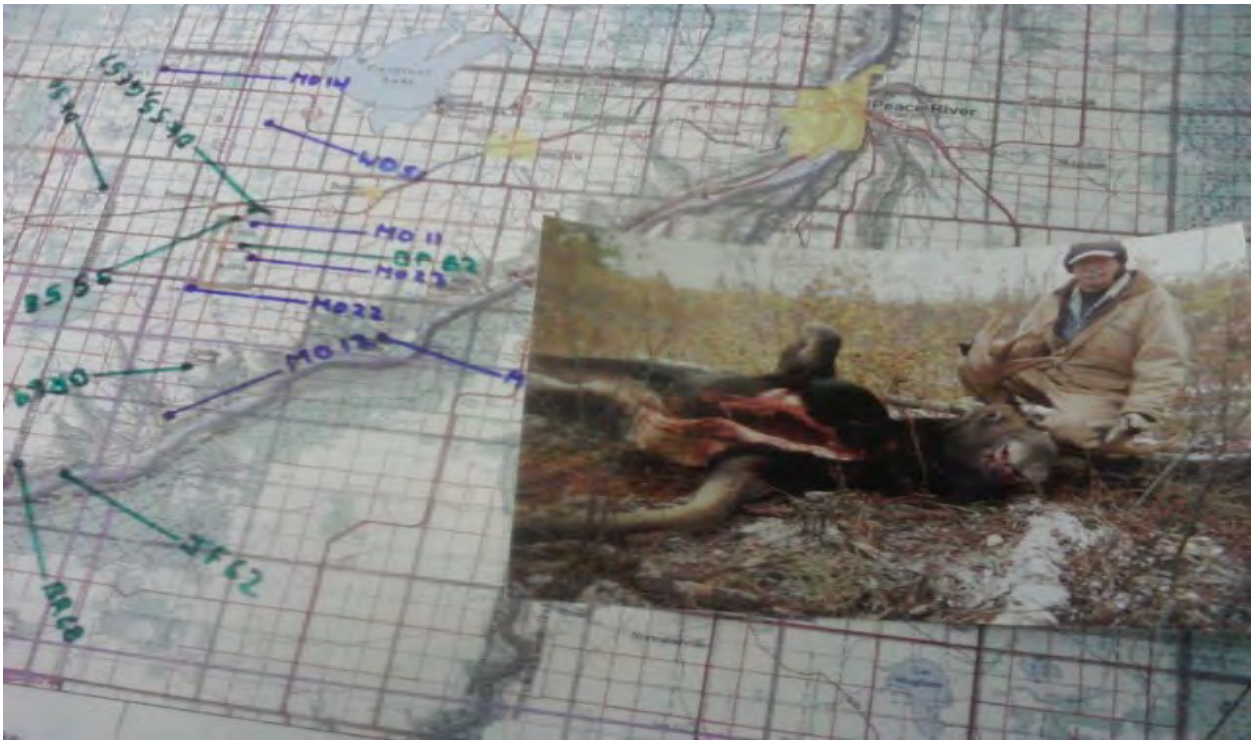
Training: Focused on understanding need for methodological approach in all aspects of research implementation

Community Researchers receive hands on instruction on use of tool kit and application of tools and conventions

Community Researchers – Interviewing Each Other In Training Week and Learning to Use and Rely on the Research Data Collection Manual



Community Researchers: Observed and Receive Instruction in their Initial Interviews by Research Director



Example of Feature Codes Marked on Bio Map

Bio Map Check – Every Map Re - Checked for Application of Conventions

APPENDIX L)

INTERVIEW MASTER LIST

(Note: Version Without PINS to Address Confidentiality Provisions)

APPENDIX M)

Maps

Hodgepodge Map

(DFN All Sites Map)

Category Maps

Category Map:
Moose Kill Sites

Category Map:
Elk Kill Sites

Category Map:
Deer Kill Sites

Category Map:
Jackfish (Northern Pike) Kill Sites

Category Map:
Walleye Kill Sites

Category Map:
Bull Trout Kill Sites

THEMATIC MAPS

THEMATIC MAP:
CULTRUAL SITES

THEMATIC MAP:
OVERNIGHT SITES

THEMATIC MAP:
PLANT AND EARTH MATERIAL GATHERING SITES

THEMATIC MAP:
FISH KILL SITES

THEMATIC MAP:
BIRD KILL SITES

THEMATIC MAP:
MAMMAL KILL SITES

DRAFT

Fort Nelson

Fort Vermilion

N

Fort McMurray

Alberta

British Columbia

Fort St. John

Taylor

Hudson's Hope

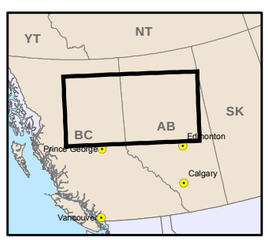
Dawson Creek

Chetwynd

Grande Prairie

Mackenzie

Fort St. James



Map Notes:
1. Datum/Projection: NAD83/UTM Zone 10N
2. First Nation Reserves from Canadian Lands Administrative Boundary, NRCan
3. Hydrography from National Topographic Data Base, NRCan
4. Road Network from National Road Centreline, NRCan
5. Protected areas and other data from the Governments of BC and Alberta

- Traditional Land Use Sites
- First Nation Reserves
- Protected Areas, Provincial Parks, and Ecological Reserves.
- Highways

This map is one of a series of maps produced by the Duncan's First Nation and should be viewed and considered along with the full set of maps produced as part of the DFN TLUS 2011 Project and the supporting documents entitled the "DFN TLUS Methodology Report" and "DFN TLUS Community and Public Report".

This map and the DFN TLUS 2011 Project is a living document and is intended to be amended and refined over time. This map is the property of the DFN and is not to be reproduced, reprinted, copied or published without the express permission of the DFN.

Map produced by BC Hydro for the Duncan's First Nation – February 2012

1:2,500,000

0 100 Km

Duncan's First Nation

Date	February 22, 2012

Duncan's First Nation
Traditional Land Use
Survey Project 2011

Hodgepodge Map