

Rendering Technical, Rendering Sacred: The Politics of Hydroelectric Development on British Columbia's Saaghii Naachii/Peace River

Caleb Behn and Karen Bakker

Abstract

This article analyzes debates over the Site C Dam on the Saaghii Naachii/Peace River in northeastern British Columbia (BC), Canada. After heated debate over the past several decades, construction on the CN\$10 billion hydroelectric project—the largest in the province's history—recently commenced. The article focuses on debates over the analysis and adjudication of cumulative effects, and concomitant treaty rights infringement, within the environmental review process. The shortcomings of the regulatory review process used to assess cumulative effects are analyzed in two ways: first, by a conventional academic assessment, and second, by a Dunne-Za teaching of the interrelationships between land, water, and animals in the dam-affected region. Through juxtaposing these two modes of analysis, the article engages with scholarship in political ecology and Indigenous political theory.

Protection of land and water rights is a core principle of international agreements on Indigenous rights, including the United Nations (UN) Declaration on the Rights of Indigenous Peoples (UNDRIP). The application of UNDRIP has generated consultation processes—often combined with formal environmental assessment—with Indigenous communities. Critiques frequently made of these consultation and assessment processes include their limited spatial and temporal scope and their failure to adequately assess and address Indigenous rights and title issues. These issues are particularly salient in countries where large-scale resource-extractive sectors operate in Indigenous traditional territories in the context of colonial settler–state governance regimes.

Indigenous territories in Canada, for example, are simultaneously subject to multiple environmental impact assessments (e.g., across forestry, mining, oil, and gas sectors). As scholars have documented, these environmental impact assessments are frequently not aligned in terms of methods, scope, and data, nor are they subject to collective oversight (Booth and Skelton 2011a, 2011b). Different government agencies frequently fail to communicate about their activities

Global Environmental Politics 19:3, August 2019, https://doi.org/10.1162/glep_a_00518

© 2019 by the Massachusetts Institute of Technology. Published under a Creative Commons Attribution 4.0 International (CC BY 4.0) license.

or to assess cumulative impacts. Procedural fragmentation and governance gaps—typical of environmental governance in Canada (Bakker and Cook 2011; Harrison 1996; Hill et al. 2008)—have led to systemic failures to assess the impact of multiple resource development projects on Indigenous territories. This issue is repeatedly observed in the international literature and has led to calls for reconceiving environmental impact assessment (e.g., Dibo et al. 2018; Larsen 2018; Larsen et al. 2017; Noble 2015; Sinclair et al. 2018).

The preceding discussion sparks the following question: what might a more expansive, inclusive approach to environmental impact assessment entail, specifically incorporating a pluralistic approach to cumulative effects, and rejecting what Coulthard (2014) describes as a colonial politics of recognition and compromised approaches to “consent”? How might concepts such as place-based solidarity, as examined by Coulthard and Simpson (2016), Nadasdy (2007), and Salmon (2000), usefully complement or supplant current environmental assessment techniques? How might this drive evolution in our ethics of environmental stewardship, aligned with recent resurgence in Indigenous water co-governance initiatives grounded in Indigenous water law (Borrows 1997, 2002, 2010; Craft 2014, 2017; McGregor 2012, 2014; Sam and Armstrong 2013; Simpson 2004; Tuck and Yang 2012; Walkem 2007; Wilson 2014)?

This article provides insights into these questions through an analysis of the Site C Dam on the Saaghii Naachii/Peace River in northeastern British Columbia, Canada. After decades of debate, construction of Site C—the largest infrastructure project in the province’s history—began in 2015. The dam will flood more than five thousand hectares of land with high ecological, cultural, and spiritual significance to Treaty 8 First Nations, which have argued that Site C will significantly and irremediably infringe on treaty rights (Section 35(1) rights under Canada’s Constitution). The Site C dam has generated significant debate within Canada for several reasons. First, the project’s business case is weak: lack of electricity demand in BC means that the project will be 100 percent surplus upon completion, and the price of Site C electricity is currently predicted to be three times the spot market price on the North American energy market. Second, it will have significant environmental impacts: as explored below, damming the last stretch of the Peace River Valley, a unique geographical zone with very high ecological and biodiversity values, would have an unprecedented scale of impacts in the history of Canadian hydropower development. Third, the impact of the project on Indigenous territories is highly contested: the project would infringe on traditional treaty and aboriginal rights in an area already highly impacted by oil and gas development and by previous hydroelectric dams upstream. Ongoing litigation about the cumulative impacts of one hundred years of extractivist development in the region indicates the seriousness of these issues, which have not been resolved through the regulatory process; indeed, the Canadian domestic legal system functions as a backstop to the regulatory process when unjustified infringement of First Nations rights, including treaty rights, occurs (Simpson 2016; see also *Blueberry River First Nations v. British Columbia* [2017]).

The Site C Dam has also attracted significant international attention. In June 2017, the UN Working Group on Business and Human Rights issued a letter outlining concerns about human rights abuses linked to industrial development.¹ In 2018, the Office of the UN High Commissioner for Human Rights issued a strongly worded letter to Canada's Ambassador to the UN, noting concerns regarding "alleged lack of measures taken to ensure the right to consultation and free, prior and informed consent with regard to the Site C Dam, considering its impact on Indigenous peoples' control and use of their lands and natural resources" (UN OHCHR 2018).² In 2017, the UNESCO Committee on World Heritage Sites sent a monitoring mission in response to concerns raised by Mikisew Cree and other Indigenous communities about the Peace-Athabasca Delta (a World Heritage Site and the largest inland freshwater delta in the world).³ The UNESCO report indicated significant concerns about the potential impacts of Site C (upstream from the delta), calling for a basin-wide cumulative environmental effects assessment and cautioning that it was considering designating the area in question a "World Heritage Site in Danger" (UNESCO 2017). In 2019, UNESCO updated its assessment, "noting with concern the continued threat the Site C hydropower project" poses to the downstream Delta, which lies within Wood Buffalo National Park (UNESCO 2019). International organizations, including Amnesty International, have also drawn attention to the case (Amnesty International 2016). The Site C Dam has thus received considerable international scrutiny and is among the most controversial large-scale water infrastructure projects in Canada in the past several decades.

The article expands on the concerns outlined above and analyzes issues of global relevance within the Canadian context. The article is structured in an unconventional manner: it presents two disparate "stories" about the dam as a means of encouraging the reader to reflect on the divergence between Western and Indigenous ontologies and to consider potential strategies for more inclusive forms of environmental impact assessment. The juxtaposition of two distinct modes of analysis in this article is thus deliberately jarring. Within the space opened up between these incommensurable stories, we seek to elicit questions about conventional academic approaches, in which certain types of data, analysis, and narratives are included, while others are less valued or excluded. We also seek to open up space to reflect on how a more expansive, pluralistic approach to environmental impact assessment (EIA) processes might be envisioned.

The first part of the article addresses the limitations of the EIA process, focusing on cumulative effects, while situating Site C within international debates

1. www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=21680&LangID=E, last accessed June 27, 2019.
2. https://tbinternet.ohchr.org/Treaties/CERD/Shared%20Documents/CAN/INT_CERD_ALE_CAN_8818_E.pdf, last accessed June 27, 2019.
3. Mikisew Cree First Nation, Petition to the World Heritage Committee Requesting Inclusion of Wood Buffalo National Park on the List of World Heritage in Danger, 2014. www.bcuc.com/Documents/wp-content/10/00612_F84-2_MikisewCreeFirstNation_SiteC_Submissions-1.pdf, last accessed June 27, 2019.

over large dams. The author of this story, who is an academic of settler origin living on unceded Coast Salish territory and who was born in Tiohtiá:ke/Montréal on the traditional territory of the Kanien'kehá:ka, has co-authored twelve technical reports on Site C and has acted as an intervenor in the BC Utilities Commission Inquiry on Site C (Bakker, Hendriks, and Raphals 2017). Indigenous communities have repeatedly criticized the procedural and methodological dimensions of environmental assessments, which fail to address cumulative concerns regarding the pace and extent of development, cumulative environmental contamination and related impacts on human health, ability to maintain Indigenous ways of life on the land, and treaty rights infringement—a highly topical issue given the federal government's recent commitment to implementing the UNDRIP (Booth 2011a, 2011b; Carrier Sekani Tribal Council 2007; Harvard Law School 2010; Lawe et al. 2005; Tollefson and Wipond 1998).

The second part of the article tells a life/lineage story of the lands and waters of the valley in the traditional form of Dunne-Za teachings. The author of this section, who is Eh-Cho Dene and Dunne-Za from the Indigenous community closest to the dam, was the former lands manager for two Treaty 8 First Nations communities adjacent to Site C. A lawyer by training, he has been engaged with resistance to the Site C Project in multiple venues, following in the footsteps of his parents (who met while campaigning to oppose an earlier proposal to build Site C in the 1980s) and grandparents—including his Grandfathers and Mother, all former Chiefs of the First Nations still leading Indigenous resistance to the Project. Whereas the first story traces the depoliticization that occurs through conventional environment assessment processes which “render technical” the dam project (Li 2007), the second story “renders sacred” the connections between land, water, animals, and people—by honoring the relations that arose on the land near the river and that will be altered or severed by the dam. In speaking from a place-based perspective in a father's message to his young son, the story conveys lessons that need to be remembered about the changes in the land and water created by settler colonialism. This juxtaposition is a direct critique of both the proponents and opponents of Site C and of the format of their debates in the courtroom, in boardrooms, in academic journals, and indeed in this special issue itself. In articulating a story/memory in a way that highlights multiple ways of being-with-land, the second story explores the personal, psychological, collective, sociocultural, spiritual, and intergenerational dimensions of “cumulative effects” while simultaneously highlighting the conceptual limitations of that term.

The article juxtaposes these two very different stories in order to illustrate the conflicts that emerge between distinct, and currently incommensurate, ontologies. The second story is intended to be read as a counternarrative to both pro- and anti-dam modernists; hence the second story is also a critique of the first story, despite the fact that both authors express objections to the dam. The second story, which would be excluded from a conventional EIA process, carries legitimacy and authority as a form of intergenerational baseline knowledge. Acknowledging this story is about much more than mere “inclusion.” In presenting a story rooted in Indigenous

ontologies, while acknowledging the limits of the “ontological turn”—which itself runs the risk of fetishizing a particular mode of theorizing divorced from community and place (Blaser 2014; Todd 2016; Wilson and Inkster 2018)—the article seeks to query the epistemological underpinnings of modern hydropower debates, environmental assessments, and their associated analytical protocols.

Debating Large Dams in the Early Twenty-First Century

From the mid-twentieth century onward, Canada was one of the world’s hydroelectric superpowers; only the United States generated more hydroelectricity, and only Norway generated more per capita (Evenden 2015; Sandwell 2016). Significant hydropower development occurred from the 1930s onward, impacting Indigenous peoples through flooding of traditional territories, displacement, and reductions in fisheries and game (although, due to colonial “hydraulic imperialism,” these impacts have not been fully documented) (Choquette et al. 2009; Jenson and Papillon 2000; Manore 1999; Macfarlane and Kitay 2016; Schiehl and Raufflet 2013; Webster 2015). Environmental review was generally lacking (the Canadian Environmental Assessment Act was only passed in 1992). In some cases, decades passed before displaced Indigenous communities were granted some measure of rights, recognition, and/or reparations, often due to legal action taken against colonial governments (Ariss et al. 2017; Peyton 2017; Waldram 1988). Take, for example, the case of the Tsay-Keh Dene: displaced by the upstream precursor to the Site C Project—the WAC Bennett Dam, completed in 1967—the community endures windstorms created by the slumping sides of the reservoir and remains without access to the electricity grid, relying on expensive diesel for its electricity needs, despite being located next to the ninth largest earth-filled dam in the world, which supplies one-quarter of the electricity needs of the province (Izony and Dowlatabadi 2016).

The Canadian case is emblematic of a global trend: the forty-five thousand large dams built worldwide during the twentieth century drastically altered the world’s rivers and lakes, with significant socioecological impacts and frequent displacement of Indigenous peoples. Critics of large dams voiced several concerns: economic underperformance and cost overruns; uneven distribution of benefits; higher-than-expected socioecological impacts often externalized onto remote geographical areas, less politically powerful groups, and/or the environment; lower-than-expected returns for agricultural production; and rent-seeking associated with the enormous investments required (Ansar et al. 2014; Flyvbjerg et al. 2003; Khagram 2004; Lehner et al. 2011; World Commission on Dams 2000). Given these critiques, dam construction slowed down in the 1990s as a new generation of renewable energy infrastructure—notably wind and solar—gained popularity due to competitive costs, lower socioecological impacts, enhanced job generation, and higher spatiotemporal flexibility of siting.

However, large hydraulic infrastructure has again begun to figure on the global agenda (Zarfl et al. 2014). Benefits identified by large dam proponents

include enabling the expansion of irrigated land, improving drinking water supply, flood protection, and/or producing green energy in response to the global need for non-fossil fuel energy sources. Critics contest these benefits and point to concerns about cumulative impacts and greenhouse gas emissions from both reservoirs and dam construction (Ansar et al. 2014; Deemer et al. 2016; Fearnside 2015). Critics also call for revisions to EIA processes (Fletcher 2010; Lehner et al. 2011) in light of evolving global “soft law” norms regarding Indigenous rights, such as the UNDRIP, which the Canadian government recently committed to implementing (Gupta et al. 2014). Below, this article explores these issues with respect to Site C.

Cumulative Effects in the Site C Environmental Impact Assessment Process

The northeastern region of BC, in which Site C is located, was opened for settlement after the 1899 signing of Treaty 8 (one of a series of numbered treaties between the British Crown and Indigenous peoples, designed by the British to facilitate westward expansion of colonial settlement in what is now the country of Canada). Treaty 8 territory lies at the heart of Canada’s water-energy nexus (Holding et al. 2017). The Site C Project (Figure 1) is directly downstream from the Bennett and Peace Canyon Dams (completed in 1967 and 1980, respectively); the Bennett dam is the ninth-largest earth-filled dam in the world, and one of the largest in Canada (Rivard et al. 2014). This northeastern region of the province of BC lies at the northwestern boundary of the Western Canadian Sedimentary Basin, with the largest oil and gas deposits in Canada. The large volumes of water used to extract both conventional and nonconventional oil and gas resources—including hydraulic fracturing—make this region ground zero of Canada’s water-energy nexus, with large-scale oil and gas production and associated environmental concerns (Chen and Gunster 2016; Johnson and Johnson 2012; Rivard et al. 2014).

The Site C project was originally proposed by BC Hydro (the Crown corporation responsible for hydroelectricity generation) in the 1950s, and again in the 1980s, but was rejected by the BC Utilities Commission due to lack of electricity demand. The project was revived in the mid-2000s by the provincial government, despite the lack of growth in domestic electricity demand in British Columbia over the preceding decade, declines on the order of 60 percent in export market prices over that same period, and substantial reductions in the cost of alternative resources for meeting energy and capacity requirements (BC Hydro 2012a; 2013, Table 5-5; 2016).⁴ Despite the weak business case (or perhaps because of it), the provincial government exempted Site C from economic assessment by the BC Utilities Commission; as a result, no independent economic review of the project was conducted prior to construction (although an economic review was initiated by the new provincial government in 2017 (BC Utilities Commission 2017; Office of the Premier 2017)).

4. Lazard’s Levelized Cost of Energy Analysis, Version 11.0.

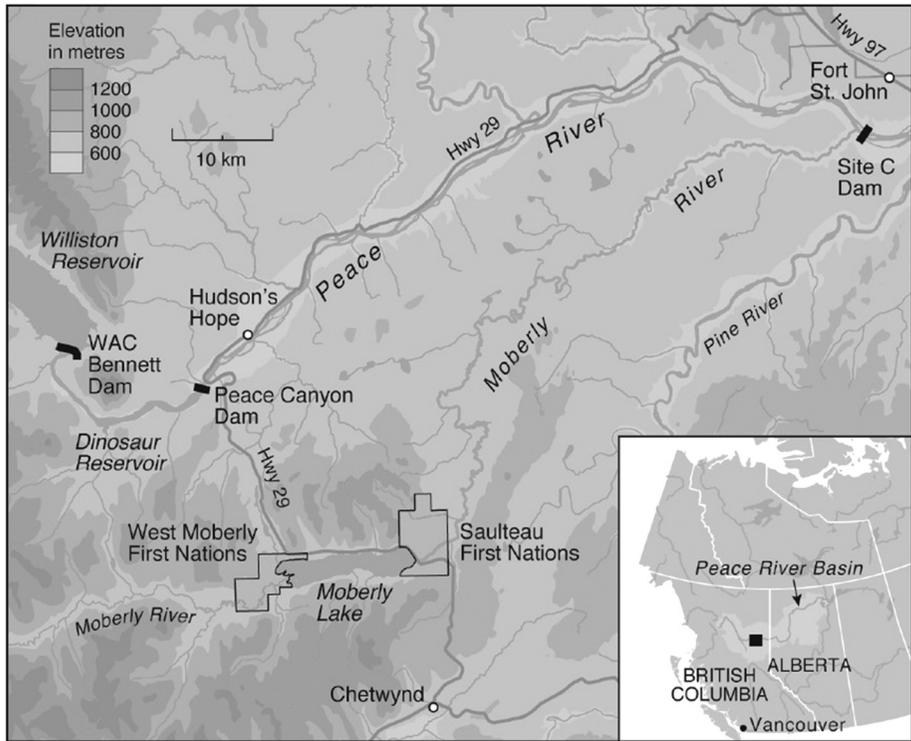


Figure 1

WAC Bennett, Peace Canyon, and Site C Dams on the Saaghii Naachii/Peace River.

(Color version of map available at https://www.mitpressjournals.org/doi/suppl/10.1162/glep_a_00518).

The project was, however, required to undergo a joint federal and provincial environmental assessment under the federal and provincial Environmental Assessment Acts. The federal minister of environment and the provincial minister of environment authorized a three-person joint review panel (JRP), which operated under tight time and resource constraints: the panel was required to complete its hearings within thirty days and to complete the entire review process (which included reviewing twenty-seven thousand pages of documents) within eight calendar months. This time frame, it should be noted, was much shorter than other reviews of large-scale hydroelectric projects in Canada.

The Site C JRP issued its report in May 2014 (BC Environmental Assessment Office 2014; Canadian Environmental Assessment Agency 2012, 2014).⁵

5. The resources provided to the Site C JRP were significantly constrained compared to other, similar review panels. The Site C review took eight months, versus Manitoba's Keeyask Hydroelectric Project (thirty-two months) and the Lower Churchill Project (forty-one months).

Because of the limited time frame, the panel indicated that it was not able to perform several key analyses, including cost estimates and greenhouse gas emissions assessment. Nonetheless, environmental assessment approvals were granted by the provincial and federal governments, despite the JRP's recommendation that economic aspects of Site C be referred to the BC Utilities Commission (BCUC) for review before proceeding. By 2015, construction had commenced on the Site C project. The government's approach was criticized by a wide range of stakeholders, including affected Indigenous communities, a previous CEO of BC Hydro, the chair of the JRP, Parks Canada (a federal government department), and a range of environmental nongovernmental organizations (Eliesen 2017; Parks Canada 2013; Prophet River and West Moberly First Nations 2017).⁶

Cumulative Effects

The question of cumulative effects is central to the debate over Site C.⁷ Following guidance from the federal Canadian Environmental Assessment Agency, the JRP was required to conduct a cumulative effects assessment, including spatial considerations (i.e., a sufficiently large study area) and temporal considerations (i.e., both past and future projects) (Gunn and Noble 2011). However, BC Hydro proposed an assessment methodology that excluded effects of the two prior upstream hydroelectric projects and other prior developments. Indigenous communities disagreed, arguing that the assessment should include historical projects—including the upstream dams—in order to fully assess cumulative impacts on treaty rights (Treaty 8 Tribal Association 2012). Parks Canada raised similar concerns, noting that the Bennett Dam was constructed when no environmental assessment legislation was in place and would likely not have received approval under current legislation (Parks Canada 2013). BC Hydro's response: the environmental assessment would be compromised by the lack of historical baseline data (BC Hydro 2012b).

Despite critiques (Gunn and Noble 2011), the provincial and federal governments accepted BC Hydro's position. Nonetheless, the JRP identified numerous cumulative effects—including on fish, vegetation and ecological communities, several wildlife species, heritage resources, and the current use of lands and resources for traditional purposes by Indigenous peoples. These findings were made despite the fact that the baseline excluded the impacts of the two older upstream dams.

Ironically, although BC Hydro's methodology excluded analysis of the two upstream dams, provincial politicians explicitly linked Site C to these dams in terms of a political legacy. To give just one example, the earlier dams on the Peace River were built by Premier W. A. C. Bennett, whose son Bill was also a

6. www.bcuc.com/site-c-inquiry.html, last accessed June 27, 2019.

7. "Cumulative effects" are defined under the Canadian Environmental Assessment Act as "changes to the environment that are caused by an action in combination with other past, present and future human actions."

premier of British Columbia, who created the BC Utility Commission. Bill's son Brad became chair of BC Hydro and campaigned on behalf of the Liberal Party, and on behalf of then-premier Christie Clark, who made the decision to exempt Site C from economic review by the BCUC and then initiated construction on Site C. At Bill Bennett's funeral, Premier Clark—delivering the eulogy—explicitly invoked a multigenerational vision, stating, “Premier Bennett, you got it started and I will get it finished. I will get it past the point of no return” (Palmer 2017). The government succeeded: by the time a new government was elected, referring the project to the BC Utilities Commission for economic review in 2017, more than CN\$2 billion had been spent; the new premier reluctantly authorized the continuation of the Site C project, while acknowledging that if a proper economic assessment had been done, it would likely never have been built in the first place (Office of the Premier 2017).

The controversy over getting the dam “past the point of no return” hinged on environmental impacts as well as economics. In fact, the number of significant adverse environmental effects was higher than for any other project ever assessed under the Canadian Environmental Assessment Act (Table 1). The broad scope of significant adverse environmental effects listed in Table 1 is unprecedented. In Canada, a determination of a significant adverse environmental effect by the Canadian Environmental Assessment Agency (or a review panel) is neither a trivial matter nor a common occurrence. For such a finding to be made, the federal minister of environment must decide whether he or she concurs; if so, the findings must be referred to Cabinet for a decision on whether those significant adverse environmental effects are justified. Since the enactment of the Canadian Environmental Assessment Act (CEAA) in 1992, more than 120 major projects have been assessed.⁸ Of these projects, only a total of ten, in addition to the Site C Project, have been determined to have significant adverse environmental effects; none of these projects had as many significant adverse environmental effects. Moreover, several other large-scale (>200 MW) new-build hydroelectric projects have been reviewed under CEAA and been predicted to have no significant adverse environmental effects.⁹ Within this context, the findings of significant adverse environmental effects by the Site C JRP are unprecedented in the history of environmental assessment under the CEAA.

Another important omission from the environmental assessment process pertains to aboriginal rights. The framework for consultation with aboriginal peoples in Canada has evolved significantly over the past few decades, driven by court decisions.¹⁰ The environmental assessment process chosen by the

8. Canadian Environmental Assessment Agency, 1996–2014 Departmental Performance Reports. www.ceaa-acee.gc.ca/default.asp?lang=En&n=C5C19E38-1, last accessed June 27, 2019.

9. These projects include Eastmain 1-A and Rupert Diversion Project (2006), Keeyask Generation Project (2014), Romaine Hydroelectric Complex (2009), and Wuskwatim Generation Project (2005).

10. A comprehensive list is beyond the scope of this article, but see *R. v. Sparrow*, 1 SCR 1075 (1990); *Prophet River First Nation v. Canada (Attorney General)*, FC 1030 (2015); *West Moberly First Nations v. British Columbia (Ministry of Energy, Mines and Petroleum Resources)*, 2011 BCCA 247 (2011).

Table 1

Site C Project: Significant Adverse Environmental Effects

<i>Aquatic</i>	<i>Vegetation</i>	<i>Wildlife</i>	<i>Aboriginal Uses</i>	<i>Cultural Heritage</i>	<i>Other</i>
Fish and fish habitat	At-risk and sensitive ecological communities	<ul style="list-style-type: none"> • 16 breeding bird species • western toad • broad-winged hawk • short-eared owl • eastern red bat • little brown myotis • northern myotis 	Fishing opportunities and practices for Treaty 8 First Nations	Physical heritage resources	Loss of agricultural production of the Peace River valley bottomlands to the farmers who would bear the loss
Cumulative effects on fish	Wetlands, in particular valley bottom wetlands	Migratory birds relying on valley bottom habitat during their life cycle	Hunting and nontenured trapping for Treaty 8 First Nations	Cultural heritage resources for both aboriginal and nonaboriginal people	Loss of navigation use for the small number of people who traverse the dam site
	Rare plants	Cumulative effects on all wildlife species listed above	Other traditional uses of the land for Treaty 8 First Nations	Cumulative adverse effects on heritage resources	
	Cumulative effects on vegetation and ecological communities	Possible cumulative effects on fisher [mammals]	Cumulative effects on current use of lands and resources for traditional purposes	Visual resources	

Note. Site C Joint Review Panel. May 2014. Report of the Joint Review Panel: Site C Clean Energy Project BC Hydro (CEAR #63919-2771).

federal and provincial governments for Site C did not consider or determine whether an approval of the project would constitute an infringement of First Nation rights under Treaty 8. At no point in the process, even when the Site C Project was before the federal and provincial governments for environmental approval, did any government decision maker indicate publicly his or her consideration or determination, if any, of whether a decision to approve Site C would infringe treaty rights. The assessment process also did not comprehensively assess cumulative environmental effects and related cumulative impacts to First Nation rights under the treaty. However, despite the constrained assessment, the JRP did find that the project's adverse effects would have direct and indirect implications for the exercise of aboriginal and treaty rights by Treaty 8 First Nations, including impacts on fishing, hunting, trapping, and cultural and heritage uses of the land, concluding that "these effects cannot be mitigated."¹¹ These points were explicitly addressed by impacted Indigenous communities in legal action that they initiated following the onset of construction. Blueberry, Prophet River, and West Moberly First Nations took legal action, raising the infringement of Treaty rights as a result of cumulative effects related to industrial developments, including Site C, but also referring to ongoing and planned hydraulic fracturing and liquified natural gas production in the region (Office of the Premier 2018).¹²

As noted by Blueberry First Nations in their application for an injunction to halt industrial development (including Site C), the treaty provides for the protection of traditional hunting, fishing, and trapping rights; yet,

Rather than protecting the Blueberry First Nations mode of life, the Crown's decisions have contributed significantly to an impoverishment of it ... [so] Blueberry First Nations brings this claim against the Crown to stop the consistent and increasingly accelerated degradation of the Nations' traditional territory, and to protect and enforce the Nations' constitutionally protected rights under Treaty 8 against the cumulative impacts of Crown authorized activities on their traditional territories.¹³

As the Blueberry First Nations' legal claim pointed out, the systematic failure to consider cumulative effects was a consistent feature of environmental assessments of all industrial projects in their territory. The court found that Blueberry First Nations had proven "irreparable harm" had occurred to their territory; although comprehensive cumulative effects assessment was excluded from the EIA process, the existence of a significant degree of cumulative effects was recognized by the court.

The choices made by the government and BC Hydro regarding the evaluation of cumulative effects favored the decision to develop Site C. The deliberately

11. Site C Joint Review Panel, May 2014, Report of the Joint Review Panel: Site C Clean Energy Project BC Hydro, Appendix 1: List of Panel's Conclusions and Recommendations (CEAR #63919-2771).

12. See Prophet River and West Moberly First Nations (2017). Submission to the BCUC Inquiry on Site C. F28-3, October 11.

13. Prophet River and West Moberly First Nations (2017, Sections 1.1, 1.5).

narrow approach illustrates a key point: while Canadian federal environmental assessments do require some form of cumulative assessment, the methodology for assessment is open to interpretation with respect to the terms of reference, data, analytical methods, and scope. Each sector—and indeed each project proponent—can (and often does) develop a separate, unique methodology. Critics contend that these methodologies exclude voices (both human and non-human) affected by externalities and also argue that the term *externality* offers an overly constrained view of rivers as resources, excluding Indigenous environmental knowledges and the broader ecosystems in which they are embedded. In this case, the EIA process formalized this exclusion by adopting a restricted baseline. More fundamentally, the EIA process also excluded a more inclusive, place-based approach to Indigenous knowledges and worldviews. This subtle yet more profound exclusion is often performed by both pro- and anti-dam proponents, as evidenced in the submissions to both the JRP EIA and the BCUC Inquiry on Site C, nearly all of which focused on single issues of concern, mirroring the omission of comprehensive cumulative impact assessment in the regulatory process. This point is illustrated by the following story, written by a Dunne-Za author whose traditional territories will be flooded by the dam.

A Story of the Territory, for My Son

There is a story older than the one the white people tell. Beyond their analysis. Beyond their “assessment.” Another story of the lands and waters you belong to, my young son. As an Eh-Cho Dene and Dunne-Za man, I tell you this story.

There is a tiny cabin overlooking our lake, Moberly. Many moons ago, my first memories are of the “mouse house.” It was a beautiful small cabin, about four hundred square feet, that your grandma built when she was seventeen, during the time her and your great grandpa, Chief John Dokkie Sr., were creating the West Moberly Indian Band (as it was then known) while they were fighting Site C. Your grandmother was and is incredible. She builds this little cabin and perches it above the lake about one hundred meters from her parents’ house, the other log cabin on the “Rez.”

Her and your grandfather meet opposing a dam that twenty-seven years later gets built. Their love and resistance made me and thus you, my son. You are born of opposition to Site C. Water is close to you, both river and lake. The lake is about a kilometer wide in front of the cabin, so it takes a while to paddle across. It was full of jackfish and whitefish and lake trout long ago. Less so when I came around in 1981.

Hardly anything now.

But that lake still holds the memories of what it was. That lake is my first memory, and it is the only home that has been consistent in my life. That lake is being killed by the white people. Their forestry upstream, the third dam on the Peace getting built downstream. The fracking all around. The lake that is my heart will likely be dead by the time you can read these words.

My first memories are hazy. But there is one clear memory. I was too small to walk, but I was put on a green foamy while we were out picking berries after your great grandpa shot a moose. I remember the smell of foamy and the bush. The scent of sun and earth mixed with the scents of the Canadian boreal forest. I remember being warm and playing with the leaves and being transfixed by the little sticks I could grab.

Which leads me to witnessing my first kill. It was a few years later. I was four at the time, hunting with your great grandfather up what is known as moose-call. Near the dams they build. Near the darkness that gives them light.

I have killed many moose there. But at that time in my life, I had not yet stepped into that kind of responsibility. I was merely learning by watching and doing, which is our way, my son. You don't "learn": you are reminded of what you already know by witnessing. The land and waters you need to witness, but they are forever changed, my son. You don't have an adequate baseline without these stories, my son. They are stealing your future memories with their "development" as they destroy the land and water. I am so sorry, my boy.

Your great grandfather was a legendary bushman, a hunter of the highest quality and a great trapper. Never saw him fish much, as he and water had an interesting relationship, though the stories of your great great grandfather feeding whole camps of men with his fishing skills are legendary. Chief John Dokkie Sr. was at his core a hunter. And his love for me with my broken and perpetually scarred face and fierce, attentive little eyes (not dissimilar to your own, my boy) led him to seek to train me by bringing me everywhere with him.

That day, we drove down a dirt road dodging logging trucks full of the wealth and life of our land. Turned off a little side road down toward the giant five hundred kilo-volt transmission lines that originate at the giant dams near our community, the biggest dams in British Columbia. Those power lines crackle day and night forever. The thing about power lines of that size is that they have to be cleared quite regularly. When I was a kid in the 1980s, the government utility was still spraying a lot of herbicide and defoliant, so we couldn't hunt or pick berries near those areas. Even then, Chief Dokkie knew to stay away, and thus we always were watching for signs of plant and animal death on those lines. Hydro. They kill us with one thousand paper cuts called "consultation." The process of "reconciliation" is the slow death of our lands and waters. Never forget that when you see their infrastructure, my son.

Your great grandfather and almost all in your lineage were those people who simply "did" the things that make us Dunne-Za and Eh-Cho Dene; they were people who had done things like walking, hunting, making hide, reading the weather, listening intently to the subtlety of nature, and fighting what seems an unwinnable war against the colonizer who came long ago. I know that walking, hunting, making hide, reading the land, and listening are things that will do themselves through you eventually. I know for a fact you will have to step up in the war as well. Never forget that they are all connected. Your ability to resist the colonization of mind and body relates to your time on the land and water. Like

the generations before you being connected to land, you are also connected to struggle.

Your people are the people who don't need to be taught; they only need to be reminded. I wondered so many times watching Grandpa walk quietly and quickly throughout our lands whether the land moved ever so slightly to fit his moccasins? It was like he was able to glide. And carrying a .300 Win Mag and a bit of food and tea and a decent knife and all the other little things you need to make it out there safely, I always felt like I was too big, too slow, and too loud. Your dad is tough to remind sometimes.

That day he and I were walking down this giant corridor with those steel giants holding up those wires full of power. White Power. Crackling above typically. But that morning it was still quiet, and the wind hadn't come up yet off the giant man-made cesspit that is Williston "Lake" (actually the largest reservoir in North America) adjacent to the Bennet Dam about twenty kilometers away, so the moose were still moving around.

The moose bed down when it is windy. It is hard to hunt now because sometimes the winds blow off the reservoir for days and days, and when the animals can't hear clearly, they are very wary and very difficult to find. I will show you the hollows and little valleys and the "licks" where they sometimes go in those times for food and water and minerals. Sadly, the other killers know of those places too. Wolves, Bears, White People.

On that day, though, it was calm. Early. As I was so small, I wasn't yet allowed to carry my own rifle, but I had a pocketknife, which was my greatest treasure. Knife stashed in pocket and getting soaked by the dew on the grass, I followed dutifully and quietly. I was admonished harshly every time I "dragged" my feet. A hunter walks with purpose, and the first purpose is to not make noise and to leave as little a mark as possible behind. Most people can walk quietly or they can walk quickly. When you walk with people from the city, you will notice that they drag their feet and make this "scuffing" noise habitually. Alerting the world to their presence and leaving marks behind. This is their way. This is not our way. When I hunt now with "Indians" who drag their feet, I am sad. And when I drag my feet, I feel ashamed, similar to what I felt back then every time Grandpa would look back at me with a fierce look whenever I walked like a white man.

Chief Dokkie was hunting for more than our family. We fed many people with his skills and knowledge, and we fed them well. So I learned to walk quietly and I learned to walk quickly. As we walked, I saw him stiffen and slightly crouch as he brought the gun to his shoulder. I plugged my ears and froze as I was trained to do. I can't describe for you the sudden rush of adrenaline that comes following the firing of a gun at a living thing. At something which is present because it chooses to be there to support you and your family. Something that is older and wiser than us and in its generosity stands still for pain that is hard to imagine, though I know what a bullet feels like. Your grandpa and I sprang forward, and though I couldn't see what he saw as the grass was tall there

(the government hadn't sprayed there in a few seasons, which is why we and the moose were there), I knew Grandpa had fired straight and true.

Dry cow and yearling male calf. Two big moose, but not huge. They had run slightly into the bush and fell to the ground near one another. Nothing dies easy, my son. Everything I have ever killed has died struggling, even if they seemed to want to die by giving themselves to us in the sacred relationship of our territory.

After we cut their throats, we immediately began to skin and gut them. It is far easier to kill something than to make it into food in a good way. Anyone with a gun and a truck will eventually find something to shoot, although that is becoming less and less true in our territory and, I think, around the world. Anyone can kill. But good people care for others and respect the sacredness of what was given with the taking of that life, and they do their very best to use everything possible. And it is more nutritious for body and spirit that way. It is good medicine to transform the sacred gift into food.

The first step is killing, but then you must ensure they die well and quickly, and then you must immediately get the meat cooling, and for that to happen, you must remove the hide. There is another step that most people forget that you must remember. Once they have died, remove the head, but do so respectfully and put it somewhere looking away from what you now must do to their body. Put it somewhere where those eyes which still see for a time after their passing don't have to look upon themselves. If you can, maybe put down a little tobacco to prepare the place that you will put their head and say *mussi cho* to them. Thank them for their gift and generosity, and be mindful of the truth that we are the lowest of all and only through the generosity of untold billions of other beings dying were we given the gift of life as a species, as a people, as a family, and as ourselves.

Remember this. Don't make them watch themselves get butchered. Treat them well, my son. Respect what they give and reciprocate in turn. Live the balance. Don't treat them the way the white people treat us, with their saws and machines and holes in the earth and their dams that destroy the sacred water.

Don't force them to watch another desecration. Don't make them watch themselves get cut apart. Don't make them watch the cutting the way we have to watch them build the next megaproject in our territory.

Once you have done that task, it is now time to skin, and that is what we began to do with the heads out of the way. Heads looking out into the forest. Skinning is an act of doing right by your community and your mother, grandmother, sisters, and aunties. In those days, it was usually Grandma who would do the hides for her crafts, and so any holes in the hide would be extra work and less value for her. A good skinner will not only skin the hide without making any holes but will also skin it in a way that makes it easy to flesh, easy to remove the inner layer of tissue that is between the hide and the body of the animal. That is hard work. You must always respect women, and you always respect the power of an Indigenous woman's forearms if she is making hide. She will be

able to choke the shit out of you after a summer of making hides. And you don't add to that hard work by skinning poorly. You keep the hide whole, clean, and without any nicks or piercings by your blade. You respect it. You respect them.

As Grandpa Dokkie and I gutted the animal, we checked for the liver spots and tumors on the lungs that we must always be vigilant for now that the oil and gas companies and BC Hydro have taken over our lands. Always check, my son. Anything that doesn't look right, any lumps or sores or smelly tumors, you cut up and bag and put them in the freezer for a lab to check out.

We had to do this even then, even though it was thirty-three years ago, thanks to the oil and gas and dams and forestry. I am sorry that you will have to do it too, my son. I am so sorry that I couldn't stop what was coming, even though I tried. Our curse is that it is becoming a sacred tradition to look for the contamination.

We gutted and quartered the meat, and it was exhausting work, because my job was to hold the legs and hold back parts or go cut stacks of willows to put the meat on to keep it clean. I wasn't yet strong enough to lift anything bigger than the liver or the kidneys as we put them away from the meat to cool even faster in the shade on those willows. You will learn, as I learned, to care for each and every part of those beings you kill, because most are edible, and some are sacred medicine, and some are tools, and some are pieces of sacred ceremony, and all of it is important. I was only four years old.

Grandpa was proud of our work and the cleanliness of the meat and the arrangement of it all when we were done. Someday I hope you will see, after I have trained you as best I can, that even with the knowledge inside us and the generations of experience in our bones and spirits, it still takes a lifetime of dedication and learning and insight to develop what he showed me that day. I was too young, too small to appreciate it. I was just "hunting with Grandpa," and it was one of the best days of my life.

I share this with you, my son, because in this story, you learn a part of the history and the lines drawn inside of us by what has come before. I give you my story and these teachings so that you are reminded enough to know without having been there. Their maps aren't the territory; what they did to our territory isn't all there is, was, and may be. I love you, son. Learn please. Know that the land is different now thanks to their greed but that the stories remain.

Conclusions

In presenting two very different stories about the Site C project, this article deliberately operates on two levels. First, we have used our combined expertise to document the limitations of the Western environmental assessment review process from multiple perspectives: the deliberately constrained methodological approach used to assess cumulative effects and the exclusion of place-based understandings of cumulative effects presented by Treaty 8 communities opposed to the dam. Second, we have illustrated and explored the differences

and incommensurabilities between Indigenous and Western ontologies. The Dunne-Za story/teaching is positioned in opposition to the analytical methods used by both pro- and anti-dam proponents in the environmental impact assessment process. The place-based story of intimate connections between land, water, people, and animals offers an alternative understanding of the cumulative effects experienced by Indigenous peoples affected by the project. This teaching thus points to omissions in the regulatory process, which led to the approval of Site C. More subtly, this teaching also offers a critique of the ontological and epistemological frameworks that underpin the analyses deployed by both sides of the debate.

The second part of the article can thus be read as a critique of the more conventional analysis presented in the first part of the article as well as a critique of the formal regulatory process. The article calls on the reader to question which strategies and tactics might provide more fruitful ground for a generative politics of resurgence, particularly when thinking about the multigenerational nature of Indigenous resistance that is rendered visible even as the cumulative impacts of the colonial settler state are rendered visible through a multigenerational resource-extractive strategy. Following Larsen (2018), we suggest that temporally and spatially inclusive cumulative impact assessment should be at the core of environmental stewardship assessment in Canada, which could incorporate concepts of kinship, place-based community relations, and Indigenous law aligned with legal pluralism. This could, in turn, underpin a concept of free, prior, and informed consent that implies ongoing (rather than one-time) consent, aligned with UNDRIP principles. In acknowledging the spiritual dimensions of lands and waters, we might partially combat the “rendering technical” depoliticization wrought by current environmental impact assessment processes.

Some elements of these strategies are evident in social-political movements and struggles that have emerged alongside the water-energy nexus in the region and across North America: the continental Treaty Alliance Against Tar Sands Expansion, the Standing Rock protests, initiatives by some Indigenous communities to develop their own policies for resource governance,¹⁴ and ongoing negotiations at the federal level over the Safe Drinking Water for First Nations Act. These offer nascent strategies for enacting alternative environmental assessments rooted in Indigenous territories and law, and a simultaneous complement (and challenge) to academic critiques of environmental impact assessment and global political economies and ecologies of resource extraction.

Caleb Behn is Eh-Cho Dene and Dunne-Za/Cree from the Treaty 8 Territory of northeastern British Columbia. He is a graduate of the University of Victoria Law Program and was called to the BC Bar in 2014. A former lands manager

14. Examples include the Tsilhqot'in Nation's 2014 Mining Policy and the Kaska Nation's 2015 Resource Law governing resource extractive activity in their respective traditional territories and the 2016 Yinka Dene 'Uza'hné Surface Water Management Policy and Yinka Dene 'Uza'hné Guide to Surface Water Quality Standards.

for the West Moberly First Nations and Saulteau First Nations and a senior researcher at the Centre for International Governance Innovation, Caleb was also a founding member of the Decolonizing Water Research Collective and the subject of the documentary film *Fractured Land*. He is currently the Special Advisor on Water to the Housing, Infrastructure, and Emergency Services Sector of the Assembly of First Nations.

Karen Bakker is a professor and Canada Research Chair at the University of British Columbia, where she is the director of the Program on Water Governance. A graduate of Oxford University (where she studied as a Rhodes Scholar), she is the author of more than one hundred academic publications, including *Privatizing Water* (2010) and *An Uncooperative Commodity* (2004). She is a member of the Royal Society of Canada's College of New Scholars, Scientists, and Artists, a member of the Scientific Advisory Committee of the Council of Canadian Academies, and a member of the Board of the International Institute for International Development. She is the co-author of twelve technical reports on Site C, which are available at www.watergovernance.ca.

References

- Amnesty International. 2016. *Point of No Return: The Human Rights of Indigenous Peoples in Canada Threatened by the Site C Dam*. London, England: Amnesty International.
- Ansar, A., B. Flyvbjerg, A. Budzier, and D. Lunn. 2014. Should We Build More Large Dams? The Actual Costs of Hydropower Megaproject Development. *Energy Policy* 69: 43–56.
- Ariss, Rachel, Clara MacCallum Fraser, and Diba Nazneen Somani. 2017. Crown Policies on the Duty to Consult and Accommodate: Towards Reconciliation. *McGill Journal of Sustainable Development Law* 13: 1–55.
- Bakker, Karen, Rick Hendriks, and Philip Raphals. 2017. *BC Utilities Commission Site C Inquiry Submission F-106-111*. August 27. <https://www.b cuc.com/site-c-inquiry.html>, last accessed July 18, 2019.
- Bakker, Karen, and Christina Cook. 2011. Water Governance in Canada: Innovation and Fragmentation. *International Journal of Water Resources Development* 27 (2): 275–289.
- BC Hydro. 2012a. *Electric Load Forecast Fiscal 2013 to Fiscal 2033*. Vancouver, BC: BC Hydro. <https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/regulatory-planning-documents/integrated-resource-plans/current-plan/2012-electric-load-forecast-report.pdf>. Accessed 18 July 2019.
- BC Hydro. 2012b. Response to Public Comments Related to the EIS Guidelines (April 10, 2012) for the Site C Clean Energy Project. Topic Summary Cumulative Effects Assessment. <https://projects.eao.gov.bc.ca/api/document/5887e174d876de1347b512d1/fetch>. Last accessed 18 July 2019.
- BC Hydro. 2013. *BC Hydro Integrated Resource Plan*. Vancouver, BC: BC Hydro.
- BC Hydro. 2016. *Rate Design Application: Evidentiary Update on Load Resource Balance and Long Run Marginal Cost*. Vancouver, BC: BC Hydro.
- Blaser, Mario. 2014. Ontology and Indigeneity: On the Political Ontology of Heterogeneous Assemblages. *Cultural Geographies* 21 (1): 49–58.

- Blueberry River First Nations v. British Columbia (Natural Gas Development), BCSC 540 (CanLII). (2017). <http://canlii.ca/t/h305q>, last accessed June 27, 2019.
- Booth, Annie, and Norm W. Skelton. 2011a. "We Are Fighting for Ourselves"—First Nations' Evaluation of British Columbia and Canadian Environmental Assessment Processes. *Journal of Environmental Assessment Policy and Management* 13 (3): 367–404.
- Booth, Annie, and Norm W. Skelton. 2011b. "You Spoil Everything!" Indigenous Peoples and the Consequences of Industrial Development in British Columbia. *Environment, Development, and Sustainability* 13 (4): 685–702.
- Borrows, John. 1997. Living Between Water and Rocks: First Nations, Environmental Planning and Democracy. *University of Toronto Law Journal* 47 (4): 417–468.
- Borrows, John. 2002. *Recovering Canada: The Resurgence of Indigenous Law*. Toronto, ON: University of Toronto Press.
- Borrows, John. 2010. *Drawing Out Law: A Spirit's Guide*. Toronto, ON: University of Toronto Press.
- BC Environmental Assessment Office. 2014. In the Matter of the Joint Review Panel Established to Review the Site C Clean Energy Project Proposed by British Columbia Hydro and Power Authority, *Proceedings at Hearing*. January 21. Vol. 26, 192–198 (CEAR #63919-2697). Victoria: Canadian Environmental Assessment Agency.
- British Columbia Utilities Commission. 2017. Inquiry Respecting Site C—Project No. 1598922: Final Report to the Government of British Columbia. Vancouver, BC: British Columbia Utilities Commission.
- Canadian Environmental Assessment Agency. 2012. *Agreement to Conduct a Cooperative Environmental Assessment Including the Establishment of a Joint Review Panel, of the Site C Clean Energy Project*. Ottawa: Canadian Environmental Assessment Agency.
- Carrier Sekani Tribal Council. 2007. *First Nations Perspectives on the BC Environmental Assessment Process*. Prince George: Carrier Sekani Tribal Council.
- Chen, Sibó, and Shane Gunster. 2016. "Ethereal Carbon": Legitimizing Liquefied Natural Gas in British Columbia. *Environmental Communication* 10 (3): 305–321.
- Choquette, Leslie, and Hans M. Carlson. 2009. Home Is the Hunter: The James Bay Cree and Their Land. *Quebec Studies* 48: 159–162.
- Coulthard, Glen S. 2014. *Red Skin, White Masks: Rejecting the Colonial Politics of Recognition*. Minneapolis, MN: University of Minnesota Press.
- Coulthard, Glen S., and Leanne Simpson. 2016. Grounded Normativity/Place-Based Solidarity. *American Quarterly* 68 (2): 249–255.
- Craft, Aimée. 2014. Anishinaabe Nibi Inaakonigewin Report: Reflecting the Water Laws: Research Gathering Conducted with Anishinaabe Elders, 20–23 June 2013. Winnipeg, MB: University of Manitoba.
- Craft, Aimée. 2017. Giving and Receiving Life from Anishinaabe nibi inaakonigewin (Our Water Law) Research. In *Methodological Challenges in Nature-Culture and Environmental History Research*, edited by J. Thorpe, S. Rutherford, and L. A. Sandberg, 105–119. London, England: Routledge.
- Deemer, B. R., J. A. Harrison, S. Li, J. J. Beaulieu, T. DelSontro, N. Barros, and J. A. Vonk. 2016. Greenhouse Gas Emissions from Reservoir Water Surfaces: A New Global Synthesis. *BioScience* 66 (11): 949–964.
- Dibo, A. P. A., B. F. Noble, and L. E. Sánchez. 2018. Perspectives on Driving Changes in Project-Based Cumulative Effects Assessment for Biodiversity: Lessons from the Canadian Experience. *Environmental Management* 62 (5): 929–941.

- Eliesen, Marc. 2017. Site C Inquiry Submission F13-1, F13-2. www.bcuc.com/site-c-inquiry.html, last accessed June 27, 2019.
- Evenden, Matthew. 2015. *Allied Power: Mobilizing Hydro-Electricity During Canada's Second World War*. Toronto, ON: University of Toronto Press.
- Fearnside, P. M. 2015. Emissions from Tropical Hydropower and the IPCC. *Environmental Science and Policy* 50: 225–239.
- Fletcher, R. 2010. When Environmental Issues Coincide: Climate Change and the Shifting Political Ecology of Hydroelectric Power. *Peace Conflict Review* 5: 1–15.
- Flyvbjerg, B., N. Bruzelius, and W. Rothengatter. 2003. *Megaprojects and Risk: An Anatomy of Ambition*. Cambridge, England: Cambridge University Press.
- Gunn, Jill, and Bram F. Noble. 2011. Conceptual and Methodological Challenges to integrating SEA and Cumulative Effects Assessment. *Environmental Impact Assessment Review* 31 (2): 154–160.
- Gupta, Joyeeta, Antoinette Hildering, and Daphina Misiedjan. 2014. Indigenous People's Right to Water Under International Law: A Legal Pluralism Perspective. *Current Opinion in Environmental Sustainability* 11: 26–33.
- Harrison, K. 1996. *Passing the Buck: Federalism and Canadian Environmental Policy*. Vancouver, BC: University of British Columbia Press.
- Harvard Law School. 2010. Bearing the Burden: The Effects of Mining on First Nations in British Columbia. <http://law.harvard.edu/programs/hrp/BearingTheBurden.pdf>, last accessed June 27, 2019.
- Hill, C., K. Furlong, K. Bakker, and A. Cohen. 2008. Harmonization Versus Subsidiarity in Water Governance: A Review of Water Governance and Legislation in the Canadian Provinces and Territories. *Canadian Water Resources Journal* 33 (4): 1–18.
- Holding, S., D. Allen, C. Notte, and N. Olewiler. 2017. Enhancing water security in a rapidly developing shale gas region. *Journal of Hydrology: Regional Studies* 11: 266–277.
- Izony, Dennis, and Hadi Dowlatabadi. 2016. BC Hydro and the Duty of Care. *Vancouver Sun*, September 29. <https://vancouversun.com/opinion/opinion-bc-hydro-and-duty-of-care>, last accessed June 27, 2019.
- Jenson, Jane, and Martin Papillon. 2000. Challenging the Citizenship Regime: The James Bay Cree and Transnational Action. *Politics and Society* 28 (2): 45–264.
- Johnson, Elizabeth G., and Laura A. Johnson. 2012. Hydraulic Fracture Water Usage in Northeast British Columbia: Locations, Volumes and Trends. *Geoscience Reports* 2012: British Columbia Ministry of Energy and Mines, 41–63.
- Khagram, S. 2004. *Dams and Development: Transnational Struggles for Water and Power*. Ithaca, NY: Cornell University Press.
- Larsen, R. K. 2018. Impact Assessment and Indigenous Self-Determination: A Scalar Framework of Participation Options. *Impact Assessment and Project Appraisal* 36 (3): 208–219.
- Larsen, R. K., K. Raitio, M. Stinnerbom, and J. Wik-Karlsson. 2017. Sami-State Collaboration in the Governance of Cumulative Effects Assessment: A Critical Action Research Approach. *Environmental Impact Assessment Review* 64: 67–76.
- Lawe, L. B., J. Wells, and Mikisew Cree First Nations Industry Relations Corporations. 2005. Cumulative Effects Assessment and EIA Follow-Up: A Proposed Community-Based Monitoring Program in the Oil Sand Region, Northeastern Alberta. *Impact Assessment and Project Appraisal* 23 (3): 205–209.
- Lehner, B., C. Liermann, C. Revenga, C. Vörösmarty et al. 2011. High-Resolution Mapping of the World's Reservoirs and Dams for Sustainable River-Flow Management. *Frontiers in the Ecology and Environment* 9 (9): 494–502.

- Li, Tania Murray. 2007. *The Will to Improve: Governmentality, Development, and the Practice of Politics*. Durham, NC: Duke University Press.
- Macfarlane, Daniel, and Peter Kitay. 2016. Hydraulic Imperialism: Hydroelectric Development and Treaty 9 in the Abitibi Region. *American Review of Canadian Studies* 46 (3): 380–397.
- Manore, Jean. 1999. *Cross-Currents: Hydroelectricity and the Engineering of Northern Ontario*. Waterloo, ON: Wilfrid Laurier University Press.
- McGregor, Deborah. 2012. Traditional Knowledge: Considerations for Protecting Water in Ontario. *International Indigenous Policy Journal* 3 (3): 1–21.
- McGregor, Deborah. 2014. Traditional Knowledge and Water Governance: The Ethic of Responsibility. *AlterNative: An International Journal of Indigenous Peoples* 10 (5): 493–507.
- Nadasdy, Paul. 2007. The Gift in the Animal: The Ontology of Hunting and Human–Animal Sociality. *American Ethnologist* 34 (1): 25–43.
- Noble, B. 2015. Cumulative Effects Research: Achievements, Status, Directions and Challenges in the Canadian Context. *Journal of Environmental Assessment Policy and Management* 17 (01): 1550001.
- Office of the Premier. 2017. Government Will Complete Site C Construction, Will Not Burden Taxpayers or BC Hydro Customers with Previous Government’s Debts. News release. <https://news.gov.bc.ca/releases/2017PREM0135-002039>, last accessed June 27, 2019.
- Office of the Premier. 2018. BC’s new LNG Framework to Deliver Record Investment, World’s Cleanest LNG Facility. News release. <https://news.gov.bc.ca/releases/2018PREM0073-001910>, last accessed June 27, 2019.
- Palmer, V. 2017. Getting Site C to Point of No Return a Damning Progress Report, So Far. *Vancouver Sun*, January 5. <https://vancouversun.com/opinion/columnists/vaughn-palmer-getting-site-c-to-point-of-no-return-a-damning-progress-report-so-far>, last accessed June 27, 2019.
- Parks Canada. 2013. Parks Canada Comments on the Draft Environmental Impact Statement (EIS) for the Site C Clean Energy Project (CEAR #63919-922). March 22.
- Peyton, Jonathan. 2017. *Unbuilt Environments: Tracing Postwar Development in Northwest British Columbia*. Vancouver, BC: University of British Columbia Press.
- Prophet River and West Moberly First Nations. 2017. Submissions F28-1, F28-2, F28-3. <https://www.bcuc.com/site-c-inquiry.html>, last accessed June 27, 2019.
- Rivard, Christine, Denis Lavoie, René Lefebvre, Stephan Séjourné, Charles Lamontagne, and Mathieu Duchesne. 2014. An Overview of Canadian Shale Gas Production and Environmental Concerns. *International Journal of Coal Geology* 126: 64–76.
- Salmon, Enrique. 2000. Kincentric Ecology: Indigenous Perceptions of the Human–Nature Relationship. *Ecological Applications* 10 (5): 1327–1332.
- Sam, Marlowe, and Jeannette Armstrong. 2013. Indigenous Water Governance and Resistance: A Sylx Perspective. In *The Social Life of Water*, 239–254. Oxford, England: Berghahn Books.
- Sandwell, Ruth. 2016. *Powering Up Canada: The History of Power, Fuel, and Energy from 1600*. Vol. 6. Montreal, QC: McGill-Queen’s University Press.
- Schiehl, Eduardo, and Emmanuel Raufflet. 2013. Hydro-Québec and the Crees: The Challenges of Being Accountable to First Nations—Case and Teaching Notes. *International Journal of Teaching and Case Studies* 4 (3): 243–258.
- Simpson, Leanne R. 2004. Anticolonial Strategies for the Recovery and Maintenance of Indigenous Knowledge. *American Indian Quarterly* 28: 373–384.

- Simpson, Leanne. 2016. Indigenous Resurgence and Co-Resistance. *Critical Ethnic Studies* 2 (2): 19–34.
- Sinclair, A. J., M. Doelle, and R. B. Gibson. 2018. Implementing Next Generation Assessment: A Case Example of a Global Challenge. *Environmental Impact Assessment Review* 72: 166–176.
- Site C Joint Review Panel. 2014. Report of the Joint Review Panel: Site C Clean Energy Project BC Hydro 280. <https://www.ceaa-acee.gc.ca/050/documents/p63919/99173E.pdf>, last accessed 18 July 2019.
- Todd, Zoe. 2016. An Indigenous Feminist's Take on the Ontological Turn: "Ontology" Is Just Another Word for Colonialism. *Journal of Historical Sociology* 29 (1): 4–22.
- Tollefson, Chris, and K. Wipond. 1998. Cumulative Environmental Impacts and Aboriginal Rights. *Environmental Impact Assessment Review* 18 (4): 371–390.
- Treaty 8 Tribal Association. 2012. Letter from Tribal Chief Liz Logan to Analyse Saely, Canadian Environmental Assessment Agency and Brian Murphy, British Columbia Environmental Assessment Office. <https://www.ceaa-acee.gc.ca/050/documents/p63919/98286E.pdf>, last accessed 18 July 2019.
- Tuck, Eve, and K. Wayne Yang. 2012. Decolonization Is Not a Metaphor. *Decolonization: Indigeneity, Education, and Society* 1 (1): 1–40.
- UNESCO. 2017. *Report of the Joint WHC/IUCN Reactive Monitoring Mission to Wood Buffalo National Park, Canada*. No. 256. Paris, France: UNESCO. <https://whc.unesco.org/en/documents/156893>, last accessed June 27, 2019.
- UNESCO. 2019. World Heritage Committee, 43rd session. Item 7b: State of Conservation of Properties Inscribed on the World Heritage List. WHC/19/43.COM/7B. Available at <http://whc.unesco.org/en/sessions/43COM/documents/>, last accessed August 8, 2019.
- UN OHCHR. 2018. Letter from the Chair of the United Nations Committee on the Elimination of Racial Discrimination to Her Excellency Rosemary Carney, Canadian Ambassador to the United Nations. Ref. CERD/EWUAP/Canada-Site C dam/2018/JP/ks. https://tbinternet.ohchr.org/Treaties/CERD/Shared%20Documents/CAN/INT_CERD_ALE_CAN_8818_E.pdf, last accessed June 27, 2019.
- Waldram, James. 1988. *As Long as the Rivers Run: Hydroelectric Development and Native Communities in Western Canada*. Winnipeg, MB: University of Manitoba Press.
- Walkem, Ardith. 2007. The Land Is Dry: Indigenous Peoples, Water, and Environmental Justice. In *Eau Canada: The Future of Canada's Water*, 303–319. Vancouver: UBC Press.
- Webster, Kara L., Frederick D. Beall, Irena F. Creed, and David P. Kreuzweiser. 2015. Impacts and Prognosis of Natural Resource Development on Water and Wetlands in Canada's Boreal Zone. *Environmental Reviews* 23 (1): 78–131.
- Wilson, Nicole J. 2014. Indigenous Water Governance: Insights from the Hydrosocial Relations of the Koyukon Athabaskan Village of Ruby, Alaska. *Geoforum* 57: 1–11.
- Wilson, Nicole, and Jody Inkster. 2018. Respecting Water: Indigenous Water Governance, Ontologies, and the Politics of Kinship on the Ground. *Environment and Planning E: Nature and Space* 1 (4). <https://doi.org/10.1177/2514848618789378>
- World Commission on Dams. 2000. *Dams and Development: A New Framework for Decision-Making*. London, England: Earthscan.
- Zarfl, C., A. E. Lumsdon, J. Berlekamp, L. Tydecks, and K. Tockner. 2014. A Global Boom in Hydropower Dam Construction. *Aquatic Sciences*. 77 (1): 161–170. <https://doi.org/10.1007/s00027-014-0377-0>