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ARTICLES

LEAKS IN THE SYSTEM: ENVIRONMENTAL FLOWS, ABORIGINAL RIGHTS, AND THE MODERNIZATION IMPERATIVE FOR WATER LAW IN BRITISH COLUMBIA

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I. INTRODUCTION: THE LEGACY OF COLONIAL WATER LAW¹

In the summer of 2012, during low flow conditions, Nexen Inc. withdrew approximately one third of the water from North Tsea Lake, a shallow lake in northeastern British Columbia (BC) in what is known in oil and gas circles as the Horn River Basin.² Just prior to that diversion of water, the

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¹ The term colonial water law in this paper means law enacted by the provincial or federal governments. The term is used in contrast to Indigenous water laws held and practiced by Indigenous communities as part of their governance within traditional territories.

² This event is described in *Chief Sharleen Gale in her own right and on behalf of the members of the Fort Nelson First Nation v Assistant Regional Water Manager*

Fort Nelson First Nation (FNFN) appealed the water licence that the Ministry of Forests, Lands and Natural Resource Operations (the Ministry) had issued to Nexen Inc. in May 2012. The licence authorized water diversions from North Tsea Lake between April and October of up to 60,000 cubic metres per day, and 2.5 million cubic metres of water per year.³ The five-year licence also prohibited water withdrawals when flow levels in the Tsea River had decreased to less than 0.351 cubic metres per second, and required Nexen Inc. to monitor actual use and report that use to provincial government staff. In challenging the issuance of the licence after a three-year application process, the FNFN argued that the Assistant Regional Water Manager (the Manager) made a series of errors during decision-making, including relying on incomplete and inadequate information, which placed the Tsea River watershed and FNFN treaty rights at risk. In addition, the FNFN submitted that the provincial Crown breached its duty to consult, in particular by failing to delineate the scope of the FNFN's treaty rights, and in its assessment of the potential impact of the water licence on those rights.⁴

In finding that “the License should be reversed because it is fundamentally flawed in concept and operation”, the panel members of the BC Environmental Appeal Board (EAB) criticized both the hydrological and ecological information on which the licence was based.⁵ The panel members concluded that the licence permitted a water diversion approach “that is not supported by scientific precedent, appropriate modelling, or adequate field data”, and that the withdrawal parameters “are arbitrary and have no basis in scientific theory or hydrometric modeling.”⁶ The panel members also found that the Manager had based his conclusion that water diversions under the licence would have no significant impacts on fish, riparian wildlife and the riparian environment on “incorrect, inadequate,

(3 September 2015), 2012-WAT-013(c), online: EAB <<http://www.eab.gov.bc.ca/water/2012wat013c.pdf>> at paras 102–10 [*Fort Nelson First Nation*].

³ *Ibid* at paras 87–89.

⁴ *Ibid* at paras 118–20. See also *ibid* at paras 130–37.

⁵ *Ibid* at para 337.

⁶ *Ibid*.

and mistaken factual information and modelling results.”⁷ Finally, the panel members also concluded that the licence should be reversed, meaning cancelled, because of a seriously flawed consultation process that included the Ministry failing to explain its consultation process and the proponent’s role in that process to the FNFN, and the Manager considering inaccurate and irrelevant information and not considering important information about the FNFN’s exercise of its treaty rights in the Tse’a Lakes watershed.⁸

While startling in effect, this appeal is about more than the effect of one water licence on the FNFN’s treaty rights in the Tse’a Lakes region in northeastern BC.⁹ It raises issues of how water licensing is implicated in the cumulative impacts of significant water withdrawals for one industry, in this case the relatively new and high-impact industry of hydraulic fracturing, or fracking, that is felt across the landscape.¹⁰ It is a challenge to the priority that water use for industrial activities would obtain over other activities in the watershed. It calls into question the scientific evidence upon which the provincial government bases water allocation decisions, and the inherent uncertainty in making predictions about impacts on the environment.¹¹ It

⁷ *Ibid* at para 338.

⁸ *Ibid* at para 490.

⁹ There are very few, if any, other EAB decisions where the panel members have cancelled a permit. Research for this paper did not locate any, and staff from the EAB could not point to any upon cursory review. See Email from Tara Hastings, Manager Mediation and Research, BC Environmental Appeal Board (9 June 2016) [on file with author]. In a comment about this case and the role of the EAB, professor and water law expert Nigel Bankes identifies four characteristics that make it important: the role it plays in “shining a light” on the operational and administrative practices of Ministries; the purpose of the *Water Act* and how broadly it can be used as an environmental assessment tool; the duty to consult in a treaty context; and the remedy to quash a significant water licence. See Nigel Bankes, “Provincial Environmental Appeal Boards: A Forum of Choice for Environmental (and First Nation) Plaintiffs?”, (11 September 2015), *ABlawg: The University of Calgary Faculty of Law Blog* (blog), online: <ablawg.ca/2015/09/11/provincial-environmental-appeal-boards-a-forum-of-choice-for-environmental-and-first-nation-plaintiffs/>.

¹⁰ *Fort Nelson First Nation*, *supra* note 2 at paras 168–71, 346, 353.

¹¹ *Ibid* at paras 182, 191–289, 296–336.

challenges the effectiveness of proposed adaptive management plans,¹² requirements for monitoring water use but not water levels and rate of diversion,¹³ and the enforcement of licence conditions and provincial government orders.¹⁴ Finally, it addresses, at length, the provincial government's responsibility to consult with a First Nation in recognition of their aboriginal and treaty rights, the foundation of which is a dependence on water.¹⁵ In short, the water licence appeal in *Fort Nelson First Nation* brings forward the constellation of issues facing the BC water law regime and the century-old principles upon which it is based, that the new 2016 *Water Sustainability Act* attempts to address.

Colonial water law in BC follows the evolved western North American tradition that is now characterized by state or Crown ownership and management of water.¹⁶ The Crown grants the beneficial use of a specific volume of water to landowners and owners of infrastructure, such as mines or hydroelectric facilities. Originating in the Wild West era or the "cowboy-throughput economy" of plentiful water at a time when one of the primarily policy motivators was to blanket the landscape with settlers,¹⁷ the skeleton

¹² See e.g. *ibid* at paras 70, 90, 115 (discussing the reliance placed on adaptive management as new information is generated).

¹³ *Ibid* at paras 290–95.

¹⁴ *Ibid* at paras 102–15.

¹⁵ *Ibid* at paras 428–94.

¹⁶ In the United States, the western water law tradition of prior appropriation applies in the states of Alaska, Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming. Hybrid regimes that include both prior appropriation and riparian rights are found in the states of California, Kansas, Mississippi, Nebraska, North Dakota, Oklahoma, Oregon, South Dakota, Texas, and Washington. See John W Johnson, *United States Water Law: An Introduction* (Boca Raton, FL: CRC Press, 2009) at 303. In Canada, western water law still encompasses the provinces of Manitoba, Alberta, and British Columbia. See David R Percy, *The Framework of Water Rights Legislation in Canada* (Calgary: Canadian Institute of Resources Law, 1988) [Percy, "Framework"]; Alastair R Lucas, *Security of Title in Canadian Water Rights* (Calgary: Canadian Institute of Resources Law, 1990); David R Percy, "Responding to Water Scarcity in Western Canada" (2005) 83:7 *Tex L Rev* 2091 at 2093 [Percy, "Water Scarcity"].

¹⁷ Joseph L Sax, "The Constitution, Property Rights and the Future of Water Law" (1990) 61:2 *U Colo L Rev* 257 at 257.

and much of the muscle of the original water management regime remains intact today. Indeed, somewhat uniquely in the realms of environmental management and law that allocate rights to use public resources, contemporary western Canadian water laws largely operate by the same legal principles and decision making structures as did the original provincial water legislation enacted around the beginning of the 20th century.¹⁸

As one would suspect, these legal artifacts and the principles upon which they are based are showing signs of wear and tear in a modern era where natural resources are not as plentiful and conflicts over water use are on the rise. Indeed, “the water allocation approaches in most of the country are outdated and may no longer be appropriate given the pressures and competing interests that now exist.”¹⁹

The socio-ecological and demographic context of water availability and use in BC is complex as land, and water uses are concentrated and hydrology is diverse. More than eighty percent of the population lives on less than three percent of the landscape, and it is on this same land that

¹⁸ For example, British Columbia’s original *Water Act* of 1909, SBC 1909 c 48, established the principles of the doctrine of prior allocation for the province, and is virtually unchanged in the *Water Act*, RSBC 1996, c483 [*Water Act*] and *Water Sustainability Act*, SBC 2014, c 15 [WSA]. The foundation is still largely intact in the other western provinces of Alberta under the *Water Act*, RSA 2000, cW-3, s 30 and Manitoba under *The Water Rights Act*, RSM 1998, c W80, CCSM c W80, ss 8–9. Saskatchewan operated under a prior allocation doctrine until 1983’s *Water Corporation Act* SS, 1983–84 c W-4.1 did away with licence priority in favour of the Crown corporation management and determination of priority on a regional watershed basis. The current Saskatchewan legislation is *The Water Security Agency Act*, SS 2005, c W-8.1. See also Percy, “Framework”, *supra* note 16; Kristy Pozniak, “Indian Reserved Water Rights: Should Canadian Courts ‘Nod Approval’ to the Winters Doctrine and What are the Implications for Saskatchewan if they Do?” (2006) 69:1 Sask L Rev 251.

¹⁹ Canada, National Round Table on the Environment and the Economy, *Changing Currents: Water Sustainability and the Future of Canada’s Natural Resource Sectors* (Ottawa: National Round Table on the Environment and the Economy, 2010) at 20. For a contemporary discussion of these challenges, see Holly Doremus & A Dan Tarlock, *Water War in the Klamath Basin: Macho Law, Combat Biology, and Dirty Politics* (Washington, DC: Island Press, 2008). For Canadian dialogue, see Karen Bakker, *Eau Canada: The Future of Canada’s Water* (Vancouver: UBC Press, 2007); Percy, “Framework”, *supra* note 16; Percy, “Water Scarcity”, *supra* note 16.

farmers produce over 80 percent of BC's gross farm gate receipts.²⁰ This same landscape supports an internationally recognized wine industry, several of the most prominent salmon runs in the world, and earns BC the title of largest producer of blueberries in Canada. British Columbia also encompasses the only desert-like landscapes and the communities in which the most precipitation falls in Canada.²¹ Unlike some large watersheds in the Prairie provinces where a handful of irrigation districts control most of the allocated water, in BC there are 44,000 licences on 17,000 surface water sources.²² Those numbers underscore the complexity of water management in BC and the challenge that a geographically and hydrologically diverse province poses.

Until the last few decades of the 20th century most followers of water policy would have said that there was little concern about water management in BC due to the relative abundance of water and small population. However, over the past decade, recent decisions of the Environmental Appeal Board (EAB) and courts in BC are demonstrating that the regime established by the 106-year-old BC *Water Act* is suffering from similar shortcomings or wear and tear that academics, policy institutes and governments from both Canada and the US have identified as weaknesses of western water law.²³ These shortcomings relate to the inability to adapt water rights in changing socio-ecological and economic watershed contexts and thus to respond to “new” needs for water, which are

²⁰ Barry E Smith, *Planning for Agriculture, resource materials* (Burnaby, BC: Provincial Agricultural Land Commission, 1998) at I–5, using 2001 Statistics Canada data.

²¹ The desert-like landscapes with very low precipitation are around the Thomson and Okanagan Valleys, which are just over 400 kilometres from the Lower Mainland in the coastal temperate rainforest zone. Vancouver receives over 1100 millimetres of precipitation per year. See Statistics Canada, “Weather Conditions in Capital and Major Cities (precipitation)”, (12 November 2007), online <www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/phys08a-eng.htm>.

²² British Columbia, Ministry of Environment, “British Columbia’s Water Act Modernization: Discussion Paper” (Victoria, BC: Ministry of Environment, 2010) at 20 [BC, “Discussion Paper”]; Linda Nowlan & Karen Bakker, *Delegating Water Governance: Issues and Challenges in the BC Context* (Vancouver, BC: University of British Columbia Program on Water Governance, 2007) at 43.

²³ *Water Act*, *supra* note 18.

typically longstanding but unacknowledged interests in healthy hydrology (such as environmental flows for fish and aboriginal interests in water) or changing community priorities.

In recognition of these emerging issues, the Province of B.C. embarked on a five year *Water Act* modernization project in 2009 and canvassed many of these problems in the discussion papers and proposals associated with the public engagement aspect of the water law reform initiative.²⁴ The process culminated in 2014 with the provincial government enacting the *Water Sustainability Act* (WSA),²⁵ which became law on 29 February 2016.²⁶ While the WSA maintains the structure of western water law, it attempts to address the most prominent features of it that are contributing to conflicts in water use and management in BC.

The purpose of this paper is to describe how the water law and management regime in BC under the longstanding provincial *Water Act* exhibited signs of distress, and to evaluate whether the new WSA can address these issues. In the context of contemporary water law reform, the question is whether the WSA adequately responds to the weaknesses of the water law regime in BC such that conflicts between those relying on water—the environment, indigenous communities, and water users—can be avoided and managed under the new regime.

This inquiry takes place within the larger context of changing hydrology and increasing water shortages where the efficient use of water and water for nature are top-of-mind for policy and lawmakers:

When there is insufficient water to accommodate all actual and potential uses of water, both consumptive and non-consumptive, a primary concern must be whether a water law system does anything to encourage the

²⁴ BC, “Discussion Paper”, *supra* note 22; British Columbia, Ministry of Environment, “British Columbia’s Water Act Modernization: Policy Proposal on British Columbia’s New Water Sustainability Act”, (Victoria, BC: Ministry of Environment, 2010), online: <www2.gov.bc.ca/gov/content/environment/air-land-water/water> [BC, “Policy Proposal”]; and British Columbia, Ministry of Environment, *A Water Sustainability Act for B.C.: Legislative Proposal* (Victoria, BC: Ministry of Environment, 2013) [BC, “Legislative Proposal”].

²⁵ WSA, *supra* note 18.

²⁶ BC Reg 36/2016.

efficient use of water, or, on the contrary, whether it favours wasteful practices. The second linked concern is to inquire whether water law provides an adequate level of environmental safeguards for the purpose, for example, of maintaining minimum levels of instream flow for the adequate functioning of the eco-system.²⁷

Part 2 of this paper sets out four areas where the BC water law and management regime is exhibiting weaknesses. These areas of weakness, chosen because courts and tribunals are pointing to them as areas of conflict, are: (i) the inability to adapt water entitlements under the “first in time, first in right” (FITFIR) priority system for water licences; (ii) no provision for ecological needs and environmental flows; (iii) administrative inertia underpinned by lack of information and resources; and (iv) a failure to recognize the aqueous basis of aboriginal rights such as the right to fish. In this paper FITFIR refers to the seniority of older water licences and their priority based on allocation under license, not priority based on the taking of the water itself.²⁸ Part 3 of this paper then describes the new WSA and evaluates whether the revised water management regime can address the failings of the current water law regime.

In summary, the WSA admirably addresses environmental flows, ecological needs, and the need to amend licenses over time, which can render the constraints of the priority of water licences largely irrelevant in low flow conditions. This set of reforms also makes it clear that water licenses are a use right for which no compensation is owed to a licensee when the provincial government changes their licence conditions or volume allocation, except in limited circumstances. However, the WSA does not contain specific reforms for provincial-level oversight and enforcement, nor

²⁷ David R Percy, “The Limits of Western Canadian Water Allocation Law” (2004) 14:4 J Envtl L & Prac 315 at 316–17 [Percy, “Limits”].

²⁸ I use the term “first in time, first in right” to refer to the Canadian principle of prior allocation, which is the right to take water as permitted under licence or other permission. Under prior allocation, seniority of water entitlements flows from the date at which the provincial or territorial government granted the permission. The term FITFIR originates from the U.S. concept of prior appropriation, which is securing the seniority of the right to use water the first time a person appropriates water from a particular water body. See Lucas, *supra* note 16 at 11–16; Percy, “Limits”, *supra* note 27 at 316–18.

does it acknowledge aboriginal interests respecting water. While the WSA is now one of the most detailed water management laws in Canada, its ability to address all the leaks in the system of outdated water law is uncertain due to the lack of direction for provincial administration of the regime, and the spectre of yet unquantified aboriginal interests in water across the province.

II. THE FALTERING BRITISH COLUMBIA WATER LAW REGIME

The statutory water law regime in BC developed over a 50-year period and incrementally extinguished most common law riparian rights.²⁹ It evolved from granting water rights to miners during the gold rush to achieving a water management regime for all users across the province that was based on principles of western water law.³⁰ The intent was to allocate water to

²⁹ The *Gold Fields Act* of 1859 was the first legislation in BC to provide for statutory water allocation. Over the next several decades different laws enabled the acquisition of water rights for different uses until the Provincial government enacted the first *Water Act*, *supra* note 18, in 1909 and empowered a Board of Investigation over a ten-year period to adjudicate water allocations and claims across the province to bring all water takings under one set of allocation rules and determine priority of licences. See generally Nigel Bankes, “The Board of Investigation and the Water Rights of Indian Reserves in British Columbia, 1909-1926” in Kerry Abel & Jean Friesen, eds, *Aboriginal Resource Use in Canada: Historical and Legal Aspects* (Winnipeg: University of Manitoba Press, 1991) at 219–45 [Bankes, “Water Rights”]; William S Armstrong, “The British Columbia Water Act: The End of Riparian Rights” (1962) 1:5 UBC L Rev 583; and British Columbia, Department of Lands, Forests, and Water Resources, *Annual Report of the British Columbia Water Resources Service 1969* (Victoria: Province of British Columbia, 1970) at 15.

³⁰ In a North American context these principles are diverting water either by permission under a license or through the rule of capture and making beneficial use of that water. Failure to use that water beneficially meant the rights holder risked losing that right by forfeiture under statute or the common law rule of abandonment. In times of shortage, those with more senior or older water rights took priority over more junior rights holders. The principles evolved to include the right to a specific volume of water diverted from a particular location. See e.g. Lawrence J MacDonnell, “Prior Appropriation: A Reassessment” (2015) 18:2 Water L Rev 228 at 242; Reed D Benson, “Alive but Irrelevant: The Prior Appropriation Doctrine in Today’s Western Water Law” (2012) 83:3 U Colo L Rev 675 at 680–682; Jennie L Bricker & David E Filippi.

prevent water use conflicts and to provide priority amongst users as security for investment in mining and agricultural infrastructure.³¹ In short, users had to understand how much water they could take, when they could divert it and for what purpose, and who had priority of use in times of shortage.³² This was accomplished by granting rights in perpetuity to use specific volumes of water, and a proviso that water had to be used for the use for which it was licensed.³³ The location of this licenced extraction was specified on a map, and consideration given to whether the water use purpose was consumptive, such that little or no water returned to the same hydrologic system (like irrigation), or non-consumptive, where most water would end up back in the stream or watershed (like hydroelectric power or domestic).

This regime has endured largely unchanged to the present. Although BC is hydrologically extreme, water management, until recently, has been relatively uncontroversial with infrequent high profile conflicts over water allocation and availability except in areas of very low precipitation such as the Okanagan Valley. Compared with the recurring droughts and litigation involving longstanding conflicts over water use in the western US,³⁴ the BC regime appears to be effectively allocating available water and resolving disputes between users.

“Endangered Species Act Enforcement and Western Water Law” (2000) 30:4 *Envtl L* 735 at 739–740; Percy, “Water Scarcity”, *supra* note 16 at 2094–96.

³¹ British Columbia, Department of Lands, Forests, and Water Resources, *Annual Report of the British Columbia Water Resources Service 1963* (Victoria: Province of British Columbia, 1964) at 13 [BC, *Water Resources Service*].

³² In the BC context the term “divert” means to take water. In other jurisdictions it can mean to move water from one watershed to another. The *WSA*, *supra* note 18 at s 1, defines “divert” as meaning to cause water in a stream to leave the stream channel and water in an aquifer to leave the aquifer, including to extract or impound that water.

³³ BC, *Water Resources Service*, *supra* note 31 at 13–14. For a contemporary plain language summary of this approach see BC, “Discussion Paper”, *supra* note 22 at 20.

³⁴ See e.g. the longstanding conflict in the Klamath Basin of northern California and southern Oregon where one author notes that “[w]idespread water over-appropriation and short-sighted water mismanagement has been the rule rather than the exception”. Glen Spain, “Dams, Water Reforms and Endangered Species in the Klamath Basin” (2007) 22:1 *J Envtl L & Litig* 49 at 53. See also Doremus & Tarlock, *supra* note 19.

However, this conflict-free era is ending. There is increasing evidence that the water management system is showing signs of faltering. In the arid Okanagan watershed, 235 of 300 streams are over allocated.³⁵ The Minister of Environment was forced to issue an order to cease taking water in 2009 to a water licence holder who refused to voluntarily reduce withdrawals when low flow conditions were dangerous for fish.³⁶ The well-licensed Cowichan River on the east coast of Vancouver Island has seen chronically low flows over the past decade such that there are regular accounts of volunteers trucking salmon up the River to spawn.³⁷ Finally, some municipal water supplies are experiencing shortages. For example the Town of Tofino

³⁵ Diana Allen, “Understanding Threats to Groundwater in Okanagan Basin: Vulnerability and Sustainability” (Presentation delivered at the Ground water in the Okanagan Symposium, 23 January 2007), as quoted in Nowlan & Bakker, *supra* note 22 at 50. The term “over allocation” means that the government has granted licenses or water users have rights to divert more water volume than is available for diversion. Generically, it is “the total rights to water exceeding the renewable supply of water.” See Elizabeth H Richards, *Over-Allocation and the Doctrine of Prior Appropriation: Water Rights Settlement Agreements in New Mexico*, PhD Thesis, Stanford University (Ann Arbor, MI: UMI Microform 3332913, 2008) at 121. The magnitude of potential limitations is evident in a 2010 Ministry of Environment figure that 5000 water sources in BC are identified as having restrictions or water shortages. See BC, “Discussion Paper”, *supra* note 22 at 3.

³⁶ *Fish Protection Act*, SBC 1997, c 21, s 9 [*Fish Protection Act*]. The order, in effect for 13 days, required the Quilchena Cattle Company to cease diverting water for irrigation purposes from the Nicola River pursuant to specific water licences when the flow of water was less than 0.35 cubic metres per second: British Columbia, Ministry of Environment, *Order of the Minister of Environment Fish Protection Act* (17 September 2009) [on file with author]. The Minister of Forests Lands and Natural Resource Operations issued second and third orders under section 9 on 31 July and 2 September 2015 for the Coldwater River. See British Columbia, Ministry of Forests, Lands and Natural Resource Operations, News Release, “Water use reduction order reinstated for Coldwater” (2 September 2015), online: <news.gov.bc.ca/releases/2015FLNR0263-001430>. The legislature renamed the *Fish Protection Act* in 2016 the *Riparian Areas Protection Act*, SBC 1997, c 21, with most of the provisions of the *Fish Protection Act* now contained in the *WSA*, *supra* note 18.

³⁷ “Cowichan Area Faces Water Crisis After Prolonged Dry Weather”, *Times Colonist* (2 August 2014), online: <www.timescolonist.com>; Peter Rusland, “Fishing Stopped on Cowichan River as Chinook-Salmon Rescue Starts”, *BC Local News* (5 October 2012), online: <www.bclocalnews.com> [BCLN].

ordered tourism-based businesses to cease using water in the summer of 2006 due to severe water shortages.³⁸

Evidence that BC's longstanding *Water Act* and its administration are no longer maintaining a functional water management regime can be found in the conflicts pursued through the BC EAB and courts. While there is remarkably little jurisprudence dealing with the *Water Act*,³⁹ the EAB's function as an administrative tribunal is the first order of appeal by affected parties of certain decisions under the *Water Act*. These decisions provide a lens into the operation of the water management regime in BC and highlight the challenges arising from its structure. Evidence presented during EAB and court hearings, and comments by panel members and judges point to the weaknesses in the *Water Act* regime.

Using the four weaknesses BC's water law is exhibiting—inflexible priorities for water use values and inability to adapt water licences, little recognition of ecological flows, a strained administrative structure, and no acknowledgement of aboriginal interests in water itself or as an incident to recognized aboriginal rights—this part (i) explains the statutory bases for water management and governance in BC, (ii) sets out the critiques of this approach that manifest as weaknesses in the BC water law regime, and (iii) presents evidence from EAB and court decisions that support these critiques and demonstrate the weaknesses of the statutory regime.

Before turning to the first weakness, it is useful to present the basic structure of water law under the *Water Act*, which is continued under the *WSA*. The provincial Crown asserts ownership over water flowing in

³⁸ "Visitors Scramble as Water Shortage Shuts Tofino Businesses", *CBC News*, (30 August 2006), online: <www.cbc.ca>; "Taps Run Dry in Tourist Town Tofino", *The Globe and Mail*, (29 August 2006), online: <www.theglobeandmail.com>.

³⁹ A review of appeals to the Environmental Appeal Board over the past twenty-two years (1993-2015) that involve the *Water Act* yielded 175 matters. Examples of the paucity of appeals under the *Water Act* dealing with water use that found their way into the BC courts can be seen in the numbers over the past seven years: one each in 2015 and 2014; two in 2013; one in 2012; none in 2011; and one in each of 2010 and 2009 (as yielded by searching Westlaw "water act").

streams and ground water.⁴⁰ Diverting water from a stream is prohibited without a licence except for fire suppression, domestic and mineral prospecting purposes.⁴¹ Categories of users may obtain licences to divert water,⁴² and those licences are attached or appurtenant to land, a mine or an “undertaking”.⁴³ These qualified entities are:

- An owner of land or a mine;
- A holder of a power utility permit (a certificate of public convenience and necessity);
- A local government;
- The governments of BC or Canada;
- An organization administering Crown land or a mine on Crown land;
- Water districts established by provincial law; and
- BC Hydro.⁴⁴

There are no freestanding water licences. Rather, licences transfer with the appurtenant land or work when it is sold,⁴⁵ or must be formally transferred, by application to the provincial government, or to another appurtenant parcel of land or undertaking.⁴⁶ This inability to transfer water entitlements as separate from a physical undertaking reflects a licence’s

⁴⁰ *Water Act*, *supra* note 18, s 2; *WSA*, *supra* note 18, s 5. The assertion of ownership over ground water is found in the *Water Protection Act*, RSBC 1996, c484, s 3(2), as repealed by BC Reg 35/2016.

⁴¹ *Water Act*, *supra* note 18, s 4; *WSA*, *supra* note 18, s 6(1). The domestic use and mineral prospecting right to take water without a licence is only available for unrecorded or unlicensed water. See *Water Act*, *supra* note 18, s 42; *WSA*, *supra* note 18, s 6(2)–(3). The *WSA* also permits the unlicensed use of water for flow tests at s 6(2)(b). The *Water Act* did not require licensing for ground water, although it provided for its application to ground water at s 1.1. As discussed below, the *WSA* requires ground water licences for non-domestic users at ss 6(1), 140.

⁴² *Water Act*, *supra* note 18, s 7; *WSA*, *supra* note 18, s 9.

⁴³ *Water Act*, *supra* note 18, s 13; *WSA*, *supra* note 18, s 20(1)–(2).

⁴⁴ *Water Act*, *supra* note 18, s 7; *WSA*, *supra* note 18, s 9.

⁴⁵ *Water Act*, *supra* note 18, s 16; *WSA*, *supra* note 18, s 25.

⁴⁶ *Water Act*, *supra* note 18, s 19; *WSA*, *supra* note 18, s 20(1)–(2).

specificity to a particular water supply and point of diversion.⁴⁷ The right to use water is limited to the purposes enumerated in the *Water Act*, being conservation, domestic, industrial, irrigation, land improvement, mineralized water, mining, oil and gas, power, storage and waterworks.⁴⁸ Water licensees must pay annual rental fees for their water entitlement,⁴⁹ and non- or partial-use for more than three years can result in suspension or cancellation of all or part of the licence volume.⁵⁰ The only other way to cancel a licence is if a licensee fails to adhere to the Act or regulations, licence conditions or orders of water officials.⁵¹ Designated officials, such as the Comptroller of Water Rights, Water Officer or Engineer, have extensive powers to make orders about the use of water,⁵² and approvals are required for making changes in and about streams.⁵³

Finally, conflict resolution in times of water shortage primarily relies on a licence's precedence over other licences, which depends on the age of the licence. More senior or older licence holders may take water in priority to anyone who holds a more junior or recent licence.⁵⁴ In the rare circumstance where two licences hold the same date on the same watercourse, priority is

⁴⁷ Percy, "Limits", *supra* note 27 at 319.

⁴⁸ *Water Act*, *supra* note 18, ss 1, 7; *WSA*, *supra* note 18, ss 1, 2, 20(3)(c). Under the *Water Act* licences could allow up to three water use purposes (s 7) but there is no limit under the *WSA* (s 20(3)(c)).

⁴⁹ Schedule A of the *Water Regulation*, BC Reg 204/88 listed the rates under the *Water Act*. Water rates are based on the purpose for which the water is used. See *Water Act*, *supra* note 18, s 23(2)(c). The *Water Sustainability Fees, Tariffs and Charges Regulation*, BC Reg 37/2016 sets out the applicable water rentals under the *WSA*, *supra* note 18, ss 118(1), 125.

⁵⁰ *Water Act*, *supra* note 18, s 23(2)(a); *WSA*, *supra* note 18, s 94(1)(g).

⁵¹ *Water Act*, *supra* note 18, s 23(2). The grounds for cancellation are expressed more explicitly under the *WSA*, *supra* note 18, s 94(1), and there are several mechanisms for adapting water entitlements under the *WSA* as discussed in Part 3.

⁵² *Water Act*, *supra* note 18, s 88; *WSA*, *supra* note 18, s 93 (engineers and officers are given broad authority to inspect and regulate works, order the restoration of streams, order the installation of measuring devices, and prohibit activities such as depositing substances into a stream).

⁵³ *Water Act*, *supra* note 18, s 9; *WSA*, *supra* note 18, s 11.

⁵⁴ *Water Act*, *supra* note 18, s 15; *WSA*, *supra* note 18, s 22.

determined by the licence's purpose and where it falls in the ranking of statutory purposes.⁵⁵ It is this priority principle of water law that critics highlight as a weakness that imposes rigid rules that stifle innovation in the adaptation and management of water use over time.

A. PRIORITY OF USE: INFLEXIBLE AND MALADAPTIVE LICENCES

The precedence of older water licences to use water in priority over newer licences in the same stream or area of hydrological connectivity is known as the principle of prior appropriation or allocation, and more commonly referred to as "first in time, first in right".⁵⁶ Although FITFIR is often discussed as if it is the only limitation on the taking of water,⁵⁷ all authorizations to use water are typically also subject to other limitations. In BC those additional limitations have been:

- The Water Act;
- Regulations under the Water Act;
- Terms of the licence; and
- Orders of the comptroller of water rights and engineers.⁵⁸

⁵⁵ *Water Act*, *supra* note 18, s 15(2). This hierarchy, from highest to lowest rank, is as follows: domestic, waterworks, mineral trading, irrigation, mining, industrial, power, hydraulicking, storage, conservation, conveying and land improvement purposes. It is important to note that this ranking would apply in virtually no circumstances. Under the *WSA*, *supra* note 18, s 22(7), slight changes make the priorities domestic, waterworks, irrigation, mineralized water, mining, industrial, oil and gas, power, storage, conservation and land improvement. Note the addition of the oil and gas purpose.

⁵⁶ See the discussion of these concepts in note 28.

⁵⁷ For example, many of the submissions from farmers or agricultural organizations to the Ministry of Environment during the *Water Act* modernization process emphasized retaining FITFIR. See e.g. the British Columbia Agriculture Council, "That the First in Time First in Right (FITFIR) allocation system be maintained in a modernized *Water Act*, as it is a fundamental principle in providing security of supply for agricultural water users" *Submission to Water Act Modernization Consultation Process*, (10 May 2010), online: <wali.bcac.bc.ca/wali/index.php?page_id=5>; HC Flatt, Flatt Ranch, "Retain First in Time, First in Right Model of Licensing" *Submission to Water Act Modernization Consultation Process*, (14 November 2013), online: <engage.gov.bc.ca/watersustainabilityact/what-weve-heard-2/>.

⁵⁸ *Water Act*, *supra* note 18, s 6; *WSA*, *supra* note 18, s 8.

While these “subject to’s” can modify the FITFIR rule, in practice the rule has, to date, largely overshadowed other licence limitations, as discussed below. Seniority is viewed as the paramount legal right and conflict resolver; when water is scarce the most junior licence holder must cease to take water to leave enough in a stream for more senior licensees to take their full allocation. This scenario of seniority repeats itself as water continues to diminish until only the most senior water licence holder is extracting water from a specified water body. Governments adopted this first-licensee-take-all principle to provide security of water use so that landowners, mine owners, and owners of other undertakings could invest in works with the certainty that the primary input of water would continue to flow. One often finds the FITFIR doctrine accompanied by water licences that have no expiry, no provision for review of licences and their conditions, and seniority that continues indefinitely with no systemic possibility for adaptation or amending water licences to meet changing ecological conditions.⁵⁹

Played out to its extreme, the impact of FITFIR could mean that businesses and schools must cease using water, vineyards and dairies stop watering grapes and cows, thus losing a crop or herd, and wetlands dry up as the senior licence holder takes their licensed allocation irrespective of the use to which they put the water. It is inconceivable that these scenarios would occur, and never have, as the provincial government can step in and exercise its authority to make orders under the Act. However, in the absence of an adequately responsive administrative state taking the initiative to make orders when conflicts arise, the inflexible nature of licence priority leads to three criticisms from water law scholars that are applicable in the BC context.

The first is that the priority system fixes entitlement to use water at a moment in time and does not provide for adaptation as the availability of water fluctuates and as priorities for water use change in the social and

⁵⁹ BC, “Discussion Paper”, *supra* note 22 at 20. While licences can be amended on specified ground in BC, the *Water Act* did not provide for changing the amount of water permitted under licence except to correct an error. See *Water Act*, *supra* note 18, s 18(1). I use the term “adaptation” as the ability in law to change licenced entitlements as ecological and other conditions change.

economic context of a watershed.⁶⁰ The purposes for which licensees hold the oldest water licences may no longer be high value uses yet they can trump other ecologically, socially or economically important uses. At minimum, there is no balancing of the importance of different uses over time through adaptation of licence conditions. An example of this scenario is the Minister of Environment's first cease taking water order ever issued pursuant to the *Fish Protection Act*.⁶¹ The order targeted a senior water licensee who refused to curtail consumption at a time of very low flow in September 2009 that threatened the kokanee salmon population.⁶² Ministry of Environment staff had requested water licensees to voluntarily curtail water consumption, primarily irrigation, and most had complied with the request. However, the most senior licensee, using water to irrigate hay, doggedly relied on its FITFIR rights until administrative enforcement was required to save the salmon.

Although the *Water Act* modified the pure application of FITFIR by allowing short-term administrative interventions, and licences themselves can establish ecological and other conditions under which licence entitlements are suspended, FITFIR is the paramount principle on which water licensees and Ministry staff rely. Evidence of this is omnipresent in

⁶⁰ Jonathan H Adler, "Water Rights, Markets, and Changing Ecological Conditions" (2012) 42:1 *Envtl Law* 93 at 102; A Dan Tarlock, "Prior Appropriation: Rule, Principle or Rhetoric?" (2000) 76:4 *NDL Rev* 881 at 885–887 [Tarlock, "Prior Appropriation"]; Michael Toll, "Reimagining Western Water Law: Time-Limited Water Rights Permits Based on a Comprehensive Beneficial Use Doctrine" (2011) 82:2 *U Colorado L Rev* 595 at 608–09.

⁶¹ *Fish Protection Act*, *supra* note 36, s 9.

⁶² Canada, Ministry of the Environment, "Water Use Reduction Order to Protect Fish Populations", Informational Bulletin 2009ENV0020-000367 (Kamloops: Ministry of Environment, 18 September 2009). The four licences named in the order date from 1871, 1906, and 1926. British Columbia, Department of Lands, Final Water Licences 6497, 6498, and 6499 issued to LP Guichon et al [on file with author]. British Columbia, Department of Lands, Final Water Licence 9600 issued to Guichon Ranch [on file with author], available online: <archive.news.gov.bc.ca/releases/news_releases_2009-2013/2009env0020-000367.htm>.

EAB decisions,⁶³ statements from the Ministry of Environment,⁶⁴ and statements from water licensees.⁶⁵ Even if administrative action responds to changes in local conditions, the suspension of licence priority by order expires. Unlike other natural resources, there is no systemic evaluation of, or planning for, changes in hydrology and ecosystem conditions that interact with a watershed community's water use norms.

The second criticism of the priority system is that it impedes the efficient use of water.⁶⁶ As hydrology, technology, and industry standards change, there is no ability or need to modify how or how much water is used under licences as FITFIR simply permits more senior (older) licences to take water ahead of junior licences when there is not enough water for all licensees. There is no rationalization of water uses over time; senior licensees are beholden only to the principle that they must use their water according to the *Water Act*, regulations, and orders of provincial government staff. This inability to adapt licences in keeping with

⁶³ See e.g. BC Environmental Appeal Board decisions where the Board answers allegations of insufficient water by noting that older water licences have precedence under s 15 of the *Water Act*, *supra* note 4, such as *Sawada v Farrell* (9 July 1991), Appeal No. 91/1, online: BCEAB <www.eab.gov.bc.ca/water/91_1.pdf>; *District of Lake Country v Assistant Regional Water Manager (Jeffrey and Yvonne Goldstone et al, Third Parties; Okanagan Indian Band, Participant)* (13 November 2013), 2012-WAT-017(a) to 2012-WAT-030(a), online: BCEAB <www.eab.gov.bc.ca/water/wat-sm13.htm> [*District of Lake Country*]; *Southeast Kelowna Irrigation District v Assistant Regional Water Manager (Edward F Lawrence; Brian and Kimberley McDivitt, Third Parties)* (31 May 2013), 2012-WAT-016(a) & 2012-WAT-031(a), online: BCEAB <www.eab.gov.bc.ca/water/2012wat016a_031a.pdf> [SEKID].

⁶⁴ Various documents prepared by the Province of British Columbia during the *Water Act* modernization process reinforced adherence to and support for the FITFIR system. See BC, "Discussion Paper", *supra* note 22 at 20; BC, "Policy Proposal", *supra* note 24 at 10.

⁶⁵ See e.g. the submissions to the *Water Act* Modernization process from the BC Milk Producers Association (30 April 2010) at 2 [on file with author], the BC Agriculture Council (12 May 2010) at 6 [on file with author], and BC, Agricultural Council, *supra* note 57.

⁶⁶ Ray Huffaker, Norman Whittlesey & Joel R Hamilton, "The Role of Prior Appropriation in Allocating Water Resources in the 21st Century" (2000) 16:2 *Int'l J Water Resource Development* 265 at 267–268; Percy "Limits", *supra* note 27 at 319; MacDonnell, *supra* note 30 at 286, 303.

technological innovation and community values, coupled with the requirements to use water or risk losing the allocation,⁶⁷ effectively create a disincentive for water conservation and efficient use.

The third critique of FITFIR is that a water management regime that relies on inadequate information about real time flow conditions and may require an administrative response when conflicts in water use arise, such as to order junior licensees to cease taking water, provides a false or illusory legal guarantee. Although senior licensees have priority, if there is not enough flow from which water may be taken because of changing hydrology or an inadequate administrative response, the priority of licences is irrelevant. This inability to divert water according to law and under licence, known as paper water rights (versus wet water rights where there is actual flow available to be diverted), has significant economic impact. Seniority of water rights may be worthless in the context of larger processes underway in the watershed, like urbanization, climate change or activities on the Crown land base that fall outside of management under the *Water Act*. At the same time, the government agency that grants licences can over-allocate water sources and inadequately enforce FITFIR such that on a day-to-day basis more seniority means little when streamflow is low.⁶⁸

This third shortcoming plays out in BC in two ways. Existing licence holders challenge the issuance of new licences on the basis that there is not enough water in a stream to allow additional water diversions. Regardless of the personal experience of, and evidence put forward by, current water users about the availability of water in their stream, upon appeal to the EAB the panel members invariably state that irrespective of new licensing the priority of the appellants' water rights protect their licences.⁶⁹ Regional

⁶⁷ *Water Act*, *supra* note 18, s 23(2)(a).

⁶⁸ In two recent appeals the EAB did not follow the senior water licence holders' submission that the watershed was fully recorded despite their credible evidence of water volumes and longstanding (i.e. 50 year) Ministry designation of the watershed as fully recorded. See *SEKID*, *supra* note 63 and *District of Lake Country*, *supra* note 63. In *Fulford Creek Holdings Ltd v British Columbia (Assistant Regional Water Manager)*, [2011] BCWLD 1022, 56 CELR(3d) 147 (EAB) there was a five year delay in enforcement action by the Ministry for improper use of water [*Fulford*].

⁶⁹ *SEKID*, *supra* note 63; *District of Lake Country*, *supra* note 63.

water managers may grant new licences on fully allocated water sources citing allocation capacity in the system due to careful management by the senior water licensee or that the new licence will have little impact on the system as a whole.⁷⁰ By ignoring system capacity or basing a decision on incomplete evidence, decisions about new licences undermine the legal force of licence priority and render it largely meaningless. Indeed, even absent any legislative mandate, staff evaluating water licence applications have testified that they must strike a balance between the rights of existing water licence holders, the protection of fish and fish habitat, and the needs of the applicant for a licence.⁷¹ Security of the FITFIR principle is moot in a modern context if over-allocation becomes the norm and perpetual administrative action is required to address conflicts between users and the environment.

On its own, licence priority is an outdated principle. It does not reflect the ecological and economic realities of water use in a watershed, and can no longer be relied on for the legal protection of security of water use that it promises. In particular, it is becoming increasingly awkward to stay true to FITFIR when there are inadequate base flows for fish and other baseline ecological conditions at some times of the year.

B. LACKING AN ECOLOGICAL BASELINE OR MINIMUM ENVIRONMENTAL FLOWS

Environmental flows are “[t]he quantity, timing, and quality of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems.”⁷² Until recently most legislation that regulates the diversion of water in Canada has

⁷⁰ *SEKID*, *supra* note 63 at paras 80–92.

⁷¹ *Sanders v British Columbia (Assistant Regional Water Manager)*, [2011] BCWLD 4693, 58 CELR (3d) 304 at para 23 (EAB) [*Sanders*].

⁷² “The Brisbane Declaration” (Declaration presented at the 10th International River symposium and International Environmental Flows Conference, Brisbane, 3–6 September 2007), online: <www.watercentre.org/news/declaration>. For a discussion of technical standards for environmental flow protection, see Brian Richter et al, “A Presumptive Standard for Environmental Flow Protection” (2012) 28:8 *River Research and Applications* 1312.

not established standards, either for decision-makers when considering applications for water licences or to be included as licence conditions, for the ecological health of riparian systems from which the Crown is licensing water extraction.⁷³ This is still one of the most consistent criticisms of water law.⁷⁴ For example, while the BC government indicates that the

⁷³ Linda Nowlan, “CPR for Canadian Rivers – Law to Conserve, Protect, and Restore Environmental Flows in Canada” (2012) 23:3 J Envtl L & Prac 237 at 260–67 [Nowlan, “CPR for Canadian Rivers”]. Although the Alberta *Water Act* requires the Minister to establish a strategy for the protection of the aquatic environment as part of water management planning, there is no regulatory standard that must be met according to section 8 of the Act. Ontario and Manitoba decision makers must take into account general criteria, such as minimum stream flows and habitat that depends on water flows and levels, when deciding on applications for licences. See Ont Reg 387/04, s 4(2)(1) pursuant to the *Ontario Water Resources Act*, RSO 1990, c O.40; *The Water Rights Act*, CCSM c W80, s 9.1(1). Quebec establishes specific instream flow parameters for fish by policy. See Faune et Parcs Québec, “Politique de débits réservés écologiques pour la protection du poisson et de ses habitats” (Avril 1999), online: <www.bape.gouv.qc.ca/sections/mandats/chute-allard/documents/DB1.pdf>. The ability to limit water diversions based on low flows or risk to aquatic ecosystems includes the provinces of: Québec, *Loi sur la qualité de l’environnement*, RSQ, c Q-2, ss 31.85-86; Manitoba, *The Water Rights Act*, *supra* note 18, s 9.2; Alberta, *Water Act*, *supra* note 18, s 97(1)(i).

⁷⁴ In the Canadian context, see Nowlan, “CPR for Canadian Rivers”, *supra* note 73; Bruce Pardy, “Seven Deadly Sins of Canadian Water Law” (2003) 13 J Env L & Prac 89 at 100; Percy, “Limits”, *supra* note 27 at 7; David R Percy, “Seventy-Five Years of Alberta Water Law: Maturity, Demise, Rebirth” (1996-1997) 35:1 Alta L Rev 221 at 237; Arlene Kwasniak, “Water Scarcity and Aquatic Sustainability: Moving Beyond Policy Limitations” (2009-2010) 13:2 U Denv W Law Rev 321 at 332–41. For federal and interjurisdictional perspectives, see Nigel Bankes, “Protecting Listed Aquatic Species under the Federal Species at Risk Act: The Implications for Provincial Water Management and Provincial Water Rights” (2012) 24:1 J Envtl L & Prac 19; Michael M Wenig, Arlene J Kwasniak & Michael S Quinn, “Water under the Bridge? The Role of Instream Flow Needs (IFNs) in Federal and Interjurisdictional Management of Alberta’s Rivers” in H Epp & D Ealey, eds, *Water: Science and Politics*, Proceedings of the Conference held by the Alberta Society of Professional Biologists on 25–28 March 2006, Calgary, Alberta (Edmonton: Alberta Society of Professional Biologists). Examples from the United States include Joseph L Sax, “The Limits of Private Rights in Public Waters” (1989) 19:3 Envtl Law 473; Charles F Wilkinson, “Aldo Leopold and Western Water Law: Thinking Perpendicular to the Prior Appropriation Doctrine” (1989) 24:1 Land and Water L Rev 1 at 16–18; David M Gillilan & Thomas C Brown,

consideration of environmental flows are part of every water licence decision,⁷⁵ under the *Water Act* there were no provincial legal requirements mandating minimum environmental flow volumes,⁷⁶ and until 2014 there was no transparent province-wide approach.⁷⁷ Likewise, the rigor with which environmental flows, and thus cumulative impacts, factor into licensing decisions is variable. Scientific information about ecosystem needs and environmental flow data varies widely across Canada.⁷⁸

In BC, not only is there little data on environmental flow needs but most licensees are not required to report water use let alone monitor their use, which leaves uncertainty in the Ministry of Environment's ability to accurately determine flow in a watershed or on a reach of a stream.⁷⁹ It is only recently that licence conditions have prohibited diverting water when the source volume goes below a specified amount of cubic metres per

Instream Flow Protection: Seeking a Balance in Western Water Use (Washington, DC: Island Press, 1997); Ruth Mathews, "Instream Flow Protection and Restoration: Setting a New Compass Point" (2006) 36:1 *Envl L* 1311 at 1319–2006; Nicole L Johnson, "Property Without Possession" (2007) 24:2 *Yale J on Regulation* 205 at 230–36.

⁷⁵ BC, "Discussion Paper", *supra* note 22 at 6.

⁷⁶ Indeed, in the case of *Mike and Jackie Austin v Regional Water Manager* (20 January 1998), 97-WAT-08, online: BCEAB <www.eab.gov.bc.ca/water/97wat08.pdf>, the EAB acknowledged that the Regional Manager had the authority to licence the complete diversion of a creek for beneficial use.

⁷⁷ Prior to 2014 the only transparent standard for determining environmental flows in BC was the mean annual discharge calculations of the Vancouver Island Region Water Allocation Plans, developed between 1991 and 2006. See British Columbia, "Water Allocation Plans", online: <www.env.gov.bc.ca/wsd/water_rights/wap/>. The Ministry of Environment approved the Environmental Flow Needs Policy in 2014 in anticipation of the *Water Sustainability Act* requiring all licensing decisions to consider environmental flows. See the most recent version, Ministry of Environment, "Environmental Flow Needs Policy", online: <www2.gov.bc.ca/assets/gov/environment/air-land-water/water/water-rights/efn_policy_mar-2016_signed.pdf>.

⁷⁸ National Round Table on the Environment and the Economy, *supra* note 19 at 55; Rob de Loë et al, *Water Allocation and Water Security in Canada: Initiating a Policy Dialogue for the 21st Century* (Guelph: Guelph Water Management Group, University of Guelph, 2007) at 14–15.

⁷⁹ See the text accompanying notes 100–07.

second, or water level in the case of lakes.⁸⁰ However, this condition is not attached to most licences, and if licensees are not required to report actual water diversion volumes and rates, then there is no systematic way to evaluate the ecological health of a riparian ecosystem when water levels fluctuate and at different times of year. Lack of data also prevents meaningful cumulative effects assessment.

An example of this uncertainty in water flow, ecological conditions and the impact of diversions is demonstrated in the 2005 EAB appeal *McClusky v British Columbia (Assistant Regional Water Manager)*. A clause in the licences at issue stated “. . . this licence does not authorize diversion and use when Hotel Lake falls below a minimum level determined by an engineer under the *Water Act*”.⁸¹ The tribunal noted that this minimum level had not yet been determined even though the licences dated from 1946 and 1972. This case concerned the transfer and use of an existing water licence, which would have resulted in a 70 percent increase in water diversions from Hotel Lake because historically the licensee had not diverted water under the licence and the Ministry of Environment had not cancelled the licence. The parties and tribunal paid considerable attention to the unknown impacts from this “new” diversion even though it fell within an unused licenced entitlement.

British Columbia was, until the enactment of the WSA, also the only province in Canada and one of the last jurisdictions in North America that did not regulate the taking and use of ground water,⁸² even in contexts

⁸⁰ See e.g. the licence conditions described at paragraph 25 in *SEKID*, *supra* note 63.

⁸¹ *McClusky v British Columbia (Assistant Regional Water Manager)*, [2005] BCWLD 5503, 16 CELR (3d) 76 at para 8 (EAB).

⁸² Linda Nowlan, *Buried Treasure: Ground water Permitting and Pricing in Canada* (Toronto: Walter and Duncan Gordon Foundation, 2005) at 39 [Nowlan, “Buried Treasure”]. Section 1.1 of the *Water Act* stated that Parts 2 and 3 of the Act did not apply to ground water. These parts addressed the licensing, diversion and use of water, and the regulation of water users communities. The Lieutenant Governor in Council was permitted, by regulation, to fix a day on which some or all of these Parts would apply to ground water. Part 5 of the *Water Act* and the *Ground Water Protection Regulation*, BC Reg 299/2004 provide standards for well safety and decommissioning, and also made it an offence to introduce foreign matter into a well (at

where there was clear interaction between surface water and groundwater sources and the extraction of groundwater could have a direct impact on the availability of surface water.⁸³ Many of the aquifers in BC are shallow and directly connected to rivers and streams that support salmon and aquatic habitat. During low flows at the end of the summer these aquifers provide stable, cool supplies of water into surface water sources.⁸⁴ This lack of ground water regulation and integration of decision making between hydrologically connected ground and surface water sources further called into question the validity of surface water licencing and its role in managing water flow.⁸⁵ If the provincial government denied an application for a surface water licence, the applicant could retire 30 metres from the water source's top of bank, sink a well, and extract water free of restrictions.⁸⁶

Finally, the *Water Act* permitted licences for conservation purposes since 1953,⁸⁷ with the intent of providing a licensing option for protecting fish and wildlife. Conservation and land improvement purposes comprise

s 79 of the Act). The *WSA*, *supra* note 18, contains these well protection provisions at ss 48–63.

⁸³ Rory Nathan & Richard Evans, “Ground water and Surface Water Connectivity” in R Quentin Grafton & Karen Hussey, eds, *Water Resources Planning and Management* (New York: Cambridge University Press, 2011) 46 at 46; TC Winter et al, “Ground Water and Surface Water: A Single Resource”, US Geological Survey Circular 1139 (last modified 11 January 2013), online: US Geological Survey <pubs.usgs.gov>; J Kinal & GL Stoneman, “Disconnection of Ground water from Surface Water Causes a Fundamental Change in Hydrology in a Forested Catchment in South-western Australia” (2012) 472–473 *J Hydrology* 14.

⁸⁴ BC, “Discussion Paper”, *supra* note 22 at 29.

⁸⁵ See e.g. *Minister of Indian Affairs and Northern Development and William Berscheid v Deputy Comptroller of Water Rights* (28 February 2000), 1999-WAT-004, online: BCEAB <www.eab.gov.bc.ca/water/1999wat04_05.pdf> (where the panel cancelled a conditional water licence after concluding that the existing works did not comply with the licence because they were drawing groundwater, and that the licensee had not made beneficial use of the water for 30 years).

⁸⁶ The sole basis on which to prohibit well drilling was pursuant to a provincial regulation that implements a Water Management Plan, *Water Act*, *supra* note 18, s 66(1)(a), or a Drinking Water Protection Plan, *Drinking Water Protection Act*, SBC 2001, c9, s 36(1)(a). There are no such plans in BC.

⁸⁷ *Water Act Amendment Act, 1953*, SBC 1953, c38, s 2.

only 1900 licences but account for 59 percent of non-hydropower water use.⁸⁸ Although extensive in volume, the specific wording of “conservation purpose” is water only for the protection of the ecological values of fish and wildlife, and requires either works or storage associated with the licence.⁸⁹ Environmental flows absent storage or other works, and for non-fish and wildlife values such as a wetland do not qualify for a water licence with a purpose of conservation. While the protection of fish and wildlife can protect many other ecosystem elements, these licences are clearly not intended to leave water instream for ecology. An example of this restriction can be seen in *Don Harvey v Ministry of Environment (Assistant Regional Water Manager)*, a 2004 EAB decision that involved an appeal by an applicant for a water licence for conservation purposes on Carre Pond west of Kelowna.⁹⁰ The licence application was in response to a neighbour’s application for a consumptive water licence on that water source and the applicant’s concern that any further consumptive use would compromise the ecology of the pond given the long history of water shortages in the watershed. Mr. Harvey sought to prevent others from diverting the water and to preserve it for use by wildlife. Ministry of Environment staff rejected both licence applications. In dismissing the appeal related to the conservation licence application, the EAB found that a licence for conservation purposes is required only when works, diversion or use is contemplated. In this case there was no use of the water, it was to be left in the water source, and therefore there was no basis on which to award the water licence.⁹¹

⁸⁸ Ministry of Environment, “Amount of Surface Water Authorized to be Used Annually in British Columbia”, online: <www2.gov.bc.ca/assets/gov/environment/air-land-water/water/water-rights/surface_allocation_volume_purpose.pdf>.

⁸⁹ “Conservation purpose” under s1 of the *Water Act* means the use and storage of water or the construction of works in and about streams for the purpose of conserving fish or wildlife. See *Water Act*, *supra* note 18.

⁹⁰ *Don Harvey v British Columbia (Assistant Regional Waste Manager)* (19 November 2004), 2004-WAT-008(a), online: BCEAB <www.eab.gov.bc.ca/water/2004wat008a.pdf>.

⁹¹ *Ibid* at 5.

In some regions in BC it appears that Ministry staff are approving water licences on overallocated water sources, even where there are conservation flow agreements between the primary water licence holders and other stakeholders like local governments,⁹² and the primary licensee is already curtailing water use for conservation purposes.⁹³ When challenged by senior licensees, the EAB accepts the Ministry's justification for issuing these new licences as being time-limited and for such small amounts that they do not have a "material effect" on the senior licence holder. The cumulative impacts are viewed as insignificant.⁹⁴ The EAB also does not find itself bound by Ministry policy to limit new licences to water sources only where there is unrecorded water available.⁹⁵ This logic, applied under different circumstances by the EAB, justifies overturning decisions of the Ministry of Environment that reject applications for water licences based on low flows and the need for conservation in favour of the applicant providing short-term evidence of adequate flow.⁹⁶

Lack of environmental flows and systematic attention to ecological conditions leads to the absurd situation in the Cowichan River watershed on the east coast of Vancouver Island in September and October where salmon are caught, trucked upriver, and released to spawn upriver of low flows.⁹⁷ Although there is additional water storage capacity in the

⁹² In the *SEKID* case, *supra* note 63 at paras 75–77, 89, the provincial decision maker was initially unaware of a conservation flow agreement established under a local government plan, the Mission Creek Water Use Plan. The water licence holder, an irrigation district, agreed to discharge flows to address ecosystem needs. It is not clear how this "agreement" conforms to provincial water law and SEKID's licence conditions.

⁹³ *SEKID*, *supra* note 63 and *District of Lake Country*, *supra* note 63.

⁹⁴ *SEKID*, *supra* note 63 at para 51.

⁹⁵ *Sanders*, *supra* note 71.

⁹⁶ In *Sanders*, *supra* note 71, despite the Ministry noting that Bridge Creek was fully recorded in 1981, the EAB granted a water licence to the applicant as it preferred the applicant's contemporary evidence of flow over three years to the Ministry's historical evidence.

⁹⁷ Skye Ryan, "Crews will begin trapping and trucking salmon on the Cowichan River Friday", *Chek News* (9 October 2014), online: <www.cheknews.ca>; *BCLN*, *supra* note 37; Lexi Baines, "N Cowichan antes up for fish salvage as river crisis mounts", *Cowichan Valley Citizen* (5 September 2014), online: <www.cowichanvalleycitizen>

watershed, upstream landowners have opposed holding back more water during the spring melt on the basis of interference with their riparian access.⁹⁸ So far, licensees have remained unrestricted in their diversion of water; the Ministry of Environment has not made an order to direct licensees to cease or reduce using water.

C. ADMINISTRATIVE INCAPACITY

Within the BC water law framework, water management staff have wide-ranging powers and discretion to make orders directing behaviour associated with water use, including interactions between water users and with regard to impacts on the environment. This flexible authority is the administrative antonym to the inflexibility of licence priority and other aspects of water law, and is intended to soften the pernicious results of the application of these principles if taken to their extreme. The ability to make site and licence-specific orders enables statutory decision makers to alter licensee behaviour when local conditions require it, such as in a season with low flows or where works are harming a stream, or suspend licence rights when licensees do not adhere to terms of the licence.

For example, under the BC *Water Act*, the comptroller of water rights and regional water managers can suspend or cancel licence entitlements for failure to comply with a term or condition of the licence or to make beneficial use of water, and for making a material misstatement or misrepresentation in a beneficial use declaration.⁹⁹ At an operational level, the scope of legislated authority enables the water officers and engineers to

.com>; Peter Rusland, "Fishing Stopped on Cowichan River as Chinook-Salmon Rescue Starts", *Cowichan Watershed Board* (5 October 2012), online: <www.cowichanwatershedboard.ca>.

⁹⁸ *Weir v British Columbia (Deputy Comptroller of Water Rights)*, 2013 CarswellBC 3285 (BC EAB).

⁹⁹ *Water Act*, *supra* note 18, s 23(2). Similar authority is found under the Alberta *Water Act*, *supra* note 18, s 55(1), Saskatchewan's *The Water Security Agency Act*, *supra* note 18, s 53(1), and Manitoba's *The Water Rights Act*, *supra* note 18, ss 15, 19(1).

make orders that include any conditions they consider advisable,¹⁰⁰ such as to:

- inspect, regulate or close any works;
- determine what is a beneficial use of water;
- order the restoration or remediation of any changes in and about a stream;
- order the installation, maintenance, and provision of data from a measuring or testing device;
- install measuring or testing devices and take measurements of or test water in a stream or groundwater; and
- regulate and make orders regarding the diversion, storage and use of water.¹⁰¹

While these broad powers and discretion could almost provide a complete answer to most of the criticisms levied at western water law in general and the weaknesses of the BC regime in particular, they rely on the responsiveness of the administrative state.¹⁰² They require water management staff to have credible information on the thousands of watercourses in the province and qualified staff and technical resources to apply to the issues that arise. This reliance on a responsive administration, which includes access to accurate hydrological data and the ability of staff to respond and carry out enforcement within the water law regime, is perhaps the area where the leaks in the system are most evident and accelerating.

Accurate data on the amount of water in most watersheds is unavailable. This is a Canada-wide problem that becomes more acute when one

¹⁰⁰ *Water Act*, *supra* note 18, s 88(2). Similar authority is found under the Alberta *Water Act*, *supra* note 18, s 99(1) and in the Manitoba *The Water Rights Act*, *supra* note 18, ss 4(1), 16.

¹⁰¹ *Water Act*, *supra* note 18, s 88(1).

¹⁰² There is a body of scholarship on implementation relating to the discipline of public administration, however, it is beyond the scope of this paper to approach this discussion using that framework. For the US critique in this area, see Tarlock, "Prior Appropriation", *supra* note 60.

considers the paucity of information on how much groundwater exists.¹⁰³ Coupled with few requirements for licensees to monitor and report actual water use, there is little credible and reliable water use data, and few provincial comprehensive information management systems.¹⁰⁴ As the primary scientist dealing with ground water and aquifer assessment at the Geological Survey of Canada queries:

Knowledge and information are the backbone of any water management scenario. Thus the question should be raised: how can we appropriately manage water resources in the absence of knowledge?¹⁰⁵

A review of BC's climate and hydrometric networks found them to be substantially smaller than the basic infrastructure suggested by the World Meteorological Organization.¹⁰⁶ In BC, except for the largest users such as BC Hydro, water licence holders are not required to monitor or report water use.¹⁰⁷

Evidence of lack of sufficient information appears in Court and tribunal decisions overturning water licences that are based on inadequate factual bases.¹⁰⁸ In addition to the cancelled Nexen Inc. licence described at the

¹⁰³ National Round Table on the Environment and the Economy, *supra* note 19 at 55; Alfonso Rivera, "How Well Do We Understand Ground water in Canada? A Science Case Study" in Nowlan, *Buried Treasure*, *supra* note 82 at 4–12.

¹⁰⁴ National Round Table on the Environment and the Economy, *supra* note 19 at 55. The Provincial Groundwater Observation Well Network in BC has only 186 wells, of which approximately two-thirds report data in real time. See British Columbia, "Provincial Groundwater Observation Well Network", online: <www2.gov.bc.ca/gov/content/environment/air-land-water/water/groundwaterwells/aquifers/groundwater-observation-well-network>.

¹⁰⁵ Rivera, *supra* note 103 at 10.

¹⁰⁶ British Columbia, Ministry of Water, Land and Air Protection, *British Columbia's Climate-Related Observation Networks: An Adequacy Review*, by M Miles & Associated Ltd (Victoria: BC Ministry of Water, Land and Air Protection, September 2003), online: <www.for.gov.bc.ca/hfd/library/documents/bib94904a.pdf>.

¹⁰⁷ BC, "Discussion Paper", *supra* note 22 at 20.

¹⁰⁸ See e.g. *Helmer v British Columbia (Assistant Regional Water Manager)*, [2012] BCWLD 3550, 2012 CarswellBC 940 (EAB) (where the tribunal concluded that there was insufficient information about hydrological connectedness and the effect of

beginning of this paper, other examples involve the EAB granting water licences previously denied by provincial government staff. For example, in *Sanders v British Columbia (Assistant Regional Water Manager)* the EAB granted a water licence on Bridge Creek, which the Ministry had labeled fully recorded in 1981.¹⁰⁹ The EAB based its decision on its own environmental flow calculations and three years of water flow data collected by the applicant. The EAB found a lack of Ministry evidence on the effect of downstream withdrawals and for why the Ministry had labeled the creek fully recorded. It also noted the Ministry's evidence that due to budget constraints the Ministry cannot conduct individual hydrological studies for each water licence application,¹¹⁰ and instead relies on the best information available. In granting a licence for a modified flow volume, the EAB responded to concerns about impacts on downstream licensees by imposing licence conditions requiring the applicant to monitor use and flow, and directing the Ministry to establish a reasonable and defensible low-flow level below which diversion of water is not authorized.

The *Sanders* decision highlights the inability of provincial staff to assess the ability of watercourses to sustain additional withdrawals and effectively manage water resources. The lack of current scientific data and staff capacity in government, and thus responsiveness of the administrative state for enforcement activities, is noted nationally¹¹¹ and by tribunals. In BC this gap in human resources manifests in significant delays in enforcing permit

diversions, as well as how much water licensees and others were diverting from the stream, at paras 82–86) [*Helmer*].

¹⁰⁹ *Sanders*, *supra* note 71.

¹¹⁰ While Ministry staff will require applicants to commission and pay for a hydrological study to determine flow rates as an ecological baseline, and water user withdrawal volumes in a specific section of a watercourse, this approach provides only a snapshot into hydrological function and licensee or user behaviour. It does not show changing hydrology nor give the Ministry comprehensive data on which to base future decisions. See e.g. *Helmer*, *supra* note 108 where Ministry staff refused to issue a new water licence absent a hydrological assessment paid for by the applicant due to the lack of information about the watercourse and ongoing conflict between users. Water management staff required an independent assessment by a registered hydrologist (*ibid* at para 27), which the EAB characterized as a “critical prerequisite” to further licensing: *ibid* at para 85.

¹¹¹ National Round Table on the Environment and the Economy, *supra* note 19 at 20.

conditions for making beneficial use of water, ensuring licenses adhere to volume entitlements, and the construction of illegal works.¹¹² Delays and lack of enforcement, in turn, weaken the security of older licences, and thus access to water, because staff are unable to address water shortages in a timely way. At the same time, decision-makers and adjudicators of water disputes still rely on the legal priority of seniority of licences and ability of staff to make orders, such as a stop irrigation order, to protect downstream licensees even though lack of resources prevents timely administrative action.¹¹³ More fundamentally, weak administrative capacity compromises environmental flow needs because there are typically no licensees or stakeholders with an interest in alerting water management staff to enforcement issues based on harm to ecological conditions.

Inadequate administrative action is exacerbated by lack of coordination with other decision-making processes on the Crown landscape.¹¹⁴ Provincial staff reviewing applications for oil and gas or forestry permits were not necessarily required to consider the impacts of their decisions on the water management regime governed by the *Water Act*. A stark example of this is the BC Oil and Gas Commission's authority to issue recurring short-term

¹¹² For example, *Fulford*, *supra* note 68, involved a five year delay between the submission of a beneficial use declaration by the licensee on a fully recorded stream and enforcement action by the Ministry. The Ministry staff's evidence was that the delay was due to "high workload and lack of resources": *ibid* at para 32. In *Helmer*, *supra* note 108, when characterizing several years of interaction between the parties the tribunal noted the lack of enforcement and water use and flow information, as well as the long delays in dealing with problems. See *ibid* at paras 85–86. It was explicit that the applicant had constructed unauthorized works and diverted water illegally over the course of several years. Finally, in *Anderson v British Columbia (Assistant Regional Water Manager)*, 2002 CarswellBC 2565(EAB) [*Anderson*] the appellants alleged an eight-year failure to make beneficial use of water by previous and current owners. See *ibid* at para 11.

¹¹³ For example, in *Sanders*, *supra* note 71, the Tribunal pointed to requiring the applicant to install a stream gauge to monitor flow levels and the potential for staff to issue stop irrigation notices as sufficient for protecting downstream users. See *ibid* at para 49.

¹¹⁴ BC, "Discussion Paper", *supra* note 22 at 7. The Policy Proposal for the WSA identifies the development of Water Objectives to be applied across the Crown landscape irrespective of decision-making regime. See BC, "Policy Proposal", *supra* note 24 at 7–9.

water permits.¹¹⁵ Another example involving long-term effects that change the hydrology of urbanizing watersheds is the daily land use decisions made by local governments. Development permit and subdivision approvals invariably increase the impermeable coverage in a watershed through the addition of roofs and paving, which intensifies the rate and volume of rainwater flows, and thus infiltration and availability of water, in a watershed.¹¹⁶ However, neither elected officials nor local government staff are required to consider hydrological entitlements or impacts when assessing applications for development or constructing local government works.¹¹⁷

Finally, virtually all of the administrative authority bestowed on water managers relates to site-specific issues. This structure of making individual orders has been characterized as “time-consuming, expensive, [and]

¹¹⁵ *Oil and Gas Activities Act*, SBC 2008, c36. Under section 8, the Oil and Gas Commission has all the powers to and responsibility for exercising a discretion, function or duty under a “specified enactment” and “specified provision.” Section 1 defined “specified enactment” as including the *Water Act*, and “specified provision” under the *Water Act* as an approval under section 8 (short term use of water), section 9(1)(a) (changes in and about streams), and section 26 (permits over Crown land). This approach, upheld in *Western Canada Wilderness Committee v British Columbia (Oil and Gas Commission)* 2014 BCSC 1919, 73 BCLR (5th) 21, is still current under the WSA.

¹¹⁶ See generally the approach recommended in Kim A Stephens, Patrick Graham & David Reid, *Stormwater Planning: A Guidebook for British Columbia* (Victoria: Province of BC, 2002) and Deborah Curran et al, *Groundwater Bylaws Toolkit* (Kelowna: Okanagan Basin Water Board, 2009).

¹¹⁷ In BC, part 14 of the *Local Government Act*, RSBC 2015, c 1 (ss 455–585) grants permissive authority to municipalities and regional districts to exercise land use authority. The references to substantive regulation of water in this part are found in relation to community plan content (s 473(1)(e)), runoff control (s 523), setbacks from floodplains (s 524(3)(b)), development permit areas for water conservation (s 488(1)(a)) and water conservation (s 488(1)(i)), prohibitions regarding the construction of structures or water infrastructure in hazardous areas (s 491(2)(b)), paying for water infrastructure (ss 506(1)(c), 506(6), 559(2)(a)) and subdivision where local government may require an applicant to supply “proof of water” or adequate domestic water availability before the local government will approve subdivision (s 506(7)). These are all discretionary powers and do not require local governments to consider the hydrological impacts of proposed land development.

confrontational”¹¹⁸ The decision-making is reactive; it responds to applications for diversion of water or specific circumstances that are not nested within a larger watershed-planning framework linked to land use. There is little focus on systemic issues or planning for changes in water use behaviour before a water shortages or pollution become acute. Water management plans under Part 4 of the *Water Act* were the sole comprehensive and potentially systemic planning and management tool,¹¹⁹ however the provincial government has not approved any water management plans in BC.¹²⁰ While water management plans have the potential to address some of the shortcomings of water law in BC through collaborative watershed-based planning, water management has not moved in that direction, instead focusing on permit application review and reacting to conflicts in water use. The impacts of administrative weaknesses and lack of long-term planning are enhanced when faced with First Nations asserting a duty to consult on Crown decisions that implicate aboriginal interests in water, particularly as water is incidental to the exercise of aboriginal rights.

D. ABORIGINAL INTERESTS IN WATER

The Indian reserved rights doctrine in the US, arising from a 1908 US Supreme Court case, has long recognized an implied federal reserve right to water in a sufficient amount to fulfill the purposes of Indian reservations.¹²¹

¹¹⁸ Nowlan, “CPR for Canadian Rivers”, *supra* note 73 at 240.

¹¹⁹ *Water Act*, *supra* note 18, ss 62–67. This authority dates from 2004 and was added to the *Water Act* with the enactment of the *Drinking Water Protection Act*, SBC 2001, c 9, s 97 and brought into force by the *Ground Water Protection Regulation*, BC Reg 299/2004.

¹²⁰ The Township of Langley completed a plan that was considered to be a statutory plan, however the Minister has not implemented it through regulation. See British Columbia, *Order of the Minister of the Environment: Ministerial Order No M 167*, 14 July 2006 [on file with author]; Inter-Agency Planning Team and Compass Resource Management Ltd, *Township of Langley Water Management Plan* (Langley: Township of Langley, 1999); Township of Langley, “Re: Water Sustainability Act” *Submission to Minister Mary Polak on the Water Sustainability Act*, (8 January 2014), online: <engage.gov.bc.ca>.

¹²¹ *Winters v United States*, 207 US 564, 28 S Ct 207 (1908).

This Winters Doctrine, as it is known, fits Indian water rights into the priority system by pegging seniority at the date of the creation of the reservation, which generally makes these rights the most senior in a watershed because the creation of most Indian reservations dates from the 1800's and early 1900's.¹²² Unlike other water entitlements, Indian reserve rights cannot be lost by non-use. Therefore, for over a century these senior rights have influenced colonial western water law in the U.S. and the judiciary has given them and their quantification considerable attention.¹²³

There is no Canadian legal principle that mirrors the sweeping application of the Winters Doctrine,¹²⁴ although in BC there is a complex history of federal-provincial wrangling over water rights for Indigenous

¹²² See Nathan Brooks, *Indian Reserved Water Rights: An Overview* (Washington, DC: Congressional Research Service, 2004) at 2.

¹²³ See e.g. *Arizona v California*, 373 US 546 at 601 (1963). See generally David H Getches “Defending Indigenous Water Rights with the Laws of a Dominant Culture: The Case of the United States” in Dik Roth, Rutgerd Boelens & Margreet Zwartveen, *Liquid Relations: Contested Water Rights and Legal Complexity* (New Brunswick, New Jersey: Rutgers University Press, 2005) 44; Jennele O’Hair, “The Federal Reserved Rights Doctrine and Practicably Irrigable Acreage: Past, Present, and Future” (1996) 10 *BYU J Public L* 263 (for discussion of state adjudication of Indian water rights).

¹²⁴ The Province of BC and the Dominion of Canada created an Indian Reserve Commission to establish Indian reserves and transfer those lands to the federal government. Although this Commission allotted water with the reserve lands in BC, a practice that was unique in Canada, the provincial government has always contested the authority of the Commission to make these allocations. This statement is made in each of the reports of the BC Ministry of Environment, Lands and Park’s *Aboriginal Water Rights Report Series*. See e.g. Diana Jolly, *First Nations Water Rights in British Columbia: A Historical Summary of the Rights of the Kamloops River First Nation* (Victoria: Ministry of Environment, Lands and Parks, 2001) at 3; Jaspal Gill, *First Nations Water Rights in British Columbia: A Historical Summary of the Rights of the Okanagan First Nation* (Victoria: Ministry of Environment, Lands and Parks, 1997) at 3; Elizabeth Lee, *First Nations Water Rights in British Columbia: A Historical Summary of the Rights of the Stone First Nation* (Victoria: Ministry of Environment, Lands and Parks, 2001) at 2. For a discussion of this legal history, see Kenichi Matsui, *Native Peoples and Water Rights* (McGill-Queen’s University Press, 2009) at 40–63. The author details how the Board of Investigation, tasked with defining water entitlements in BC, “invalidated” the water rights determinations of the Indian Reserve Commission, and no federal officials chose to litigate Indian water rights to pursue a *Winters*-like doctrine in Canada: *ibid* at 59–60.

communities.¹²⁵ It is beyond the scope of this paper to explore this legal history, but its contemporary expression is that the provincial colonial regime mediates First Nations' water entitlements through water licences. While section 35 of the *Constitution Act, 1982* acknowledges and affirms aboriginal rights,¹²⁶ courts have not ruled specifically on aboriginal rights to water in Canada to date.¹²⁷ First Nations have raised this possibility in a number of cases, examples of which are discussed below. Historic treaties do not contemplate specific entitlements to water,¹²⁸ and modern treaties address water entitlements from the perspective of future allocation potential under provincial water licence.

For example, in BC there are four modern treaties in effect with communities that rely on salmon as a primary food and cultural element, dating from 1999.¹²⁹ Notably, water allocation and stewardship are nested

¹²⁵ Bankes, "Water Rights", *supra* note 29 at 219–246; Matsui, *supra* note 124 at 40–63.

¹²⁶ *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (UK), 1982, c 11.

¹²⁷ There are a number of cases that tangentially address water, often in the context of an Aboriginal right to fish. However, the courts have not canvassed any claims of an Aboriginal right to water. See Merrell-Ann Phare, "Whose Water is it? Aboriginal Water Rights and International Trade Agreements", *Policy Horizons Canada* (2013), online: <www.horizons.gc.ca>. In *R v Lewis*, [1996] 1 SCR 921, 133 DLR (4th) 700, although a case on fishing rights, the Supreme Court of Canada rejected the *ad medium filum aquae* doctrine for First Nations part ownership of the streambed, which would presumably have included the water. The only case in Canada granting Aboriginal title is *Tsilhqot'in Nation v British Columbia*, 2014 SCC 44, [2014] 2 SCR 257 [*Tsilhqot'in*]. In that case, at the appellate court level the Tsilhqot'in explicitly excluded private land and underwater or submerged land from its claim. See *ibid* at para 9. Thus, the issue of the relationship between aboriginal title and water management remains unsettled.

¹²⁸ In BC there are only two older treaties covering a small portion of the province: Treaty 8 dating from 1899 involving First Nations in northeast BC; and the Douglas Treaties dating from 1850-1851 involving First Nations on southern Vancouver Island. They contain no explicit water rights. See Aboriginal Affairs and Northern Development Canada, *Treaty Texts – Douglas Treaties*, online: <www.aadnc-aandc.gc.ca>; Aboriginal Affairs and Northern Development Canada, *Treaty Texts – Treaty No. 8*, online: <www.aadnc-aandc.gc.ca>. See also Bankes, "Water Rights", *supra* note 29 at 221.

¹²⁹ The modern treaties that are in effect are with the *Nisga'a Final Agreement*, 27 April 1999, online: <www.nnkn.ca/files/u28/nis-eng.pdf> at 3.122–3.124 [*Nisga'a Agreement*]; *Tsawwassen First Nations Final Agreement*, 6 December 2007, online: <www.aadnc-aandc.gc.ca/DAM/DAM-INTER-BC/STAGING/texte-text/tfnfa_11>

within the colonial framework for water management.¹³⁰ These treaties reserve specific water volumes to the First Nation for allocation under licence to that First Nation's members and organizations. The parties rely on provincially-designated "available flow" for conservation, navigability and to satisfy existing water licences.¹³¹ On the face of these agreements, these calculation do not specifically consider the flow conditions necessary for the expression of the full range of Indigenous values such as water for ceremonial uses in a particular place, and First Nations have limited role in providing management oversight for how much water for fish is needed.¹³² The treaties also confirm that the Crown retains ownership of water,¹³³ that use of water will be in accordance with federal and provincial colonial law,¹³⁴

00100022707_eng.pdf> [*Tsawwassen Agreement*]; *Maa-Nulth First Nations Final Agreement*, signed on various dates 2008-2009, online: <www.aadnc-aandc.gc.ca/DAM/DAM-INTER-BC/STAGING/texte-text/mna_fa_mnafa_1335899212893_eng.pdf> [*Maa-Nulth Agreement*]; *Tla'amin Final Agreement*, 21 October 2011, online: <www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ-LDC/STAGING/texte-text/tla_1397237565325_eng.pdf> [*Tla'amin Agreement*]. There are also final agreements with the Yale and Lheidli T'enneh First Nations, but the membership of these Nations have not necessarily voted on these final agreements and the federal and provincial governments have not yet brought these treaties into force by legislation. See Aboriginal Affairs and Northern Development Canada, *Concluded Final Agreement Negotiations*, online <www.aadnc-aandc.gc.ca/eng/1402584983606/1402585060047>; BC Treaty Commission, *Treaties and Agreements in Principle*, online: <www.bctreaty.net/files/treaties-and-agreements-in-principle.php>.

¹³⁰ Most plainly, the *Tla'amin Agreement*, *supra* note 129, states "Storage, diversion, extraction or use of water and Groundwater will be in accordance with Federal and Provincial Law"; and "This Agreement does not alter Federal or Provincial Law in respect of proprietary interests in water": *ibid* at 7.1, 7.3.

¹³¹ *Nisga'a Agreement*, *supra* note 129 at 3.125; *Maa-Nulth Agreement*, *supra* note 129 at 8.4.2(e). See also definition of "Available Flow" at 282.

¹³² Most progressively, the *Tla'amin Agreement*, *supra* note 129 specifies monthly percentages for Available Flow for six watercourses in Chapter 7, Schedule 1. Groundwater withdrawal rates are to be negotiated in the future as stated in 7.21-7.24.

¹³³ *Nisga'a Agreement*, *supra* note 129 at 3.137; *Maa-Nulth Agreement*, *supra* note 129 at 8.1.3; *Tla'amin Agreement*, *supra* note 129 at 7.3.

¹³⁴ *Maa-Nulth Agreement*, *supra* note 129 at 8.1.1; *Tla'amin Agreement*, *supra* note 129 at 7.1, 7.20.

and that the Minister retains authority for managing fish, fish habitat and aquatic plants.¹³⁵

The Nisga'a Treaty acknowledges provincial government ownership and regulatory authority over water, and existing water licences remain in force. It provides a water reservation to the Nisga'a Nation of 300,000 cubic decametres of water per year (approximately one percent of the annual average flow of the Nass River) that can be converted to water licences with a priority date of 1996 for domestic, industrial and agricultural purposes.¹³⁶ The *Water Act* authorized the creation of this Nisga'a water reservation with a priority date of 1996, and prohibited the provincial government from cancelling it or authorizing its diversion and use as is allowable for other reservations of water.¹³⁷ The *Water Sustainability Act* contemplates similar authority for treaty First Nation water reservations.¹³⁸

The Maa-Nulth Treaty provides comparable allocations that establish a water reservation for each signatory First Nation that they can convert into water licences for domestic, agricultural and industrial uses with a priority date of October 2003.¹³⁹ There are no provisions relating to water allocation in the Tsawwassen Nation treaty, though the treaty secures their membership in the Greater Vancouver Regional District (GVRD), which

¹³⁵ *Maa-Nulth Agreement*, *supra* note 129 at 10.1.8. The treaty establishes a Joint Fisheries Committee that will make recommendations to Canada and the Maa-Nulth First Nations in respect of conservation that could significantly affect harvesting under a Maa-Nulth First Nation fishing right (at 10.4.8(c)). *Tla'amin Agreement*, *supra* note 129 at 9.4 and 9.5.

¹³⁶ *Nisga'a Agreement*, *supra* note 129 at 3.122–3.124.

¹³⁷ *Water Act*, *supra* note 18, s 44.1. Section 44.1 came into force in 2000 by BC Reg 137/00 under the *Nisga'a Final Agreement Act*, SBC 1999, c 2, s66 and is continued under the *WSA*, *supra* note 18, at s 41. The *Water Act* contemplated similar authority, in general, for treaty First Nation water reservations at s 44.01. Section 44.01 came into force in 2009 by BC Reg 51/11 under the *Maa-Nulth First Nations Final Agreement Act*, SBC 2007, c 43, s 29 and is continued in the *WSA*, *supra* note 18 at s 40.

¹³⁸ *WSA*, *supra* note 18 at s 40.

¹³⁹ *Maa-Nulth Agreement*, *supra* note 129. Chapter 8 deals with water allocation and groundwater. Section 8.4 establishes the water reservation and draw down through licensing. Chapter 10 "Fisheries" does not address water flows.

provides the right to participate in the Greater Vancouver Water District.¹⁴⁰ As a member of the GVRD, the Tsawwassen First Nation will pay for and receive regional services from the GVRD, including water services,¹⁴¹ and the provincial government will ensure that the Greater Vancouver Water District will supply water to the Tsawwassen First Nation on reasonable terms.¹⁴²

Under the colonial water management regime and outside of treaty, while there are many First Nations that are entitled to use water under provincial water licences for uses beyond domestic purposes,¹⁴³ particularly for irrigation, there are many for whom the licensing process failed to comprehensively capture their longstanding water appropriations.¹⁴⁴ In addition, as discussed above, licences are for extractive purposes only and do not protect the range of values and uses reliant on water flows acknowledged within the scope of aboriginal rights under section 35 of the

¹⁴⁰ *Tsawwassen Agreement*, *supra* note 129 at 17.1–17.2. The Tsawwassen First Nation appoints an elected member of the Tsawwassen Government as a director to the GVRD board (at 17.8–17.9).

¹⁴¹ *Tsawwassen Agreement*, *supra* note 129 at 17.11. All bylaws of the GVRD related to Core Mandatory Regional Services apply to the Tsawwassen First Nation and on Tsawwassen First Nation lands (at 17.13).

¹⁴² *Tsawwassen Agreement*, *supra* note 129 at 17.22.

¹⁴³ Between 1997 and 2001, the BC Ministry of Environment completed the *Aboriginal Water Rights Report Series*. The reports attempt to define the colonial water entitlements held by many First Nations in BC in reference to each Band's reserves, watercourses of significance and government action indicating a recording or affecting of water rights. These actions include allotments by the Indian Reserve Commissioners, determinations by the Board of Investigation under the *Water Act, 1914* of claims by the Department of Indian Affairs on behalf of First Nations and the subsequent issue of water licences, water licences granted pursuant to federal government or third party applications for water use on reserve, water licence amendments, and water allocations made by Orders in Council. See e.g. the reports listed in *supra* note 124. An electronic search for "Aboriginal Water Rights Report Series" returns 107 reports for individual First Nations.

¹⁴⁴ There are several cases of settlers obtaining water licences in priority to existing First Nations when the Board of Investigation and provincial government originally issued licences. See e.g. *British Columbia (Department of Indian Affairs) v British Columbia (Board of Investigation)*, 36 BCR 62, 1925 CarswellBC 150 (CA).

Constitution Act, 1982. At minimum under the colonial regime the regional water manager or other statutory decision maker may provide or require notice be given to a First Nation of an application for a water licence, or before making other statutory decisions if the First Nations' land or authorization would be "detrimentally affected".¹⁴⁵ On its face, this notice provision treats First Nations like any other stakeholder in the water management regime.

Outside of the four modern treaties, the colonial water management regime and aboriginal rights jurisprudence do not contemplate these unquantified aboriginal interests in water as the Winters' doctrine does in the U.S. In watersheds that are approaching the status of being fully allocated, or, as in the Okanagan, are fully allocated, a finding of a substantive aboriginal right to water pursuant to section 35 of the *Constitution Act, 1982* would have a significant impact on the water balance in a region. In addition, a recognition of aboriginal rights to water would likely move beyond extractive entitlements and include *in situ* rights that address adequate water flow incidental other aboriginal rights; for example, adequate flows for salmon to return to spawning grounds.¹⁴⁶

¹⁴⁵ E.g. under the *Water Act*, *supra* note 18, s 10(1)(b), the comptroller of water rights or regional water manager may have required a water licence applicant to give notice of the application. When considering applications to amend a licence or transfer its appurtenancy, notice must have been given to all those persons whose rights would be "injuriously affected": *ibid*, ss 18(1), 19(3)). The *WSA*, *supra* note 18, narrows this notice requirement by requiring the applicant to give notice to "any of the following whose rights the decision maker considers are likely to be detrimentally affected if the application is granted: an authorization holder; a change approval holder; an applicant for an authorization or change approval; a riparian owner; and a land owner whose land is likely to be physically affected if the application is granted": *ibid*, s 13(1).

¹⁴⁶ This idea was explored in Watershed Watch Salmon Society et al, *Fish Out of Water: Tools to Protect British Columbia's Groundwater and Wild Salmon* (Vancouver: Watershed Watch Salmon Society, 2009). Analogies include to *R v Sappier*; *R v Grey*, 2006 SCC 54, [2006] 2 SCR 686 where the court found that harvesting wood on specific sites for shelter and thus survival was part of an Aboriginal right. Extending this reasoning, a court could find that diverting water from or using it in a particular place for specific cultural or ceremonial purposes is an element of a practice, custom or tradition integral to the distinctive culture of an Aboriginal group. Water is also a necessary part of the means of subsistence, and vital to the life of Aboriginal peoples. See

First Nations are increasingly challenging the colonial water law regime's impact on existing aboriginal rights, for example the provincial government issuing water licences for water bottling,¹⁴⁷ hydraulic fracturing (fracking),¹⁴⁸ and domestic purposes based on a failure of the duty to consult.¹⁴⁹ First Nations are also opposing amendments or cancellation of their licences based on a failure to make beneficial use of water,¹⁵⁰ and challenging other Crown approvals involving the use of water.¹⁵¹

R v Adams, [1996] 3 SCR 101, 138 DLR (4th) 657; *R v Côté*, [1996] 3 SCR 139, 138 DLR (4th) 485; *R v Pamajewon*, [1996] 2 SCR 821, 138 DLR (4th) 216 at para 28; and *Mitchell v MNR*, 2001 SCC 33, [2001] 1 SCR 911 at para 12.

¹⁴⁷ *Harry v British Columbia (Assistant Regional Water Manager)*, 74 CELR (3d) 218, 2013 CarswellBC 431 (EAB) (objection to the commercialization of fresh water in the area, the water licence's impact on Aboriginal rights, and long-term environmental consequences).

¹⁴⁸ *Dickie v British Columbia (Assistant Regional Water Manager)*, 73 CELR (3d) 229, 2012 CarswellBC 3900 (EAB) (appeal of a water licence for storage, for water use for hydraulic fracturing, based on failure to uphold the Crown's duty to consult and assess the impacts on the environment and on treaty rights); *Fort Nelson First Nation*, *supra* note 2 (Fort Nelson First Nation challenging water licence due to environmental impacts and failure to consult).

¹⁴⁹ *Anderson*, *supra* note 110 (Lower Nicola Indian Band alleging a failure to consult); *Edwards v British Columbia (Assistant Regional Water Manager)*, 86 CELR (3d) 96, 2014 CarswellBC 635 (EAB) (application for a stay of a conditional water licence for domestic municipal purpose based on its direct and adverse effect on the appellants' Aboriginal title, rights and interests); *Lake Country (District) v British Columbia (Assistant Regional Water Manager)*, 2013 CarswellBC 3496 (EAB) (Okanagan Indian Band concerned about lack of notice of water licence applications and their issuance).

¹⁵⁰ *Department of Indian Affairs and Northern Development and Westbank First Nation v Deputy Comptroller of Water Rights*, (4 July 1996), Appeal No 95/59, online: <www.eab.gov.bc.ca/water/95-59.pdf> (EAB) (appeal of a decision to cancel one final and two conditional water licences held by the appellants).

¹⁵¹ Two recent actions are *Halalt First Nation v British Columbia (Minister of the Environment)*, 2011 BCSC 945, [2011] BCJ No 1343, rev'd 2012 BCCA 472, leave to appeal to SCC refused, 35179 (July 11, 2013) [*Halalt*], a judicial review of a provincial environmental assessment certificate allowing the construction of three municipal wells for domestic water purpose in locations that would affect the Chemainus River for which the Halalt First Nation claimed Aboriginal rights, and *Thomas v Rio Tinto Alcan*, 2013 BCSC 2303, [2013] BCJ No 2748, an action in nuisance for the unreasonable and severe interference with the plaintiffs' proprietary rights, in particular

The case of *Halalt First Nation v British Columbia (Minister of Environment)* is illustrative of the turn to constitutionally affirmed aboriginal rights to assert an interest in water flow, to support aboriginal rights that are dependent on those environmental flows, and to raise the spectre of aboriginal rights in the context of colonial water law in Canada.¹⁵² The case involved the judicial review of a provincial environmental assessment certificate the Minister of Environment issued to the District of North Cowichan to drill wells for municipal water purposes. The proposed wells were to access ground water adjacent to the Chemainus River, connected hydrogeologically through an aquifer extending beneath the Halalt First Nation's Indian Reserve #2, and in an area to which the Halalt claims aboriginal rights and title. The Halalt First Nation's challenge alleged inadequate consultation and accommodation by the provincial Crown given the First Nation's extensive interest in the Chemainus River.¹⁵³

At the BC Supreme Court, Justice Wedge accepted that the ground water from the aquifer migrates to the River to sustain its flow, particularly in the late summer and early fall months when the River's flow is low and fish are vulnerable. Acknowledging the fragile ecosystem, Justice Wedge noted that the River is also central to the spiritual, cultural and economic lives of the Halalt people:

The River is, and has been traditionally, integral to the lives of Halalt because of its fish and fish habitat, plants and bathing holes. It sustains the animals the Halalt people hunt and the plants they gather . . .

I reiterate that the issue in these proceedings is the *prima facie* strength of Halalt's claims. I go no further than to say that Halalt has an arguable case for a proprietary interest in the ground water of the Chemainus Aquifer,

the fisheries resources, from the construction of the Kenney Dam and diversion of the Nechako River in an area for which the Saik'uz and Stellat'en First Nations claimed Aboriginal title and rights.

¹⁵² *Halalt*, *supra* note 151.

¹⁵³ The decision canvassed, at length, the legal wrangling between the provincial and federal governments over water rights on reserve, particularly whether or not the ownership of groundwater underneath reserves passed with the transfer of reserve lands from the province to the federal government in 1938. See in particular *ibid* at paras 489–558.

most of which underlies I.R.#2. As such, the Province ought to have considered the claim to be a credible one, rather than dismissing it out of hand. Final determination of this issue, as with the other claims, must be left to the proceedings which will conclusively determine Halalt's title and rights, or resolution at the treaty table.¹⁵⁴

Although the BC Court of Appeal found that there was adequate consultation and that the Halalt were not entitled to an assessment of their strength of claim using judicial review,¹⁵⁵ this analysis foreshadows the issues that will be brought before the courts in the future. Other examples of First Nations asserting water rights include: the Saik'uz and Stellat'en First Nations asserting aboriginal title in the Nechako River and claiming nuisance and breach of riparian rights relating to impacts from a dam and reservoir;¹⁵⁶ the Nadleh Whut'en and Stellat'en First Nations' water declarations and policies;¹⁵⁷ the Syilx Nation Siwłk^w (Water) Declaration;¹⁵⁸ and Treaty 8 First Nations' statement of water rights as Treaty-protected, land-based interests in the Northeast Water Strategy, which implicates the watersheds with the most concentrated oil and gas development in BC.¹⁵⁹

¹⁵⁴ *Ibid* at paras 560, 562.

¹⁵⁵ *Halalt*, *supra* note 151 at paras 127, 165–166.

¹⁵⁶ *Thomas v Rio Tinto Alcan Inc*, 2015 BCCA 154, 76 BCLR (5th) 221.

¹⁵⁷ Nadleh Whut'en, and & Stellat'en First Nations. "Yinka Dene 'Uza'hné Surface Water Management Policy (Version 4.1)", (18 March 2016), online: <www.carriersekani.ca/images/docs/Yinka%20Dene%20'Uzah'ne%20Surface%20Water%20Management%20Policy%20%28March%2018%202016%29%20%2800303183xC6E53%29.pdf>; Nadleh Whut'en, and & Stellat'en First Nations, "Yinka Dene 'Uza'hné Guide to Surface Water Quality Standards", (18 March 2016), online: <www.carriersekani.ca/images/docs/Yinka%20Dene%20'Uzah'ne%20Guide%20to%20Surface%20Water%20Quality%20Standards%20%28March%2018%202016%29%20%2800303157xC6E53%29.pdf>.

¹⁵⁸ Syilx Nation Siwłk^w, "Declaration. Declared at the Okanagan Nation Alliance Annual General Assembly" (31 July 2014), online: <www.syilx.org/wordpress/wp-content/uploads/2012/11/Okanagan-Nation-Water-Declaration_Final_CEC_Adopted_July_31_2014.pdf>.

¹⁵⁹ British Columbia, "Appendix C: Treaty 8 First Nations Interests on Water Rights and Interests within Northeast B.C.", *Northeast Water Strategy* (Victoria: Province of British Columbia, 2015) at 28–32.

In conclusion, when considering BC water law in the context of the importance of water to society, it is surprising that the colonial water management regime still operates with relatively little conflict given its inflexibility and lack of attention to baseline environmental conditions. However, despite these challenges and unlike in the U.S., courts are not called upon to regularly consider water law in the western provinces.¹⁶⁰ Even without overt conflicts, and as outlined in this section, leaks in the system are emerging, and include inflexible priority of use, failure to expressly address environmental flows, administrative vulnerabilities and inadequate attention to aboriginal interests in water. The focus of Part 2 has been on exposing the evidence of the weaknesses of the water law regime in BC. In this context, the focus of Part 3 is to evaluate how well the new WSA addresses these shortcomings.

III. WATER SUSTAINABILITY ACT

The provincial government took the deliberate step toward addressing the colonial water management infrastructure by producing *Living Water Smart* in 2008, a policy document that makes several recommendations for law reform, particularly in the areas of environmental flows and healthy ecology.¹⁶¹ It was pursuant to this policy that the Ministry of Environment undertook to modernize BC's water law over the past five years,

¹⁶⁰ An electronic search using Westlaw and Quicklaw revealed only 19 cases substantively involving the *Water Act*, *supra* note 18 in the years 1994 to 2014. For the other western water law provinces during same time period the number of cases were: 20 in Alberta under the *Water Act*, *supra* note 18 and *Water Resources Act*, RSA 1980, c W-5; 10 in Saskatchewan under *The Water Security Agency Act*, *supra* note 18, *Saskatchewan Watershed Authority Act*, SS 2002, c S-35.02, and *The Water Corporation Act*, *supra* note 18; and 3 in Manitoba under *The Water Rights Act*, *supra* note 18.

¹⁶¹ British Columbia, *Living Water Smart: British Columbia's Water Plan* (Victoria: Province of British Columbia, 2008). Examples of policy commitments relating to law reform include: by 2012, water laws will improve the protection of ecological values, provide for more community involvement, and provide incentives to be water efficient (at 45); legislation will recognize water flow requirements for ecosystems and species (at 45); government will limit all new licences to 40-year terms in areas where there is high demand and pressure on water (at 47); by 2012, government will regulate ground-water use in priority areas and large ground-water withdrawals (at 49).

culminating in the British Columbia Legislature giving third reading to *Bill 18 - 2014*, BC's new *Water Sustainability Act* ("the WSA"), on April 29 2014. The policy refinement and law making process included several rounds of public consultation through a discussion paper,¹⁶² a policy proposal,¹⁶³ and a proposed legislative framework¹⁶⁴ that resulted in significant input from stakeholders.¹⁶⁵

Although the fundamental structure of colonial water law remains intact,¹⁶⁶ the WSA admirably addresses the weaknesses of BC water law pertaining to environmental flows and water use efficiency, which render the priority of licences somewhat irrelevant. The WSA is less successful in allaying fears about reliance on administrative action and the lack of recognition of aboriginal interests in water. On its face the WSA contains innovative provisions that challenge the inflexibility of water law

¹⁶² BC, "Discussion Paper", *supra* note 22.

¹⁶³ BC, "Policy Proposal", *supra* note 24.

¹⁶⁴ BC, "Legislative Proposal", *supra* note 24.

¹⁶⁵ Since the fall of 2009 the Province of BC's *Water Sustainability Act* website has received 12,150 visits from which viewers downloaded the Legislative Proposal 3,485 times. Viewers posted 245 blog comments and provided 2,925 submissions by email. See British Columbia, "Water Sustainability Act: Ensuring our water stays healthy and secure", online: <engage.gov.bc.ca/watersustainabilityact>. In addition, in the spring of 2010 the Ministry of Environment delivered 12 workshops in the province in which 511 people participated. British Columbia, Ministry of Environment, *British Columbia's Water Act Modernization Report on Engagement* (Victoria, BC: Ministry of Environment, 2011) at 12.

¹⁶⁶ Under the WSA, *supra* note 18 the provincial Crown asserts ownership over water (s 5), and diverting water without a licence is prohibited (s 6) except in limited circumstances. Licences are attached or appurtenant to land or works such that only specific types of water users may obtain licences (s 9). The right to use water is limited to the purposes set out in section 2 of the Act, being conservation, domestic, industrial, irrigation, land improvement, mineralized water, mining, oil and gas, power, storage and waterworks. Licenced users must make beneficial use of the water (s 30) but if they fail to do so for three years their rights may be cancelled (s 94). Licence holders must pay for their use of water if required by regulation (s 125). The right to divert water under a licence is subject to more senior or older water licences in the same stream or connected hydrology (s 22). The right to use water is subject to the same restrictions (s 8) as set out in the *Water Act* and described at note 57.

while also leaving central resourcing, process and water allocation questions unaddressed.

A. ADAPTIVE LICENCES: LICENCE REVIEW, WATER SUSTAINABILITY PLANNING AND NO COMPENSATION

The WSA maintains the priority of senior licence holders and does not challenge FITFIR directly. However, several provisions enabling licence review and amendment, and declaring that there will not be any compensation for changes to water licences, facilitate adaptation in the water licencing regime. These new provisions also address the primary of the priority system that it is rigid, promotes the waste of water, and creates illusory legal rights. When combined with other new provisions dealing with environmental flows, discussed in section 3.2, arguably the WSA renders priority irrelevant in many flow scenarios.

Most licences,¹⁶⁷ including senior licences, which are issued for an unlimited period or have at least 30 years remaining may be subject to review and possible amendment under the WSA.¹⁶⁸ The comptroller of water rights or a water manager may direct licensees, anytime after 30 years from the date the WSA comes into force and 30 years after a previous review, to submit to a review of the terms and conditions of their licence.¹⁶⁹ The licensee must provide the decision maker with a range of information prescribed by regulation, such as a water conservation audit, in a form that

¹⁶⁷ Excluded licences are those issued for a power purpose or storage purpose related to a power purpose issued after October 23 2003 (after which time all hydropower licences contained a 40 year expiration date); issued under the *Industrial Development Act*, RSBC 1996, c220 (relating to the development of hydropower for aluminum smelting and specifically to the Rio Tinto Alcan hydro projects around Kitimat); or, issued following a review under the Water Use Plan directives published by government December 1998 (the Water Use Planning processes addressed fisheries and other concerns for large scale hydro users, for example BC Hydro). British Columbia, "Water Use Plan Guidelines", online: <www2.gov.bc.ca/assets/gov/environment/air-land-water/water/water-planning/water_use_plan_guidelines.pdf>, WSA, *supra* note 18, s 23(1)(c)–(e).

¹⁶⁸ WSA, *supra* note 18, s 23(1)(a)–(b).

¹⁶⁹ *Ibid*, s 23(2).

can be verified.¹⁷⁰ Ultimately, the intent is to review the licence in light of changing environmental, hydrological and technological conditions:

The decision maker may review the terms and conditions of a licence taking into account

- a) the best available technology in respect of water use efficiency and water conservation,
- b) best practices in respect of water use efficiency and water conservation,
- c) any increase in knowledge respecting actual stream flow or aquifer conditions,
- d) the effects of climate change,
- e) the licensee's beneficial use of the water,
- f) the use, operation or maintenance of works, and
- g) prescribed factors.¹⁷¹

Upon completing the review the decision maker may amend the terms and conditions of licences for the express purpose of water conservation or the more efficient use of water.¹⁷² This can be accomplished by reducing the rate of diversion, changing the time of diversion or use, altering works, or requiring a more efficient practice under the licence.¹⁷³ This 30-year review provision puts existing licensees on notice that their licence entitlements may be subject to review and amendment for the purpose of water conservation in light of changing hydrological conditions and technological advances in water conservation. It attempts to remedy the problem of fixed entitlements under FITFIR and allows water managers to adapt water licences over a relatively long timeframe.

The WSA also augments the potential of water management planning by enhancing the focus on environmental health and water conservation.

¹⁷⁰ *Ibid*, s 23(3).

¹⁷¹ *Ibid*, s 23(6).

¹⁷² *Ibid*, s 23(7).

¹⁷³ *Ibid*.

Called water sustainability plans, the WSA outlines a watershed- or area-specific regime whereby the province can make an order to establish a local water planning process for an area or proposed development if the plan will assist in preventing or addressing conflicts between water users or the needs of water users and environmental flow needs, risks to water quality or aquatic ecosystem health, or will identify restoration measures in relation to damage aquatic ecosystems.¹⁷⁴ Plans are not limited to water allocation but may consider water quality, drought planning, water sharing, changes to existing licences, and anything else set out in the terms of reference. The responsible person preparing the plan has the authority to require water users to provide information about their water use and to gather data as needed.¹⁷⁵

The provincial cabinet may enact far-reaching regulations to accept a water sustainability plan, make it binding on a variety of decision makers exercising jurisdiction over Crown and private land, and adapt existing water entitlements.¹⁷⁶ Regulations may, specifically:¹⁷⁷

- Require that the plan be considered by a public officer making a specified decision;¹⁷⁸
- Restrict the issuance of a specific land or resource instrument or the approval of a plan;¹⁷⁹
- Restrict or prohibit an identified use of land or natural resources, or a specified activity in relation to land or natural resources;¹⁸⁰

¹⁷⁴ *Ibid*, s 65(1).

¹⁷⁵ *Ibid*, s 72.

¹⁷⁶ *Ibid*, s 75.

¹⁷⁷ Unusually, the WSA provides specific regulatory making authority under the eight headings of effect on statutory decisions, effect on approval by approving officer, restriction or prohibition on use of land or resources, reduction of water rights, directions regarding works or operations, relationship with other planning processes, dedicated agricultural water, and restrictions on groundwater activities. *Ibid*, ss 76-83.

¹⁷⁸ *Ibid*, s 76(2)(a).

¹⁷⁹ *Ibid*, ss 76(2)(b), 77(2)(a).

¹⁸⁰ *Ibid*, s 78(1)(a)-(b).

- Amend the terms and conditions of water licences;¹⁸¹
- Reduce the maximum rate of diversion of water under a licence;¹⁸²
- Alter, install, repair or replace works, including for the more efficient use or conservation of water, and adopt a more efficient practice;¹⁸³
- Dedicate a specified quantity of water in a stream or aquifer for agriculture;¹⁸⁴ and
- Restrict or prohibit activities relating to ground water.¹⁸⁵

At the same time, the WSA makes it clear that when licence entitlements change the provincial government will not pay compensation for those changes. This regulatory approach—restricting how rights are exercised without compensation—has not been explicit in water law in Canada.¹⁸⁶ In other jurisdictions, whether water would be treated more like a property right for which compensation would be paid or a regulated use right for which compensation would not be paid has been a live question.¹⁸⁷ The WSA clarifies that there will not be any compensation paid and no

¹⁸¹ *Ibid*, s 79(1)(a).

¹⁸² *Ibid*, s 80(1)(a).

¹⁸³ *Ibid*, s 80(1)(c)–(d).

¹⁸⁴ *Ibid*, s 82(1).

¹⁸⁵ *Ibid*, s 83(1).

¹⁸⁶ Some provinces have clarified the compensation question. For example, in Alberta, subsection 158(1) of the *Water Act*, *supra* note 18, requires compensation when the Director amends, suspends or cancels licences for conservation purposes. For more discussion in this area, see Deborah Curran, “British Columbia’s Water Sustainability Act – A New Approach to Adaptive Management and No Compensation Regulation” *ABlawg* (blog) (28 May 2014), online: <ablawg.ca>.

¹⁸⁷ See e.g. *Tulare Lake Basin Water Storage District v United States*, 49 Fed Cl 313 (2001), one of the original cases in the U.S. where the court found that forced reductions in water use due to flow requirements for endangered species were a physical taking of private property. This is also the approach used in the Alberta *Water Act*, *supra* note 18, where the presumption is compensation for changes to water rights, subject to a contrary intention expressed in regulations. Not only do the terms of a deemed licence authorizing water rights prior to 1999 take precedence over the Alberta *Water Act* itself (see s 18(2)(b)), but s 158(1) explicitly requires compensation to water licensees when the Director amends, suspends or cancels licences for conservation purposes.

legal proceedings allowed relating to “loss or damages arising from an effect on . . . rights under a licence . . . or rights and privileges in relation to land and resources.”¹⁸⁸ The WSA notes that the activities that could attract this alleged loss or damage include a change in the precedence of water rights, a restriction on the exercise of rights, or a change or imposition of new terms and conditions on a licence.¹⁸⁹ Of note is that this no compensation declaration applies not only to impacts on licences issued pursuant to the WSA and a former law relating to water, but also to authorizations issued under other enactments.

There are two exceptions to this no compensation rule. Cabinet may make regulations respecting the payment of compensation,¹⁹⁰ and if a water sustainability plan submitted to the minister recommends a significant change to a licence or drilling authorization, the plan must contain a detailed proposal recommending responsibility for compensating the licensee or drilling authorization holder.¹⁹¹ The WSA defines “significant change” in relation to a water sustainability plan as a change, whether mandatory or voluntary, that would significantly reduce the quantity of water a licence is authorized to divert, result in significantly different works required under a licence, or cancel a drilling authorization.¹⁹²

On their face, water sustainability plans offer a statutorily authorized framework for resolving defined water use conflicts, particularly in areas characterized by over-allocated stream flow. However, their potential success is undermined by the requirement for plans to contain detailed proposals for compensating licensees for significant changes in respect of a licence or drilling authorization.¹⁹³ Without an explicit provincial financial commitment, the compensation requirement may stymie creative and

¹⁸⁸ WSA, *supra* note 18, ss 121(1)(a)–(f). Subsection 121(2) also confirms that no expropriation or injurious affection occurs as a result of the WSA, regulations or exercise of a power under the WSA, except as provided by regulation.

¹⁸⁹ *Ibid*, s 121(1)(g)–(l).

¹⁹⁰ *Ibid*, s 134.

¹⁹¹ *Ibid*, s 74(2)–(3).

¹⁹² *Ibid*, s 64.

¹⁹³ *Ibid*, s 74(2)–(3).

effective long term resolution of water conflicts. The implicit policy in the WSA is that agreements amongst stakeholders and governments in a watershed for reduced volumes under licences achieved through negotiated plan processes require compensation but licence changes achieved through government-initiated 30 year reviews do not unless specified by regulation. While there are good arguments in support of and against this approach, the potential for transformative water planning in a watershed context and creativity that could be brought to such a process will be overshadowed by the dictate for monetary compensation, even if licensees may be willing to accept reductions in water volumes for other assurances such as certainty of access under different ecological conditions.¹⁹⁴

While the application of these exceptions may weaken the potential for reallocating and reducing water use under the WSA, this “no compensation” principle is correct in Canadian law.¹⁹⁵ If applied robustly and combined with the new provisions for licence review, environmental

¹⁹⁴ This was the result in the high profile Klamath Basin Settlement where agricultural users agreed to reduce water volumes but with some assurances about access year over year. See generally Doremus & Tarlock, *supra* note 19; Spain, *supra* note 34.

¹⁹⁵ For a broader discussion in this area, see Lucas, *supra* note 16. Drawing analogies to the land use context where there are no constitutionally protected property rights, the Canadian approach is to allow governments to restrict through regulation virtually all uses of land without compensating the landowner as rights holder. This similar “no compensation” principle is found in s 458 of the BC *Local Government Act*, *supra* note 117, and s 621 of the Alberta *Municipal Government Act*, RSA 2000, cM-26, which assert that no compensation will be paid for changes in the value of land caused by specified decisions made under a land use bylaw or permitting function. To attract compensation, regulation must take away virtually all incidents of private ownership. Claims of “regulatory takings” or regulatory expropriations are rare in Canada. Indeed, no Canadian court has ever found municipal land use regulation to result in a regulatory expropriation. See *Mariner Real Estate Ltd v Nova Scotia (Attorney General)* (1999), 77 DLR (4th) 696, 178 NSR (2d) 294 (CA) for an excellent discussion of this area of law and *Canadian Pacific Railway Co v Vancouver (City)*, 2006 SCC 5, [2006] 1 SCR 227 for the most recent Supreme Court of Canada discussion in the land use context. Courts have awarded compensation for loss of mineral rights upon the creation of a park (*R v Tener*, [1985] 1 SCR 533, 17 DLR (4th) 1; *Casamiro Resource Corp v British Columbia (Attorney General)* (1991), 80 DLR (4th) 1, 55 BCLR (2d) 346 (CA) or for the removal of all economic viability including goodwill see *Manitoba Fisheries Ltd v The Queen*, [1979] 1 SCR 101, 88 DLR (3d) 462.

flows, and licence adaptability under water sustainability planning, these provisions provide a strong framework for adapting water use and addressing systemic water scarcity in specified watersheds or sub-basins.

B. ENVIRONMENTAL FLOWS, GROUNDWATER REGULATION AND RIPARIAN ECOLOGY

Perhaps the most striking contribution of the *WSA* is its attention to water as an ecological baseline and the fact that it enables decision makers to address the instream environment in a variety of ways.¹⁹⁶ It brings ecology and ground water into decision-making and ties land use decisions to their impacts on water and the riparian habitat and instream ecosystems.

As expected, BC propelled itself into the 21st Century by regulating the extraction of groundwater, being one of the last jurisdictions in North America to do so. The *WSA*'s extension to groundwater includes considering aquifers and the diversion of groundwater in many decision under the new water law. For example, under section 5 the Crown asserts that the property to water in both streams and aquifers is vested in the Crown, and reservations of water under section 39 may occur for both streams and aquifers. People are prohibited from diverting water from an aquifer without a licence,¹⁹⁷ however those who are currently diverting water from an aquifer may continue to do so but must apply for a licence when required.¹⁹⁸ The first round of groundwater licensing applies to non-domestic water users who must apply for a licence by 1 March 2019.¹⁹⁹ Currently, domestic users are not required to obtain a licence.

The *WSA* also mandates explicit attention to environmental flow thresholds. Except for decisions exempted by regulation, decision makers

¹⁹⁶ New definitions in the *WSA* relating to environmental flows and ecology include definitions for aquatic ecosystem, critical environmental flow threshold, environmental flow needs, and sensitive stream. See *WSA*, *supra* note 18, s 1.

¹⁹⁷ *Ibid*, s 6(1).

¹⁹⁸ *Ibid*, s 140. Of particular note is that s140(2)(c) provides for regulations that apply the licensing provisions of the *WSA* in a phased manner to different areas, aquifers, water use purposes or quantities of water diverted.

¹⁹⁹ *Ibid*, ss 6(4), 140(1); *Water Sustainability Regulation*, *supra* note 26 at s 55(1)–(2).

must consider the environmental flow needs of a stream when evaluating a water licence application for a stream or aquifer.²⁰⁰ The decision maker must determine the environmental flow needs of a stream, and can require an applicant to provide information, reports and assessments to be considered. The Minister may make regulations respecting environmental flow needs, including prescribing methods of determining them for streams.²⁰¹

Finally, the *WSA* contains several provisions addressing the protection of riparian areas, aquatic ecosystems and fish.²⁰² Decision makers may require mitigation measures on streams and sensitive streams if the diversion and use of water, or changes in and about a stream, are likely to have significant adverse impact on the water quality, quantity or aquatic ecosystem of a stream or aquifer, a stream channel or other uses of water from the stream or aquifer.²⁰³ The comptroller also may make critical environmental flow protection orders if the minister has made a declaration of significant water shortage.²⁰⁴ These orders have precedence over water rights,²⁰⁵ and are final such that they may not be appealed to the EAB.²⁰⁶ Likewise, if the minister considers that the flow of water in a specified stream is or is likely to become so low that the survival of a population of fish in the stream may be or may become threatened, the minister may make an order respecting the diversion, rate of diversion, time of diversion, or use, including storage and time of storage, of water from the specified stream, or a specified aquifer hydraulically connected to the stream, regardless of the precedence of water licences.²⁰⁷

²⁰⁰ *WSA*, *supra* note 18, s 15.

²⁰¹ *Ibid*, s 127(1)–(o).

²⁰² The *WSA* incorporates some of these provisions from other legislation. For example, the designation of sensitive streams in s128 is adapted from s 6 of the *Fish Protection Act*, *supra* note 36.

²⁰³ *WSA*, *supra* note 18, ss 16–17.

²⁰⁴ *Ibid*, ss 86–87.

²⁰⁵ *Ibid*, s 22(9).

²⁰⁶ *Ibid*, s 87(3).

²⁰⁷ *Ibid*, s 88.

Altogether this suite of tools for considering ecology and environmental flows in making decisions about water licences and the use of water at any time in the year from any stream or aquifer gives the provincial government authority to control how much water is taken and under what circumstances, for example if there is a drought. Coupled with the “no compensation” rule and licence review explained in section 3.1 there is considerable flexibility in the water management regime for ensuring that water diversions match current ecological conditions. Consistent with these provisions, but adding no further clarity to how well this new authority will be used to manage water, the WSA maintains considerable administrative discretion without establishing mandatory performance measures to address the weaknesses in administrative capacity.

C. ADMINISTRATIVE CAPACITY UNCLEAR

The WSA grants provincial water managers additional administrative and governance authority beyond adaptation and environmental flows. The comptroller has the ability to impose administrative penalties²⁰⁸ in addition to acting pursuant to traditional offence provisions,²⁰⁹ which may facilitate more efficient enforcement. Regulations may also delegate powers and duties of provincial decision makers to another person or entity to exercise those powers.²¹⁰ This type of regulation could be used to delegate authority to watershed-based organizations responsible for water sustainability planning and land use. Finally, the current lack of coordination with other administrative decision-makers is addressed through the ability to develop water objectives and require public officers to consider those objectives when making specified decisions,²¹¹ and to require that various land use decisions take into account a water sustainability plan.²¹²

However, this new authority continues to rely on a dissatisfactory administrative regime for water in BC. It is layered over top of the existing

²⁰⁸ *Ibid*, ss 99–104.

²⁰⁹ *Ibid*, ss 106–13.

²¹⁰ *Ibid*, s 126(d).

²¹¹ *Ibid*, s 43(1)–(2).

²¹² *Ibid*, ss 76–78.

governance structure with no explicit commitment for additional resources or reforms to address the systemic problems set out in section 2.3, particularly to address credible and defensible data about hydrological regimes across the province. In spring 2015 the provincial government doubled most water rents,²¹³ but the portion of that revenue that is slated for water management is generally earmarked for “the costs of administering the new *Water Sustainability Act* and better manage our water for future generations”, which is interpreted as undertaking the groundwater licencing function.²¹⁴ The provincial apparatus for making orders and evaluating licence applications is intact but, on its face and in communications from the provincial government, does not include new approaches to watershed-specific hydrological conditions that require rapid and short-term action. Although much will be determined through future regulation development and provincial budget allocations, the new *WSA* perpetuates several existing flaws, the most evident of which are the administrative status quo and lack of explicit attention to First Nations’ water concerns.

D. IMPENDING ABORIGINAL RIGHTS AND TITLE TO WATER

The *WSA* carries on the ability for First Nations to reserve water under treaty,²¹⁵ but does not specifically address aboriginal interests in water. The

²¹³ Schedules 1 and 2 to the *Water Sustainability Fees, Rentals and Charges Tariffs Regulation*, *supra* note 49, establishes the tariff of fees and water rental rates. Most rental rates, except for agriculture, doubled when the provincial government brought the *WSA* into force. For example, the volume rental for conservation licenses increased from \$0.01 to \$0.02 per 1000 cubic metres. Likewise, volume rentals for waterworks, oil field injection and mining and quarrying equipment increased from \$1.10 to \$2.25 per 1000 cubic metres, which are still among the lowest rates in Canada, Ministry of Forests, Lands and Natural Resources Operations, “Detailed Fees and Rentals Schedule to be Implemented in 2016” (February 2015), online <www.env.gov.bc.ca/wsd/water_rights/water_rental_rates/cabinet/F-R_fees_Table-Feb4_Final.pdf>.

²¹⁴ Jennifer Turner, “Blog Post # 15 – Pricing Changes Support Protection of BC Water” (5 February 2015), online: *Water Sustainability Act* <engage.gov.bc.ca/watersustainabilityact/2015/02/05/blog-post-15-pricing-changes-support-protection-of-b-c-water/>.

²¹⁵ *WSA*, *supra* note 18, ss 40–41.

Province of BC's policy proposal for the *WSA* acknowledges that better environmental flows support aboriginal rights such as the right to fish,²¹⁶ and the legislative proposal reiterates the *Constitution Act, 1982*'s recognition and affirmation of aboriginal rights. The legislative proposal also points to the treaty process and engagement with First Nations as the route to implementing the *WSA*:

The *Water Sustainability Act* would focus on improving management and use of B.C.'s water resources to meet current and future needs. It would not address Aboriginal rights and title to water or infringe on existing rights. The existing Aboriginal and treaty rights of Aboriginal peoples are recognized and affirmed by Canada's *Constitution Act, 1982*. The provincial government will continue to respect the Treaty process; the proposed provisions of the *Water Sustainability Act* would not encumber current or future Treaty negotiations.

The provincial government acknowledges First Nations interests and will continue to meaningfully engage with First Nations through development and implementation of the proposed *Water Sustainability Act*.²¹⁷

The omission of any specific consideration of aboriginal interests in water is remarkable in the BC context, in particular because the provincial government has acknowledged aboriginal rights and their unique place in natural resource legislation in other relatively recent laws. For example, the *Fish Protection Act* of 1997 clarified that the provisions of that Act are "intended to respect Aboriginal and treaty rights in a manner consistent with section 35 of the *Constitution Act, 1982*".²¹⁸ Amendments to the *Park Act* in 2006 go a step further by creating a unique protected areas designation called conservancies that can be used to implement negotiated agreements with First Nations outside of treaty.²¹⁹ Their purpose is the

²¹⁶ BC, "Policy Proposal", *supra* note 24 at 8.

²¹⁷ BC, "Legislative Proposal", *supra* note 24 at 6.

²¹⁸ *Fish Protection Act*, *supra* note 36, s 2. The *WSA*, *supra* note 18, incorporates most provisions of the *Fish Protection Act*. See the fish protection and critical low flow orders discussed in Part 3.2 above.

²¹⁹ *Park Act*, RSBC 1996, c 344, s 5(1) [*Park Act*]. The provincial government created conservancies to implement the "Great Bear Rainforest Agreements," being the Central Coast Land and Resource Management Plan and the Reconciliation Protocol with

preservation of biological diversity, natural environments, and the social, ceremonial and cultural uses of First Nations.²²⁰ The minister may also enter into agreements with First Nations respecting First Nations exercising aboriginal rights on land in parks, conservancies and recreation areas.²²¹

Building on the colonial water law legacy of settlement of the province for agricultural and mining purposes, it is instructive that the WSA provides special consideration for agricultural water users by contemplating agricultural water reserves as part of water sustainability planning but does not recognize aboriginal water rights as a unique and current interest outside of treaty settlement.²²² At minimum, the WSA is a missed opportunity to address unquantified senior water entitlements where “[t]he experience in the United States suggests that if we fail to settle these issues now, they will surely become more bitter and, in the result, will undermine the very rights that the province is trying to protect and assure.”²²³

Since the legislature gave third reading to the WSA the Supreme Court of Canada ruled on the case of *Tsilhqot’in Nation v British Columbia*,²²⁴ which clarified that for aboriginal title lands provincial regulation cannot extinguish aboriginal title in its operation and that holding aboriginal title will mean in many instances that the Crown must obtain the consent of an Indigenous community before approving activities that could infringe that title. Although beyond the scope of this paper, this new common law will affect the implementation of the WSA, perhaps most directly in the issuing of permits to extract groundwater. Indeed, the two primary concerns of First Nations and Indigenous organizations that made submissions to the *Water Act* modernization process were that the new law,

Central Coast First Nations. *Coastal First Nations Reconciliation Protocol*, Central Coast First Nations and Province of British Columbia, 2009 [on file with author].

²²⁰ *Park Act*, *supra* note 219, s 5(3.1).

²²¹ *Ibid*, s 4.2.

²²² WSA, *supra* note 18, s 82(1).

²²³ Nigel D Bankes, “Water Law Reform in Alberta: Paying Obeisance to the “Lords of Yesterday”, or Creating a Water Charter for the Future?” (1995) 49:1 *Winter Resources* 1 at 5.

²²⁴ *Tsilhqot’in*, *supra* note 127.

... could result in non-First Nations interest-holders having priority over First Nations interests in water resources. There is no legislative requirement or process to meaningfully involve First Nations in the allocation of water resources or in the process of granting water licenses. Also, we are concerned by the failure of the provincial government to develop a coherent and legally sound legislative regime that meets its constitutional responsibility to Aboriginal people. The proposed WSA contradicts fundamental principles of the duty to consult and accommodate in accordance with contemporary case law. While the proposal pays “lip service”... the proposal and the process leading up to it does not reflect meaningful government-to-government relationships nor does it create opportunities for shared decision-making in strategic level planning. Rather, the proposal continues the longstanding assertion of provincial jurisdiction and fails to meet its legal obligations.²²⁵

Across North America colonial governments are turning to negotiated water settlements to resolve historic inequities in water allocation and to provide some compensation for those wrongs.²²⁶ Arguably water sustainability plans could acknowledge specific elements of aboriginal water rights as part of a watershed-based agreement, or could give the nod to parallel government-to-government agreements. Although the Canadian courts have long directed colonial governments to negotiate solutions to unresolved aboriginal rights and title,²²⁷ the Province of BC did not take this opportunity to embed in the BC water law regime an explicit mechanism by which watershed-specific water use conflict and aboriginal

²²⁵ Jody Wilson-Raybould for the BC Assembly of First Nations, “Re: Water Sustainability Act Legislative Proposal” *Submission to Minister Mary Polak on the Water Sustainability Act* (2 December 2013), online: <engage.gov.bc.ca>.

²²⁶ See e.g. Kenichi Matsui, “Water-Rights Settlements and Reclamation in Central Arizona as a Cross-Cultural Experience: A Reexamination of Native Water Policy” (2011) 35:3 *Am Indian Culture & Research J* 91 at 92; Doremus & Tarlock, *supra* note 19.

²²⁷ See e.g. the Supreme Court of Canada’s entreaty to negotiate the way to reconciliation at paragraphs 186 and 207 of *Delgamuukw v British Columbia*, [1997] 3 SCR 1010, 153 DLR (4th) 193 as well as Justice Vickers strong statement directing the parties, particularly the Crown, not to pursue reconciliation through the courts in the BC Supreme Court trial decision in *Tsilhqot’in Nation v British Columbia*, 2007 BCSC 1700, [2007] BCJ No 2465 at paras 1338–82.

rights to water could be addressed. The weaknesses in BC water law will remain unresolved until all entitlement holders—stemming directly from the colonial water law regime or by virtue of other rights that depend on water—are accounted for in the management regime.

IV. CONCLUSION

The *WSA* is the most recent attempt in Canada by a colonial government to address the fundamental problems with its outdated water law. The *WSA* challenges the inflexible doctrine of prior allocation or FITFIR by providing additional authority to decision makers to make water use reduction orders in a variety of circumstances and to amend water licences after thirty years. The *WSA*'s strongest feature is its robust attention to ecological conditions. It mandates consideration of environmental flow standards and allows water management staff to make orders based on deteriorating ecological conditions. It also clarifies that the beneficial use of water includes evolving standards for water use efficiency and conservation.

The *WSA* provides the possibility for robust provincial action but that potential is incapacitated by continued reliance on provincial administrative management absent specific commitment to and dedicated resources for additional staff and technical expertise in all areas of water management. The *WSA* adds more responsibility to an already imperfect provincial water management regime whose weaknesses are evident in recent decisions from the BC EAB. The *WSA* also fails to acknowledge aboriginal interests in water. From a purely colonial perspective, the water management regime is incapable of operating properly and providing robust legal entitlements until all holders of entitlements to water are accounted for. At present mechanisms exist by which aboriginal interests in water can be brought into the water balance in the province absent litigation or First Nation-specific negotiation with the province through the treaty process.

The courts call for negotiated reconciliation approaches between the provincial Crown and First Nations is in keeping with the many negotiated agreements for complex watershed-scale water disputes in North America. The response of licensees to water shortages at the sub-watershed scale is to “share the pain” or “share the shortage” in recognition that an economy and community cannot withstand the sequential cessation of water use in times

of shortage due to licence priority.²²⁸ The experience of water adjudications, court processes and multiparty negotiations in the over allocated states of Oregon and California show that settlements of water disputes have less to do with historic legal principles and more with compromises between the needs of regional ecosystems and economies.²²⁹ Indeed, the language in EAB decisions adjudicating disputes over water in BC is one of a need for cooperative effort,²³⁰ and submissions to the *Water Act* modernization process also reflect this approach to dealing with water shortages. Rather than emphasizing exclusive adherence to licence priority, stakeholders such as agricultural organizations emphasized the need to “work cooperatively to share the burden of reduced water allocation based on economic impact and maintenance of agricultural production capacity.”²³¹ These examples direct water management staff to empower watershed-based collaborative processes that can creatively address disputes over water in their unique socio-ecological and economic contexts.

In conclusion, the *WSA* is a noteworthy start to a new era of water law in BC and, indeed, Canada. However, most of the work of developing ecological standards, generating data, and undertaking regional water sustainability plans still remains. Most troubling is that if there are no new resources for creating the data and responsive administration upon which the *WSA* operates, and there is no specific commitment to acknowledging Indigenous interests in water in a watershed context, then the new legislation will fail to plug the leaks in the system.

²²⁸ Charles W Howe, Paul K Alexander & Raphael J Moses, “The Performance of Appropriative Water Rights Systems in the Western United States During Drought” (1982) 22:2 *Nat Resources J* 379 at 384–85.

²²⁹ Doremus & Tarlock, *supra* note 19; Joseph Sax, Barton H Thompson & John D Leshy, *Legal Control of Water Resources: Cases and Materials*, 5th ed (Eagan, Minnesota: Thomson Reuters, 2012).

²³⁰ Helmer, *supra* note 108 at paras 86, 90.

²³¹ British Columbia Agriculture Council, *Water Policy for Agriculture* (BC Agriculture Council) [nd, on file with author].