Ermineskin Cree Nation

Traditional Knowledge and Use Study:
Springbank Off-Stream Reservoir Project

2018

Foreword, Limitations, and Terms of Use

This report discusses the Traditional Knowledge and Use of Ermineskin Cree Nation members in relation to the Springbank Off-Stream Reservoir Project proposed by Alberta Transportation. The report is based on two main sources of information: (1) 8 Traditional Knowledge and Use interviews carried out for this study; and (2) 3 field verification visits made to sites in and around the Project areas the week of 14 May 2018. Because the research and writing for this report was completed in under a month and with limited resources, the report does not represent the full extent of Ermineskin Cree Nation Traditional Knowledge and Use of the Project area. *This study should not be considered adequate to assess fully and properly the potential effects of the Project on the Traditional Knowledge and Use and Treaty and Aboriginal rights of Ermineskin Cree Nation and its members or to develop adequate mitigation measures.*

This report is the exclusive property of Ermineskin Cree Nation. The information contained in this report are solely for use by Alberta Transportation, the Alberta Natural Resources Conversation Board, and the Canadian Environmental Assessment Agency in making decisions related to the Springbank Off-Stream Reservoir Project. The report, extracts of the report, and/or original information from the report may not be used, reproduced, or disseminated by any party without written permission from Ermineskin Cree Nation. Nothing in this report should be construed so as to define, limit, or otherwise constrain the Treaty, Constitutional, or legislative rights and interests of Ermineskin Cree Nation and its members.

This report is based upon the Traditional Knowledge of Ermineskin Cree Nation and should be understood as a dynamic and living document that is subject to revision and update over time.

Acknowledgements

Ermineskin Cree Nation would like to express its gratitude to those who shared their Traditional Knowledge and Use information during the interviews for this report. Your participation will promote a better understanding of the potential impacts of the proposed Springbank Off-Stream Reservoir Project on the harvesting practices and Treaty and Aboriginal rights of Ermineskin Cree Nation and its members. By documenting your knowledge and activities, we hope to protect and strengthen the way of life of the Ermineskin Cree Nation for generations to come.

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Acronyms

ATK	Aboriginal Traditional Knowledge
CEAA	Canadian Environmental Assessment Agency
ECN	Ermineskin Cree Nation
EIA	Environmental Impact Assessment
GIS	Geographic Information System
ILUOP	Inuit Land Use and Occupancy Project
NRCB	Natural Resources Conservation Board
PDA	Planned Development Area
TEK	Traditional Ecological Knowledge
TK	Traditional Knowledge
TKU	Traditional Knowledge and Use
TLRU LAA	Traditional Land and Resource Use Local Assessment Area
TLRU RAA	Traditional Land and Resource Use Regional Assessment Area
TU	Traditional Use

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Introduction

Alberta Transportation (the Proponent) proposes to construct flood mitigation infrastructure on lands adjacent to the Elbow River, approximately 15 kilometers west of Calgary, Alberta. As proposed, the Springbank Off-Stream Reservoir Project (the Project) would divert floodwaters during extreme flood events from the Elbow River to adjacent lands. The floodwaters would be stored in a temporary reservoir before being diverted back into the river. The proposed Project would consist of an off-stream storage reservoir, a diversion structure and channel, an off-stream storage dam, outlet works, and road modifications.

The Project is predominately situated on private land that has been used for ranching and agriculture since the late 1800s. There are also several acreages and commercial developments within the Project area. A small portion of the Project is located on Crown land and includes the bed and banks of the Elbow River and its tributaries. The Proponent proposes to acquire privately-owned land in the Project Development Area (PDA), which will be divided into four classifications: Area A, to be developed as a conservation and recreation zone; Area B, which will serve as the primary reservoir with restricted access; Area C, which will have options for grazing through public leases; and Area D, where project infrastructure will be located.

The Proponent plans to restrict public access to Areas B, C, and D via barbed-wire fencing, gates, and signage. Area A will be open to the public and First Nations will be able to access the area for traditional purposes, though this represents a relatively small percentage of the PDA/disturbance area of 1,438 hectares. Subject to regulatory approvals, the Project is scheduled to be functionally operational for floods starting in the spring of 2021 and to be completely constructed (able to accommodate the design flood) for the spring of 2022. There are no plans to expand the Project or to decommission it in the foreseeable future.

This report will present Ermineskin Cree Nation (ECN) Traditional Knowledge and Use (TKU)

in relation to the proposed Project. The purpose of the report is to identify ECN TKU in the Project areas, communicate concerns over the potential adverse effects of the Project on ECN members, and provide recommendations therein to assist with the avoidance, mitigation, and compensation of potential adverse effects to ECN TKU and rights, and contribute to ongoing communication and dialogue between ECN and the Proponent over Project-related concerns. Because this report was produced on a very tight budget and timeline, it should be understood as a sample of the potential ECN TKU in the Project areas and not a complete representation.

This report is organized into five sections. The first and second sections provide a brief history of ECN and its members' way of life and situate ECN in relation to the proposed Project. In the past and to this day, ECN community members have utilized their traditional territory to practice a way of life that includes hunting, fishing, and gathering, fishing, and trapping. As cumulative industrial development has disturbed Crown lands to the north and to the west of the ECN reserve, however, Nation members have come to rely increasingly upon access to privately-owned lands, particularly for big-game hunting. The third section elaborates on study methodology and methods. This section defines key terms and discusses study design, including spatial and temporal parameters and data sources. The fourth section presents the main findings of the study. ECN TKU is described in relation to the local and regional study areas. Project-specific interactions are identified in the aggregate and by TKU category (hunting, fishing, gathering, spiritual, occupancy, and so on) and within the context cumulative effects. The fifth and final section presents ECN community members' concerns about Project-specific and cumulative-effects and provides a series of recommendations to assist discussions between ECN and the Project Proponent and regulators.

Ermineskin Cree Nation: History and Way of Life[i]

ECN can trace its lineage to the Cree populations that came west to the Rocky Mountains, in conjunction with the expansion of the Euro-Canadian fur trade and its network of forts and posts.

Cree groups were active along the Red Deer and North Saskatchewan Rivers and were registered on both sides of the Rocky Mountains by the eighteenth century. These Rocky Mountain Cree, as they came to be known to the European fur traders and explorers for whom they served as guides, trapped fur-bearers in the winter to be sold at the trading posts at Fort Edmonton and Rocky Mountain House while maintaining their traditional subsistence lifestyles, hunting, fishing, and gathering in the rich boreal forest landscapes.

The main political figure of the Rocky Mountain Cree of the early-nineteenth century, and forbearer of Ermineskin Cree Nation, was Louis Piche (*Pesew/Pisu*). Born to a French-Canadian fur trader and his Cree wife, Piche travelled extensively through the traditional territory of his people, guiding David Thompson from Rocky Mountain House to Jasper and HBC Governor George Simpson from Edmonton to Washington State. In terms of geographic extensiveness, the core territory of Piche and his followers extended from Banff north past the Saskatchewan River to Jasper, west through the mountain passes, and east into the plains. However, the group was highly mobile and ranged as far as north as Lesser Slave Lake, south through the mountains into Washington State and Oregon, and southeast into Montana and North Dakota. In the 1830s Piche became Head Chief of the Rocky Mountain Cree. Two of his sons would themselves go on to become Chiefs and play critical roles in the founding of the Ermineskin Cree Nation: Alexis Piche (Bobtail) and Baptiste Piche (Ermineskin).

Following the death of Louis Piche in 1845, the Rocky Mountain Cree fragmented. Driven by poor trapping conditions and competition from other groups, Bobtail and Ermineskin migrated towards the plains into the eastern part of their traditional territory near Pigeon Lake. Bobtail would ascend to the position of Head Chief of the Rocky Mountain Cree and would command the largest band of the Western Cree. However, droves of Euro-Canadian settlers provoked a rapid decline in wild game and the intensification of disease. Having witnessed the fate of the Plains Cree, Bobtail adhered to Treaty Six at Blackfoot Crossing in 1877, despite his initial boycott of negotiations. After selecting a reserve around the Bear Hills, near the present-day Maskwacis, Bobtail divided his reserve to accommodate his younger brother Ermineskin, as

confirmed in the annuity lists from 1880. Ermineskin had his reserve surveyed in 1885 and became the first Chief of the Ermineskin Tribe, recognized by the Government of Canada in May of 1889. Despite their settlement on the reserve, however, Ermineskin members continued to travel throughout their traditional lands to the west and south, in the areas around Jasper and Banff, to hunt, fish, and gather according to traditional customs and for subsistence purposes.

Project Description and Location in Relation to ECN

Alberta Transportation is applying to the Alberta Natural Resources Conservation Board (NRCB) and the Canadian Environmental Assessment Agency (CEAA) for approval to construct and operate the Springbank Off-stream Reservoir Project, located approximately 15 km west of Calgary in Rocky View County (Township 24, Range 04/03 W5M). The Project is predominately situated on private land that has been used for ranching and agriculture since the late 1800s. There are also several acreages and commercial developments within the Project area. A portion of the Project is located on Crown land that includes the bed and banks of the Elbow River and its tributaries. The Proponent proposes to acquire privately-owned land in the PDA, which will be divided into four classifications: Area A, to be developed as a conservation and recreation zone; Area B, which will serve as the primary reservoir with restricted access; Area C, which will have options for grazing through public leases; and Area D, where project infrastructure will be located.

While the PDA is located approximately 200 kilometers from Ermineskin Reserve 138, it rests within the traditional territory of the Ermineskin Cree Nation and within the core area that community members have visited and used for generations and continue to visit and use today. Most of the interviewees had historical and/or current family connections to the area. For instance, one Elder recalled how he would stay with his grandparents while his parents travelled to the areas around Jumping Pound on a wagon cart, and several other interviewees have

immediate and extended family members who live on Stoney Reserves 142, 143, and 144, and Tsuu T'ina Reserve 145.

The PDA and local study area, moreover, have become increasingly important to Ermineskin hunters and harvesters as a result of two interrelated developments. The first is the cumulative effects of industrial development, which have reduced the abundance of big game on Crown lands to the north and to the west of Ermineskin Reserve 138. As Figure 1 demonstrates, the cumulative development of oil sands and coal resources on the Crown lands nearest to Ermineskin Reserve 138 is extensive, and the Project area represents one of the least disturbed, accessible areas for ECN land users. Over the past century, a variety of factors, from restrictions on hunting and trapping to extractive industries and recreational use, have undermined the Treaty rights of Indigenous peoples in Alberta to harvest on Crown lands for subsistence purposes.[ii] Ermineskin harvesters report declines in the availability of big game, with the exception of mule deer, in much of the Crown lands that comprise their traditional territory:

> It's like the Elk. They're just little pockets of small herds [on Crown lands]. Whereas back in the day there was large groups of elk, now there's maybe seven or eight in one herd. You'll be lucky if you see seven or eight in one herd. And the pockets are scattered.[iii]

The TEK of Ermineskin land users is supported by studies that suggest oil sands and other industrial development have contributed to declining populations of large ungulates such as moose, elk, and caribou, fur-bearers such as lynx, marten, and fisher, and bird species, including waterfowl.[iv] The declining availability of wildlife, and particularly big game, has meant a decreased likelihood of success for ECN hunters: "You watch, over the years of hunting, we all go out there [to the foothills], most of the time we don't get anything."[v] The decreased likelihood of success is made worse by the increased costs of hunting, particularly gasoline for longer trips. Taken together, these factors have contributed to fewer hunters getting out onto the

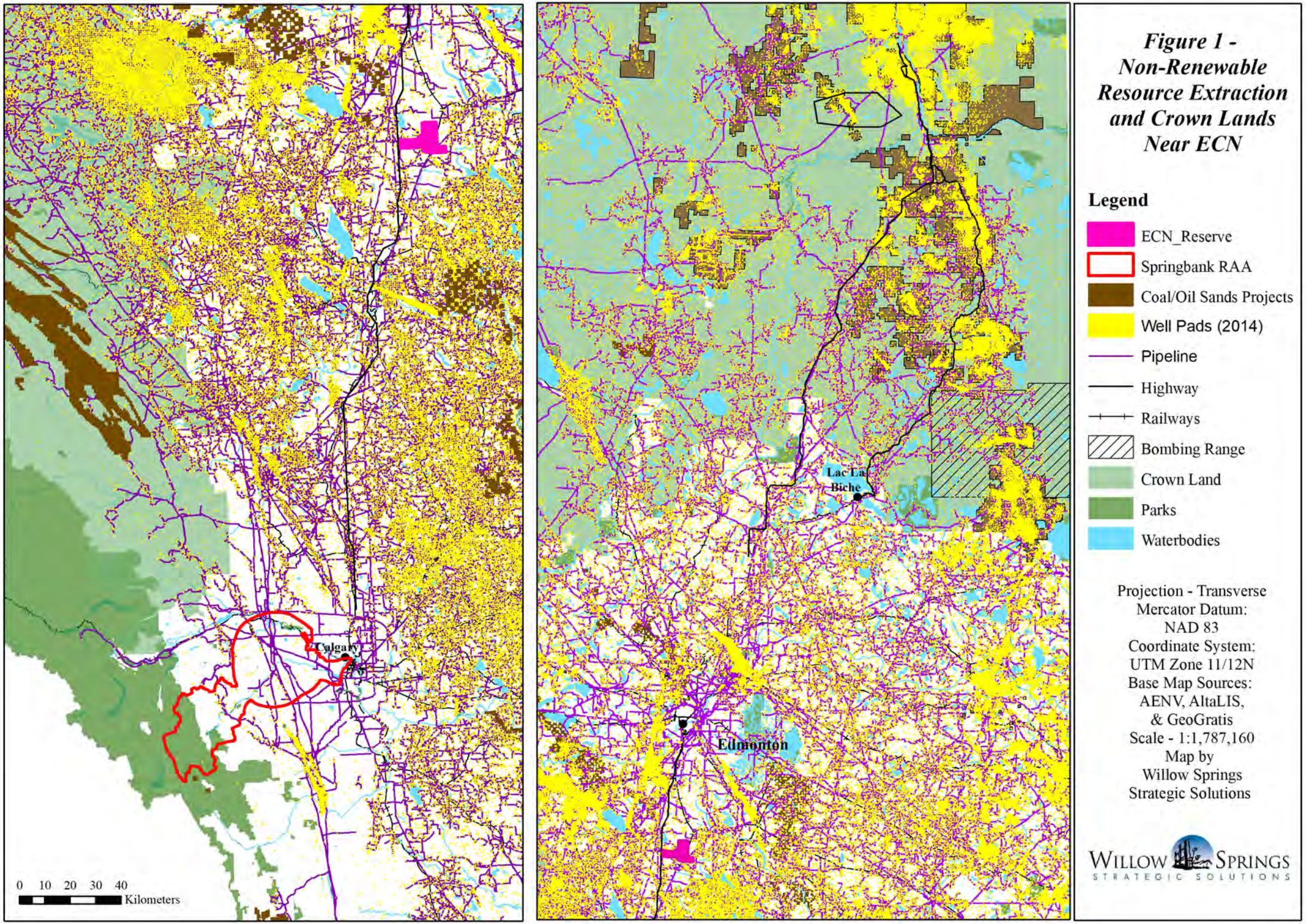

Figure 1 - Non-Renewable Resource Extraction and Crown Lands Near ECN

Legend

- ECN_Reserve
- Springbank RAA
- Coal/Oil Sands Projects
- Well Pads (2014)
- Pipeline
- Highway
- Railways
- Bombing Range
- Crown Land
- Parks
- Waterbodies

Projection - Transverse Mercator Datum: NAD 83
Coordinate System: UTM Zone 11/12N
Base Map Sources: AENV, AltaLIS, & GeoGratis
Scale - 1:1,787,160
Map by Willow Springs Strategic Solutions

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The second and related development is that the extractive industries, recreational users, and tourism are driving big game off Crown lands and onto private lands, particularly from the Crown lands in the foothills of the Rocky Mountains onto the private lands to the east. Ranchers in the PDA similarly reported increased numbers of large ungulates on their properties throughout the year. Consistent with the TEK of Ermineskin hunters, ranchers suggested that these movements are not simply regular migration patterns but represent a shift of wildfire away from the mountains and foothills towards the east. One landowner told the author that in recent years he has had herds of elk of between 100 and 200 on his properties within the PDA.

The declining abundance of wildlife on Crown lands disturbed by extractive and other industrial development and recreational use has combined with the migration of wildlife from the mountains and foothills towards the east to shape a key component of contemporary hunting for ECN members: the increased reliance upon access to private lands to exercise their constitutionally protected Treaty and Aboriginal rights and practice and transmit their traditional way of life and culture to future generations.[vi] As hunters explained, ECN and its members have contacts with private landowners in different parts of Alberta, including the PDA and regional study area. Trips are generally organized in one of two ways: either hunters decide to take a trip to an area and have Chief and Council contact landowners in advance to arrange access, or landowners will contact ECN, usually through Chief and Council, to request that hunters make a trip to their lands to harvest unwanted wildlife: “It's usually through our counsellors, our Chief and counsellors are the ones. There's a couple of our counsellors that are hunters, so they email, or whatever, with these farmers.”[vii]

Private lands are now the preferred harvesting areas for many ECN hunters because of the better success rate, especially when landowners call the Nation to request harvesting assistance: “When there's a situation like this, we're guaranteed. We know there's animals there, so we go there. And so we're not going hunting for nothing. We go there, and we get animals. That's the thing

about it."[viii] As one ECN hunter explained, harvesting on private lands provides a mutual benefit to both the Nation and private landowners:

> They let us hunt there as long as we take everything, like the guts and everything, bring them back with us. We leave nothing there, just maybe blood on the ground, but animals can't eat blood. And so when we get called, we go because we know these guys need help, cause one day equals how much, maybe $1,000 worth of feed for their cows. So how I see it, we're doing them a favour and helping them, and they're helping us. That's the good thing about it.[ix]

Hunting trips to private lands generally consist of larger groups of hunters than would be the case for hunting on Crown lands: "As long as we know we have places like this, we take the families that know how to be families, and that's how it should be done. And see when go out to places like this, we try to get as many guys as we can. The more guys there is the more animals we can take."[x] The meat from these hunting trips goes to feed numerous families within the community, and particularly Elders who are no longer able to hunt for themselves: "Nothing gets wasted, it's all given out. We only take what we need and give the rest [to members of the community]. The thing about it is we hardly have any more hunters on our reserve because we're getting old."[xi] As the numbers of hunters and the availability of wildlife on nearby Crown lands declines, not only hunters but the entire ECN community has become increasingly reliant upon hunting trips to more distant private lands to provide wild meat for the year.

Methodology and Methods

Studies of Indigenous land use, occupancy, and knowledge go by many names, from Traditional Land and Resource Use Studies and Traditional Use and Occupancy Studies to Traditional Land Use and Ecological Knowledge Studies. These terms are sometimes used interchangeably, but can have important differences. For the sake of clarity, simplicity, and consistency, the term Traditional Knowledge and Use (TKU) study will be used throughout this report. The modern period of TKU studies in Canada began in the 1970s, spurred by legal challenges, Aboriginal

title disputes, and the negotiation of modern treaties. Milton Freeman set the basic model for contemporary TKU studies in his Inuit Land Use and Occupancy Project (ILUOP), which was completed in advance of negotiations of the comprehensive land-claims settlement for Nunavut.[xii] TKU studies quickly carved out a niche in the 1980s as Indigenous peoples sought to defend and advance their rights and interests through legal proceedings, land claims, and regulatory processes for industrial projects.

The standard methods for TKU studies, established by Freeman and his collaborators in the ILUOP, are individual map biographies and community-composite maps.[xiii] Individual map biographies ask participants to locate and map harvesting and related use activities, as well as sites of historic and/or cultural importance and knowledge of local ecologies, such as patterns of animal movement. Individual map biographies are then aggregated into community-composite maps, which help to establish the geographic extent and spatial intensity of community land use. There are important limitations to TU mapping,[xiv] and one should be careful not to confuse the absence of mapped values for the absence of significance. As one Elder explained: "Well, you know everything's sacred to us no matter where we go. It doesn't matter what we do. Mother Nature is sacred to us."[xv] Nevertheless, Indigenous land-use mapping has become a standard component of legal and regulatory proceedings in Canada, as a result of its visual and presentational clarity and perception of scientific validity.[xvi]

TKU studies can be customized to meet particular requirements and vary in geographic scale and informational depth.[xvii] For scale, TKU studies can be either "Regional" or "Project-specific". Regional TKU studies are generally conducted on a much wider scale than project-specific studies. The area for a regional study could be the traditional territory of an Indigenous community or a politically determined area, such as provincial boundaries or regional-planning areas. Project-specific studies, on the other hand, usually comprise a more limited area, for instance the project footprint or development area, as well as the local and regional study areas within which there are potential impacts to TKU.

For informational depth, one can delineate between “Operational”, “Overview”, and “Desktop” studies. Operational-level studies are the most comprehensive and reliable form of TKU study and are most appropriate for the assessment of potential impacts of industrial projects on Indigenous land use and occupancy and the development of measures to mitigate impacts. These studies generally involve a significant number of map-biography interviews that produce detailed oral histories and map-documentation of traditional land use sites and values and a reliable representation of TKU in a particular project area. Operational-level studies generally include field verification or ‘ground-truthing’ of the most significant sites and the proposal of project and site-specific mitigation measures, as well as a characterization of the potential effects of a project to TKU and a determination of significance.

Overview-level studies are more limited in terms of the number of interviewees and the depth of detail obtained during the interview process. Overview-level studies focus on the most significant sites and values, whether within a regional or project-specific context. Overview-level studies generally take place over a shorter time period and require fewer resources. These studies are used to determine the potential scope of a Project’s impacts on TKU. Overview studies are best used to inform the early-stages of project planning and can identify whether there is a need for more robust, operational-level studies to determine the magnitude and significance of potential impacts.

The Desktop study does not involve project-specific interviews with community harvesters and land users. Instead, the study compares the existing TKU database for a particular community with the shapefiles provided by the proponent for the project study areas. A report is produced on the basis of the number and nature of the intersections of TKU values and the potentially impacted areas. The Desktop study is the least comprehensive and reliable of the TKU study options, in part because such a study assumes and indeed requires methodological consistency in the gathering and inputting of all prior information. Its value is to determine whether the

community members have historical and/or current TKU in the project and study areas. *The present study is in effect a small-scale overview study. As such, this study should not be considered adequate to assess the potential effects of the Project on the TKU and Treaty and Aboriginal rights and interests of Ermineskin Cree Nation and its members.*

Traditional Use and Traditional Knowledge

There are many names used to describe the use and occupancy of land and other resources by Indigenous peoples. This report will use the term Traditional Use (TU). For the purposes of this study, TU encompasses all activities related to living on and from the land, including the utilization of resources for subsistence, spiritual, and sociocultural purposes, occupancy of spaces and places, and movements across land and water. In addition, TU comprises the cultural norms and practices associated with the harvesting, processing, and consumption of traditional resources, from the cultural and spiritual significance of particular places to norms of sharing and reciprocity and processes of identity formation.

As a point of clarification, the customary use of the adjective 'traditional' to describe Indigenous land use and knowledge can produce confusion for those who mistakenly infer from this that Indigenous cultural practices are static or relegated to the past. The adjective 'traditional' does not signify something in the past but rather the transmission of practices over time. 'Traditional' knowledge and use are thus by definition dynamic and current. The adoption of new technology for the harvesting of resources, for instance, does not make the activity and its significance any less 'traditional' (all traditions change and adapt) or alter its status.[xviii]

It is likewise important to clarify that for TU, 'current' use refers to sites that were used within living memory by community members who are still alive, while 'historic' occupancy refers to land use by deceased ancestors.[xix] Collectively-held harvesting rights and connections to particular places are not eliminated simply because those sites are not presently occupied or used

for traditional purposes, whether as a result of reduced access, declining natural productivity, or the emergence of alternative time demands, such as wage labour. The presence of industrial infrastructure and the demands of employment, while potentially reducing access to and opportunities for TU, do not abolish the collectively held Treaty and Aboriginal rights or destroy the significance of those sites for the people who remember living and engaging in traditional activities there and / or who intend to use sites in the future.

TU transcends subsistence or recreational resource use because its practices connect the material to the ideational realm of cultural norms and wellbeing, identity formation and spirituality, as well as family and community bonds. One ECN Elder described how TU was crucial to his sense of self and was a source of psychological healing:

> I go out onto the land for my livelihood, and when I am on the land I feel more peaceful. Whenever I have a crisis in my personal life I go out to the bush to get away and to feel better. I need to be in nature when I am working through my own healing process as a residential school survivor. The land is a special place for me, and I have a strong connection to it because it helps me deal with a lot of stressful periods of my life. My life is supported by the land.[xx]

TU similarly plays a central role in binding families and the wider community together and provides critical and increasingly scarce opportunities to transmit knowledge and cultural practices to the younger generations. For many young people, TU represents a rite of cultural passage into adulthood and provides opportunities to learn the values and knowledge of their parents and Elders:

> By going out onto the land and using those traditional skills to survive, you grow up and turn yourself around from a young child into a grown man. This is a rite of passage for me as a man, to live off of the land by hunting, fishing and gathering. Doing these things with my kids helps me connect with them, and then my kids will have the same respect for the environment as I do.[xxi]

TU provides opportunities to teach young people the traditional values of respect for nature and all of its creatures, and it supports the role and status of Elders within the community and

connects them to the youth. One community member described teaching his grandchildren to live off of the land:

> I teach my kids and my grandkids to live off of the land. My grandson recently shot his first deer and it was a big accomplishment for him. I was very proud of him. We had a ceremony to honour that first kill. It is important for us to tell our children stories about the animals that we hunt because animals are considered very sacred. I teach my kids the names of animals and herbs in Cree too. The transmission of knowledge to the next generation is important because it is a way to make sure our culture stays alive. I see language, the harvesting of resources from the land, and my connection to the land as being very important to keeping my culture alive.[xxii]

The practices and activities of TU also connect ECN community members to the land and teach younger generations the spiritual beliefs and values of their Elders. As one ECN Elder explained, TU connects community members to the environment via spirituality:

> We are a part of nature. We talk about our brothers and sisters, which would be, which would be all the animals: moose, deer, all those animals. They are literally our brothers and sisters…when you clear-cut an area, those trees they are a part of nature. But also, in our beliefs, in our teachings, it's like a community. We have disrupted our community, because that tree has a spirit. And so does our, so do our animals. We are not above any animal in this world. We are not above the deer, the moose. They are here for us humans: to feed us, to clothe us, to utilize the parts of the animal, like the buffalo a long time ago, to utilize their bones for spoons, their hides for the outfits an blankets…when we go to the spirit world or when the Creator comes calling for us, they go to the spirit world, like all these other animals. They have spirits, too.[xxiii]

It is not just harvesting that connects community members to each other, to the spiritual beliefs and traditional knowledge of the community, and to a sense of self and place; the consumption of traditional and wild foods bonds community members and reproduces bonds of mutual support. As one land user explained, hunters hunt not just for themselves and their families; they hunt for the wider community: "It flows down from the main little family there. Then it flows out, I should say to the kids and then the grand kids and or like what [redacted] was saying, a lot of the

guys don't hunt anymore. But they want to eat…they're worried about their kids. So, we feed a lot of the siblings' kids. Like I had two freezers full this fall and I have nothing left."[xxiv]

TU promotes not only psychological health and wellbeing for many of its practitioners; for interview participants, wild meat and traditional foods are central to a healthy diet. Because big game feed on many plants considered to hold medicinal properties by ECN members, wild meat likewise contains medicinal properties and is healthier than farmed and store-bough meat:

> Nowadays, people are eating foods with all sorts of chemicals and additives in it, and it affects people's health. We are shortening out life span by what we are eating. Cows are injected with all sorts of horrible things before they are slaughtered and then fed to people. The people eat beef that has been inoculated with hormones and who knows what else. The meat that I get off of the land is not like that; it is cleaner and healthier.[xxv]

The loss of areas for TU, therefore, implies a loss much greater than access to resources for subsistence purposes: it represents a threat to the web of cultural norms, spiritual values, sense of self, place, and purpose, and knowledge that are invariably embedded within the physical act of land use and the connections between Indigenous peoples and their traditional territories. TU spans and connects Indigenous peoples across generations by means of practices infused with cultural meaning. It is not simply a 'job' or 'recreation' that can be replaced by wage labour or other activities:

> Our Treaty rights are not the same as 'recreational activities'. Our Treaty rights enable us to survive on the land. Trophy hunting is wasteful. I have respect for the Creator and so I try not to take too much from the land at any given point of time…it is important to pass on this traditional knowledge to me, and to my kids, because nature will always teach its own kind. As I got older, I watched those who were older than me, and this was a good way to learn. This is part of our circle of life, and of the animals' circle of life that we kill too. The more you do this as you get older, the more you understand, and my children will learn the same way too.[xxvi]

To the contrary, to Ermineskin Elders and land users, TU represents an axis around which culture and spirituality, identity, families, and communities are reproduced.[xxvii]

Much like for Indigenous land use, there are many terms used to describe the accumulated knowledge held by Indigenous peoples. This report will use the term Traditional Knowledge (TK). TK is intergenerational, dynamic, and cumulative character; it consists of knowledge of all aspects of a traditional way of life, from knowledge of past and present traditional use practices and the local environment to knowledge of language, values and spirituality, music and dance, family and community relations, and cultural identity. This definition of TK is consistent with the definition of Aboriginal Traditional Knowledge (ATK) developed by the Canadian Environmental Assessment Agency (CEAA):

> …a body of knowledge built up by a group of people through generations of living in close contact with nature. ATK is cumulative and dynamic. It builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual and political change. While those involved in EA will likely be most interested in traditional knowledge about the environment…it must be understood to form a part of a larger body of knowledge which encompasses knowledge about cultural, environmental, economic, political and spiritual inter-relationships.[xxviii]

Because TK refers to the body of knowledge developed by an Indigenous community over generations about their traditional way of life and culture, its transmission to future generations is essential to the cultural survival of Indigenous communities. The transmission of TK, however, relies upon sociocultural spaces and physical places in which TK can be transmitted, such as sites for traditional use, the intergenerational bonds of families, and community spaces for socialization and gathering. This dependence upon sociocultural spaces and physical places similarly means that TK can be undermined by a variety of factors both dramatic and subtle, from the changes in value systems provoked by socio-economic shifts to delayed transmission mechanisms and reduced time spent on the land.[xxix]

Traditional Ecological Knowledge (TEK) is considered here as a subcomponent and foundational block of TK that encompasses knowledge derived from and dependent upon the environment and the relations between Indigenous peoples and their natural environment. Scholars and professional practitioners have identified several interrelated components of TEK.[xxx] On the one hand, there is specific environmental knowledge of wildlife, plants, and hydrology, among others, and the interrelations of the components that comprise complex ecosystems. On the other hand, there is knowledge of the relations between the community and their local environment, including past and current TU practices, the ethics and values that govern the relationship between Indigenous peoples and their environment, and the worldviews and identities that are embedded in this relationship. As one Elder explained:

> Our science is the plants. Now, knowing which one and what they are, what they can do, well, you start picking them. You dry them up and you start putting them together. Now that's chemistry…I like to teach the younger men, too, because there are laws. Nature's, well we call them nature's law, Creator's Law…Nature's Law is absolute. That's what I'm more afraid of, because there are laws, Nature's law. If you do harm to an animal—there are repercussions. That's called nature's Law.[xxxi]

The integration of TK and TEK into project design, monitoring, and reclamation can fill gaps in scientific knowledge, support cultural and biological diversity, and contribute to social justice and the autonomy and identity of Indigenous peoples.[xxxii] At the same time, TK can contribute to a better understanding of local sensitivities and resiliencies, support improved quality of evidence, improve the prediction of impacts, and develop measures that better avoid and mitigate impacts.[xxxiii] Mitigation and enhancement measures to support the preservation and transmission of TK and TEK across generations can similarly strengthen Indigenous communities. As numerous studies have demonstrated, the transmission of TK and TU practices strengthen collective and community responses and contribute to the resilience of Indigenous communities and their local environments, particularly where there are strong community institutions, diverse livelihood strategies, and local control over knowledge and its use.[xxxiv]

Study Design and Data Sources

Project-specific TKU interviews for this study were carried out with 8 ECN Elders and harvesters in three sessions. TKU interviews consisted of series of specific questions regarding TK and TU in the Project Traditional Land and Resource Use Local Assessment Area (TLRU LAA) and Traditional Land and Resource Use Regional Assessment Area (TLRU RAA), with an emphasis upon the former. Each session was audio-recorded and transcribed. Transcripts are cited as SDTKU-INTERVIEW#-PAGE#. Maps were produced during the interviews using open-source Geographic Information System (GIS) software at dynamic scale. A total of 106 TKU points, lines and, polygons were mapped in and around the TLRU LAA. The confidentiality of TKU data mapped as points was maintained through the use of 1km buffers around a randomized centre point. This procedure provides a double-layer of protection for confidential TKU data. ECN maintains un-buffered data points in their proprietary community TKU database. To produce the 'heat' or 'concentration' maps, all values were set at a transparency of 90%. Where there are no TKU, there is full transparency (background colour). The maximum extent of 'heat' or 'concentration' (darkest red colour) is achieved when 8 or more TKU values overlap.

The spatial boundaries used in this report were those utilized by the Proponent in its Project Environmental Impact Assessment (EIA). The local study area is the Proponent's TLRU LAA and the regional study area is the Proponent's TLRU RAA. *The use of the Proponent's study areas constitutes neither their explicit nor implicit acceptance by ECN*. Because adequate time and adequate resources were not available to define ECN TKU study areas, the Proponent's TLRU LAA and TLRU RAA are used here for the sake of expediency and consistency. Moreover, because the author did not have access to the conceptual-footprint shapefiles for oil sands and coal projects, lease areas will serve as a proxy for the area to be disturbed. This is consistent with the precautionary principle that guides the *Canadian Environmental Assessment Act, 2012*, and the assessment of project effects within the context of cumulative effects.[xxxv]

TKU Study Findings

The TKU findings of this study will be presented in four sections. The first section provides a general overview of the TKU practices of ECN members in the Project areas. The first map in this section presents an aggregate of all ECN TKU values in the Project area in the form of a concentration or 'heat' map, in which the intensity of use is indicated by the colour gradient, while the second map zooms in to examine the areas of highest concentration: the PDA itself and the areas to the west and southwest of the PDA, around Jumping Pound and along the Elbow River between Redwood Meadows and Bragg Creek and into Tsuu T'ina Reserve 145. Both maps depict the routes used by ECN harvesters to access TKU sites.

The second section will discuss and present a map of subsistence harvesting in the Project area. This section includes a separate discussion of subsistence hunting, fishing, and gathering activities in the Project area and provides a table that summarizes the use by category, species, and season. The third section examines occupancy and spiritual sites in the Project area, while the fourth and final TKU section will look at ECN TEK. This section will provide a map of TEK sites identified in the Project area and will present photographs of key environmental features identified by ECN members during field visits, as well as a table on the species of cultural significance to ECN members found in the TLRU RAA.

ECN TKU in the Project Area

Despite the distance between the PDA and Ermineskin Reserve 138, the Project area is of historical and contemporary significance to ECN and its members. The PDA rests within ECN's traditional territory and within the core territory occupied by Louis Piche and his sons Bobtail and Ermineskin (the first Chief of the Ermineskin Cree Nation) in the nineteenth century. ECN members have continued to the present to travel to and use the areas within the Project PDA, TLRU LAA, and TLRU RAA for traditional purposes.

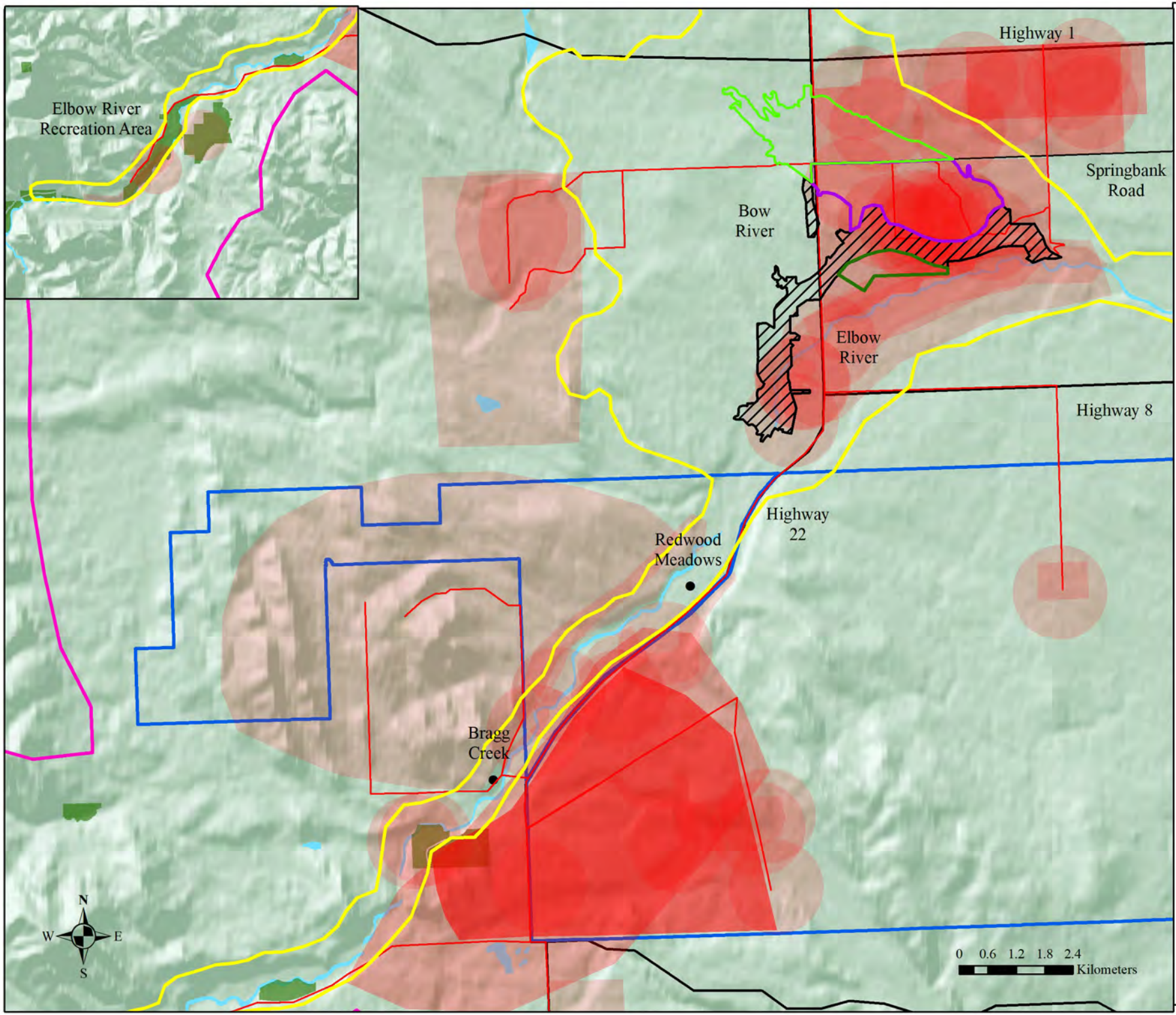


Figure 2 - ECN TKU in and around the Project PDA and LAA

- PDA-A
- PDA-B
- PDA-C
- PDA-D
- LAA
- RAA
- TKU Value
- Reserve
- Parks
- Waterbodies

Concentration

Low

High

Projection - Transverse Mercator Datum: NAD 83
Coordinate System: UTM Zone 11N
Base Map Sources: AENV, AltaLIS, GeoGratis, & ECN
Scale - 1:104,489

WILLOW SPRINGS
STRATEGIC SOLUTIONS

One Elder told of how his parents would travel regularly to the areas around Jumping Pound and would leave him with his grandparents, while a group of hunters travelled to the PDA in 2018 to hunt moose and elk on private lands. Several interviewees had immediate and extended families on the Stoney Reserves 142, 143, and 144, and Tsuu T'ina Reserve 145. These community members visit family regularly and use the Project areas to hunt, fish, and gather, as well as for spiritual and ceremonial purposes.

Figures 2 and 3 depict ECN TKU in and around the Project PDA and TLRU LAA. There are five main areas of concentrated use. The first area is the PDA and the northeastern portion of the TLRU LAA. This area is primarily a hunting and fishing area for community members who obtain access from private landowners to hunt for big game such as moose, elk, and deer, as well as waterfowl and wild turkeys, and fish for trout. Interview participants have been active in this area for their entire lives and began to come to the area with family members as youth.

The second major area of concentration is the area to the west of the PDA and to the south of Jumping Pound. Land users come to this area primarily to hunt big game and pick medicinal plants. As noted above, one Elder identified the area around Jumping Pound as a TU area for his parents. This area is accessed via the western extension of Springbank Road on Highway 244. The third major area of concentration is to the south of Redwood Meadows and to the east of Bragg Creek, most of which lies within Tsuu T'ina Reserve 145. Here community members engage in a wide range of traditional activities from hunting and fishing to the harvesting medicinal plants and wood and participation in spiritual ceremonies including powwows and Sun Dances. The area is accessed to the east of Bragg Creek via a series of trails off of Highway 22.

The fourth area of TKU concentration is to the west of Redwood Meadows and to the northwest of Bragg Creek. Here community members come primarily to harvest medicinal plants and fish. Land users camp in the Bragg Creek area when they come to harvest medicinal plants in the area or fish in the Elbow River.

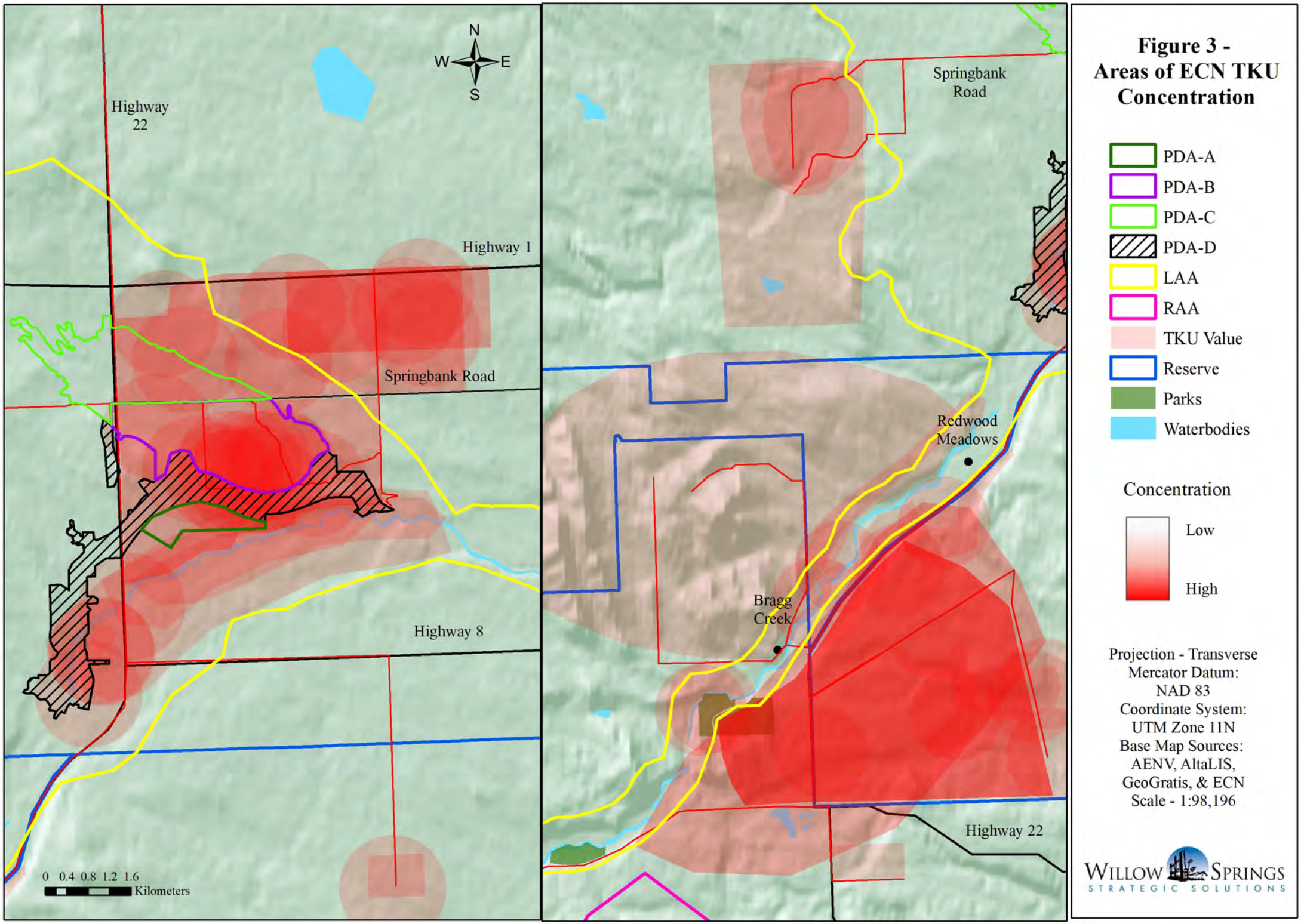


Figure 3 - Areas of ECN TKU Concentration

- PDA-A
- PDA-B
- PDA-C
- PDA-D
- LAA
- RAA
- TKU Value
- Reserve
- Parks
- Waterbodies

Concentration

Low

High

Projection - Transverse Mercator Datum: NAD 83
Coordinate System: UTM Zone 11N
Base Map Sources: AENV, AltaLIS, GeoGratis, & ECN
Scale - 1:98,196

WILLOW SPRINGS
STRATEGIC SOLUTIONS

The fifth and final area of TKU concentration is around the Elbow River Recreation Area. Here community members fish in the Elbow River and camp in the provincial recreation area. The area is access via Wintergreen Road and Highway 232.

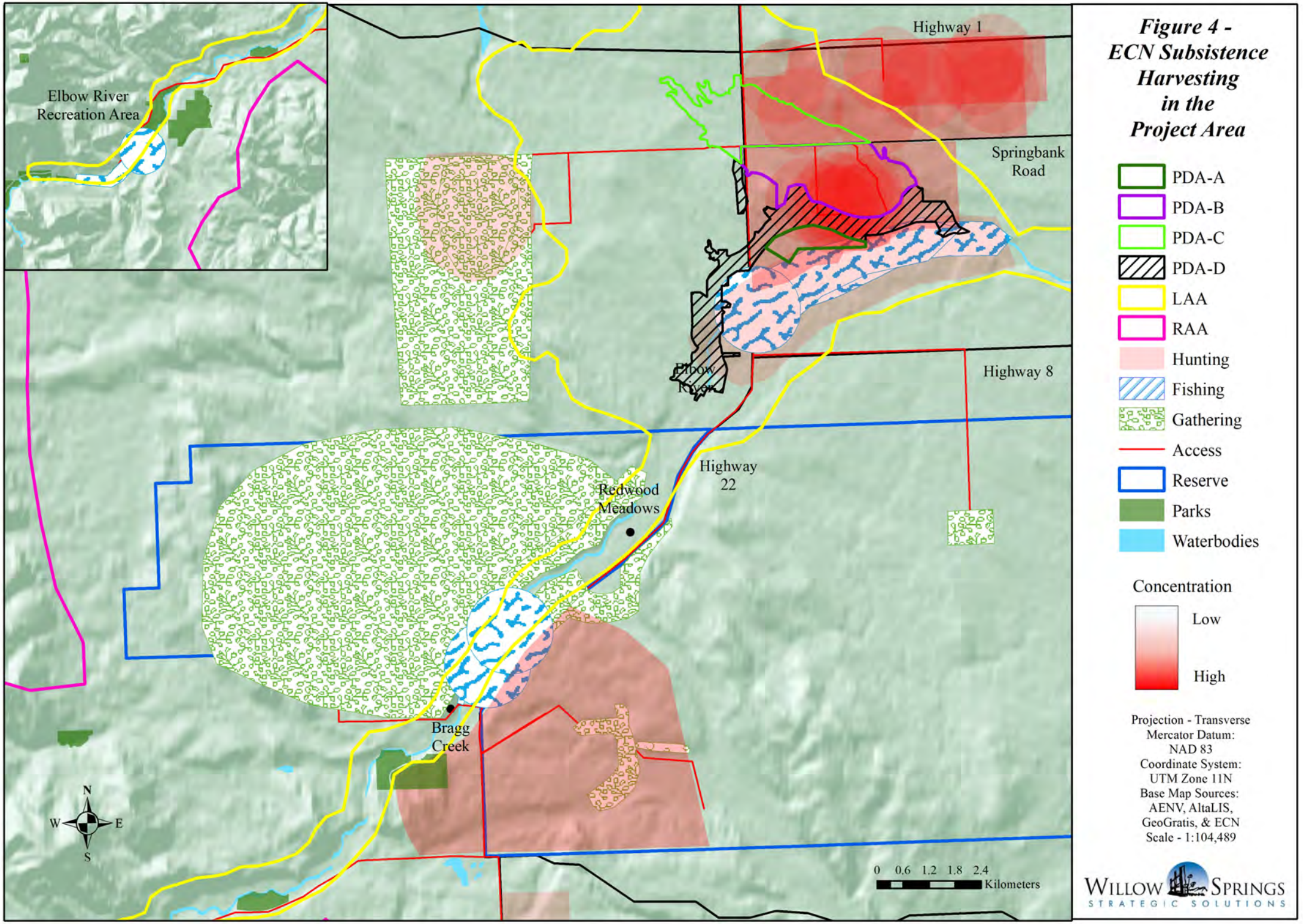
The below table summarizes ECN TKU in and around the Project PDA and TLRU LAA. Interview participants reported using and occupying the area for traditional purposes over the course of their lifetimes, including with their parents as youth. Most participants travel to the area on a regular basis, whether to visit family and friends and/or engage in subsistence and spiritual TU activities. The ECN members interviewed hunted a wide range of species including big game (moose, elk, and deer), game birds (prairie chicken and wild turkey), and waterfowl (ducks and geese). Land users hunt in the Project area in all seasons.

ECN Subsistence Harvesting in and around the TLRU LAA		
TKU Category	*Species/Type*	*Season*
Hunting	Moose, elk, mule deer, white tailed deer, prairie chicken, duck, goose, wild turkey	All seasons
Fishing	Bull trout, rainbow trout, and cutthroat trout	Summer and Fall
Gathering	Sweet grass, kinnick kinnick, wild mint, bear root, tea leaves, sweet pine, and white poplar	Summer and Fall
Occupancy	Camping and family members	All seasons
Spiritual/Ceremonial	Powwow, Sun Dances	Summer
Access	Highways/roads/trails	All seasons

Interview participants reported fishing primarily for trout in the Project area. Fishing is done in the summer and fall. Gathering in the Project area consists primarily of medicinal plants and wood. Interview participants reported harvesting sweet grass, kinnick kinnick, wild mint, and white poplar in and around the Project TLRU LAA. Harvesting is done from the mid-summer until fall. There are several real and potential historical, spiritual, and ceremonial sites in the Project area. Spiritual and ceremonial sites include the Tsuu T'ina powwow and Sun Dance grounds where numerous interviewees participate regularly in spiritual and ceremonial events. As well, field visits identified a possible burial site in the southeastern extreme of the PDA. Occupancy consists of camping around Bragg Creek and the Elbow River Recreation Area and staying with family members on the Stoney and Tsuu T'ina reserves. While camping is restricted to the summer and fall, community members visit and stay with family members throughout the year. Finally, interview participants accessed the area through the highway and road system, as well as through a series of trails that provide access to more remote areas.

Subsistence Harvesting

Interviews and field verification identified 66 subsistence-harvesting values in and around the PDA and TLRU LAA, including access values. Subsistence harvesting is divided into three categories: hunting, fishing, and gathering. Figure 4 depicts the main subsistence harvesting values in and around the Project PDA and TLRU LAA. There are four main areas of subsistence harvesting: the PDA and the eastern extent of the TLRU LAA, the area to the south Redwood Meadows and east of Bragg Creek, the area to the west of Redwood Meadows and north of Bragg Creek, and to the west of the PDA/south of Jumping Pound. Subsistence harvesting was also recorded around the Elbow River Recreation Area.


Elbow River
Recreation Area
Highway 1
Springbank
Road
Highway 8
Elbow
River
Highway
22
Redwood
Meadows
Bragg
Creek
N
W
E
S
0 0.6 1.2 1.8 2.4
Kilometers
Figure 4 -
ECN Subsistence
Harvesting
in the
Project Area
PDA-A
PDA-B
PDA-C
PDA-D
LAA
RAA
Hunting
Fishing
Gathering
Access
Reserve
Parks
Waterbodies
Concentration
Low
High
Projection - Transverse
Mercator Datum:
NAD 83
Coordinate System:
UTM Zone 11N
Base Map Sources:
AENV, AltaLIS,
GeoGratis, & ECN
Scale - 1:104,489
WILLOW SPRINGS
STRATEGIC SOLUTIONS

Hunting

As a result of the reduced availability of big game on the Crown lands nearest to Ermineskin Reserve 138 and the movement of big game east from the foothills, the PDA and surrounding areas have become increasingly valuable and significant hunting areas for ECN hunters and the community members who depend upon hunters for their access to wild meat. As Figure 4 demonstrates, ECN land users hunt in the private lands to the east of Highway 22 and to the south of Highway 1, towards Calaway Park to the east and Highway 8 to the south. Hunting grounds comprise the entire PDA to the east of Highway 22. The main species hunted are moose, elk, and deer. Community members generally organize hunting trips to the area, either at their own initiative (in which case they alert landowners in the area and seek permission) or at the behest of private landowners. Communications generally run through Chief and Council, several of whose members belong to the Nation's hunting association.

These larger-group hunting trips to private lands have become an increasingly important part of the Nation's TU as the likelihood of a successful hunt on the nearest Crown lands has dwindled and the costs of hunting have increased. For many ECN hunters, it makes far more sense to hunt on private lands where the chances of a successful hunt are far greater, and particularly where landowners have contacted the Nation to harvest unwanted herds of large ungulates. The hunters interviewed estimate they have taken more than 20 large ungulates in the main hunting area in the PDA and the areas to its northeast.

In addition to big game, ECN land users hunt for waterfowl (ducks and geese) and game birds (prairie chickens and wild turkeys) along the river to the south of the PDA. Secondary hunting areas include lands south of Jumping Pound, west of the Project PDA, and south of Redwood Meadows and Bragg Creek on Tsuu T'ina Reserve 145. The main species hunted in these areas are moose, elk, and deer, both mule and white-tailed, though wild turkeys have been spotted in the hunting grounds on Tsuu T'ina Reserve 145.

As discussed above, the activity of hunting is not merely for subsistence; it is connected with a series of beliefs and connections to the natural world, as well as protocols that guide hunters. In an interview for a previous study, for instance, an Elder described how, out of respect for the animal, you do not shoot a moose while it is sitting:

> Well, you got to let him get up. Then you shoot him, because I was told before I started hunting, by my dad, never to shoot a moose while it's sitting down. You always got to let him get up. You got to let him get up. If he don't hear you or see you, you crack a stick, he used to say. Then he'll jump up. It's the only way, because if a moose looks at you like this, you think he'll see you? No. That's the only way he sees you on the side…that's our law of hunting. This has been done way before I was even born. But that's how things go in our way of culture and our laws. That's part of our law. You got to let them get up.[xxxvi]

Similarly, after a successful kill, protocol instructs the hunter to give thanks:

> Interviewer: When you kill a, let's say when you kill a moose, is there a protocol that you follow?
> Participant: Yeah. You give thanks. What you take from the land you, uh, you give thanks to the Creator who gives you that, that food.
> Interviewer: How do you give thanks?
> Participant: Tobacco.[xxxvii]

Those who hunt for trophies and who are wasteful and disrespectful are considered to be in violation of natural laws and represent a source of deep frustration to many Ermineskin hunters. The increase in recreational hunters on Crown lands is a source of cultural stress:

> There's a lot that these people that hunt for game or for trophies, whatever it is, it's disturbing to see the rest of that whatever they leave behind go to waste. And in that sense, in our language, it's—the word, it would be [in Cree] right. And in that way, in the English version, it's a sin because the creator provides this stuff for you, and you don't use it the right way. You know, it's because of that fact, the abuse of it, not using it for what it's meant to be.[xxxviii]

The loss of habitat and animals for hunting thus implies a loss much more significant than wild meat for consumption: it represents the loss of the traditional knowledge, including ecological knowledge and knowledge of the values, norms, and protocols related to hunting.

Fishing

As Figure 4 demonstrates, the main fishing areas in the LAA were the along the Elbow River to the south of the PDA, between Bragg Creek and Redwood Meadows, and to the southwest of Elbow River Recreation Area. The main species fished in the Elbow River were bull trout, rainbow trout, and cutthroat trout. Fishing takes place primarily in the summer and fall and is often accompanied by the harvesting of medicinal plants. ECN community members who fished in the TLRU LAA would either camp at Bragg Creek or the Elbow River Recreation Area or stay with family on either Stoney Reserves 142, 143, and 144 or Tsuu T'ina Reserve 145.

Gathering

There were three main gathering areas in and around the TLRU LAA. The first borders the western extent of Tsuu T'ina Reserve 145, east of the Elbow River, and extends in the reserve towards the east. The second area extends to the west of Redwood Meadows and to the north of Bragg Creek, while the third runs south from Jumping Pound towards the northern border of Tsuu T'ina Reserve 145. Finally, one community member picked medicinal plans near the property of a relative south of Highway 8 and east of Redwood Meadows. The medicinal plants harvested in the area include sweet grass, kinnick kinnick, wild mint, bear root, tealeaves, sweet pine, and white poplar for Sun Dances. Of these, wild mint and sweet pine are difficult for ECN members to obtain, which further increases the value of the Project areas to the community.

Historical, Spiritual, and Occupancy Sites

Figure 5 depicts historical, spiritual, and occupancy sites of significance to ECN and its members within and around the Project PDA and TLRU LAA. Site visits identified several sites of real and potential historical importance. The first is an area to near the Elbow River to the southwest of the intersection of Highways 22 and 8. The area was a traditional camping ground for First Nations travelling through the area. Within this area, moreover, ECN community members identified a potential teepee ring at the edge of a trail leading into a wooded area. ECN would like Alberta Culture to work with First Nations to determine whether the site is in fact a historical teepee ring. The second potential historical site is in the southeastern corner of the PDA, near the Elbow River. The landowner stated there was an Indigenous burial site in the area, but claims the markings were washed away in the 2013 flood. ECN again would like Alberta Culture to work with First Nations to determine whether there is in fact an Indigenous burial site in the area prior to construction of the proposed Project.

In addition to historical sites, ECN community members identified a number of sites in and around the Project LAA that are of spiritual and ceremonial significance to the community. The first is the Tsuu T'ina powwow grounds to the southeast of Highway 22 between Redwood Meadows and Bragg Creek. Several of the community members interviewed have attended the powwow on a regular basis for years. As well, several interview participants identified the Sun Dance grounds on the Tsuu T'ina Reserve 145 as a site of spiritual and ceremonial significance, as well as the cultural camp for youth to the east of the Sun Dance grounds.

Finally, community members mapped several occupancy sites in and around the TLRU LAA. Three sites were identified within Tsuu T'ina Reserve 145 where an ECN Elder stays with family while visiting. The Elder in question visits his relatives on the reserve numerous times every year and is a regular attendee of spiritual and ceremonial events on the reserve. Other occupancy includes campgrounds around Bragg Creek and in the Elbow River Recreation Area, where ECN community members stay when the travel to the area to fish and pick medicines.

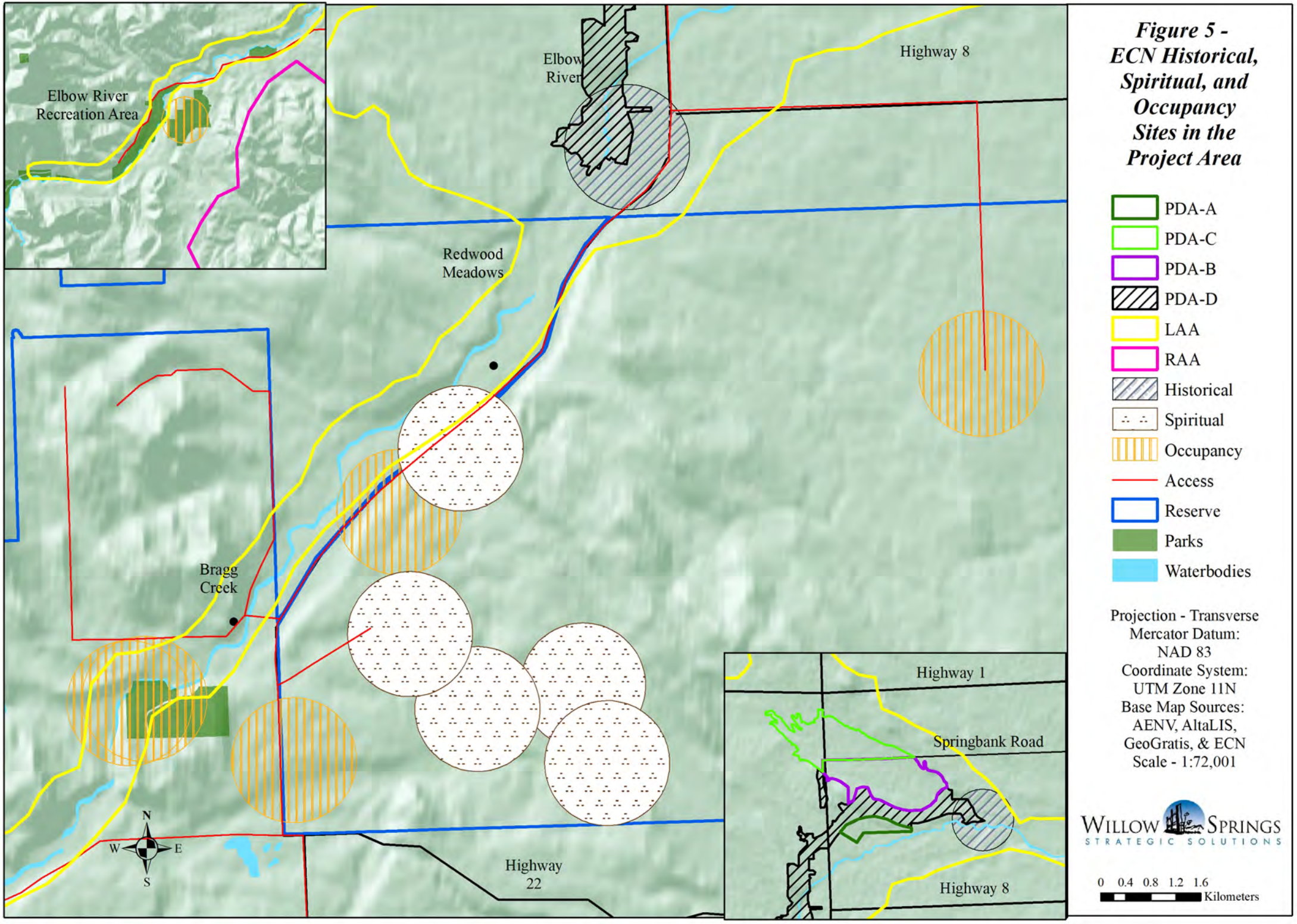


Figure 5 - ECN Historical, Spiritual, and Occupancy Sites in the Project Area

- PDA-A
- PDA-C
- PDA-B
- PDA-D
- LAA
- RAA
- Historical
- Spiritual
- Occupancy
- Access
- Reserve
- Parks
- Waterbodies

Projection - Transverse Mercator Datum: NAD 83
Coordinate System: UTM Zone 11N
Base Map Sources: AENV, AltaLIS, GeoGratis, & ECN
Scale - 1:72,001

WILLOW SPRINGS STRATEGIC SOLUTIONS

0 0.4 0.8 1.2 1.6
Kilometers

Traditional Environmental Knowledge

Despite the time and resource constraints, this study identified and documented significant ECN TK and TEK in the Project areas, including wildlife and plants species of interest and value to ECN and its members (Figure 6). The table below lists the species identified in the EIA submitted by the Proponent that are culturally significant to ECN and its members. By cross-referencing the species identified in TLRU RAA by the Proponent's EIA with the list of culturally significant species provided by ECN, the author was able to identify 51 species of cultural importance to the community within the TLRU RAA.

ECN Culturally Significant Species in the TLRU RAA		
Moose	Elk	White Tailed Deer
Grizzly Bear	Black Bear	Mule Deer
Rabbit/Hare	Porcupine	Wolf
Coyote	Weasel	Marten
Cougar	Lynx	Beaver
Muskrat	Bobcat/Bobtail	Bull Trout
Cutthroat Trout	Rainbow Trout	Burbot
Mountain Whitefish	Bald Eagle	Sharp Tailed Grouse
Short Eared Owl	Duck	Sage
Sweet Grass	Muskeg Tea	Raspberry
Kinnick kinnick	Moss	Wild Mint
Bunch Berry	Saskatoon Berry	Blueberry
Cranberry	Cloud Berry	White Poplar
Black Poplar	Lodge Pole Pine	White Spruce
Red Willow	White Birch	Sweet Pine
Cedar	Pin Cherry	Cattail
Bear root	Tea Leaves	Bluebell

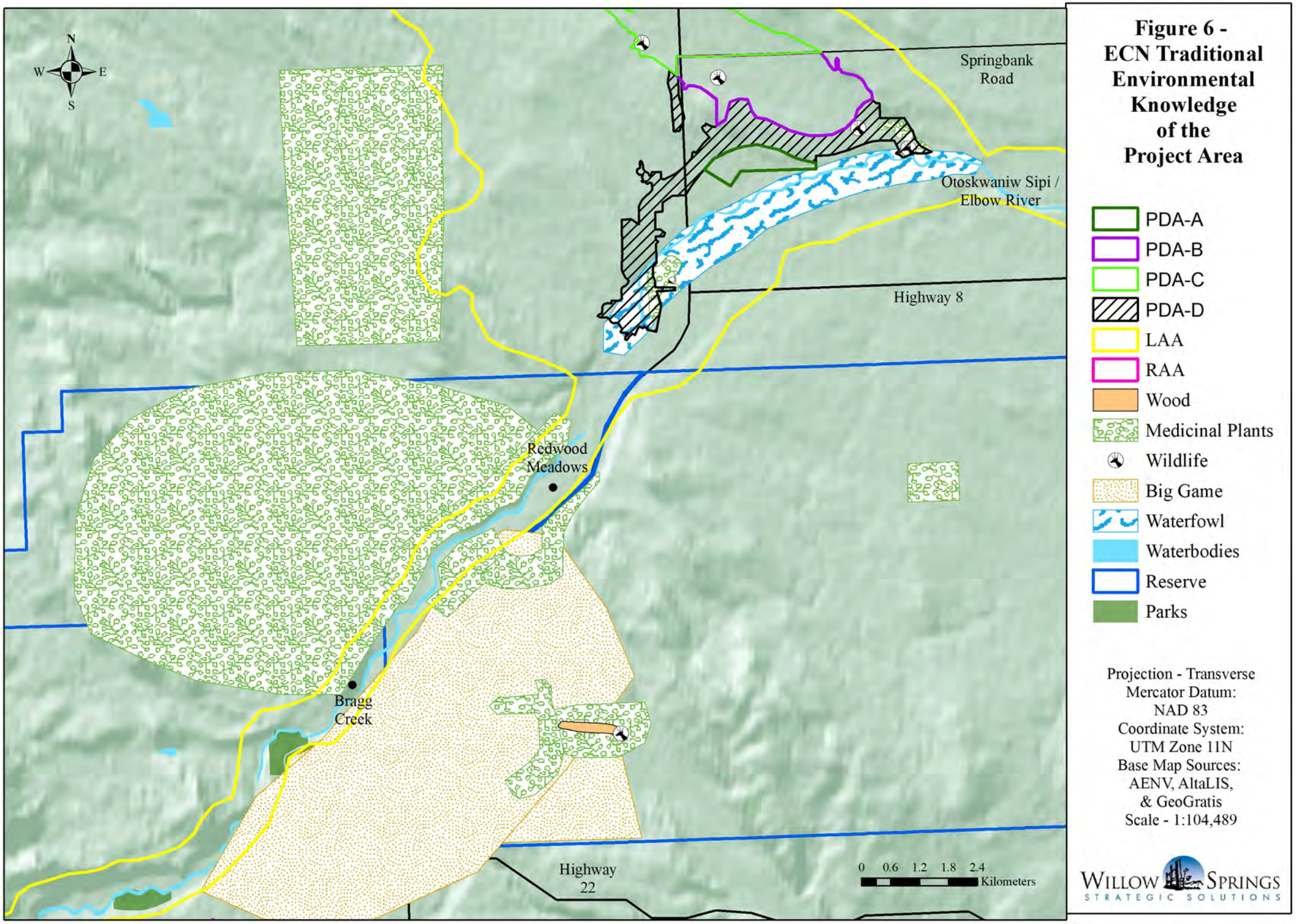


Figure 6 - ECN Traditional Environmental Knowledge of the Project Area

- PDA-A
- PDA-B
- PDA-C
- PDA-D
- LAA
- RAA
- Wood
- Medicinal Plants
- Wildlife
- Big Game
- Waterfowl
- Waterbodies
- Reserve
- Parks

Projection - Transverse Mercator Datum: NAD 83
Coordinate System: UTM Zone 11N
Base Map Sources: AENV, AltaLIS, & GeoGratis
Scale - 1:104,489

WILLOW SPRINGS STRATEGIC SOLUTIONS

Figure 6 presents ECN TEK in and around the Project PDA and TLRU LAA. In interviews, ECN land users identified the areas to the west of the PDA/south of Jumping Pound, to the west of Redwood Meadows and north of Bragg Creek, and to the south of Redwood Meadows and east of Bragg Creek as excellent sites for a variety of traditional medicines and ceremonial plants, including kinnick kinnick, sweet grass, and white poplar. It should also be noted that areas where medicinal plants are found are also habitat for big game, including bears. As one Elder explained in an interview for another study: "The thing about bears, a lot of the roots they pick is the roots that we pick to clean our bodies. So where there's bears, there's always that good medicine that we need. A bear area is a good medicine area."[xxxix] And indeed, a community member reported spotting a black bear recently in an area containing medicinal plants to the east of Bragg Creek, on Tsuu T'ina Reserve 145 (Figure 6).

Elk Herd (LAT: 51-4-0.852N; LONG: 114-27-19.236W)

In addition to the TEK shared during the interview process, field visits to the PDA identified wildlife, wildlife corridors, and medicinal plants within the PDA. Visits to the PDA identified wildlife and wildlife corridors between Springbank Road and the Elbow River. Herds of Elk were identified to the south of Springbank Road and east of Highway 22 (see inset photo), and to the west of Highway 22 and to the north of Springbank Road.

Mule Deer (LAT: 51-1-31.932N; LONG: 114-28-21.702W)

Field visits likewise identified elk tracks and scat in the southeastern portion of the PDA and community members reported hunting elk and moose in the PDA between Springbank Road and the Elbow River, as well as to the north of Springbank Road and east of Highway 22. In the southeastern portion of the PDA, ECN members spotted mule deer, as well as tracks and scat, and several mule deer were spotted in the southwestern portion of the proposed PDA.

Birds of prey were likewise identified during field visits. A landowner in the southwestern portion of the PDA noted that her property contained an osprey nest, though because of time constraints the ECN team was unable to tag and catalogue the nest. In the southeastern portion of the PDA, however, the ECN team identified a bald eagle and its nest close to the river, where the proposed outlet channel would be constructed.

Bald Eagle (LAT: 51-2-55.35N; LONG: 114-24-3.62W)

The Government of Alberta has classified the bald eagle – and the osprey – as a 'sensitive' species. Bald eagle nests are considered

vulnerable to human disturbance and as requiring of protection. The bald eagle is a species of significant cultural and spiritual importance to ECN and many Indigenous peoples, and its feathers hold important spiritual and ceremonies functions. While not captured in a high-quality photograph, two ECN members observed at least two eaglets in the eagle's nest. Evidence of the eagles' hunting activities, including bones of small mammals and fish, were found around the nest site. White tailed deer were spotted on Tsuu T'ina Reserve 145 to the east of Bragg Creek.

Kinnick kinnick (LAT: 51-1-35.694N; LONG: 114-28-23.862W)

White poplar (LAT: 51-1-35.694; LONG: 114-28-23.862W)

In addition to wildlife, site visits to the PDA identified a range of medicinal plants close to the river, including white poplar, red willow, bluebells, wild mint, and kinnick kinnick. In total, site visits to two small, southeastern and southwestern portions of the PDA identified sites of historical and spiritual significance (historical camping area, potential teepee ring, eagle's nest), wildlife and evidence of wildlife migration routes (elk, moose, and mule deer, as well as tracks and scat), and numerous medicinal plants (white poplar, kinnick kinnick, bluebell, and wild mint).

In conclusion, it should be noted that because of the limited time and resources made available for this study, site visits in the PDA were restricted to a relatively small area close to the river in the southeastern portion of the PDA. Given what was found in the limited time spent in the field for this report, ECN and its members would like the opportunity to carry out a more comprehensive visit and survey of the PDA.

ECN Concerns and Recommendations

There is considerable evidence both in Canada and internationally that documents the negative impacts of dams, water diversion structures, and other large-scale industrial projects upon the ways of life and culture, TU and TK, and rights of Indigenous peoples.[xl] There is also a legal duty to consult with First Nations and mitigate negative impacts where possible. When impacts cannot be adequately mitigated, it is not unusual for agreements between proponents and affected communities aimed at accommodating the impacts from the project to be signed, which can help to ensure the distribution of costs and benefits favours Indigenous peoples, who are among the most vulnerable groups to industrial development.[xli]

It is imperative to reiterate ECN's concern that this study was conducted with very limited time and resources and that, as a result, the study neither represents the full extent of ECN TKU and TEK of the Project area nor provides an adequate basis for a proper assessment of the potential impacts of the Project to ECN TU, TK, TEK, and traditional way of life and culture. With that proviso, however, interviews and site visits with ECN staff and community members produced numerous of concerns and a series of preliminary recommendations. These will be divided into three sections: Respect and Consultation; TKU/Environmental Concerns and Recommendations; and Socio-Economic Concerns and Recommendations.

Respect and Consultation

Recognition and respect are the foundations of the consultation process for ECN and its members. If the consultation and regulatory processes are to fulfill their potential and the honour of the Crown, they must be based upon the recognition of and respect for the Treaty and Aboriginal rights and interests of ECN and its members. In interviews and site visits, however, community members expressed frustration that too often consultation takes place late in the regulatory process and is perceived as superficial and insincere. In effect, many of the ECN community members interviewed view Crown consultation within the regulatory context as mere 'box checking' for projects that are for the most part *faits accompli*.

To this end, ECN and its members have the following concerns regarding the consultation and assessment process for this project and make the following recommendations:

- **Adequacy of Consultation**: ECN and its members are concerned that consultation began too late in the regulatory process and lacked the depth required for adequacy. This report, for instance, was researched and written within one month, with minimal resources, and will be submitted only *after* the Proponent has submitted its EIA for the second time. CEAA guidance on the use of ATK and the collection of TKU data for the assessment of impacts to Indigenous TU suggests engagement should take place as early in the regulatory and assessment processes as possible: "Early engagement with Aboriginal groups and making effective use of ATK are strongly encouraged in order to achieve a more complete E[I]A, manage risks of costs and delays later in the process, and be aware of any issues surrounding the capacity of Aboriginal groups to participate in the E[I]A"[xlii];

- **Adequacy of TU Assessment**: Given that (1) the Proponent submitted two EIAs before receiving the baseline ECN TU information contained in this report; and (2) that this study was conducted within a timeframe and budget that rendered a full and community-based assessment of potential impacts possible out of reach, ECN has significant concerns about the adequacy of the assessment of potential Project impacts to ECN TKU;

- **Adequacy of Cumulative Effects Assessment**: ECN finds the cumulative effects assessment carried out by the Proponent to be inadequate. Simply put, ECN does not accept assessments of cumulative effects to their traditional way of life, culture, TU, and TK that are carried out within the confines of project-specific assessments, with their attendant temporal, geographic, and resource constraints. For the cumulative effects of a specific industrial project in Alberta to be meaningful to ECN, there must first be a cumulative effects baseline for the province that has been developed with the consent and full participation of Indigenous peoples;

- **Recommendation 1**: CEAA should suspend a decision on the proposed Project until the Proponent has worked with ECN to carry out a proper and community-based assessment of potential Project impacts to ECN TKU and a determination of the significance of those potential impacts;

- **Recommendation 2**: the Proponent should negotiate with ECN to provide resources and reasonable timelines to gather an adequate baseline of ECN TKU in the Project areas and produce a comprehensive assessment of potential impacts and a determination of significance;

- **Recommendation 3**: Upon completion of the community-based assessment of potential impacts to ECN TKU, the Proponent should meet with ECN representatives to discuss concerns and address potential mitigation and compensation measures as recommended by the report;

Environmental/TKU Concerns and Recommendations

ECN community members have the following concerns and recommendations regarding the potential Environmental/TKU impacts of the proposed Project:

- The potential impacts of the loss for an indefinite time of access to much of the PDA over the life of the Project on ECN TKU, consumption of wild meat, and ability to transmit their traditional way of life, culture, and knowledge to future generations;

- The potential destruction of plant species of medicinal and cultural significance to ECN and its members;

- The potential reduction of wetland habitat for breeding and nesting and its effect on wildlife species that rely upon wetlands;

- The potential impacts of the Project on wildlife migration routes and wildlife abundance and availability in the area;

- The potential impacts of the Project on sensitive species of cultural importance to ECN and its members, such as the bald eagle;

- The potential impact of the Project on sites of potential historical and spiritual significance to ECN and its members, particularly in the southeastern and southwestern portions of the PDA;

- **Recommendation 4**: Prior to construction of the Project, the Proponent should invite ECN land users to hunt in the PDA, particularly for big game such as moose, elk, and deer;

- **Recommendation 5**: Prior to the construction of the Project, the Proponent should invite ECN land users to harvest medicinal plants in the PDA, particularly along the river;

- **Recommendation 6**: The Proponent should attempt to ensure that Areas B and C of the PDA are accessible to ECN and its members for TU purposes, subject to safety considerations related to flooding. If Area C will contain grazing options that are privately managed, the Proponent should work with private managers to ensure maximum access for ECN hunters to the area;

- **Recommendation 7**: The Proponent should work with ECN to design an access management plan for Areas B and C. Such a plan could support ECN access to the area for hunting and other traditional purposes;

- **Recommendation 8**: The Proponent should work with ECN in the development of a communications plan for flood and post-flood operations;

- **Recommendation 9**: The Proponent should work with ECN in the design and implementation of environmental monitoring. As part of environmental

monitoring, the Proponent should consult with ECN to discuss the possibility of training, employment, and contracting opportunities for ECN;

- **Recommendation 10**: As part of its environmental monitoring plan, the Proponent and ECN should develop a joint communications plan for the presentation of environmental monitoring results to the community and the incorporation of community feedback;

- **Recommendation 11**: In the event that the Project is to be decommissioned, the Proponent should consult with ECN regarding the design, implementation, and monitoring of its Reclamation Plan to maximize the use of ECN TEK and support ECN employment in the reclamation process;

- **Recommendation 12**: Given the potential negative effects of the Project on ECN TU and TK, and the traditional way of life and culture of its people, the Proponent should discuss ways to support programming within the community to strengthen the transmission of ECN way of life and culture to future generations;

Socio-Economic Concerns and Recommendations

Indigenous peoples are among the most vulnerable groups to industrial development: more likely to suffer the negative effects and less likely to benefit from the potential positive effects. As such, ECN community members have the following socio-economic concerns and recommendations regarding the proposed Project:

- That without clear targets for ECN employment and contracting and a clear work plan to meet potential targets, ECN and its members will be largely excluded from the potential socio-economic benefits of the Project;

- That the significant obstacles to employment for ECN members, particularly with respect to education, experience, and culture, with impede the ability of ECN members to benefit from the Project;

- That ECN members employed on the Project could be subjected to discriminatory treatment and insensitive attitudes from supervisors and/or contractors, which could result in psychological harm and lower retention rates, among other potential effects;

- **Recommendation 13**: The Proponent should consult with ECN regarding the establishment of employment targets for ECN community members and the development of a plan to meet those targets,

- **Recommendation 14**: As part its employment plan, the Proponent should consult with ECN regarding potential support for educational, training, and apprenticeship programs that could facilitate the employment of ECN community members, and especially young people;

- **Recommendation 15**: The Proponent should consult with ECN regarding the design and implementation of a Cree cultural-sensitivity training program that is mandatory for all Project employees and contractors;

- **Recommendation 16**: The Proponent should consult with ECN regarding businesses in the community and potential business and contracting

opportunities in relation to the Project. Where possible the Proponent and ECN should attempt to identify opportunities for Direct Negotiated Contracts with ECN businesses;

Conclusion

This report demonstrates the historical and contemporary connections of ECN and its members to the Project PDA, TLRU LAA, and TLRU RAA. In total, 8 Project-specific interviews and three site visits identified 106 TKU values in and around the Project PDA and LAA; of these TKU values, 66 values were related to subsistence harvesting. The main TKU activities in the Project area were hunting, fishing, gathering, historical/spiritual, and occupancy. As a result of the significant time and resource limitations under which the study was conducted, however, it was not possible to catalogue baseline ECN TKU more completely or provide an assessment and characterization of potential impacts and a determination of their significance. *As such, this study should not be considered adequate to assess fully the potential effects of the Project on the TKU and Treaty and Aboriginal rights of Ermineskin Cree Nation and its members or to develop sufficient mitigation measures.*

Despite the distance of the Project area from Ermineskin Reserve 138, the area is of historical and contemporary significance to the community. The PDA rests within ECN's traditional territory and within the core territory occupied by Louis Piche and his sons Bobtail and Ermineskin. ECN members have continued to the present day to travel to and use the areas within the Project PDA, TLRU LAA, and TLRU RAA for traditional purposes. One Elder told of how his parents would travel regularly to the areas around Jumping Pound and would leave him with his grandparents, while a group of hunters travelled to the PDA in 2018 to hunt moose and elk on private lands. Several interviewees had immediate and extended families on the Stoney Reserves 142, 143, and 144, and Tsuu T'ina Reserve 145. These community members

visit family regularly and use the Project areas to hunt, fish, and gather, as well as for spiritual and ceremonial purposes.

As a result of industrial and human disturbances of Crown lands, the private lands in and around the PDA have taken on increased importance for ECN hunters and community members who rely upon hunters for access to wild meat. On the one hand, ECN land users have observed the declining abundance of big game in the Crown lands to the north and west of the reserve. And on the other hand, land users have noted that large ungulates and other big game are increasingly migrating from the foothills towards the east. Ranchers in the PDA echoed this latter observation. As the likelihood of successful hunts on the nearest Crown lands have dwindled and the costs of hunting have increased, ECN hunters have come to rely increasingly upon access to private lands to hunt for big game. As a result of their relative lack of disturbance (Figure 1) and the connections between private landowners in the area, Chief and Council, and ECN hunters, the lands in and around the PDA have taken on an increased importance and ECN hunters intend to continue visiting the area in the future.

It is hoped that this report and its contents will support continued consultation between the Proponent and ECN and will serve to inform the regulators as they make their respective determinations. It should be noted in conclusion that the concerns and recommendations expressed in this report do not fully or necessarily represent the positions of ECN and its members, and should be understood as a series of concerns and recommendations based upon the information that could be collected within the limited time and resources provided for this study. Because this report is based upon ECN TKU, moreover, it should be understood as a dynamic and living document that is subject to revision and update over time.

NOTES

[i] This section is based on Irwin, Robert, "No Means No: Ermineskin's Resistance to Land Surrender, 1902-1921," *The Canadian Journal of Native Studies* XXIII, no. 1 (2003): pp. 165-183; and Wonders, William, "Far Corner of the Strange Empire: Central Alberta on the Eve of Homestead Settlement," *Great Plains Quarterly* 3, no. 2 (1983): pp. 91-108; and oral history accounts provided in TKU interviews.

[ii] Calliou, B.L., *Losing the Game: Wildlife Conservation and the Regulation of First Nations Hunting in Alberta, 1880-1930* (Edmonton: University of Alberta, 2000); Clark, Timothy David, *McMurray Métis Cultural Impact Assessment of the Suncor Voyageur South Mine*, submitted to McMurray Métis Local 1935, 2017; Dyck, T., Berg, K., Berryman, S., Garibaldi, A., and Straker, J., *Fort McKay First Nation Cultural Impact Assessment: Teck Frontier Oil Sands Mine*, submitted to Fort McKay First Nation, 2016; Labour, Sherri, *Cumulative Impacts to FMFN#468 Traditional Lands and Lifeways*, submitted to Fort McMurray First Nation 468, 2012.

[iii] SDTKU-INTERVIEW3-PAGE14.

[iv] Chapman, G. and Gilligan, J., *WMU 512 Crow Lake Aerial Moose Survey* (Edmonton: Alberta Environment and Sustainable Development, 2013); Charest, K.S., *Changes in Moose and White-Tailed Deer Abundance in Northeastern Alberta and the Relationship to Cumulative Impacts*, M.Sc. thesis, University of Alberta, 2005; Dyer, S.J., O'Neill, J.P., Wasel, S.M., and Boutin, S., "Avoidance of Industrial Developments by Woodland Caribou," *The Journal of Wildlife Management* 65, no. 3 (2001): 531-542; James, A.R.C. and Stuart-Smith, K., "Distribution of Caribou and Wolves in Relation to Linear Corridors," *The Journal of Wildlife Management* 64, no. 1 (2000): 154-159; Jarnevich, C.S. and Laubhan, M.K., "Balancing Energy Development and Conservation: A Method Utilizing Species Distribution Models," *Environmental Management* 47 (2011): 926-936; Nielsen, S., Bayne, E., Schieck, J. Herbers, J., and Boutin, S., "A New Method to Estimate Species and Biodiversity Intactness Using Empirically Derived Reference Conditions," *Biological Conservation* 137 (2007): 403-414; Timoney, K.P. and Roncini R.A., "Annual Bird Mortality in the Bitumen Tailings Ponds in Northeastern Alberta, Canada," *The Wilson Journal of Ornithology* 122, no. 3 (2010): 569-576.

[v] SDTKU-INTERVIEW1-PAGE8.

[vi] SDTKU-INTERVIEW1-PAGE10.

[vii] SDTKU-INTERVIEW1-PAGE12.

[viii] SDTKU-INTERVIEW1-PAGE12.

[ix] SDTKU-INTERVIEW1-PAGE14.

[x] SDTKU-INTERVIEW1-PAGE13.

[xi] SDTKU-INTERVIEW1-PAGE13.

[xii] Freeman, Milton M.R. (ed.), *Inuit Land Use and Occupancy Project, Volumes 1-3* (Ottawa: Supply and Services Canada, 1976); Freeman, Milton M.R., "Looking Back – and Looking Ahead – 35 Years After the Inuit Land Use and Occupancy Project," *The Canadian Geographer* 55, no. 1 (2011), pp. 20-31.

[xiii] Tobias, Terry, *Living Proof: The Essential Data Collection Guide for Indigenous Use and Occupancy Mapping, Research Design, and Data Collection* (Vancouver: Ecotrust Canada / Union of British Columbia Chiefs, 2010).

[xiv] See Thom, Brian and Washbrook, Kevin, *Co-Management, Negotiation, Litigation: Questions of Power in Traditional Use Studies*, paper presented at the Annual Meeting of the Society for Applied Anthropology, Seattle, Washington, March 1997; Natcher, David, "Land Use Research and the Duty to Consult: A Misrepresentation of the Aboriginal Landscape," *Land Use Policy* 18, no. 2 (2001), pp. 113-122.

[xv] SDTKU-INTERVIEW3-P35.

[xvi] See Usher, Peter, Frank Tough, and R.M. Galois, "Reclaiming the Land: Aboriginal Title, Treaty Rights, and Land Claims in Canada," *Applied Geography* 12, no. 2 (1992), pp. 109-132.

[xvii] These distinctions are based upon – and modify – those made by the Integral Ecology Group.

[xviii] See Tobias, Terry N., *Living Proof: The Essential Data-Collection Guide for Indigenous Use-and-Occupancy Map Surveys*, Vancouver: Ecotrust Canada / Union of British Columbia Indian Chiefs, 2009, p. 33; Berger, Thomas R., *Northern Frontier, Northern Homeland: The Report of the Mackenzie Valley Pipeline Inquiry: Volume 1* (Ottawa: Ministry of Indian Affairs and Northern Development, 1977), p. 111.

[xix] Tobias, *Living Proof*, p. 440.
[xx] Clark, Timothy David, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study – Robb Trend Mine Expansion*, submitted to Ermineskin Cree Nation in 2015, p. 14.
[xxi] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 14.
[xxii] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 15.
[xxiii] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 15.
[xxiv] SDTKU-INTERVIEW3-P11.
[xxv] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 14.
[xxvi] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 9.
[xxvii] It should be noted that while TU represents an important cultural pillar for many Indigenous peoples, culture cannot be reduced to TU and the assessment of cultural impacts cannot be limited to impacts therein.
[xxviii] Canadian Environmental Assessment Agency, *Reference Guide Considering Aboriginal Traditional Knowledge in Environmental Assessments Conducted Under the Canadian Environmental Assessment Act, 2012* (Ottawa: CEAA, 2015), p. 1.
[xxix] Turner, Nancy J. et al., "Ebb and Flow: Transmitting Environmental Knowledge in a Contemporary Aboriginal Community," in *Making and Moving Knowledge: Interdisciplinary and Community-Based Research in a World on the Edge*, edited by Lutz, John Sutton and Neis, Barbara (Montreal and Kingston: McGill-Queen's University Press, 2008), pp. 46-52.
[xxx] See Houde, Nicolas, "The Six Faces of Traditional Ecological Knowledge: Challenges and Opportunities for Canadian Co-Management Arrangements," *Ecology and Society* 12, no. 2 (2007): 34; Stevenson, Mark G., "Indigenous Knowledge and Environmental Assessment," *Arctic* 49, no. 3 (1996): 278-291; Usher, "Traditional Ecological Knowledge," pp. 183-193.
[xxxi] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 14.
[xxxii] Bohensky, Erin L. and Yiheyis Maru, "Indigenous Knowledge, Science, and Resilience: What Have We Learned from a Decade of International Literature on 'Integration'?" *Ecology and Society* 16, no. 4 (2011): 6.
[xxxiii] Ehrlich, Alan, M. Haefele, and C. Hubert, "Incorporating TK Into EIA", presentation at the International Association for Impact Assessment (IAIA) Annual Conference, 2011, pp. 1-10.
[xxxiv] Berkes, Fikret, J. Colding, and C. Folke, "Rediscovery of Traditional Ecological Knowledge as Adaptive Management," *Ecological Applications* 10, no. 5 (2000): 1251-1262; Gómez-Baggethun, Erik, Victoria Reyes-García, Per Olsson, and Carlos Montes, "Traditional Ecological Knowledge and Community Resilience to Environmental Extremes," *Global Environmental Change* 22 (2012): 640-650; Ruiz-Mallén, Isabel and Esteve Corbera, "Community-Based Conservation and Traditional Ecological Knowledge: Implications for Social-Ecological Resilience," *Ecology and Society* 18, no. 4 (2013): 12.
[xxxv] Government of Canada, *Canadian Environmental Assessment Act, 2012*, s. 4(2).
[xxxvi] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 24.
[xxxvii] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 24.
[xxxviii] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 25.
[xxxix] Clark, *Ermineskin Cree Nation Traditional Land Use and Ecological Knowledge Study*, p. 35.
[xl] For example, see Colchester, Marcus, *Sharing Power: Dams, Indigenous Peoples, and Ethnic Minorities* (Cape Town: Secretariat of the World Commission on Dams, 1999); Knight, Nancy, et al., *What We Know About the Socio-Economic Impacts of Canadian Megaprojects: An Annotated Bibliography of Post-Project Studies* (Vancouver: University of British Columbia Press, 1993); Loney, Martin, 'Social Problems, Community Trauma and Hydro Project Impacts,' *Canadian Journal of Native Studies* XV (1995): 231-254; Martin, Thibault and Hoffman, S.M. (eds.), *Power Struggles: Hydroelectric Development and First Nations in Manitoba and Quebec*, Winnipeg: University of Manitoba Press 2008; Waldram, J.B., 'Native Employment and Hydroelectric Development in Northern Manitoba,' *Journal of Canadian Studies* 22, no. 3 (1987): 62-76.
[xli] On the potential of impact-benefit agreements and the relationship between impact assessment and negotiated agreements, see Gibson, Ginger and Ciaran O'Faircheallaigh, *IBA Community Toolkit: Negotiation and Implementation of Impact Benefit Agreements* (Toronto: Walter and Duncan Gordon Foundation, 2011); Le Meur, Pierre-Yves, Leah S. Horowitz, and Thierry Mennesson, "'Horizontal' and 'Vertical' Diffusion: The Cumulative

Influence of Impact and Benefit Agreements on Mining Policy-Production in New Caledonia," *Resources Policy* 38 (2013), pp. 648-656; O'Faircheallaigh, Ciaran, "Making Social Impact Assessment Count: A Negotiation-Based Approach for Indigenous Peoples," *Society and Natural Resources* 12 (1999): 63-80.

[xlii] Canadian Environmental Assessment Agency, *Technical Guidance for Assessing the Current Use of Lands and Resources for Traditional Purposes Under the Canadian Environmental Assessment Act, 2012* (Ottawa: CEAA, 2015, p. 12); see also Canadian Environmental Assessment Agency, *Reference Guide Considering Aboriginal Traditional Knowledge in Environmental Assessments Conducted Under the Canadian Environmental Assessment Act, 2012* (Ottawa: CEAA, 2015).