

**Joint Technical-Legal Proposal for First Nations:
Mapping Traditional Territory and Securing Aboriginal Rights,
Interests and Jurisdiction**

November 11, 2015

Executive Summary

In Alberta, the traditional territories of First Nations are under threat by industrial development that often results in the erosion of Treaty rights in exchange for minimal compensation. Government and industry do not respect First Nations' goals of protecting treaty and Aboriginal rights and maintaining the ability to practice important traditional land uses while also earning an economic livelihood from their traditional territories. They believe that First Nations cannot have both.

To defend their jurisdiction, rights and interests, while adapting to a changing way of life, First Nations must engage in a comprehensive and precise assessment of the threats that exist to their traditional territories, and develop maps and tools that will assist in negotiations with government and industry to minimize impacts and maximize benefits in traditional territories. Only by fully understanding the nature, scope and extent of the threats faced, can First Nations develop and advance a plan to assert their interests and jurisdiction.

To do this, North Raven Consulting and Nanda & Company propose an innovative new tool that will include the following components:

- 1) Full-scale mapping of the traditional territory to highlight First Nation interests, rights corridors and other areas of importance;
- 2) Identifying spatial and non-spatial government and industry plans ("Plans") that impact the interests and jurisdiction of the First Nation within their traditional territory;
- 3) Layering Plans on the traditional territory map, and identifying details and overlaps between First Nation interests and rights with Plans;
- 4) Applying remote sensing to priority areas to visually display how much industrial disturbance has occurred over the last three decades;
- 5) Conducting a thorough legal audit of the traditional territory in relation to the Plans and impact on the interests and jurisdiction of the First Nation; and
- 6) Developing strategies to minimize impacts and maximize benefits from the Plans within the traditional territory.

This tool provides First Nations the foundation to defend their traditional territory, and ensure their jurisdiction, rights and interests are protected for future generations. A drop in oil prices has temporarily slowed industrial development in Alberta, making now an ideal time for First Nations to use their scarce resources to press for better protection to their traditional territories as well as better benefits from their traditional territories.

Deliverables will include:

- A final report on the project with a stand-alone appendix containing results in maps and tables that can be used in negotiations,
- Large (36"x24") hard copies of all maps, which can be used in negotiations, made during the project, and
- A presentation of the project findings to the Chief and Council and the Consultation Coordinator.

Table of Contents

Company Profiles	1
North Raven Consulting	1
Nanda & Company	1
Fiera Biological Consulting	1
Definitions	1
Project Description	2
Deliverables	3
Project Team	3
Assumptions	4
Project Timeline and Work Plan	4
Methodology	5
Mapping of Traditional Territory	5
Assessment of Non-Spatial Plans in Traditional Territory	5
Layering and Assessment of Spatial Plans on Maps of Traditional Territory	6
Application of Remote Sensing to Priority Areas	6
Legal Audit of Traditional Territory	7
Options for Minimizing Impacts and Maximizing Benefits in Traditional Territory	7
Final Report	8
Appendices	9
Appendix A: Available Spatial Data	9

Company Profiles

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Definitions

Spatial Plans: Government and industry initiatives and projects, such as Forestry Management Agreements or oil and gas wells, which affect defined areas of traditional territories.

Non-Spatial Plans: Government and industry initiatives and projects, such as environmental monitoring or industry best practices, which impact traditional territories but do not affect defined areas within the traditional territories.

Project Description

The traditional territory of First Nations in Alberta is under threat by industrial development and incursion, that often results in the erosion of Aboriginal rights. Project-specific consultations are entirely insufficient for addressing cumulative, unmitigated impacts to traditional territories and for ensuring that First Nations can continue to earn a livelihood within their traditional territories. To defend their interests and jurisdiction, First Nations must engage in a comprehensive and precise assessment of the threats that exist to their traditional territory, and develop an effective strategy to mitigate adverse impacts and maximize benefits. Only by fully understanding the nature, scope and extent of the threats faced, can First Nations develop and advance a plan to assert their interests and jurisdiction.

North Raven Consulting and Nanda & Company propose an innovative new tool that will provide First Nations with a complete understanding of the risks facing their traditional territories, which will be used to develop an effective strategy to mitigate adverse impacts and maximize benefits. The tool will include the following components:

- 1) Full-scale mapping of the traditional territory that highlights priority areas of the First Nation;
- 2) Identifying spatial and non-spatial government and industry plans (“Plans”) that impact the interests and jurisdiction of the First Nation within their traditional territory;
- 3) Layering Plans on the traditional territory map, and identifying details and overlaps between First Nation interests and rights with Plans;
- 4) Applying remote sensing to priority areas to visually display how much industrial disturbance has occurred over the last three decades;
- 5) Conducting a thorough legal audit of the traditional territory in relation to the Plans and impact on the interests and jurisdiction of the First Nation; and
- 6) Developing strategies to minimize impacts and maximize benefits from the Plans within the traditional territory.

Now is an ideal time for First Nations to use their scarce resources to press for better protection to and more benefits from their traditional territories because low oil prices have slowed industrial development and therefore, lowered requests for consultation. This tool provides First Nations the foundation to defend their traditional territory, and ensure their interests and jurisdiction are protected for future generations.

The remainder of this document will outline the methodology employed to complete each component identified above. Our approach is comprehensive and robust, ensuring that First Nations have a sound understanding of the challenges posed to their traditional territory and are equipped with a formidable strategy going forward.

Deliverables

- A final report on the project with a stand-alone appendix containing results in maps and tables that can be used in negotiations,
- Large (36"x24") hard copies of all maps, which can be used in negotiations, made during the project, and
- A presentation of the project findings to the Chief and Council and the Consultation Coordinator.

Project Team

Andrew Fehr will be the prime consultant and principal investigator. Andrew's upbringing in the Arctic where he travelled by dog team and snowmobile to his family's bush camp, visited elders at their cabins, and ate caribou and moose meat has given him a strong personal understanding of the importance of carefully protected traditional territories. Since then he has worked with First Nations and Métis in Alberta on a range of projects from land use planning to traditional land use studies. Andrew's responsibilities will include:

- Liaising between the Project Team and the First Nation,
- Conducting the assessment of non-spatial and spatial Plans within the traditional territory,
- Generating a list of options for minimizing the impacts and maximizing the benefits to the traditional territory,
- Writing the final report,
- Presenting the findings of the project to Chief and Council, and
- Submitting all deliverables to the First Nation.

Avnish Nanda will be the legal auditor and reviewer. Avnish is a lawyer that practices public law in Alberta and British Columbia. Avnish has advised and assisted Aboriginal peoples in asserting their legal rights in a variety of settings. Prior to this, Avnish helped found and run an advocacy organization that raised awareness to the health concerns of Aboriginal communities that resulted from industrial activity, and lobby governments to action. His responsibilities will include:

- Conducting the legal audit of Plans in traditional territory,
- Assisting in the assessment of non-spatial and spatial Plans within the traditional territory,
- Assisting with the generation of a list of options for minimizing the impacts and maximizing the benefits to the traditional territory, and
- Reviewing the final report.

Faye Wyatt will be the GIS consultant. Faye has done mapping on traditional territory in Northern Alberta and has a strong understanding of the spatial information that may assist First Nations in understanding what Plans are occurring in their traditional territories. Her responsibilities will include:

- Generating and digitizing maps of the traditional territory, and

- Layering combinations of spatial Plans on the traditional territory.

Assumptions

It is assumed that the First Nation is:

- Responsible for providing, in a timely fashion, their traditional territory, priority issues within their traditional territory and which Registered Fur Management Areas are held by community members,
- Responsible for providing relevant spatial data that is not otherwise available to the Project Team, and
- Not required to conduct any fieldwork.

It is further assumed that the Project Team is:

- Responsible for providing open source spatial data, and
- Not required to conduct any fieldwork.

Project Timeline and Work Plan

Date	Task	Person Responsible
Week 1	<ul style="list-style-type: none"> • Introductory meeting with First Nation • Mapping of traditional territory and priority areas 	First Nation, Andrew Fehr, Avnish Nanda
Week 2	<ul style="list-style-type: none"> • Assessment of non-spatial plans in traditional territory 	Andrew Fehr, Avnish Nanda
Week 3	<ul style="list-style-type: none"> • Layering of spatial plans on traditional territory • Creation of five composite maps • Assessment of spatial plans 	Andrew Fehr, Faye Wyatt
Week 4	<ul style="list-style-type: none"> • Application of remote sensing to priority areas 	Andrew Fehr, Faye Wyatt
Week 5	<ul style="list-style-type: none"> • Legal audit of traditional territory 	Avnish Nanda, Andrew Fehr
Week 6	<ul style="list-style-type: none"> • Outline options for minimizing impacts and maximizing benefits to traditional territory 	Andrew Fehr, Avnish Nanda
Week 7	<ul style="list-style-type: none"> • Final report due 	Andrew Fehr, Avnish Nanda
Week 8	<ul style="list-style-type: none"> • Presentation to Chief and Council 	Andrew Fehr, Avnish Nanda

Methodology

Mapping of Traditional Territory

The first step of this project will be to map the First Nation's traditional territory, which will be the spatial frame of reference for the rest of the project. To do this, a 24" x 36" hard copy map of a wide area around the primary reserves of the First Nation will be generated, printed and mailed to the First Nation, which will then outline on the map both its traditional territory and priority areas within the traditional territory. Places designated as 'priority areas' will be those that the First Nation places high value on, possibly because land users intensively practice treaty rights and traditional land uses in those places or because they will be heavily impacted by government and industry Plans. The map will be digitized upon receipt from the First Nation, creating a base map that all other maps in this project will be built upon. If the First Nation has a shapefile of its traditional territory, perhaps from the Geodata project, emailing the shapefile to the Project Team can save time.

Assessment of Non-Spatial Plans in Traditional Territory

After the traditional territory of the First Nation has been established, reviews of current and future non-spatial government and industry Plans that affect the traditional territory will be performed. First, a review of the non-spatial Plans identified on the websites of the Government of Canada, Government of Alberta, and relevant municipal governments will be conducted and, where necessary, supplemented by phone calls to departmental staff. Second, a review of non-spatial Plans identified on the websites of major industry groups such as the Prospectors and Developers Association of Canada, Canadian Association of Petroleum Producers, and the Forest Products Association of Canada will be conducted and also supplemented by calls to industry staff where necessary.

An example of a non-spatial Plan that may affect the First Nation's traditional territory is the Alberta Environmental Monitoring, Evaluating and Reporting Agency (AEMERA), an arms-length, provincial organization. It is responsible for environmental monitoring and reporting on cumulative effects in Alberta, both of which are priority issues for many First Nations because their functions are seen as essential to the continued practice of treaty rights and traditional land uses.

Once the reviews are complete, the Plans that have the most significant impacts and benefits to the First Nation will be determined in consultation with the First Nation. These Plans – their stated goals, opportunities for formal First Nations engagement, and potential impacts to traditional territory – will be described in detail in the final report. Plans that were identified during the review but were judged to have lower significance will also be included in the final report but with only brief descriptions. Although this group of Plans is not spatial in nature and therefore cannot be transposed onto maps, linkages will consistently be made to the impacts they may have on traditional territory.

Layering and Assessment of Spatial Plans on Maps of Traditional Territory

At the same time that the review of non-spatial Plans is occurring, a review of current and future government and industry spatial Plans within the First Nation's traditional territory will be performed. Open source spatial data that is known to the Project Team at this time is available through the Alberta Biodiversity Monitoring Institute and through the Government of Alberta and will be overlaid on maps of traditional territory. This data includes Forestry Management Agreements, regional planning areas identified under the Land-Use Framework, and Registered Fur Management Areas (traplines), in addition to the location of roads, powerlines, pipelines and seismic lines. Also overlaid on the First Nation's traditional territory will be data purchased from IHS Accumap. This data includes names of lease-holding oil and gas companies, boundaries of leased land, extraction methods employed, and locations of associated infrastructure and facilities such as well sites and pipelines. A more complete list of data that will be used in this project is available in Appendix A.

From this collection of open source and purchased data, up to five composite maps will be developed based on the needs and interests of the First Nations and on the recommendations of the Project Team. Examples of combinations of data overlaid on the maps of the First Nation's traditional territory could include:

- Registered Fur Management Areas, Forest Management Agreements, roads and oil and gas infrastructure. These layers together showcase the multiple impacts to the traplines of community members by industrial activity.
- Areas of leased land sorted by extraction method or by leaseholder name. The First Nation can target extraction methods that are of most environmental concern to them or lease holding companies that are most prevalent in the area.

In addition, other questions that may be important for first nations groups can be answered using GIS and data analysis, such as understanding the effects of development, forestry, and industry on wildlife populations of concern such as fur bearers and ungulates.

Application of Remote Sensing to Priority Areas

In addition to the five composite maps, three series of maps – one for each of three priority areas – will be created using remote sensing. Freely available Landsat satellite imagery from 1980 – 2015 will be used to identify and map areas of forestry and other large scale disturbances within priority areas every 2 years. Inspecting a sequence of “time step” images will enable identification and measurement of how much industrial activity has occurred in each selected priority area since 1985. Having a historical record of the amount of industrial activity within these areas will also allow the First Nation to see any trends in the amount of disturbance that has taken place over time (i.e. if there has been an increase in the amount of activity within recent years). Compiling a visual archive of the effects of industrial activity, and measuring the area of disturbance in natural habitat within each priority area will provide the First Nation with compelling evidence, which can be used in negotiations, about the effects of industrial activity within these important areas.

Legal Audit of Traditional Territory

After mapping the First Nation's traditional territory and assessing the non-spatial and spatial government and industry Plans that affect it, a thorough legal audit, that includes an analysis of overlapping layers of Plans, will be conducted. The legal audit will consist of:

- An exploration of the particular nature of the infringements on rights and interests,
- An assessment of the level and scope of the Crown's duty to consult in relation to each infringement.

For example: a logging company applies for a licence to harvest timber in a First Nation's traditional territory. The location of proposed cutblocks is in an area that encompasses important traplines for the First Nation. Any disruption in the continuity of the forest, particular where the cutblocks are located, will cause the animals that the First Nation traps to disperse and no longer access key traplines in the area. In the event that timber is harvested in the designated cutblock locations, this will constitute a high treaty right infringement, as it is a bountiful and spiritually significant area for trapping. With this information — that is mapped and supported with strong legal authorities — First Nations can attempt to stop the issuance of the licence, or ensure that harvesting is done in a minimally impairing manner and includes adequate compensation.

Options for Minimizing Impacts and Maximizing Benefits in Traditional Territory

In the final stage of the project, two sets of options will be identified for courses of action the First Nation can take to minimize impacts and maximize benefits to its traditional territory. The first set of options will have as its goal influencing current and future government and industry spatial and non-spatial Plans for the benefit of the First Nation. Some examples of these options could include:

- Recommendations for the First Nation to take to the Alberta Environmental Monitoring, Evaluation and Reporting Agency to incorporate traditional knowledge into its operations (non-spatial government Plans),
- Strategies for lobbying industry groups to adopt best practices for operating in traditional territory (non-spatial industry Plans),
- Ideas for submissions to regional plans (spatial government Plans), and
- Methods for effective participation in the Alberta Energy Regulator consultation process (spatial industry Plans).

The second set of options will outline Plans that the First Nation itself can put forward to maximize minimize impacts and maximize benefits of the traditional territory to the First Nation, rather than only reacting to Plans designed by government and industry. This would help the First Nation redefine what Plans are advanced in its traditional territory, how consultation occurs and how the impacts and benefits are distributed. This set of options could include recommendations for:

- Developing a traditional resource and land use management plan,
- Proposing co-management for areas of the traditional territory, and
- Requesting grants from prominent companies operating in the traditional territory to fund comprehensive traditional land use studies.

These two sets of options for minimizing impacts and maximizing benefits in traditional territory will include the following details:

- General steps required to undertake the option,
- Amount of time and resources required by the First Nation to undertake the option,
- Likely outcomes of both the option being undertaken and not undertaken, and
- Whether undertaking the option is worth the scarce time and resources.

Final Report

The project will culminate in a detailed final report, which will include an appendix that can be used as a stand-alone reference for negotiations with government and industry. The appendix will contain maps and tables of the results of the assessments of the non-spatial and spatial Plans and the options for the First Nation to influence them or to put forward its own Plans.

Upon completion of the final report, a presentation detailing the process and findings of the project, as well as options for logical next steps, will be delivered to Chief and Council.

Appendices

Appendix A: Available Spatial Data

Open Source Spatial Data

Human Footprint Inventory (Alberta Biodiversity Monitoring Institute): A map showing all human disturbance within the province, including oil and gas development, industrial development, agriculture, forestry and urban development. Available for 2007, 2010, 2012.

Historical OrthoPhotograph (Alberta Biodiversity Monitoring Institute): Free air photograph covering the entire province from 1950. This image can provide a good reference and baseline that represents historical conditions in the province.

Registered Fur Management Areas (Government of Alberta): Boundaries of every Registered Fur Management Area (trapline) in Alberta.

Forest Management Agreements (Government of Alberta): Boundaries for the twenty current Forest Management Agreements in Alberta.

Land-Use Framework Planning Regions (Government of Alberta): Boundaries for the seven planning regions of Alberta – South Saskatchewan, Red Deer, North Saskatchewan, Upper and Lower Athabasca and Upper and Lower Peace.

Other Provincial Base Features: This includes over 60 datasets grouped into 5 major themes - access (roads, cutlines, pipelines, powerlines, railways etc.), geo Admin (including Forestry Management Areas, Registered Fur Management Area, Wilderness Areas etc.), Hydrography (including lakes & rivers), ATS (ATS township grids), and Contours (showing elevation and relief contours). This data is maintained and updated at regular intervals.

Landsat Imagery (United States Geological Survey): Free satellite imagery. This imagery is acquired every 16 days and can be used to measure and monitor changes in the landscape over time. A historical archive of imagery goes back as far as 1973, allowing for the detection of changes in the landscape over time.

Purchasable IHS Accumap Data

Mineral Land Data: Includes the boundaries for leased and non-leased mineral lands and names of lease-holding companies.

General Well Data: Includes the types and statuses of wells.

Pipeline and Facility Package: Includes the physical footprints of pipelines and other mineral-related infrastructure and facilities.