

## **Extracting Knowledge: Social Science, Environmental Impact Assessment, and Indigenous Consultation in the Oil Sands of Alberta, Canada<sup>1</sup>**

### **Abstract**

This article provides a critical overview of consultation, impact assessment, and traditional land use research as these methods of extracting knowledge intersect in the oil sands region of northern Alberta. Based on our experience as anthropologists working in policy analysis, consultation, impact assessment, and ethnographic research with impacted communities, we examine public participation and risk assessment procedures, including those conducted through documents and those conducted through personal or group interviews with Crees. The Alberta's oil sands industry has expanded exponentially in recent decades; however, consultation, impact assessment, and accommodation of Cree, Dene, and Métis interests in the region have not kept up with best practices established during the same timeframe. We point to a number of examples where inferior and incompetent consultation and impact assessment processes have supported an overall political economic push to develop the oil sands as quickly as possible. We argue for improved participatory processes to inform more open political and scientific debate.

**Key words:** Oil Sands, Canada, Alberta; Indigenous Peoples; Consultation; Impact Assessment; Traditional Land Use

**Funding:** We are members of a research team, directed by Westman and in partnership with mentioned First Nations, funded by the Social Science and Humanities Research Council (SSHRC) of Canada, to study the impacts, benefits, and consultation processes of energy extraction in northern Alberta. Furthermore, we have each been independently funded by SSHRC to study energy impacts and consultations in these communities.

### **1.1 Introduction: “I Keep Complaining But Nobody is Doing Nothing.”**

---

<sup>1</sup> This article contains a small amount of data and analysis previously published in French by L'Académie/Harmattan (Westman 2014), which has been refined and reworked for the present article in conjunction with Westman's insights.

In this article we examine the collision of perspectives and imbalances in power associated with extraction from Cree, Dene, and Métis territories in Alberta's oil frontier. We argue for improved social science studies, public consultations, and government policies to assess and monitor impacts to traditional land use of First Nations and Métis, and to protect their livelihoods. We speak from several years of experience working in the region, including ethnographic research, language training, and involvement with different components of the traditional land use, consultation, and impact assessment industries, in particular our experiences working with the Bigstone Cree Nation, Fort McKay First Nation, Mikisew Cree First Nation, Onion Lake Cree Nation, Peerless Trout First Nation, and Woodland Cree First Nation. We consider especially the direct impacts on traditional land use as well as consultation and assessment processes designed to identify and ameliorate these impacts. We focus on the impacts and processes associated with extraction of bitumen (oil/tar sands) and heavy oil, which can be mined in some instances or more widely extracted *in situ* using new, intensive, drilling technologies including fracking. Throughout the article, we pay special attention to the qualitative aspects of loss, landscape, and livelihood, as well as the discursive and acculturative intentions of the consultations processes themselves. Ultimately we argue that traditional land use consultation functions as an extractive industry in the region; in this case extracting and refining specialized land-based knowledge from First Nations communities, while violating the existing laws of the land and principles of respect and reciprocity. While we did not formally conduct an extended ethnographic study of the consultants and industry itself, our varied experience with the industry, in conjunction with our anthropological training and ethnographic experience in the region, provide many foundations for new scholarly insights. In this article we build on the insights of our previous work, including insights about the potential of consultation

and policy processes in impact assessment to create future landscapes and erase particular practices from consideration. In doing so we connect to cutting edge policy changes and the practical aspects of doing consultation work with First Nations and Métis communities.

While we do not wish to rob Indigenous people of their agency and imply they are simply victims of industrial and political processes, we must acknowledge that regional communities, their members, and representatives have expressed deep concern with the large-scale extreme extraction occurring in northern Alberta, as well as the political and participatory processes that accompany it. By weaving our analysis of the consultation industry with our discussion of the extractive industry itself, we shed new light on the coercive and extractive nature of consultative and participatory processes in the region.

The following three quotations, taken from three environmental impact studies for different projects that have been approved over the past decade, demonstrate the degree to which traditional land users are being impacted, not only by the oil sands industry, but by the consultation process itself:

**I keep complaining but nobody is doing nothing, People are hiding everything that is going on here. The environment minister is helping oil companies and he doesn't give a shit about Indians in Fort McKay.**

-A trapper quoted in an Environmental Impact Assessment – Joslyn North Mine Project “Traditional Ecological Knowledge and Land Use Report”. (Total Canada, 2006:36)

**A room is the wrong place to tell information.**

-An Elder at a public consultation meeting, quoted in an Environment Impact Assessment – Kearl Lake Project. (Imperial Oil, 2005:6-49)

**The cumulative effect of this disappointment (with consultations and impact assessment) is a psychological and spiritual fatigue, occurring around the older, more traditional members of the community. They are tired of expressing the same concerns and telling the same stories, which seem to have no effect on the course of development.**

-From the remarks of the authors of the Environment Impact Assessment – Kearl Lake Project. (Imperial Oil, 2005:6-2)

Clearly both the land users who are the target of impact assessments and participatory consultations and at least some of the consultants administering such studies agree that the process is seriously flawed, in that it does not register the dissent of those who are most impacted by the inevitable project approvals, while continuing to engage their participation in emotionally draining and ineffectual bureaucratic processes. This is particularly egregious given that Cree, Dene, and Métis peoples in the region hold Treaty rights and/or Aboriginal rights to land and livelihood that are constitutionally protected. These rights are in the process of being fully defined by court judgements but include the right to care for and collect wild food and medicines and the right to be consulted and meaningfully accommodated about developments occurring on traditional territories. The latter is more often characterized as a *duty to consult* Indigenous people (Newman 2014), with the duty being legally vested in the Crown (i.e., government), but in practice frequently devolved to industry.

Oil companies may tout their engagement with First Nations and Métis communities through full page ads in major newspapers, showing pictures of smiling Elders standing by pristine lakes, but our collaborators in First Nations governments and consultations offices have told us that they experience such developments as a “*tsunami*.” Indeed, as reported in the Edmonton Journal (Klinkenberg, 2013), since 1980, oil sands production in northern Alberta has increased fifteenfold: from 100,000 barrels of synthetic crude per day, to 1.5 million barrels per day (bpd). These figures do not incorporate growth in production of conventional oil, natural gas, or ancillary extraction such as sand and gravel, or the significant expansion in wood and pulp extraction that occurred in the same timeframe. Before the dramatic drop in oil prices in late 2014, oil sands production was projected to increase to 4.8 million bpd by 2030 and capital

investments in Alberta oil sands projects were projected to exceed \$500 billion by 2038 (Healing, 2014). Several oil sands companies have recently slowed production (and consultation activities) due to current market conditions, but the moment the price of oil increases, they will again be operating and expanding with full force.

As these brief statistics show, Canada's oil sands are a globally significant example of extreme extraction on Indigenous lands that disrupts existing relationships and practices in this corner of the boreal forest. What is significant about our case study is the scale and pace of the growth in extraction, particularly since 2000 or so, and the global impacts in terms of climate and pollution. Drilling down to the local level, one finds equally catastrophic impacts affecting livelihoods, knowledge transmission in families and communities, and important cultural sites and practices. Furthermore, we closely sketch the practical meaning and effect of the capture by the fossil fuel industry of the non-professionalized consultation and assessment industry, as well as the regulators who are supposed to be ensuring quality in the monitoring and assessment of cumulative socio-economic and socio-cultural effects. This is occurring notwithstanding an increasingly well-developed body of case law on consultation and the rights of Indigenous people in the area, in part due to the political power of the fossil fuel industry as well as the industry's prominence in the national and regional imagination and economy. As such our study is a cautionary one with broader application.

What does it mean to those who live in relationships with landscapes suddenly highly valued by settlers, while using ancient practices to draw both sustenance and spiritual meaning from them? Not only are the companies that harvest natural resources in Alberta extractive industries, but the legally required consultation process is also an extractive industry. We use the word 'extraction' with deliberation (Preston, 2017), considering the Oxford English Dictionary

definition “[t]o get out (the contents of anything) by force, effort, or contrivance; to take out (anything embedded or firmly fixed)” (2014). Traditional land use studies and Environmental Impact Assessments (EIAs) are extractive in that they take knowledge from communities without giving back; violating Cree, Dene, and Métis systems of respect and reciprocity (Baker, 2017). We demonstrate that traditional land use studies and EIAs in the oil sands region are not acting to protect Treaty rights to land and livelihood, as they are required to do by law, but that traditional knowledge extraction is instead acting as a form of negative reciprocity. Once knowledge is extracted from Aboriginal peoples, it is refined and distilled to meet consultation requirements, so corporations can extract bitumen from sand.

In addition to their concern for traditional livelihoods and the natural environment, First Nations and Métis governments are trying to secure benefits and infrastructure in a region largely isolated from government support. While we provide a critique of how the duty to consult is enacted in Alberta, we are not criticizing any given community’s decision on how they decide to cope with industrial development in their territories. Their particular “life projects” (Blaser, 2004) are responses to complex histories that can only be met with survivance (Vizenor, 2007). It is not our place to say whether or not someone should sign a benefit sharing agreement or engage in consultation. In fact, due to provincial and federal government consultation guidelines, if a First Nation refuses to consult with a company, their concerns are not recorded or considered, and the company likely would still receive project approval. If the First Nation does engage in consultation, the company effectively interprets participation to be consent, especially when the First Nation receives contracts or funds from the company to carry out traditional land use assessments. In this context, First Nations are faced with a true dilemma. As in extreme extraction zones around the world, Indigenous people’s desires for environmental protection and

the processes that force them off of the land and into the wage labour for the companies extracting natural resources are not opposing forces, but rather the same interlinked issue (Broto, 2013:10). Meanwhile Cree actions are “rooted not in opposition or opportunism, but in the practice of everyday life in communities and on the land” (Feit, 2004:93). This everyday life is informed by respect and reciprocity that not only binds Crees with one another and all living beings in the landscape, but also extends to outsiders; to newcomers to Cree territories.

## **1.2 Legal Context and Policy Implementation**

First Nations in Canada have challenged the federal and provincial governments on several occasions regarding the governments’ duty to consult them regarding impacts to traditional harvesting and Treaty rights (see Wyatt and Baker, 2014). This has influenced the creation of several consultation policies and guidelines. In Alberta, Saskatchewan, and Manitoba, Natural Resource Acts transferred the control of Crown lands and natural resources to the respective provinces (Alberta, 1930). This means that National Parks and “Indian” reservations are the only lands that fall under the responsibility of the Federal Government. Therefore, the Province of Alberta is responsible for ensuring that consultation has occurred on provincial “Crown” lands. Before the establishment of the provincial and federal Consultation Policies (Alberta, 2005, Government of Canada, 2011), Aboriginal consultation was minimal, informal, and often secretive. Notably, First Nations declared zones of de facto quasi-sovereignty on provincial lands, which were announced by road signs, and levied fees from companies operating on their traditional lands. In response to such provocations, and to ongoing developments in jurisprudence, the Alberta Government acknowledges Treaty rights to traditional land use, but is otherwise vague and falls short of actually protecting Treaty rights (Laidlaw, 2014b).

In general, consultation takes a stakeholder management approach (Potes, 2007, Wanvik, 2016), with the project proponent informing selected/affected First Nations of the proposed project and then the proponent hiring an environmental consulting firm to undertake a traditional land use assessment as a part of the EIA process. This form of consultation is largely distinct from other public communications and approvals. Most First Nations have established departments within their band offices to deal with the hundreds of oil and gas applications they receive each year. These consultation offices review EIAs and participate in TLU assessments and research. Both project proponents and First Nations often emphasize that the consultation process is separate from the signing of impact benefit agreements (Shanks, 2006). This means that although a First Nation might negotiate with a company to financially support community development, agree to revenue-sharing, or guarantee contracts for First Nations companies, the First Nation can ostensibly express its concerns regarding project impacts to their traditional land use and Treaty rights (Law et al., 2005).

The Alberta Government released a draft policy on “Consultation with First Nations on Land and Natural Resource Management” (Alberta, 2013) that acknowledges Treaty rights to traditional land use, but is otherwise vague and falls short of protecting Treaty rights (Laidlaw, 2014a). Alberta subsequently released “Guidelines on Consultation” (Alberta, 2014) that describe the now shortened deadlines for consultation; for example, once First Nations respond to notification, they have just twenty business days to complete consultation. With the recent election of a new provincial government, the Alberta Consultation Office is promising First Nations the opportunity to review the consultation guidelines, but communities are exhausted, frustrated, and fear that their concerns will not be heard in time to make significant policy changes in time for the next election. Lawyers Laidlaw and Passelac-Ross, who specialize in the



duty to consult in Alberta, are clear in their concerns: “Both the way in which Alberta set out to develop the 2013 Policy, and the Policy itself, are objectionable and deeply offensive... First Nations have well-founded concerns about Alberta’s commitment to respecting the Treaties, the very foundation of the relationship, and whether it is negligence, arrogance or a deliberate choice, Alberta has earned that skepticism” (Laidlaw, 2014a:60). In the more detailed 2005 Policy (Alberta, 2005), the Alberta government acknowledges Treaty rights as protected under the Constitution and then explains that it expects project proponents to conduct consultation with First Nations. “Alberta expects industry to engage in consultation based on respect, open communication and co-operation. Those who propose natural resource developments are expected to consult with and consider the views of First Nations who could be affected by their developments. Industry should incorporate traditional use data when planning their operations” (Alberta, 2005).

The policy states that Alberta expects project proponents to avoid or mitigate infringement of traditional land use rights, to provide timely notification of industrial activities, discuss potential impacts, record First Nations’ concerns and how issues were mitigated, and enter into a dialogue with First Nations toward achieving a sustainable outcome (Alberta, 2005). In return, Alberta expects First Nations to indicate if they want to be consulted regarding any given project, identify practical arrangements on how to implement the Policy, clearly identify which of their rights may be infringed on by projects, provide alternate solutions, increase awareness of rights and land uses, and “[s]hare traditional use information with Alberta and the Project Proponent to inform the Land Management and Resource Development review and decision-making process” (Alberta, 2005).

Alberta assumes a managerial role in the consultation process and delegates project-specific activities to project proponents. This means that project proponents consult First Nations and the Alberta government decides whether or not the duty to consult has been fulfilled (Alberta, 2007). The Federal Government also released consultation guidelines in 2011 (Canada, 2011) that reiterate many of the points in the Alberta guidelines for Crown activities.

With Canadian law recognizing a legal duty to consult Aboriginal people about projects in their traditional territories, a consultation industry has sprung up around the oil sands in particular. In practice, the consultation agenda is somewhat diffuse, incorporating both environmental impact assessments mandated by federal and provincial legislation, as well as more targeted consultation with Aboriginal communities and with land users (i.e., registered trapline holders) in particular. Moreover, over the past decade or two, Alberta has focused its consultation efforts on promoting traditional land use studies, cultural maps that draw on (or, at worst, ape) anthropological research methods and approaches. We diagnose problems with each of these consultation modalities.

### **1.3 Maps and Dreams: EIA and Traditional Land Use Research as Consultation Practices in Northern Canada**

Consulting research in northern Canada in general, and impact assessment in particular, have reflected to a large extent mainstream views in the settler society about culture change. (For critical discussions of consulting research and industry assumptions see: Asch, 2002, Howitt, 1995, Justus and Simonetta, 1982, Usher, 1993, Usher, 2000). Specifically, culture change is understood in common sense terms largely as unidirectional and imbued with a sense of development and progress, with economic benefits automatically accruing to First Nations. Such a view still holds sway in oil sands consulting and EIA and contributes to devaluing traditional

land use and traditional environmental knowledge and promoting a specific type of future landscape and land use (Westman, 2013). Project proponents and consultants underwrite this view with optimistic offers of the industrial future backed with promises of jobs, payments, and reclamation. It is against this current, and against the current of political economic power, that ethical community-engaged researchers and their collaborators must swim.

Writing about an oil and gas boom in “Maps and Dreams: Indians and the British Columbia Frontier,” Hugh Brody (2004[1981]) describes how social scientists, and ethnographers especially, are torn between two worlds in their research into the impacts of energy extraction in northern environments and societies. The data we produce must fit on and reproduce the maps of western knowledge, if it is to be useful in reflecting the dreams of our Aboriginal collaborators (Brody, 2004[1981]). Conversely, our current political-economic systems privilege assessments from a Western perspective, and so including traditional environmental knowledge in assessments has not elevated the status of indigenous perspectives (Povinelli, 1995:115). EIAs include traditional land use assessments but “the evaluative apparatus of national or international economic policy has been little influenced by non-Western understandings of human-environmental relations” (Povinelli, 1995:115). Traditional environmental knowledge is included in environmental decision-making when it is “scientized” traditional knowledge (Ellis, 2005:72). Aboriginal knowledge is given power only when it conforms to Western structures and values; and is only researched to the limits of where it is useful in Western environmental government and expertise (Wyndham, 2017). Finding a place to stand (Asch, 2002) where such understandings, such maps and dreams, may become commensurate has been challenging.

While epistemological, ontological, and political challenges to impact assessment are openly addressed in scholarly literature on EIA, social impact assessment (SIA, a component of EIA), and public participation, these considerations are largely absent in the grey literature and the consultation processes we are studying. Indeed, since its inception in the 1970s as an element of applied social science, scholarship and practice of SIA (including traditional land use studies) rapidly became quite sophisticated, while producing a relatively cohesive body of literature, both in Canada and internationally, which continues to be influential decades later. It is significant that, when trying to explain what they are doing, contemporary EIA consultants working in the oil patch do not cite such seminal works on northern Canada (including important traditional land use studies) as the studies of Thomas Berger (1988), contributors to Mel Watkins, ed. (1977), Milton Freeman, Hugh Brody, Richard Salisbury, and others. Another body of literature that is absent from these studies is that of SIA methodology itself. By the early 1980s, well-known books (e.g., Finsterbusch et al., 1983) had provided a number of suggestions and cautions that remain very relevant to contemporary SIA practitioners, particularly those working with Indigenous communities (e.g., Geisler et al., 1982) and using ethnographic methods (Roper, 1983). These works were canonical in EIA a generation ago and remain highly important, including an early study on oil sands EIA (Justus and Simonetta, 1982). Such studies contain many salutary lessons and examples for contemporary practitioners. Yet neither these studies nor other rigorous sources on EIA/SIA are cited in the grey literature we have reviewed. Indeed, notwithstanding the higher visibility of EIA processes since the 1990s, we can say that the standards of practice do not equal those evident in key northern social and environmental studies

from the 1970s and 1980s (see also Dokis, 2015).<sup>2</sup> It is quite likely that the authors of the current studies are simply unaware that relevant literature and debates even exist, given their lack of training. It is also the case that referring to these earlier studies would mainly have the effect of exposing the inadequacies of the current work. Significantly, there is no body with oversight as to the quality of these “assessments,” nor any professional designation similar to that required in contract archaeology, nor are the peer-review processes (if any) transparent. As such, and as Baker’s examples show, the proponent company is effectively in charge of making the output fit its needs.

Anthropologist David Natcher characterizes traditional land use research, and other methodologies enacted by industry in relation to EIA and the duty to consult, as potentially entailing “a misrepresentation of the Aboriginal landscape” (2001:113). Limitations inherent in contemporary approaches to consultation include an under-representation of female perspectives, as well as low levels of community involvement in study design and knowledge transfer, resulting in a dependency on outsiders for knowledge of development impacts. Moreover, once a study is completed and shared with the corporate sector, developers are free to represent specific pieces of community knowledge for their own ends without regard to cultural context (Willow, 2013). This results in traditional land use information being misrepresented and used inappropriately. As a result, it has often proven impossible to represent the inherent spiritual values of relatively featureless sites to regulators (Gibson et al., 2011-1809, Natcher, 2001:119, Tanner, 2010). Thus the cultural landscape becomes represented as a series of relatively fixed

---

<sup>2</sup> An extended review of EIA and SIA literature and the development of EIA/SIA practice in Canada is beyond the scope of this article. For a fuller discussion of recent literature in social impact assessment, see Esteves et al 2012. See Crowley 2016 for an oil sands case study applying a range of contemporary EIA and SIA literature.

coordinates (e.g., tipi rings or grave sites), which is described through a process of “cultural triage” (Natcher, 2001:113) as capturing the totality of traditional environmental knowledge and traditional land use. Note the substitution of geographical and archaeological data for ethnographic data and lived experience, through this scientific process of representation and mapping.

Occurring somewhat independently of traditional land use studies, though frequently intertwined, are heritage consultations and assessments conducted by contract archaeologists. Such cultural resource management is more professionalized than traditional land use studies but suffers from many of the same concerns (Martindale, 2014). Furthermore, in many cases the trained archaeologist – a specialist in dead cultures (King, 2012) – is also the one doing the contemporary traditional land use study. However this is still superior to having trained natural and physical scientists in charge of traditional land use and consultation, another regular industry practice we have documented. Indeed, there is every reason to question whether policy changes currently being contemplated by new, progressive, federal and provincial governments will be able to make these maps and dreams commensurable. This is partly the case because of the skills mismatch on the part of many of those performing such sensitive and important consultations and assessments.

Recently, literature in environmental and medical anthropology has focused on the importance of people’s perception of safety and security in the air they breathe, the water they drink, and the food they eat, in contrast to scientific reassurances of experts (Checker, 2007, Carr, 2010, Ottinger, 2013, Little, 2014, Rogers, 2015). Impact assessment and consultation in the oil sands region generally function to reassure people about their safety, while admitting that significant cumulative landscape changes are occurring and that key species and spaces may be

diminished and unavailable to traditional land users for decades if not longer. Important health concerns, including high rates of cancer, which call for further research are soft-pedalled and obscured. Meanwhile, federal and provincial toxicity guidelines for the consumption of wild foods do not necessarily take into account impacts on those who eat such foods day after day for long periods of time or the toxic uncertainty (Auyero and Swistun, 2009) and anxiety (Davis Jackson, 2011) they experience. In general, cultural and linguistic impacts, as well as hard-to-quantify experiential shifts, are seen by consultants as being easily sacrificed for participation in the wage economy. Specifically, EIA and project approvals in northern Alberta lag behind best practices in other similar industries, jurisdictions and regions (e.g., hydroelectric damming in northern Manitoba), where discussion of linguistic impacts (i.e., language loss) and mitigation, as well as access to replacement lands for cultural pursuits including traditional land use, are regularly discussed and guaranteed through the impact assessment processes. This is evidence of the political economic power of the fossil fuels industry in Alberta, and the industry's capture not only of the regulatory apparatus but of the consulting industry that has grown up around oil and gas consultations.

#### **1.4 Consultation on the Ground**

Baker worked as a traditional land use researcher and consultant for seven years between her MA and PhD degrees in Anthropology, and she continues to occasionally assist First Nations in the TLU research and consultation process. During the summers of 2008 and 2009 she worked for the Bigstone Cree Nation in northern Alberta as a consultant performing traditional land use research and assessments. One particular oil and gas company with a large oil sands lease was proposing a pilot project to develop technology to extract difficult to reach *in situ* deposits of bitumen and so approached Bigstone Cree Nation to complete a traditional land use assessment. At the time, the company's activities were top secret: they held a smaller start-up company with

a different name, they were extremely paranoid about Chinese spies, and the very trappers they were consulting were not allowed to know anything about what the company was doing or exactly where they were doing it. Baker was working with Bigstone Cree Nation members mostly from the remote community of Chipewyan Lake, whose hunting and trapping areas are within the company's lease.

Several Bigstone Cree Nation members and Baker spent most of that summer visiting important hunting, trapping, fishing, camping, and plant and medicine gathering places within the Bigstone Cree Nation territory. They walked a once well-worn trail from Chipewyan Lake to the Wabasca River that took several days. On one of the final days, they crossed the new road to Chipewyan Lake and encountered the startling noise of construction transforming it into an all-weather road for industrial use. They noticed that having spent days with the subtler sounds of the boreal forest, the construction sounds were startling, alarming, and even stress-inducing. The trappers in the group explained that this kind of noise pollution also affects animal movements. At first it scares away animals; then in time animals such as moose start to come back, but predators like wolves have an advantage over them because the moose can no longer hear them approaching. Additionally, roads create "corridors" that change animal movements (Brody, 2004[1981]) and further act to open up the landscape. When Baker submitted the traditional land use report to the company, they claimed there is no scientific evidence proving noise affects animals and in fact there are studies on domestic sheep from the UK that show that noise from traffic has no impact on animals.

The company had also hired a social science and health research firm to look at capacity building, income, and health in the small community of Chipewyan Lake. Baker sat in on one of their meetings. The consultants flew up and back in the same day in a chartered plane from



Calgary and grilled a couple of representatives from Chipewyan Lake, in the local restaurant, about what kind of research they could do and whether or not people ate wild meat or had jobs. Baker felt uncomfortable for everyone sitting around the table, especially the Chipewyan Lake residents, who she knows to be quite gregarious, but who were now staring at their soup and not saying a word. The consultants eventually hired Bigstone's environmental monitors to travel to Chipewyan Lake and go door to door to survey people on how much bush meat they were eating and what their work capacities were. One of the monitors later said that she could not do the work because she was from Wabasca, not Chipewyan Lake, and she was not comfortable knocking on strangers' doors and asking them personal questions. So in the end she simply did not do the assigned task.

Based on the results from these surveys, the research firm claimed that the proposed *in situ* oil sands developments would have no significant impact on harvesting in the region, since people in Chipewyan Lake no longer eat bush food. Baker found the opposite while working with the trappers from Chipewyan Lake. The majority of people from the area preferred to eat wild food and still do so. In fact many Elders have never eaten store-bought meat, especially considering there are no grocery stores in Chipewyan Lake. Surely people from Chipewyan Lake had told strangers at their doors with surveys in hand that they do not hunt because they did not trust the researchers (potential government co-conspirators) and feared loss of hunting and harvesting rights, considering the past and current government activities in limiting rights and movements of Aboriginal peoples in Canada.

In describing Aboriginal consultation for mines in the Northwest Territories, Stevenson explains, "many [A]boriginal people view this extraction of their knowledge...as a form of theft and, understandably, have been reluctant to share the depth and breadth of their knowledge with

outsiders” (1996:282). At the completion of the traditional land use fieldwork, the company employee managing the EIA told Baker that she had to change these two sections and that the company “was paying for the work, not Bigstone Cree Nation.” This quote strongly reveals how the science-for-hire practice in the EIA consultation industry is anything but objective. Baker did not change her report but it is likely that the project manager made the requested changes independently. Indeed, changing consultants’ results is a common practice in the EIA editing processes, as witnessed by Baker on several occasions, as well as EIA editors requiring hired “experts” to make their sections of EIAs “as confusing as possible”. There apparently is not sufficient oversight from regulators, academics, and professional bodies to push back against such abuses, showing the control that fossil fuel companies – through their capture of consultants – take over the consultation processes designed to protect the public interest (and specifically to protect Aboriginal and Treaty rights).

While much of the knowledge that people share about their traditional territories can to some extent be forced onto maps and into scientific data tables in traditional land use reports, there are spiritual and other forms of knowing that do not fit into western scientific models of truth-making and reporting. For example, rocks are alive (see Povinelli, 1995) and there are also other creatures that live in northern Cree territory that are not recognized by western science: little people, sasquatch, dog-sized frogs, and a water snake/serpent to name a few. The water creature moves between lakes via under water rivers and floating muskegs. Many people have seen them surface and know where these rivers run. An Elder expressed concern for these creatures in a consultation meeting a company’s activities, regarding a new “de-watering” process where wetlands are drained so that bitumen is more easily extracted. The scientist at the meeting told him that under water serpents are just superstitions. The Elder then refused to meet

with them again. Baker has been tasked with protecting rocks, sasquatch dens, and underwater trails many times while doing applied work; her only solution has been to call them spiritual or ceremonial sites, having to convert the knowledge being shared into the western paradigm so that it has authority (Nadasdy, 1999).

At consultation meetings that Westman has attended since 2005, held in both isolated Cree-Métis communities and major cities, proponents faced major problems in communicating factual information, especially in a manner meaningful to isolated community members, about the scale and impact of proposed oil sands activity. Indeed, downplaying these impacts through a discourse of technical wizardry was evidently a key strategy. Donuts and door prizes seemed to be the main focus of a 2008 community meeting in Trout Lake, with plenty of technical experts available to answer any technical questions (there were few). No Cree translation or Cree speaker was on the program at this meeting in a community where a significant number of the most knowledgeable adults have no formal schooling and/or very limited proficiency in English. Nor did representatives at this meeting attempt to gain information about current community land use practices, in a community where virtually every household consumes wild fish and animal products on a daily basis. Rather, industry representatives made promises about land reclamation, in spite of the poor record of the oil sands industry in this domain. New, experimental, extraction procedures were proposed, without a full disclosure of environmental risks, energy sources, and other unknowns inherent in such innovations. The focus seemed to be on verifying that a meeting had actually occurred, rather than on exchanging useful information.

As with Baker's examples, the public meeting Westman attended at Trout Lake was intended to be a significant consulting milestone towards the approval of a project that would significantly modify and open up a core hunting area currently with few incursions. Other

consultation processes we have witnessed, for smaller projects, were more backroom-oriented, largely focused on Elders and registered trapline holders. Sometimes such consultations are referred to as “meet and greets,” providing some assessment of the level of information being exchanged. Nevertheless, such events are duly marked in the company’s consultations calendar to show support or assent for the project. Company consultants keep spreadsheets to record every time that they make any attempts at contacting First Nations (by phone, e-mail, letter, fax, etc.) that they use as proof that they have made an effort to consult. It is in the transition to a printed document, be it a company checklist or the transcript from an environmental assessment hearing, that consultation and public participation become distilled, refined, extractable, and legible (Scott, 1998).

### **1.5 “Adequate Support is Lacking:” EIA Projections as Consultation in Print**

In spite of the existence of a fiduciary duty to Aboriginal people and a related duty to consult them, time is of the utmost importance to governments and proponents (Alberta, 2014). Given that these are multi-volume technical studies of sensitive regions, tight turnarounds in timeframe are not only pragmatically difficult to meet. In isolated Aboriginal communities, they are culturally inappropriate and, in policy terms, ineffective. As George Poitras, former chief of the Mikisew Cree First Nation, stated publicly in Edmonton approximately 10 years ago:

If you are trying, as a First Nation or as an environmental NGO, trying to keep pace with the development, trying to intervene or review the different applications that come before the province for every one of these projects, it’s a nightmare, trying to keep up. The pace of the development is unfathomable. It’s actually hard to think about. We have a capacity of about six people to monitor this type of activity, and in the last eight months there were three different hearings, and the Mikisew had intervened in every one of them... And it’s a pretty lengthy process... Trying to keep up with the demands is a very challenging activity for us on a day-to-day basis.

This is what our collaborators mean when referring to a *tsunami* of development (see also Gerbrant, 2015). People are being rushed into participating in verbal consultations, and then rushed to review a binder containing, among other things, the characterization of that earlier consultation.

While such concerns are felt most acutely by First Nations members, other Canadians and people around the world have become more aware of the issues in the intervening decade. Given a crisis of public confidence in the oil sands industry following a series of alarming and controversial findings by scientists working independent of government and industry, the Royal Society of Canada (Canada's foremost scholarly society) designated a top group of researchers, led by toxicologist Steve Hruddy, to conduct high-profile public-interest research on impacts but also the impact assessment and monitoring processes of the oil sands (Gosselin et al., 2010). This highly significant report focuses mainly on biophysical impacts and monitoring systems, but turns briefly to social impacts and predictions described in the oil sands EIAs. Notwithstanding the limited scope of their work on SIAs, it is telling that this expert panel of natural scientists (including one economist) was able to see significant shortcomings in the oil sands industry's social impact assessment processes, which have been deemed acceptable by regulators and policy-makers. The Gosselin report briefly examines the "content and analytical quality" of three SIA studies submitted by oil sands proponents, including the Terms of Reference for these studies and "the contribution of the EIA reports to the regulator's information needs for making decisions in the public interest" (Gosselin et al., 2010:253). The SIA studies are found wanting.

The Gosselin report found inconsistencies in the way the three reports handled the same types of data. Furthermore, SIA consultants did not tend to provide either adequate quantitative data or useful qualitative data (Gosselin et al., 2010:255) to describe either costs or benefits

associated with a project. How can benefits be assessed, asks Gosselin, given the inadequate manner in which potential impacts are assessed? “Adequate support is lacking” for predictions of net benefit “in the documentation provided” by EIA consultants to regulators (Gosselin et al., 2010:255). Moreover, because little attention is paid to the cost side of the ledger, the prevailing analysis in EIA reports suggests that, the larger the project, the greater the benefit (benefit here referring largely to government revenues and job creation). While not focusing on Aboriginal issues, the panel further notes that negative cultural impacts on Aboriginal people are likely to be exacerbated if they are implemented without “effective consultation and creative compensation” (Gosselin et al., 2010:287). Yet such cutting-edge approaches to publicly negotiated compensation, currently employed elsewhere in Canada, such as designated replacement lands, comprehensive claims agreements, self-government, joint environmental management, joint environmental assessment and resource revenue sharing, do not exist in Alberta. In a few cases where relevant objective standards of practice can be set (including Alberta’s own standards), it is clear that the oil sands SIA industry is not meeting them (Gosselin et al., 2010:258). Such a strongly negative assessment, by a high-level scientific review panel, of the state of the art in SIA can only lessen our confidence in the more cross-cultural and values-laden traditional land use components that we are critiquing.

Working as a regional and topical specialist (in contrast to the scientific and quantitative skew of the Gosselin panel), Westman has reviewed TLU and TEK components of over a dozen oil sands EIAs to assess their findings, methodology, and citations, as part of an unpublished technical report he carried out for a First Nation and their law firm (2012). Some of the findings in this report are worth reviewing here, as they go beyond the insights of Gosselin et al as well as

Westman's earlier publications on EIA (e.g., 2013, which focused on a theoretical argument about how EIA inscribes the future).

One of the most valuable aspects of the review work on EIA studies was the inclusion in the binder pages of comments from participants in the EIA process. These remarks, while rendered technical through the intervention of the consultant authors, are nonetheless insightful, not only for the perspectives of traditional land users about environmental changes they have observed, but for the expression of participants' feelings about the consultations and assessment processes themselves. The frustration apparent in such remarks is crystallized in our opening quotes, where people critique both the political economy of the extractive process (the minister of environment is working for oil companies), and the methodology (a room [as a colonial space or as a coercive bureaucratic process?] is not the place to give information). As a result, not only the extractive developments but the consultation processes they engender are causing harm in a spiritual sense to the very participants whose interests they are supposed to protect. Yet in a very real sense these pages are the purpose and the final destination of the living consultation processes we describe above. Significantly, in spite of the consistency and power of participants' rejections, and the poor quality of the assessments (Gosselin 2010, Westman 2012, 2013, Crowley 2016, McCormack 2016), all of the projects in question were approved by regulators.

At least one EIA document (for the Suncor Voyageur project) openly acknowledges that traditional land use sustainability in the region is threatened, citing a "significant negative cumulative impact on TLU" and a "feeling of helplessness" (Golder Associates, 2005:14-15), on the part of traditional land use practitioners. Moreover, although previous Suncor activity was described as being in "partnership" with traditional land users, the "enforced" nature of changes that had been occurring was acknowledged (Sec. 5.1.2.2). This is not a true partnership. Nor does

it represent a strong approach to consultation, impact assessment, or the clarification of rights. Yet such studies, frequently performed by consultants unskilled in basic social science, remain the state of the art.

As quoted in our introduction, another study, for the Imperial Oil Kearl Oil Sands project, also acknowledged a concern expressed by participants about the lateness of consultation, and frustration about the usefulness of consultations. Participants in that study expressed the feeling (based on their experiences as in 2004) that there is “no point” in identifying sensitive plant sites as it will not stop development. Indeed, Imperial Oil acknowledges that its proposed mine plan and footprint had not been finalized at the time of consultations. This was also the case for the Joslyn North Mine proposal. Following its approval at EIA, that project changed hands and underwent a complete design change; yet no new EIA or consultations were required (Crowley, 2016). Unbelievably, such examples show that in many cases, the most impacted community members are not receiving information about major projects that is final or authoritative from their “partners” in consultation.

As befits the rushed atmosphere of their production, the traditional land use sections of EIA documents tend to be quite sparse, and as throughout EIAs, each of the findings in the traditional land use report are concluded with the response that the concerns described will have “no significant impact” (Westman, 2013). The consultants writing these reports come to this conclusion based on the idea that even if one moose, berry, or medicine habitat will be destroyed, there are other said habitats in the First Nation’s traditional territory. However, traditional land use areas are often managed by specific familial groups whose rights to harvest from and care for these areas are respected by other community members. This means that when a family loses their territory to a mine or other development, an entire familial line loses their



connection to the land. Sometimes authors are brazen enough to claim that they are improving the habitat for traditional land use purposes by disturbing it. Consultants also use paradoxical reasoning when First Nations members tell companies that industrial development has severed them from parts of their territories: they conclude that proposed developments will have no impact on traditional land use because they assume it has already corroded due to industrial impacts.

Sometimes EIA and traditional land use consultants claim to have invented new research methodologies such as integrated assessment, traditional land use assessment, cultural assessment, etc. Cumulative impacts, in particular are required matters for assessment under federal environmental assessment legislation. Under the legislation, this includes cumulative impacts on traditional land use and traditional environmental knowledge. While cumulative impact has become a widely used term in the oil sands industry, we have yet to see the concept of cumulative development meaningfully addressed in any EIA (Crowley, 2016). EIA authors ignore historical baselines or often claim that there is no baseline even though environmental research has been occurring in the Athabasca Delta since at least the early 1970s (Timoney, 2013). More importantly, EIAs do not consider the impacts from other companies already operating in the region.

As the remarks of participants in EIA processes, and those of our collaborators, suggest, the traditional land use components of the oil sands EIA studies we have reviewed share a number of shortcomings. This tends to support Gosselin's statement (2010) that proponents and regulators are not collecting data, especially qualitative data, of sufficient quality to allow them to make credible predictions about socio-cultural dynamics. Significantly, very few practitioners in traditional land use EIA studies conducted for the oil sands proponents have advanced degrees

in social sciences. Furthermore, the authors of these studies – even the few with social scientific training – do not demonstrate mastery of scholarly literature in regional ethnology, history, relevant languages and sociolinguistic dynamics, or even social impact assessment methods (Wyatt et al., 2010:28-29, Gibson et al., 2011, Westman, 2013, McCormack, 2016).

Indeed, such highly relevant and topical literature is rarely cited by the so-called expert practitioners. Rather, the norm in oil sands EIA consulting is for consultants from a wide range of backgrounds to train one another as best as possible to do work from many domains, with little support from senior staff. The consultants, then, are generalists, not specialists. Even so, many types of work conducted by these consultants require professional designations and associated core training and competencies; however, this does not apply to SIA or traditional land use studies. Practically, this means that sociocultural studies are often conducted by professionals in other domains, such as archaeology, biology, or economics, who transform themselves into qualitative social scientists (McCormack; Westman 2012; Westman 2013). Furthermore, the members of regulatory panels evaluating the findings are generally not social scientists or Aboriginal people, but are typically engineers (McCormack forthcoming). This has the effect, perhaps intended, of “burying” qualitative data of significance to the cultural, personal, and spiritual aspects of life on the land (see also Gibson et al., 2011:1806-1809).

SIA studies typically set the scope of their investigation very conservatively, so that consultants might work closely with only one community. Métis communities are frequently left out even though they have Aboriginal rights to land and livelihood. The focus of data collection is on a very small number of relatively informal information meetings with small groups of community members and a somewhat more focused discussion with directly impacted (often male) trappers contiguous to the proposed project site. Often trapper consultations do not include

a site visit. While there is some indication that communities and trap line holders receive compensation for loss of use of their traditional lands, such compensation is secretive and not amenable to research or comparison.

Participants in EIA processes frequently describe a number of cumulative ecological changes, which they attribute to industrial activity, and which directly impact their traditional land use. Nevertheless, the SIA studies typically characterize oil sands impacts on hunting and fishing, as well as spiritual uses, by using terms such as “moderate” and “short-term.” The studies quote from other anonymous grey literature sources, which, upon examination, turn out to be relying on weak data from earlier such studies, and so on (Westman, 2012, Westman, 2013). Typically, these cross-cultural social studies are based on no more than a few person-days of public consultation and fieldwork. Most often consultants employ the rhetoric of ethics and anonymity to hide the fact that their “in and out” research occurs in unethical and somewhat coercive circumstances. Aboriginal participants complain that information is lacking on large projects, particularly regarding future stages of development. That is, major projects presented as a one-off are actually part of a larger plan that is not considered early on. This not only indicates that certain information about the future is being hidden from the most impacted people, but likely increases the chances of each smaller phase being approved by regulators without serious examination. In line with this, many participants in the EIA meetings felt that developers only give enough information to gain project support from Aboriginal people, and do not provide enough information for those groups to make good decisions regarding their future (Crowley, 2016). Finally, some Aboriginal communities are not consulted in advance but mollified with a commitment to consult them once the project is already operational.

Insights from documentary studies and metastudies of the oil sands social impacts are vital to consider for a prospective anthropology in the public interest. Specifically, the social impact assessment components of environmental impact assessment studies are conducted with a wink and a nudge, and EIA participants from impacted communities know the joke is on them. Frequently, the authors of such studies do not even try to hide the fact that the development that they are assessing is almost certain to be approved, since “the EIA produces the conditions necessary for corporations to check themselves - in terms that they themselves create” (Li, 2015:199). The data they collect is characterized as baseline data, to be used to monitor the project’s risks and impacts, rather than to assess in advance those impacts and make a decision about the project on that basis.

### **1.6 Bogs or Bison? Landscape Futures**

Ultimately, one cannot help but wonder: when there are land disturbances as obvious as some of the world’s largest open pit mines and tailings ponds that are actually lakes visible from space, how can a company be so bold as to claim their activities will have no significant impact, and how could a regulator legitimately approve a series of such megaprojects over a short period? The answer lies in part in promises for reclamation. Discussion of landscape futures then becomes a crucial component of consultations, impact assessment, and remediation. The only remediation seriously discussed is reclamation of land following a project “life cycle”. Yet the proportion of oil sands disturbed land that has been reclaimed to date is infinitesimal.

Syncrude, one of the earliest oil sands companies in northern Alberta, having opened its first mine in 1978, has a series of advertisements that show reclaimed areas with fresh babbling brooks, bouncing deer, and trees rustling in the wind. They have a bison paddock on top of one of their reclaimed areas and foster the common Albertan misconception that you can just put the

muskeg (bog) back. However, the reality is that Syncrude's reclamation area has stunted trees and there has been no demonstration of successful peatland restoration in the region to date (Trites and Bayley, 2009). Reclaimed areas are hilly parkland landscapes that are quite different from the original ecosystem (Buffalo, 2011). Meanwhile, only 0.15% of the area currently disturbed by oil sands mining in Alberta is certified as reclaimed by the Alberta Government (2015), which is partly due to the long "life" of the mining operations. Oil sands mining companies have unofficially reclaimed 65 km<sup>2</sup>, but these amounts are self-reported, and there is no public access to these sites, so the claims have not been verified (2015).

Overall, reclamation is used as a rationalization for impacts on First Nations' territories, to the point that some companies make promises to restore culturally important plants, and other companies make claims that in the long run their activities will improve culturally significant landscapes (Westman, 2013:114) and cultural keystone species habitats (Garibaldi and Turner, 2004). Reclaimed landscapes perhaps reflect a more familiar and appealing topography to people coming from the southern parts of Alberta and other parts of Canada where muskeg (bog) is often thought of as a wasteland or not useful (Voyles, 2015, Westman, 2013:115). However, for people we have spoken with, once the land has changed, it is no longer the same place, as it has lost its spirit and is considered to be contaminated and untrustworthy (Buffalo, 2011).

Landscapes are repositories of stories, names, lessons, oral traditions (Basso, 1996), and ethnoecological information (Johnson, 2010); these places hold knowledge in ways that cannot be replaced.

When discussing energy impacts and the technical fixes proponents prescribe for them, Aboriginal people frequently make the point that the relevant lands are inhabited by a spirit, a sacred character that cannot be replaced following massive resource extraction and landscape

change. While companies have proposed new ceremonies to close the reclamation of project lands, to heal the land and its spirit, Elders generally reply that this cannot be done (Westman, 2013). The transformation of the lands will be too great, and the reclaimed lands will not have the same inherent value; it is not the same place. Similarly, people often state that corporate and government scientists do not understand the nature of the change that they themselves are proposing for the area. Elders frequently mention herbs and medicinal plants at such times, showing a continued concern with nature as a portal to the spirit world and to healing. While companies state that access and aesthetics will improve upon reclaimed, drier, lands following development, Aboriginal people speak of the value of local muskegs for various cleansing, hunting, and trapping pursuits, and wonder whether they will ever be able to practice such pursuits with their children and grandchildren, as they themselves learned from their own Elders. Overall, it is clear that the consultation and EIA processes, and the political processes that underwrite them, are not functioning so as to preserve and enrich the aspirations of local people.

### **1.7 Conclusion: A Misrepresentation of the Aboriginal Landscape**

Given our experiences in the oil sands region, we would agree with David Natcher (Natcher, 2001:113) that the consultation industry in northern Alberta, with its traditional land use and SIA cousins, constitutes a serious “misrepresentation of the Aboriginal landscape.” Indeed, as Carly Dokis (2015:50) writes about the Northwest Territories, such consultations frequently amount to “very nice talk in a very beautiful way,” but are without substance or truth, and are only designed to secure consent. Moreover, given the power of government and industry land use plans, such a misrepresentation has the potential to create its own reality. Based on multiple years working as applied anthropologists in the traditional land use industry, and as academics studying energy, extraction, and Aboriginal ontologies in Alberta’s oil sands region

(and, in Westman's case, as a policy analyst for the federal government), we advocate for an improvement in the policies, standards, and practice in traditional land use studies and Aboriginal consultation. Currently, traditional land use consultation falls short of adhering to Treaty and Aboriginal rights and does not adequately assess impacts from oil sands developments on Aboriginal livelihoods and relationships with the land. This is due, in part, to traditional land use studies being included in the EIA process, which is a process based on rapid assessments and science-for-hire. The consultants hired by companies to fulfill the duty to consult through traditional land use studies tend not to be well-trained social scientists or experts in ethnographic research methods. What is produced, as a result, are thin reports that overlook the incredibly nuanced relationship Indigenous peoples have with sentient landscapes, other-than-humans, and one another. Instead, traditional land use consultations and EIA reports reflect a mainstream settler viewpoint in which development and progress are considered to be beneficial and Indigenous traditions can be refined to points on maps that can be avoided or mitigated with few long-term impacts. More clarity is needed around Aboriginal rights and title, with such questions best addressed at the political, rather than technical, level.

Professional designations (as currently being considered by the Canadian Anthropology Society), Indigenous inclusion in the decision-making process, and adherence to the UN Declaration on the Right of Indigenous Peoples are all steps in a positive direction to improve the traditional land use consultation and impact assessment processes and to fully recognize Aboriginal and Treaty rights to the land. Yet, as McCormack has argued, much more rigor is required from regulators to ensure that proponent companies do not game the process by running roughshod over incompetent consultants. Bringing professional processes and academic standards, including arms-length peer review and arms-length relations between proponents and

researchers, would be a major step. Putting more control in the hands of communities, who would help direct the assessment and determine its findings, would be beneficial for reconciliation and true sustainability, but these policy measures appear unlikely. While we are drawing on experience in applied anthropological research, our purpose is not so much to make policy recommendations (though we make some modest ones above), rather to document abuses that are occurring in a country that aspires to be one of the world's darlings in both sustainable development and Indigenous relations. The rhetorical commitments to participation and inclusion are not borne out in the processes we document here. In arguing that the consultation and assessment processes around the oil sands are extractive and toxic in themselves, as though the oil and effluent have contaminated a neighboring field, we have put the oil sands front and center as a site for the analysis of extreme extraction and the epistemological assumptions and methodological processes accompanying it.

## References Cited

2014. *Oxford Dictionary of English*, Oxford, Oxford University Press.
2015. *Oilsands: Reclamation* [Online]. Pembina Institute. Available: [http://www.pembina.org/oil-sands/os101/reclamation#footnote18\\_s334c7g](http://www.pembina.org/oil-sands/os101/reclamation#footnote18_s334c7g) [Accessed March 25, 2014].
- ALBERTA, G. O. 1930. The Alberta Natural Resources Act. *In: DEVELOPMENT*, A. A. A. A. N. (ed.).
- ALBERTA, G. O. 2005. The Government of Alberta's First Nations Consultation Policy on Land Management and Resource Development.
- ALBERTA, G. O. 2007. Alberta's First Nations Consultation Guidelines on Land Management and Resource Development.
- ALBERTA, G. O. 2013. The Government of Alberta's Policy on Consultation with First Nations on Land and Natural Resource Management, 2013.
- ALBERTA, G. O. 2014. The Government of Alberta's Guidelines on Consultation with First Nations on Land and Natural Resource Management.
- ASCH, M. 2002. Finding a Place to Stand: Indigenous Self-Determination and Applied Anthropology in Canada. *Cultural Survival Quarterly*, 25, 62-69.



ASSOCIATES, G. 2005. Suncor Voyager South EIA: Traditional Land Use Report.

AUYERO, J. & SWISTUN, D. A. 2009. *Flammable: Environmental Suffering in an Argentine Shantytown*, New York, Oxford University Press.

BAKER, J. M. 2017. Research as Reciprocity: Northern Cree Community-Based and Community-Engaged Research on Wild Food Contamination in Alberta's Oil Sands Region. *Engaged Scholar Journal: Community-Engaged Research, Teaching, and Learning*, 2, 109-123.

BASSO, K. H. 1996. *Wisdom Sits in Places: Landscape and Language Among the Western Apache*, Albuquerque, University of New Mexico Press.

BERGER, T. R. 1988. Northern frontier, northern homeland: the report of the Mackenzie Valley Pipeline Inquiry, Vancouver, Douglas & McIntyre.

BLASER, M. 2004. Life Projects: Indigenous Peoples' Agency and Development. In: BLASER, M., FEIT, H. & MCRAE, G. (eds.) *In the Way of Development: Indigenous Peoples, Life Projects and Globalization*. London and Ottawa: Zed Books and the Canadian International Development Center.

BRODY, H. 2004[1981]. *Maps and Dreams*, Vancouver; Toronto, Douglas & McIntyre.

BROTO, V. C. 2013. Employment, environmental pollution and working class life in Tuzla, Bosnia and Herzegovina. *Journal of Political Ecology*, 1-13.

BUFFALO, K., CE JONES, JC ERRINGTON, MIA MACLEAN 2011. Fort McKay First Nation's Involvement in Reclamation of Alberta's Oil Sands Development. *Mine Closure Conference*. Lake Louise, Alberta.

CANADA, G. O. 2011. Aboriginal Consultation and Accommodation: Updated Guidelines for Federal Officials to Fulfill the Duty to Consult. In: CANADA, M. O. T. D. O. A. A. A. N. D. (ed.).

CANADA, T. E. P. 2006. Joslyn North Mine EIA. Traditional Ecological Knowledge and Land Use Report.

CARR, S. E. 2010. Enactments of Expertise. *Annual Review of Anthropology*, 39, 17-32.

CHECKER, M. 2007. "But I Know It's True": Environmental Risk Assessment, Justice, and Anthropology. *Human Organization*, 66, 112-124.

CROWLEY, C. K. 2016. How Context Affects Uncertainty Disclosure and Communication in Environmental Impact Assessment: A Case Study of Energy Development in Northern Alberta. MSc, University of Saskatchewan.

DAVIS JACKSON, D. 2011. Scents of Place: The Displacement of a First Nations Community in Canada. *American Anthropologist*, 113, 606-618.

DOKIS, C. A. 2015. *Where Rivers Meet: Pipelines, Participatory Resource Management, and Aboriginal-State Relations in the Northwest Territories*, Vancouver, UBC Press.

ELLIS, S. C. 2005. Meaningful Consideration? A Review of Traditional Knowledge in Environmental Decision Making. *Arctic*, 58, 66-77.

ESTEVES, A. M., FRANKS, D. & VANCLAY, F. 2012. Social Impact Assessment: The State of the art. *Impact Assessment and Project Appraisal*, 30, 34-42.

FEIT, H. A. 2004. James Bay Crees' Life Projects and Politics: Histories of Place, Animal Partners and Enduring Relationships. In: BLASER, M., FEIT, H. & MCRAE, G. (eds.) *In the Way of Development: Indigenous Peoples, Life Projects and Globalization*. London and Ottawa: Zed Books and the Canadian International Development Center.

FINSTERBUSCH, K., LLEWELLYN, L. G. & WOLF, C. 1983. *Social Impact Assessment Methods*, Beverly Hills, Sage Publications.

GARIBALDI, A. & TURNER, N. 2004. Cultural Keystone Species: Implications for Ecological Conservation and Restoration. *Ecology and Society*, 9, 1-18.

GEISLER, C. C., GREEN, R., USNER, D. & WEST, P. C. 1982. Indian SIA: The Social Impact Assessment of Rapid Resource Development on Native Peoples., Ann Arbor, MI, School of Natural Resources, University of Michigan.

GERBRANT, J. L. 2015. Energy Uncertainty: The Effects of Oil Extraction on the Woodland Cree First Nation. MA, University of Saskatchewan.

GIBSON, G., MACDONALD, A. & O'FAIRCHEALLAIGH, C. 2011. Cultural considerations for mining and Indigenous communities. In: DARLING, P. (ed.) *SME Mining Engineering Handbook*. Dearborn: Society of Manufacturing Engineers.

GOSSELIN, P., HRUDY, S. E., NÉETH, M. A., PLOURDE, A., THERRIEN, R., KRAAK, G. V. D. & XU, Z. 2010. Environmental health impacts of Canada's oil sands industry: The Royal Society of Canada Expert Panel Report. Ottawa: The Royal Society of Canada.

GOVERNMENT OF CANADA 2011. Aboriginal Consultation and Accommodation: Updated Guidelines for Federal Officials to Fulfill the Duty to Consult. In: DEVELOPMENT, A. A. A. N. (ed.).

HEALING, D. 2014. Oilsands boo[m] to continue for Alberta; Study finds other provinces will get a bigger slice. *Calgary Herald*, p.E2.

HOWITT, R. 1995. Social impact assessment, sustainability, and developmentalist narratives of resource regions. *Impact Assessment*, 13, 387-402.

JOHNSON, L. M. 2010. Trail of Story, Traveller's Path: Reflections on Ethnoecology and Landscape, Edmonton, Athabasca University Press.

JUSTUS, R. & SIMONETTA, J. 1982. Oil sands, Indians, and SIA in northern Alberta. In: GEISLER, C. C., GREEN, R., USNER, D. & WEST, P. C. (eds.) *Indian SIA: the social impact assessment of resource development on Native Peoples*. Ann Arbor: The University of Michigan Natural Resources Sociology Research Lab.

KING, T. 2012. *The Inconvenient Indian: A Curious Account of Native People in North America*, Canada, Anchor Canada.

KLINKENBERG, M. 2013. Down this road before; if province wants stricter regulations on oilsands pollution, the precedent exists. *Edmonton Journal*, p.C1.

LAIDLAW, D. A. M. P.-R. 2014. Alberta First Nations Consultation & Accommodation Handbook. *CIRL Occasional Paper*, 44.

LAW, L., WELLS, J. & CORPORATION, M. C. F. N. I. R. 2005. Cumulative effects assessment and EIA follow-up: a proposed community-based monitoring program in the Oil Sands Region, northeastern Alberta. *Impact Assessment and Project Appraisal*, 23, 205-209.

LI, F. 2015. *Unearthing Conflict: Corporate Mining, Activism, and Expertise in Peru*, Durham and London, Duke University Press.

LITTLE, P. C. 2014. *Toxic Town: IBM, Pollution, and Industrial Risks*, New York and London, New York University Press.

MARTINDALE, J. 2014. Mobility and the Distribution of Beaver River Sandstone in Northeastern Alberta and Northwestern Saskatchewan. MA, University of Saskatchewan.

MCCORMACK, P. A. 2016. Doing Credible Cultural Assessment: Applied Social Science. *Environmental Practice*, 18, 148-165.

NADASDY, P. 1999. The Politics of TEK: Power and the "Integration" of Knowledge. *Arctic Anthropology*, 36, 1-18.

- NATCHER, D. 2001. Land use research and the duty to consult: a misrepresentation of the Aboriginal landscape. *Land Use Policy*, 18, 113-122.
- OIL, I. 2005. Kearl Oil Sands Project EIA.
- OTTINGER, G. 2013. *Refining Expertise: How Responsible Engineers Subvert Environmental Justice Challenges*, New York, NYU Press.
- POTES, M. M. P.-R. A. V. 2007. Crown Consultation with Aboriginal Peoples in Oil Sands Development: Is it Adequate, Is it Legal? *CIRL Occasional Paper #19*.
- POVINELLI, E. A. 1995. Do Rocks Listen? The Cultural Politics of Apprehending Australian Aboriginal Labor. *American Anthropologist*, 97, 505-518.
- PRESTON, J. 2017. Racial extractivism and white settler colonialism: An examination of the Canadian Tar Sands mega-projects. *Cultural Studies*.
- ROGERS, D. 2015. Oil and Anthropology. *Annual Review of Anthropology*, 44.
- ROPER, R. 1983. Ethnography. In: FINSTERBUSCH, K., LLEWELLYN, L. G. & WOLF, C. (eds.) *Social Impact Assessment Methods*. Beverly Hills: Sage Publications.
- SCOTT, J. C. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, New Haven, Yale University Press.
- SHANKS, G. 2006. Sharing in the Benefits of Resource Developments: A Study of First Nations Industry Impact Benefits Agreement. *Public Policy Forum*.
- STEVENSON, M. G. 1996. Indigenous Knowledge in Environmental Assessment. *Arctic*, 49, 278-291.
- TANNER, A. 2010. The representation of local Indigenous Knowledge. In: HARDY, K. (ed.) *Archaeological invisibility and forgotten knowledge conference proceedings*. Oxford: Archaeopress.
- TIMONEY, K. P. 2013. *The Peace-Athabasca Delta: Portrait of a Dynamic Ecosystem*, Edmonton, University of Alberta Press.
- TRITES, M. & BAYLEY, S. E. 2009. Vegetation communities in continental boreal wetlands along a salinity gradient: Implications for oil sands mining reclamation. *Aquatic Botany*, 91, 27-39.
- USHER, P. J. 1993. Northern Development, Impact Assessment, and Social Change. In: DYCK, J. & WALDRAM, J. B. (eds.) *Anthropology, Public Policy and Native Peoples in Canada*. Montreal and Kingston: McGill-Queen's University Press.
- USHER, P. J. 2000. Traditional Ecological Knowledge in Environmental Assessment and Management. *Arctic*, 53, 183-193.
- VIZENOR, G. 2007. *Manifest Manners: Narratives on Postindian Survivance*, Lincoln, Nebraska, University of Nebraska Press.
- VOYLES, T. B. 2015. *Wastelanding: Legacies of Uranium Mining in Navajo Country*, Minneapolis; London, University of Minnesota Press.
- WANVIK, T. I. 2016. Governance transformed into Corporate Social Responsibility (CSR): New governance innovations in the Canadian oil sands. *Extractive Industries and Society*, 1-10.
- WATKINS, M. 1977. *Dene Nation, the colony within*, Toronto; Buffalo, University of Toronto Press.
- WESTMAN, C. 2012. A Critical Review of Traditional Land Use Components for Environmental Impact Assessment Studies in the Oilsands Region. Unpublished report prepared under contract for Mikisew Cree First Nation and Janes Freedman Kyle Law Corporation.
- WESTMAN, C. 2013. Social Impact Assessment and the Anthropology of the Future in Canada's Tar Sands. *Human Organization*, 72, 111-120.

WILLOW, A. J. 2013. Doing Sovereignty in Native North America: Anishinaabe Counter-Mapping and the Struggle for Land-Based Self-Determination. *Human Ecology*, 41, 871-884.

WYATT, S. & BAKER, J. 2014. First Nations and Shale Gas in New Brunswick: Partners or Bystanders? Economic and Social Development of First Nations Communities, Aboriginal Rights and Opportunities for Developing Natural Gas from Shale. *In: SAILLANT, R. (ed.) Shale Gas in New Brunswick*. Moncton, NB: Canadian Institute for Research on Public Policy and Public Administration.

WYATT, S., FORTIER, J.-F., GRESKIW, G., HEBERT, M., NADEAU, S., NATCHER, D., SMITH, P., THEBERGE, D. & TROSPER, R. 2010. Can Aboriginal Land Use and Occupancy Studies Be Applied Effectively in Forest Management? Edmonton, Alberta.

WYNDHAM, F. S. 2017. The Trouble with TEK. *Ethnobiology Letters*, 8, 78-80.