

Fish Out of Water:

Tools to Protect British Columbia's Groundwater and Wild Salmon



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A PROJECT OF THE:

Watershed Watch Salmon Society
Secwepemc Fisheries Commission

Okanagan Nation Alliance Fisheries Department
Northern Shuswap Tribal Council
Nicola Tribal Association

Introduction

As a collection of “salmon interests” immersed in water and salmon conservation struggles, we believe there is a critical need for better information and more effective tools to protect water and salmon.

Fish Out of Water: Tools to Protect British Columbia’s Groundwater and Wild Salmon offers help to salmon stewards—and First Nations in particular—trying to save groundwater resources vital to the future of wild salmon. *Fish Out of Water* begins by reminding us of the crucial dependence of salmon on groundwater—and of our current crisis in wild salmon management. It then introduces potential legal tools for salmon stewards.

In Part 1 environmental lawyer Linda Nowlan reviews laws that relate to water and salmon in BC. In Part 2 lawyers Douglas White and Tim Howard of the aboriginal law firm Mandell Pinder describe specific cases and tools related to aboriginal interests around water and salmon.

We believe that we can be more effective salmon stewards by enhancing both our collective knowledge and our repertoire of legal tools for protecting vital salmon habitat.

This report draws on our previous work around groundwater and salmon and strives to catalyze action through improved outreach, access to decision-makers, and awareness about the constitutionally-protected rights of First Nations to salmon.

The message is powerful: Without adequate supplies of groundwater, both salmon and rights are threatened, and we must use these rights, and a suite of tools and tactics, to push for a greater awareness of and action around the threats to water and salmon.

Acknowledgments

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Wild Salmon in Trouble

Despite suffering recent downturns and outright crises, wild salmon remain integral to the very identity of most British Columbians.

Citizens of Canada's Pacific province like their wild salmon. Yet the prospects for salmon seem increasingly grim. The media is rife with stories of salmon succumbing to illegal fishing, too much fishing, sea lice, habitat loss, pollution, and the all-too-pervasive, catch-all category of "mismanagement."

Increasingly, we are also forced to consider the looming threat of global climate change, and all this bodes for our precious salmon. Climate change and warmer water in the Fraser River have been fingered as key factors in recent declines of Fraser River sockeye.¹ So-called "thermal stress"² is now a main and persistent player in the health and well-being of fish in general, and salmon in particular.

And we may only be seeing the proverbial tip of the thermal stress iceberg. Thermal stress has now invaded the very "bedrooms" of our wild salmon, and if we don't act decisively and soon, particularly to conserve the valuable groundwater resources so important to salmon, we stand to lose much that we value.

Groundwater & Wild Salmon

We all know that wild salmon need water. What is less apparent is that salmon thrive only in fairly cool, well-oxygenated water. When temperature becomes too warm, salmon must work harder to survive.

The physiological and ecological impacts of temperature stress are increasingly of concern to scientists, managers, and the lay public. Most of the attention, however, has been on the Fraser River itself. Only more recently have we seen signs of climate change impacts on the critical Interior Region spawning and rearing areas so important to Fraser River salmon.

And what we're seeing is alarming.

Many of the places where Fraser River salmon spawn in BC's Interior are historically warm and productive places. Yet our own eyes tell us too many of these places are now becoming increasingly inhospitable to salmon.

Chinook, coho, steelhead and other salmon increasingly face challenges to persist—let alone, thrive—in thermally-sensitive streams, including those in the Nicola, Shuswap, and Okanagan basins. Temperatures in many streams regularly approach and pass "critical temperature thresholds" for salmon. And stream flow and thus water availability is expected to diminish further as the climate becomes more inhospitable.³

If there is good news amongst this gloom, it no doubt lies in the positive influence of groundwater. Many studies of water and salmon have highlighted the critical importance of groundwater in maintaining the health and very persistence of wild fish.^{4,5}

Groundwater under or near streams, especially "temperature sensitive" streams too typical of the bedrooms of salmon, may well be *the* key to having wild salmon in our future. That's because groundwater can dramatically influence and moderate both the amount and temperature of the surface water used by our salmon.⁶

The link between ground and surface water is thus critical to understand—and protect. Groundwater adds to the "base flow" of rivers and helps keep rivers from becoming inhospitably hot in summer. As a bonus, groundwater protects salmon in extreme cold temperatures by moderat-

1 Williams 2005. South Coast Fisheries review. Part 1: Sockeye. Fisheries and Oceans Canada.

2 Lee, C.G., A.P. Farrell, L. Lotto, M.J. MacNutt, S. G. Hinch and M.C. Healey. 2008. The effect of temperature on swimming performance and oxygen consumption in adult sockeye (*Oncorhynchus nerka*) and coho (*O. kisutch*) salmon stocks. *Journal of Experimental Biology*. 206:3239-3251.

3 Stahl, K., R.D. Moore, J.M. Shea, D. Hutchinson, and A.J. Cannon (2008). Coupled modelling of glacier and streamflow response to future climate scenarios, *Water Resour. Res.*, 44, W02422, doi:10.1029/2007WR005956.

4 Douglas, T. 2006. Review of groundwater-salmon interactions in British Columbia. *Watershed Watch*. www.watershed-watch.org/publications/index.html?cid=11

5 Baxter, C.V. and F.R. Hauer. 2000. Geomorphology, hyporheic exchange, and selection of spawning habitat by bull trout (*Salvelinus confluentus*). *Canadian Journal of Fisheries and Aquatic Science* 57: 1470-1481.

6 Garrett, J.W., D.H. Bennett, E.O. Frost and R.F. Thurrow. 1998. Enhanced Incubation Success for Kokanee Spawning in Groundwater Upwelling Sites in a Small Idaho Stream. *North American Journal of Fisheries Management* 18: 925-930.

First Nation research helps us understand importance of groundwater to salmon

Several First Nations have taken a lead in BC in promoting the importance of water to our wild salmon. The Okanagan Fisheries Commission is involved in many water conservation projects, and the Secwepemc Fisheries Commission (SFC) is leading a study of the importance of groundwater to the survival of Interior salmon.

The SFC, a non-profit, support service agency operating as a division of the Shuswap Nation Tribal Council Society, is based in Kamloops and works on behalf of its affiliated bands to promote the protection, maintenance and sustainable use of fisheries resources in Secwepemc territory. The Secwepemc territory is also the home of significant populations of fish such as sockeye, Chinook, endangered Interior Fraser Coho, and pink salmon, as well as rainbow trout, steelhead, and others. Secwepemc communities have long relied on these fish for food, social and ceremonial purposes, yet these fish are now at risk to climate change and other human-related threats.

To better understand and protect these valuable wild salmon, the Secwepemc, in partnership with DFO and three other First Nations, are investigating the importance of groundwater to juvenile Interior Fraser Coho. The objectives of the study, funded primarily by the Fraser Salmon and Watersheds Program, are to determine the presence of groundwater upwelling sites, and seasonal and daily spatial distributions of juvenile coho salmon relative to groundwater upwelling areas. The study also helps coordinate First Nation and government research.

In 2007 thermal imagery was used to identify critical groundwater sites; temperature profiles were also recorded over the summer, and snorkel surveys were used to assess the presence of coho. In total 5 groundwater sites were identified, with the highest temperatures recorded in Bessette Creek (>25.1°C, the upper tolerance for coho) and Coldwater River (25°C). Groundwater in the Thompson was cooler in the summer by as much as 12°C, and groundwater-influenced sites also had more stable temperatures than mainstream sites.

The results of this research will help us protect groundwater sources important as thermal refuge habitat for Interior Fraser Coho, by providing a greater understanding of the life history of Interior Fraser Coho and their key habitat requirements—at present a data gap identified in the Conservation Strategy for Coho. ‡

‡ Interior Fraser Coho Recovery Team. 2006. Conservation Strategy for coho salmon (*O. kisutch*), interior Fraser River populations. Fisheries and Oceans Canada.

ing temperatures and maintaining flows.⁷ In essence, groundwater, when abundant and linked to rivers, buffers salmon against the vagaries of extreme temperature and environmental conditions. Groundwater thus enhances the all-important “resilience” of wild salmon to withstand negative environmental change.⁸

But just when we are learning about the critical importance of groundwater for salmon persistence, groundwater itself has never been under more of a threat.

BC's groundwater protection regulations are archaic and ineffective (see Legal Tools). Fish enjoy no “right” to water. Unchecked population growth continues to place huge demand on our surface and groundwater resources—and thus more doubt on the future of salmon. Important groundwater reserves near critical Interior salmon-bearing streams are myopically coveted solely for human use.

While surface water is afforded some modicum of protection via oversubscribed water licences, groundwater is free for the taking, with virtually no consideration of its value to either salmon or “ecosystem services.” The applicability of constitutionally protected aboriginal rights and title, and treaty rights, to groundwater has not received much attention, either. A prime goal of this report is to explore these topics to suggest how these legal rights may prove to be significant in our collective efforts to protect our groundwater and salmon.

Legal Tools: Part 1

Overview of existing legal tools & activities relative to protection of groundwater as essential salmon habitat

This section canvasses the legal tools available to protect groundwater relied on by salmon. It includes a brief discussion of the deficiencies of current groundwater protection, and describes how the BC *Water Act*—the main law—is not currently used to license groundwater, and consequently has limited power to address over-allocation of surface water.

7 Douglas, T. 2006. Review of groundwater-salmon interactions in British Columbia. Watershed Watch.

8 Resilience is defined as the ability of a system to absorb disturbance and still retain its basic structure and function (Walker and Salt. 2006. Resilience Thinking. Island Press).

Part 1 also discusses; how the government has made minimal use of the chief integrated planning tool, water management plans; the limited enforceability of voluntary multistakeholder water management plans; and the limited applicability of other legal tools to protect groundwater, such as the federal *Fisheries Act* and *Species at Risk Act*.

Protection of Groundwater in BC

Groundwater is currently subject to minimal legal control in BC. While all levels of government from aboriginal to municipal to provincial to federal have some jurisdiction over and play a regulatory role in groundwater, the Province enjoys the primary legal jurisdiction.⁹ The majority of decisions and day-to-day management activities that affect groundwater occur at local and provincial levels.

Water managers consider both quantity and quality, but laws often artificially separate these two issues. Water laws regulate access, allocation and water quantity, while health, environmental and sector-specific laws regulate water quality. In addition to water laws, groundwater extraction, allocation and use is also regulated relative to provincial laws on health, energy development, contaminated sites and other forms of pollution prevention and control, agricultural and forest practices, environmental assessment, utilities, oil and gas, mining and other industrial activities. Environmental laws regulate waste disposal into the environment, and also control the cleanup of contaminated land and groundwater. Land use laws also affect groundwater management. Numerous statutes are involved in integrated land and water management.

This part of *Fish out of Water* focuses on laws and controls related to groundwater quantity and limits on extraction, rather than protection of groundwater quality.

BC Provincial Regulation of Groundwater

Surprisingly, BC has no general groundwater permitting regulations to limit extraction. British Columbia is the only province in Canada and one of the few jurisdictions anywhere that does not regulate the use of groundwater, though a commitment has been made to “regulate groundwater use in priority areas and large groundwater withdrawals by 2012” in the new *Living Water Smart* strategy.¹⁰

The section of the BC *Water Act* that would include groundwater in the provincial water licensing scheme has not yet been proclaimed. Specifically, section 1.1 of the *Water Act* directs that the sections of the *Water Act* dealing with licensing, diversion and use of water do not apply to groundwater unless the provincial government enacts a regulation to that effect. There are no regulations enacted under that section.

Part 4 of the *Water Act* provides limited authority to regulate groundwater through the preparation of Water Management Plans (WMPs). The plans are noteworthy for groundwater protection as they may place restrictions on well drilling. The Minister of the Environment decides which communities qualify as water management areas. To date the Ministry has designated only one water management area in BC—located in the Township of Langley (see sidebar on page 4).

This regulatory gap is a problem for management as noted by many commentators.¹¹ The lack of regulatory controls, such as licensing for groundwater can cause damaging results. For example, if a person is denied permission to obtain a surface water licence beside a stream that is oversubscribed, there is nothing to stop that person from drilling a well beside that stream and obtaining water that way. There are anecdotal reports that this is occurring in parts of BC.

Groundwater Protection Regulation

Though there are few limitations on groundwater extraction, other than for major projects as described below, the government did pass the BC *Groundwater Protection Regulation* in 2004 (BC Reg. 299/2004) which establishes standards for well construction and deactivation, and

9 Re: jurisdiction over water, see Nowlan, L. *Buried Treasure: Groundwater Permitting and Pricing in Canada* (Toronto: Walter and Duncan Gordon Foundation) (2006) Hogg, P. *Constitutional Law of Canada* (Toronto: Carswell, 5th edition, 2007). Laws related to aboriginal rights and titles are discussed in Part 2 of legal tools.

10 www.livingwatersmart.ca

11 Provincial Health Officer of BC, “Progress on the Action Plan for Safe Drinking Water in British Columbia” 2007; Office of the Auditor General of BC, Protecting drinking-water sources, (Report ; 1998/1999: 5) 1998; Nowlan, 2006, op. cit.; Douglas, T., *Review of groundwater-salmon interactions in British Columbia*, 2007; Proboszcz, S. and C. Orr (eds.), 2007, *Watershed Watch Groundwater and Salmon: Proceedings of the Speaking for the Salmon Panel Discussion on Groundwater and Groundwater Legislation in BC*, March 6, 2007, SFU Halpern Centre, Burnaby, BC, 2007; Christensen R., *Review of British Columbia’s Groundwater Regulatory Regime: Current Practices and Options*, Sierra Legal Defence Fund, 2007.

Water management plans and groundwater protection: The Township of Langley case

The most closely watched process now under development is the *Township of Langley (ToL) Pilot Water Management Plan (WMP)*. It was designated in July 2006 as the first in BC to undertake the preparation of a water management plan under Part 4 of the BC *Water Act*. The Minister of the Environment has the sole authority to decide which communities qualify as water management areas.

To date Langley is the only water management area designated, though many other communities have expressed interest in the process. The planning area is a heavily groundwater-dependent agricultural and growing bedroom community on the urban/rural edge of the Lower Mainland. About three-quarters of the residents rely on the municipal water supply of which more than half is local groundwater, and the remaining residents rely on groundwater from approximately 5,000 domestic wells. There are about 700 kilometres of streams and numerous wetlands that provide habitat for seven salmonids and two endangered species in the area. Regulators know that over-extraction of groundwater has caused declines in some base flows in perennial salmon-bearing streams. Water supply and quality problems include declining groundwater levels and aquifer contamination from septic systems and agricultural activities. The Township receives many complaints each year from frustrated property owners over poor land use activities, dry wells, and water contamination.

Since 1998 the Township has spent more than \$500,000 to develop strategies to protect water resources. In 2002 the Township Council endorsed a "Water Resource Management Strategy 20 Year Action Plan," which includes monitoring and adaptive management. Recognizing its inability to implement measures that cross political boundaries, the Township entered into a partnership with the Province to develop the WMP. The plan's goals are to: "identify measures that promote: sustainable use of groundwater; environmental protection for groundwater including protection for aquifer recharge areas and the adequacy of recharge; and preservation of base flows in fish bearing streams recharged by groundwater." The water management plan is the primary responsibility of the Township. However, as the Township currently has no authority to regulate private well development, groundwater extraction, or conflicts over water use, provincial actions will likely be necessary. The implementation regulations for a Water Management Plan may provide local authority for groundwater regulation. As of the end of 2008, a draft ToL WMP had been prepared, but not yet been approved by Cabinet.

qualifications for well drillers. Future phases of this regulation will provide additional standards for well construction, flowing wells, well pumps, flow testing and well operation, and are eventually intended to establish other measures for aquifer quality and quantity protection and use. To date this regulation has been developed with a lack of transparency and lack of public participation. The province has established a Groundwater Advisory Board, but even the names of the members of this Board are not publicly available. In response to requests for disclosure of the minutes of meetings from the Board, the government insisted that a formal application be made under the provincial Freedom of Information Act, and when the minutes were eventually produced, they were edited with blacked out sections which the government claimed were necessary.

The Province also has provisions for well protection to avoid contamination from land uses next to the well and over the recharge area of the well. A well protection plan may be required.¹²

Water Act and Water Management Plans

As noted, the section of the BC *Water Act* which would include groundwater in the provincial water licensing scheme has not yet been proclaimed.

The BC *Water Act* provides limited authority to regulate groundwater through the preparation of water management plans (WMPs) under Part 4. The Minister of the Environment may, by order, designate an area for the purpose of developing a WMP to address or prevent: conflicts between water users; conflicts between water users and instream flow requirements; and risks to water quality (s. 62 (1) BC *Water Act*). Preparation of these plans must consider provincial or local government strategic, operational and land use or water use planning processes. Plans must be approved by Cabinet. The plans are noteworthy in their potentially far reaching impacts. When implemented by the Lieutenant Governor in Council, the plans may place restrictions on well drilling (s. 66(1)), and/or affect other statutory decisions (other than forestry and range decisions), options not

12 "Guidelines for Minimum Standards in Water Well Construction, Province of British Columbia".

available under most other water planning tools (with the exception of the as yet unused drinking water protection plan provision, under Part 5 of the *Drinking Water Protection Act*, SBC 2001, c.9.).

The regulations which authorize the adoption of a water management plan or drinking water protection plan contain the power to restrict or prohibit the drilling of wells, installation of well pumps, and alteration of wells without a permit. That power has not yet been used in BC. The draft water management plan prepared for Langley (see sidebar page 4) did contain recommendations for groundwater licensing, but they were removed due to public protest.

As noted, other communities are interested in more detailed water management plans. In the Nicola Valley, a number of partners have prepared the Nicola Water Use Management Plan. The draft of the WUMP is just being completed and consultation is planned with First Nations and the community at large over the next six months. When finalized, the plan is to submit it to the Province with a request for Government to implement the Plan through designation of a Water Management Area under Part 4. If successful, its provisions will then become enforceable.

Similarly in the Okanagan, a Water Sustainability Plan has been launched by the Okanagan Basin Water Board, but it too is not a WMP, and so any proposed groundwater protections such as drilling restrictions will not be enforceable.

BC Environmental Assessment Act

The chief means that the environmental impacts of groundwater extraction are regulated in BC is through the *BC Environmental Assessment Act*. Where groundwater extraction is being proposed from one or more wells at a combined rate of 75 litres or more per second, the project may be subject to an environmental assessment (EA) under the Reviewable Projects Regulation, Part 5, Table 9, number 4. Impacts of withdrawals are only considered when they exceed this limit, through the EA process.

The effect of this law is that projects with major groundwater impacts such as the development of new municipal water supplies or the construction or operation of pulp and paper mills, mining projects, fish hatcheries, or resorts will be subject to environmental assessment laws.

The British Columbia Ministry of Environment has noted the areas that should be investigated to determine

potential significant groundwater impacts:

- Reductions in streamflow and surface water availability including effects on low flow regimes, lakes and springs, fully recorded streams and fisheries habitat, in particular, spawning redds;
- Interception of groundwater flow critical for maintenance of forest and grasslands habitat, wetlands and fisheries habitat, in particular, spawning redds;
- Interference with licensed water users;
- Interference with existing wells, for example, reduced capacity of domestic wells;
- Sea water intrusion in coastal areas resulting in water quality degradation impacts on other users including shellfish beds and fish habitat;
- Non-sustainable extraction or aquifer mining where extraction exceeds replenishment reducing water availability for all users of the aquifer;
- Land stability and subsidence, including but not limited to development of sinkholes;
- Property damage, flooding or siltation caused by uncontrolled flowing artesian wells;
- Impacts of an increase in extraction rate;
- Impacts upon existing agriculture and silviculture activities;
- Impacts on water availability for land in the Agricultural Land Reserve that currently is not irrigated or does not have a water supply.¹³

A lack of cumulative impact assessment of multiple groundwater extractions is another defect in the current BC regulatory regime. Even in provinces with more comprehensive and environmentally protective groundwater regulations, such as Ontario, cumulative impacts can be a problem. The lack of cumulative impact assessment for a number of individual groundwater permits issued for golf course developments was recently noted as a problem in the Oak Ridges Moraine area in Ontario.¹⁴

¹³ Framework for a Hydrogeologic Study in support of an Application for an Environmental Assessment Certificate under the *Environmental Assessment Act* and Regulations

¹⁴ Ecojustice and Earthroots, Ontario's Water Hazard – The Cumulative Impact of Golf Courses on Our Water Resources (Toronto: Ecojustice) 2008.

Fish Protection Act

The BC *Fish Protection Act* could in future be used to limit the impacts of groundwater extraction on fish and their habitat. That *Act* allows the comptroller or regional water manager to consider the potential impacts on fish and fish habitat, and include conditions respecting fish and fish habitat when making a decision on an application under the BC *Water Act* such as for a licence, an approval or an amendment to a licence or an approval.¹⁵

As only surface water is licensed to date, this provision will only be useful when and if the section of the BC *Water Act* which would include groundwater in the provincial water licensing scheme is proclaimed.

Federal Regulation of Groundwater

Even though it does not hold the primary management role, the federal government does possess significant legislative and proprietary responsibilities related to water, and the Constitution gives shared responsibilities to both the federal and provincial governments over key issues involving water such as interprovincial and international management, agriculture, and health.

Fisheries Act

The federal *Fisheries Act* (RS 1985, c F-14) prohibits the harmful alteration, disruption or destruction of fish habitat and the deposit of deleterious substances in fish-bearing waters, and could be used to protect groundwater essential to fish habitat. The practical difficulties of proving that specific groundwater extractions or groundwater pollution caused damage to fish habitat limit the utility of this *Act*. The authors are not aware of any cases where the federal *Fisheries Act* was used in connection to groundwater in BC, and it is likely that DFO has neither the staff nor the policy to manage for cumulative impacts of groundwater extraction.

¹⁵ BC Fish protection Act, [SBC 1997] c. 21, s. 5.

¹⁶ See News Release, Sep 8, 2008 Ecojustice Canada, "Documents reveal governments acting to undermine species law, Federal and provincial officials agreed not to identify critical endangered species habitat" <http://www.ecojustice.ca/media-centre/press-releases/documents-reveal-governments-acting-to-undermine-species-law/?searchterm=nooksack%20dace>

¹⁷ The Groundwater Bylaws Toolkit, a project of the Okanagan Basin Water Board, will provide a full description of the powers of local government to protect groundwater. This Toolkit is being prepared as an appendix to the Green Bylaws Toolkit of Conserving Sensitive Ecosystems and Green Infrastructure.

Species at Risk Act

If a species at risk, as defined under the federal law, is present, it is possible that groundwater that forms part of the species' critical habitat could be protected under a recovery plan. This has not yet happened in BC, and the current regulatory practice under this federal law has avoided the designation of critical habitat to such an extent that NGOs, supported by expert scientists, have launched numerous legal challenges.¹⁶

BC Local Government Regulation of Groundwater

Local governments have only those powers delegated to them by the provinces, and have no specific regulatory authority over groundwater use in BC, though they may use groundwater as a source of municipal water supply, and also have powers to control land use practices that have the potential to contaminate groundwater. Despite their general inability to regulate groundwater directly as it is a provincial mandate, local governments do have powers to take a number of actions to protect groundwater, which are explored in the forthcoming *Groundwater Bylaws Toolkit*.¹⁷ This report notes that the relevant land use powers for groundwater sustainability allow local governments to:

- ensure that rainwater is returned to aquifers and streams to recharge groundwater;
- protect headwaters, riparian areas and recharge areas;
- prevent groundwater contamination by limiting and regulating polluting uses over aquifers and in groundwater recharge areas through zoning; and
- direct development to appropriate locations where there is proof of sufficient groundwater for domestic or commercial uses on a watershed scale before development occurs.

The Ministry of Environment has developed the *Well Protection Toolkit*, a set of voluntary guidelines, to assist communities to develop well protection plans to prevent contamination of their well water supply. In addition, the Ministry of Community Development has developed three versions of a model well closure bylaw to assist local governments with well closure policy on properties connected to their respective water systems.

Local government's role in groundwater sustainability is limited, as this level of government does not have the power to limit drilling, the power to licence or permit groundwater use, or to set terms of a water use licence that could specify the rate, quantity, duration, and time of use.

Summary of Groundwater Use Regulations in BC

At this time, the primary restrictions on the use of groundwater are through voluntary rules on the siting and construction of wells, and environmental assessments of major projects with significant rates of groundwater extraction, such as the development of new municipal water supplies or construction or operation of pulp and paper mills, mining projects, fish hatcheries, or resorts.

As a consequence, most aspects of groundwater protection remain largely unregulated, with potentially harmful impacts for fish as the following quote demonstrates:

“The absence of a comprehensive regulatory approach has significant consequences for fish. The interconnection between groundwater and surface water bodies supporting fish habitat has long been recognized by hydrologists and addressing the interconnection is increasingly a standard regulatory feature in many jurisdictions. In British Columbia however, proposed groundwater exploration and extraction is largely unassessed and unregulated. In other words, provincial officials have no way of even assessing the full extent of groundwater usage, let alone regulating groundwater use to mitigate environmental impacts.”¹⁸

¹⁸ Christensen, R. *Review of British Columbia's Groundwater Regulatory Regime: Current Practices and Options*, 2007 at http://www.watershedwatch.org/publications/files/Groundwater_Regulation_Review_SLDF.pdf

Legal Tools: Part 2

Aboriginal Law and Groundwater Introduction

The Aboriginal peoples of Canada have lived on, stewarded and harvested the lands, waters and resources of their traditional territories since long before the arrival of Europeans, and continue to do so today. Through decades of political resistance and legal struggle, Aboriginal peoples have obtained a degree of legal recognition of the rights and interests which arise from their unique status as the original occupiers of this country. Courts have affirmed the existence of Aboriginal rights to the continued use of natural resources, including fish, animals and forest resources. While less clearly defined in the law, the struggle for recognition of Aboriginal title, including rights to own, manage and benefit from the use of lands and resources, continues to advance in the courts. And most recently, through the seminal *Haida Nation* decision, Aboriginal peoples have secured a responsibility on the part of governments to consult with them to address, and accommodate, their asserted but yet unproven rights in the course of government decision making.

This section of *Fish Out of Water* examines the ways in which this evolving body of legal principles developed in relation to Aboriginal rights, including Aboriginal title, and treaty rights may apply to the regulation and use of groundwater in B.C. The importance of a clean and healthy environment to the continued exercise of Aboriginal and treaty rights has been recognized by the courts in several important decisions. While the resource of groundwater has not yet been specifically addressed in a court decision, existing legal precedent provides a persuasive basis for arguing that the rights of Aboriginal peoples, as protected by s. 35 of the *Constitution Act, 1982*, may limit the power of the provincial government to regulate or authorize the use of groundwater in such a way as to adversely affect Aboriginal and treaty rights and the environment upon which they depend.

The examination of this area will focus on four primary areas of Aboriginal law that have the most potential to affect the regulation and use of groundwater:

- Aboriginal Rights;
- Aboriginal Title;

- Treaty Rights, including historic and contemporary treaties; and,
- The Crown's Duty to Consult and Accommodate in relation to these rights.

A Few Basic Principles of Aboriginal Law

Any brief overview of Aboriginal law will omit much of importance. Aboriginal law is one of the more complex areas of Canadian law, partly because it continues to develop and evolve in significant ways. To assist in navigating this complexity, it is useful to appreciate a few key principles that are critical to understanding all four categories of Aboriginal law to be discussed.

Aboriginal rights and title are constitutional rights entrenched and protected by section 35(1) of the Constitution Act, 1982¹⁹

Aboriginal rights are constitutionally protected and entrenched through s. 35(1) of the *Constitution Act, 1982*, which declares that “the existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed.” When a right is constitutionally entrenched, two important outcomes follow: first, the ability of provincial or federal legislation to interfere with that right is constrained; and, second, the protection afforded to those rights can only be modified through a constitutional amendment in accordance with the Constitution's amendment rules.

The courts have described the recognition of Aboriginal rights within the Constitution as having a special purpose: reconciliation of the prior sovereignty of Aboriginal peoples with the assumed sovereignty of the Crown. As stated by the Supreme Court of Canada (“SCC”), section 35 is:

“the constitutional framework through which the fact that aboriginals lived on the land in distinctive societies, with their own practices, traditions and cultures, is acknowledged and reconciled with the sovereignty of the Crown.”²⁰

19 *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (U.K.), 1982, c. 11.

20 *R. v. Vanderpeet*, (sub nom. *R. v. Van der Peet*), [1996] 2 S.C.R. 507, (sub nom. *R. v. Van der Peet*) [1996] 4 C.N.L.R. 177, (“*Van der Peet*”) at para. 31.

The Crown and Aboriginal peoples are in a fiduciary relationship

The courts have described the Crown as owing a fiduciary duty to Aboriginal peoples, which requires that the Crown-Aboriginal relationship be trust-like, rather than adversarial, in nature. This has important consequences for limiting Crown conduct and interpreting Canadian law applicable to Aboriginal peoples. Where the Crown assumes control over specific and established Aboriginal interests, it must meet the relatively strict standard of care of a fiduciary in how it deals with those interests. And where the Crown acts in such a manner as to affect or impair established Aboriginal rights or treaty rights, its actions must be consistent with the Crown's fiduciary obligations.

A related determination made by the courts is that the honour of the Crown is always at stake in the Crown's dealings with Aboriginal people. For rights that are not yet established, whether through court or negotiation, the “honour of the Crown” principle leads to a Crown duty to consult and accommodate with Aboriginal peoples whenever the Crown contemplates conduct that may adversely impact unproven Aboriginal rights, including Aboriginal title.

Aboriginal rights and title are considered to be sui generis, or “of their own kind”

Aboriginal rights and title are considered by the courts to be unique, or *sui generis*, rights. *Sui generis* is a Latin term that means “of its own kind.” Aboriginal rights and title are unique, in part, because of the simple fact that they are partially based in the Indigenous sovereignty, legal systems and culture that existed prior to the arrival of settlers and the Crown. This means that part of the legal foundation of Aboriginal rights and title pre-dates Crown sovereignty—unlike other forms of legal rights in Canada, such as a fee simple interest in land (derived from a Crown grant after the time of the assertion of Crown sovereignty).

An important outcome of this *sui generis* nature is that courts are cautious when analogizing to legal concepts developed within the common law legal system of the Canadian courts. This means that the law of property (or evidence) cannot simply be applied to Aboriginal and treaty rights. Therefore, while the common law developed

“groundwater common law” many years ago, this law is not necessarily applicable in the context of Aboriginal title land.

Aboriginal Rights and Groundwater

Overview of the law regarding Aboriginal rights

Aboriginal rights are comprised of those activities that are established in court as “an element of a practice, custom or tradition integral to the distinctive culture of the aboriginal group claiming the right.”²¹ The law of Aboriginal rights is, in general, intended to protect those aspects of Aboriginal culture and society that make Aboriginal peoples “Aboriginal” and distinct from non-Aboriginal society. The time period in which these elements must be proven is the date of contact between the Aboriginal society at issue and Europeans. Aboriginal practices, customs and traditions in existence at the date of contact can evolve into a contemporary expression—for example, Aboriginal peoples may exercise an Aboriginal fishing right using modern fishing gear.

Aboriginal rights are recognized and protected by s. 35 of the *Constitution Act, 1982*; however, despite that protection, they are not absolute, and the Crown may legally impair, or “infringe,” an Aboriginal right if it is able to justify its actions. The test for proof of infringement is relatively low, requiring that the Aboriginal claimant establish that the Crown limitation is unreasonable, imposes an undue hardship or denies the Aboriginal group their preferred means of exercising the right. Once an infringement is established, the onus shifts to the government to justify the infringement. In order to justify a legislative provision that infringes an Aboriginal right, the government must:

- be acting in pursuit of a substantial and compelling legislative objective;
- uphold the honour of the Crown by ensuring that the action is consistent with their fiduciary duties; including that the Crown must:
 - demonstrate that there has been as little infringement as possible to effect the desired result;
 - that priority has been accorded to the Aboriginal right;
 - demonstrate that there has been a reasonable effort to inform and consult the affected Aboriginal group regarding the implementation of the legislative measure; and,

- demonstrate that any compensation, where appropriate, has been provided.

The existence of an Aboriginal right therefore constrains the ability of governments to regulate resources in such a manner as to interfere with the exercise of the right. While the government is not prohibited from interfering with Aboriginal rights, it must meet a reasonably stringent test to demonstrate that its actions are consistent with the Crown’s fiduciary obligations to Aboriginal peoples.

The fiduciary obligations of the Crown toward Aboriginal people also have implications for the manner in which government develops regulatory schemes to govern resource use. In the *Adams* decision, the SCC decided that Parliament may not “simply adopt an unstructured discretionary administrative regime which risks infringing aboriginal rights in a substantial number of applications in the absence of some explicit guidance.” The Court reasoned that:

If a statute confers an administrative discretion which may carry significant consequences for the exercise of an aboriginal right, the statute or its delegate regulations must outline specific criteria for the granting or refusal of that discretion which seek to accommodate the existence of aboriginal rights. In the absence of such specific guidance, the statute will fail to provide representatives of the Crown with sufficient directives to fulfil their fiduciary duties.²²

Application to groundwater

For thousands of years, Aboriginal peoples have been fishing for salmon and other species of fish in the streams, rivers and lakes of what is now British Columbia, and it is difficult to think of an activity that is more integral to Aboriginal peoples’ way of life and culture. The continuing importance of fisheries, and in particular the salmon fishery, to Aboriginal peoples has been recognized in a variety of cases, including the SCC’s landmark decision in *R. v. Sparrow*²³ in which the SCC confirmed that the Musqueam First Nation possess a constitutionally protected Aboriginal right to fish salmon for food, social and ceremonial purposes at the mouth of the Fraser river in Musqueam traditional territory. In response to this decision, and other decisions by the SCC and lower courts,

²¹ Van der Peet, at para. 46.

²² *R. v. Adams*, [1996] 3 S.C.R. 101, [1996] 4 C.N.L.R. 1.

²³ *R. v. Sparrow*, [1990] 1 S.C.R. 1075, [1990] 3 C.N.L.R. 160.

both the federal and provincial governments have adopted policies and regulations which recognize, albeit in a somewhat limited form, the existence of Aboriginal fishing rights in BC.

These rights could act as a constraint on the Province's ability to authorize the use of groundwater, where the proposed use causes a material adverse effect to the aquatic environment on which the Aboriginal fishery depends. Through the hydrologic processes described in Douglas 2006, groundwater can provide an important contribution to maintaining the water flows and temperatures necessary to support fish habitat and populations. A government licensing decision which reduced groundwater flows or impaired the quality of groundwater so as to affect fish habitat and cause a decline or reduction in use of the fishery, may constitute a *prima facie* infringement to an Aboriginal right to harvest that fishery. To support its licensing decision against legal challenge, the Province would have to meet the test for justification.

The absence of any regulatory framework to guide the exercise of decision-making discretion by Provincial officials in licensing groundwater, as described in Legal Tools Part 1, would likely pose serious challenges to the Province's justification defence. *Adams* requires governments to put in place laws and policies to ensure that officials making resource licensing and allocation decisions have clear direction on how to address and protect Aboriginal rights. The approach taken by the provincial government to regulating groundwater use in BC arguably fails to meet this standard, because it lacks any coherent regulatory or policy framework within which potential impacts to Aboriginal rights can be identified and assessed, and Aboriginal rights accorded the required constitutional priority.

Aboriginal Title and Groundwater

Overview of the law of Aboriginal title

A declaration by a court that specific lands in BC are Aboriginal title lands could have two primary implications for groundwater control and regulation: first, a finding of title may vest the title holding Aboriginal group with sufficient control of the land surface as to give them de facto control over the extraction of groundwater; and second, the rights holding Aboriginal group may possess jurisdictional authority to directly manage and control the groundwater resource.

Aboriginal title entails an ownership interest in the land itself, which would likely entail some degree of control over how land is used, including control over who can enter onto it and carry out activities such as drilling wells required to extract sub-surface resources. Setting aside the question of whether groundwater is "owned" by the surface rights holder—a question that has a complex history at common law—the fact of control of the surface would likely give the title holding Aboriginal group control over how groundwater is accessed and used.

In addition to this aspect of the ownership of Aboriginal title is the governmental component of Aboriginal title that arises from the communal holding of Aboriginal title and the Aboriginal group's right to choose how to use the land. The full scope of this jurisdiction, as in exactly what resources it encompasses, and how it will interact with the jurisdictions of Canada and the provinces in relation to lands found to be Aboriginal title lands has not been clearly determined. Aboriginal title is protected pursuant to s. 35 of the *Constitution Act, 1982*, while the *Constitution Act, 1867*, sets out exclusive legislative jurisdiction for the federal government in Section 91(24) over "Indians, and Lands reserved for the Indians," and through s. 92 grants jurisdiction to the provinces in relation to the management of lands, property and civil rights and other heads of power that enable the provinces to regulate land and resource use. The courts have suggested that Aboriginal title lands fall within the definition of "Lands reserved for the Indians," and have not yet fully addressed how the heads of provincial power may be affected by a finding of Aboriginal title. Based on existing case law, it is possible a declaration of Aboriginal title in relation to lands within BC may oust any provincial authority to regulate surface or subsurface resources beneath those lands, including groundwater. That regulatory power would rest with the Aboriginal community which holds the title, subject to the potential exercise of federal legislative authority.

The *Tsilhqot'in* decision addresses the implications for provincial jurisdiction of a finding of Aboriginal title in the context of forestry. In *Tsilhqot'in*, the Tsilhqot'in Nation challenged provincial legislative power over the forests (through the *Forest Act*) within the Tsilhqot'in Nation's territory. With respect to lands which the Court found met the test for proof of Aboriginal title, the Court concluded that timber on Aboriginal title lands did not fall within the

definition of “Crown timber” which the *Forest Act* is concerned with. The Court further found that the application of the provisions of the *Forest Act* to forest resources on Aboriginal title lands goes to the core of Aboriginal title, and thus intrudes on the exclusive federal jurisdiction to regulate in relation to “Indians and Lands reserved for the Indians” under section 91(24). As a result, the Court concluded that “the *Forest Act* is inapplicable where it intrudes or touches upon forest resources located on Aboriginal title lands”²⁴ (see sidebar at right).

It is important to recognize that the Court’s ruling in *Tsilhqot’in* regarding Aboriginal title, including the conclusion that the Province’s forestry regime is inapplicable to Aboriginal title lands, is a non-binding legal opinion that other courts are not required to follow. However, the Court’s reasoning is based on and consistent with established legal precedent, and is therefore persuasive. In the context of groundwater, this reasoning could be relied on to support the argument that, as with forestry, the regulation and use of groundwater affects the interests at the core of Aboriginal title and is thus outside the Province’s jurisdiction. While the federal government could, at law, still arguably exercise a regulatory power governing groundwater on Aboriginal lands pursuant to s. 91(24), there is no such scheme presently in place. The immediate effect of a ruling excluding provincial jurisdiction would therefore be to place sole authority for the licensing and use of groundwater in the Aboriginal community which holds the collective Aboriginal title.

²⁴ *Tsilhqot’in*, at para. 1032.

Aboriginal Rights Protecting the Environment: Tsilhqot’in

The recent *Tsilhqot’in* decision is primarily known as a decision about Aboriginal title; however, it includes a significant consideration and application of the law related to the exercise of Aboriginal rights to hunt and trap and the protection of the environment from forestry activities to support those rights. Most importantly, the Court specifically considered the impact of these activities upon the hydrology of the region.

The Court found that the *Tsilhqot’in* peoples established an Aboriginal right to hunt and trap throughout their territory. In determining whether or not the Crown was infringing those Aboriginal rights, the Court considered the impact of forest harvesting activities on the environment. One dimension of this reasoning involved the hydrology impacts from forest harvesting activities and the comments of the Court appear to include, at least implicitly, a consideration of groundwater. The Court said the following about soil moisture, compaction and infiltration capacity:

Logging also impacts an area’s hydrology. Clear cuts change the patterns of snow accumulation and melt. They increase annual water yields, changing the timing and amount of peak flows and increase late summer soil moisture and stream flow due to reduced summer evapotranspiration. Soil compaction from heavy machinery also reduces the infiltration capacity of the soil and increases run-off from rain and snow melt. Roads and ditches change the hydrological regime resulting in a faster stream response to snow melt and rainfall. Increased peak flows affect fish-spawning habitat.

Once infringement of the Aboriginal right was established, the Court then considered whether or not the Crown was able to justify the infringement. Here, in a comment reminiscent of the SCC’s decision in *Adams*, the Court said: *Tsilhqot’in* Aboriginal rights to hunt and trap in the Claim Area must have some meaning. A management scheme that manages solely for maximizing timber values is no longer viable where it has the potential to severely and unnecessarily impact *Tsilhqot’in* Aboriginal rights.

The Court further noted the Province’s failure to develop the information required to properly assess the impact of forestry to the *Tsilhqot’in* rights, and concluded that the Province was consequently unable to justify the infringement. The Court’s reasoning on this point has potential application in the context of groundwater regulation, where the Province has no legal or policy framework to regulate and assess the impact of groundwater use in relation to Aboriginal rights.

Proof of infringement of an Aboriginal fishing right from a groundwater licensing decision would depend on the particular facts of the case. The nature and scope of the Aboriginal fishery would have to be established, and the nexus of impact to that fishery from the groundwater licensing decision would have to be proven. If an infringement is made out, the SCC’s reasoning in *Adams* indicates that the Province’s inaction in developing a regulatory scheme to manage groundwater in a manner that adequately respects Aboriginal rights may make the infringing licensing decision difficult for the Province to justify.

Treaty Rights and Groundwater

Overview of the law regarding treaty rights in B.C.

“Treaties serve to reconcile pre-existing Aboriginal sovereignty with assumed Crown sovereignty, and to define Aboriginal rights guaranteed by s. 35 of the *Constitution Act, 1982*.”²⁵

With these words, Chief Justice McLachlin of the SCC described one of the central purposes of treaties within the constitutional framework of Canada. Treaties constitute solemn promises and agreements made between Aboriginal groups and the Crown. They have been entered into across most of Canada, but only with very few Aboriginal Nations in British Columbia. The majority of the Aboriginal peoples of British Columbia have not entered into a treaty with the Crown, due to the historic policies of the Province that denied the existence or importance of Aboriginal title. However, between 1850-1854, 14 treaties on Vancouver Island were established. These are commonly referred to as the Douglas Treaties. In addition to these, an adhesion to Treaty 8 covered much of north eastern British Columbia in 1899. Since that time, the Nisga’a Treaty of 2000 and the Tsawwassen and Maa-nulth Treaties of 2008 have been negotiated by Aboriginal groups and the governments of Canada and British Columbia.

This section will discuss a decision about Douglas Treaty fishing rights to show how the courts have acted to protect the environment in support of treaty rights, in a fashion similar to their protection of the environment in support of Aboriginal rights. In addition, brief reference will be made to an American court decision related to the environment and treaty rights known as the *Culvert* decision.

25 *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73 ¶ 20, [2004] 3 S.C.R. 511, 245 D.L.R. (4th) 33, 36 B.C.L.R. (4th) 282, [2005] 1 C.N.L.R. 72, (“*Haida Nation*”).

26 *Saanichton Marina Ltd v. Tsawout Indian Band; Saanichton Marina Ltd v. Claxton*, 36 B.C.L.R. (2d) 79 (C.A.), [1989] 3 C.N.L.R. 46, (“*Saanichton Marina*”).

27 *Ibid.*, at p. 58.

28 *United States of America, et al., v. State of Washington*, United States District Court Case No. CV 9213RSM, August 22, 2007 (“*Culvert*”).

Saanichton Marina

*Claxton v. Saanichton Marina Ltd.*²⁶ is a Douglas Treaty decision that directly addresses the relationship between the environment and the treaty right to fish. It arose from a challenge to a provincial licence of occupation that was granted for the purposes of building a marina and breakwater in Saanichton Bay. That Bay is a central component of the Tsawout First Nation’s fishery, and as such, is protected by the Treaty of 1852, which recognizes the Tsawout right to “carry on [their] fisheries as formerly”.

In its decision, the Court noted that the word “fisheries” denotes “not only the right to catch fish but also the place where the right can be exercised.” The Tsawout argued that the construction of the breakwater and marina would adversely impact their fishery, including: destruction of the eel grass beds associated with their crab fishery; destruction of shellfish habitat; and, a reduction of the Bay’s capacity to support cutthroat trout.

The Court agreed, and ordered an injunction against the construction of the marina and decided that:

“There is no question that if the license of occupation derogates from the treaty right of the Indians, it is of no force and effect. The Province cannot act to contravene the treaty rights of Indians, nor can it authorize others to do so.”²⁷

The *Saanichton Marina* decision thus provides a powerful illustration of the potential for treaty rights regarding fisheries to restrict the ability of governments to authorize activities that impair the environment upon which the fisheries depend.

Culvert Decision

The United States District Court recently came to a similar conclusion regarding the treaty right to fish of the 1855 *Treaty of Point Elliott*. Judge Martinez stated in the *Culvert*²⁸ decision:

“this Court finds that the Treaties do impose a duty upon the State to refrain from building or maintaining culverts in such a manner as to block the passage of fish upstream or down, to or from the Tribes’ usual and accustomed fishing places. This is not a broad “environmental servitude” or the imposition of an affirmative duty to take all possible steps to protect fish runs as the State protests, but

rather a narrow directive to refrain from impeding fish runs in one specific manner.

... This duty arises directly from the right of taking fish that was assured to the Tribes in the Treaties, and is necessary to fulfill the promises made to the Tribes regarding the extent of that right.”

Since this decision has not been adopted by any Canadian court, it remains only an example of how this issue is dealt with in other jurisdictions. Nonetheless, it provides support for the proposition that a healthy environment is required, and will be protected, in support of treaty rights.

Contemporary Treaties and Groundwater

A review of the modern treaties negotiated since the early 1990s with First Nations makes it clear that the approach to groundwater has varied considerably. The Nisga'a Treaty (2000) does not specifically address groundwater. The Tsawwassen Treaty (2008) is also silent on the issue, though the recent Maa-nulth Treaty (to be ratified in 2009) does address groundwater and its approach has been mirrored in the recent Agreements-in-Principle of the Yale, Yekooche and In-SHUCK-ch Nations.

The Maa-nulth Treaty states that “storage, diversion, extraction or use of water and Groundwater will be in accordance with Federal Law and Provincial Law.” With this language, the potential jurisdiction over groundwater arising from Aboriginal title discussed above is ceded to the Crown. The Treaty also includes a provision to guide the allocation of groundwater to First Nations in the event that the Province ever enacts groundwater regulations and this jurisdiction is explicitly recognized as applying to the First Nations Treaty lands. One part of the Maa-nulth Treaty groundwater provisions is included as Appendix A.

Application to groundwater

The case law indicates that the potential for treaty rights to limit the Province's regulation and use of groundwater would depend on the intention and purpose of the Treaty, as indicated by the express language of the Treaty and any surrounding circumstances which enable the proper interpretation of the Treaty. In *Saanichton Marina* the Court had little difficulty recognizing that the promise of the continued exercise of a fishing right will be rendered hollow if the habitat and environment upon which the right

depends is destroyed or substantially impaired. This reasoning would have direct application to the other Douglas Treaties, which contain this same language, and would be persuasive in interpreting treaties with similar provisions.

As with Aboriginal rights, the ability to rely on this reasoning would depend, in part, on sufficient evidence of the risk of material harm to the treaty right from a proposed use of groundwater; however, where that evidence exists, *Saanichton Marina* indicates that beneficiaries of treaties containing language similar to that considered by the Court of Appeal may have a strong remedy in being able to halt the proposed use.

The contemporary treaties concluded thus far in BC may offer lesser protection. To the extent a treaty is silent on the issue, as in the Nisga'a Treaty, the government's rights and responsibilities in relation to groundwater regulation may fall to be determined by other legal principles. And where a treaty expressly recognizes provincial jurisdiction, as in the Maa-nulth Treaty, the Province would likely maintain that its power to authorize groundwater use is unimpaired by any treaty obligation.

Crown Consultation and Groundwater

Overview of the law of consultation

The constraints on the Crown's ability to infringe Aboriginal and treaty rights discussed above have been in relation to rights that are already proven or established in the courts, or through negotiation. As noted earlier, the courts have not yet declared the existence of Aboriginal title anywhere in Canada. Also, the courts have only begun to address the scope and content of Aboriginal rights. While the goals of recognition and reconciliation have been vigorously pursued by Aboriginal groups through both negotiation and, when necessary, litigation, the federal and provincial governments have been slow to alter regulatory and policy regimes to create space for Aboriginal constitutional interests.

This failure by governments to proactively address and accommodate Aboriginal interests is exemplified by the practice of refusing to recognize, address and accommodate Aboriginal interests until they were proven in court, or recognized through negotiation. In effect, governments took the position that their regulatory powers were not constrained by unproven rights. If a right was proven, the

government may have to justify infringement of that right, but until the right was proven governments denied that they had any responsibility to alter their decisions so as to address and protect asserted Aboriginal rights.

Aboriginal groups, concerned that the substance of their rights would be irretrievably harmed, alienated or destroyed during the time required for lengthy negotiations or litigation, argued that government powers must be constrained by the existence of asserted, as well as proven, rights. The concern was most clearly stated in the landmark *Haida Nation*²⁹ decision, where the Court stated:

“To unilaterally exploit a claimed resource during the process of proving and resolving the Aboriginal claim to that resource, may be to deprive the Aboriginal claimants of some or all of the benefit of the resource. That is not honourable.”³⁰

In *Haida Nation*, the SCC determined that whenever the Crown contemplates conduct that may adversely affect asserted Aboriginal rights or title, the Crown is under a duty to consult and, where appropriate, accommodate the Aboriginal groups about that adverse impact. The scope and nature of the Crown’s duty will vary with the circumstances, and depends on two primary variables: the strength of the case in support of the asserted right, and the potential adverse impact from the Crown’s conduct. Where the strength of case and potential for adverse impact is high, the Crown’s duty will be more onerous. Conversely, where both elements are weak, the Crown’s duty will be less.

Since the decision in *Haida Nation* there have been many successful cases brought by Aboriginal groups seeking to enforce the Crown’s duty to meaningfully consult and accommodate in relation to various Crown decisions. These cases have demonstrated that should the Crown fail to uphold this constitutionally mandated duty, the resulting Crown decisions are susceptible to being suspended or overturned by the courts. While the case law is still developing, a number of decisions³¹ demonstrate that the government’s duties go beyond according Aboriginal

peoples procedural rights, such as notice of a decision and the ability to provide input, and can include, in appropriate cases, the duty to take concrete, measurable steps to identify and accommodate expressed Aboriginal concerns.

The SCC applied the principles developed in *Haida Nation* in the treaty context in the *Mikisew*³² decision. The SCC quashed an approval by the federal government for the construction of a road because the government failed to consult with the Mikisew Cree First Nation regarding the impacts upon their treaty rights. Here, the rights are clearly established by Treaty 8—so they are not merely asserted rights. However, the Court determined that, because the honour of the Crown infuses every treaty and the performance of every treaty obligation, Treaty 8 provides procedural rights to consultation, in addition to the substantive treaty rights.

Application to groundwater

An important limitation to the ability of Aboriginal rights and treaty rights to constrain government’s use of groundwater is the need for evidence demonstrating impairment of the right by the proposed use. Assembling this evidence can be challenging (due to the lack of clarity in the science regarding groundwater and its interaction with surface water flows) and expensive. The Crown’s duty to consult and accommodate Aboriginal peoples, however, does not depend on proof of harm. The duty is triggered when there is *potential* for a government decision or action to adversely impact a claimed Aboriginal right. The duty to consult and accommodate may therefore require the government to take steps to address Aboriginal interests, where the evidence available falls short of proving an infringement.

Based on *Haida Nation*, it is likely that consultation would be required prior to the Province issuing an authorization to use groundwater (see sidebar opposite). Such an authorization may pose the risk of adverse impact to an Aboriginal fishery, or may be understood as adversely affecting the jurisdictional interests inherent in asserted Aboriginal title, such as to trigger the duty. The precise scope and nature of the duty would need to be ascertained on the facts of each case. Where the claim for Aboriginal rights and/or title is strong, and there is the risk of a significant adverse affect, the law may require the Province to enable substantial Aboriginal participation in the ap-

29 *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73, [2005] 1 C.N.L.R. 72.

30 *Ibid.*, at para. 27.

31 See *Klaboose First Nation v. Sunshine Coast Forest District (District Manager)*, 2008 BCSC 1642; and, *Wii’litsw:xx v. British Columbia (Minister of Forests)*, 2008 BCSC 1139.

32 *Mikisew Cree First Nation v. Canada (Minister of Canadian Heritage)*, 2005 SCC 69

plication review and decision-making process. This could entail provision of relevant information, preparation of studies to assess potential impacts, meetings to assess the application and understand the Aboriginal interests and concerns at issue, and Aboriginal input and participation in the decision-making process. This process of consultation is specific to the Crown-Aboriginal relationship, and in general cannot be met through a public process in which all participants, Aboriginal and non-Aboriginal, are given the same status and opportunity for participation.

The substantive issues addressed through the consultation process would depend on the facts of the case. Existing case law indicates that where there is potential for adverse impacts to Aboriginal interests, the Province may be legally required to take specific, concrete steps to accommodate Aboriginal peoples. This could include adding conditions to an authorization so as to minimize or avoid impacts, requiring follow up studies and monitoring programs, reducing the total amount of groundwater to be withdrawn or shortening the time period in which withdrawals may occur, and similar measures. Compensation may also be required, to accommodate for impacts to the ownership and jurisdictional interests inherent in Aboriginal title.

The duty to consult and accommodate is ultimately directed at ensuring the honour of the Crown is upheld pending resolution of Aboriginal claims. While assessing whether that objective has been achieved in a given case would depend on the particular process and outcomes, the case law provides a persuasive basis for requiring some measure of Aboriginal participation in determinations affecting groundwater in BC.

Chemainus Wells Water Supply Project Case study

On Vancouver Island, a proposal by the District of North Cowichan to construct a groundwater supply system adjacent to the Halalt First Nation's Reserve No. 2 on the Chemainus River provides an example of the potential for conflict between the Province's power to authorize a groundwater project and the potential Aboriginal right to fish and Aboriginal title of the First Nation. On March 10, 2009, the Province granted an Environmental Assessment Certificate to the proponent. The project has yet to receive the necessary provincial licenses and other approvals, including federal approval pursuant to the *Canadian Environmental Assessment Act*.

The proposed wells would be located within a few meters of the Halalt Indian Reserve, where the Chemainus River flows through the Reserve, and are capable of extracting a significant amount of water from the Chemainus River aquifer. Among the issues being considered is the fact that the Halalt community water supply also depends upon groundwater from wells tapping the same aquifer, and that the Halalt fishery on the Chemainus River could be impacted by the municipality's groundwater project and operation of the wells.

The application and documents arising from the environmental assessment process, and resulting Provincial certificate, are available on the Project Information Centre accessible through the Environmental Assessment Office website at www.eao.gov.bc.ca

Appendix A – Maa-Nulth Treaty Groundwater Provision (excerpt)

CHAPTER 8 WATER

8.1.0 GENERAL

8.1.1 Storage, diversion, extraction or use of water and Groundwater will be in accordance with Federal Law and Provincial Law.

8.5.0 GROUNDWATER

8.5.1 If British Columbia brings into force Provincial Law regulating the volume of Groundwater under Maa-nulth First Nation Lands which may be extracted and used, British Columbia will, if Groundwater is reasonably available, negotiate and attempt to reach agreement with the applicable Maa-nulth First Nation on the volume of Groundwater which may be extracted and used for domestic, agricultural and industrial purposes by that Maa-nulth First Nation on its Maa-nulth First Nation Lands for as long as such Provincial Law is in effect.

8.5.2 For the purposes of 8.5.1, British Columbia and the applicable Maa-nulth First Nation will determine the:

- (a) volume of flow of Groundwater which can reasonably be withdrawn from the Groundwater aquifer under consideration while maintaining the sustainability and quality of the Groundwater from the aquifer; and
- (b) existing and reasonable future needs for Groundwater of the applicable Maa-nulth First Nation and its Maa-nulth-aht on its Maa-nulth First Nation Lands, as well as the existing and future needs of other users in the area, and take into account any applicable requirement under Federal Law and Provincial Law.

8.5.3 If British Columbia and the applicable Maa-nulth First Nation fail to agree under 8.5.1 and 8.5.2 on the volume of Groundwater which may be extracted and used by that Maa-nulth First Nation, British Columbia or the applicable Maa-nulth First Nation may refer the matter to be finally determined by arbitration under Chapter 25 Dispute Resolution without having to proceed through Stages One and Two.

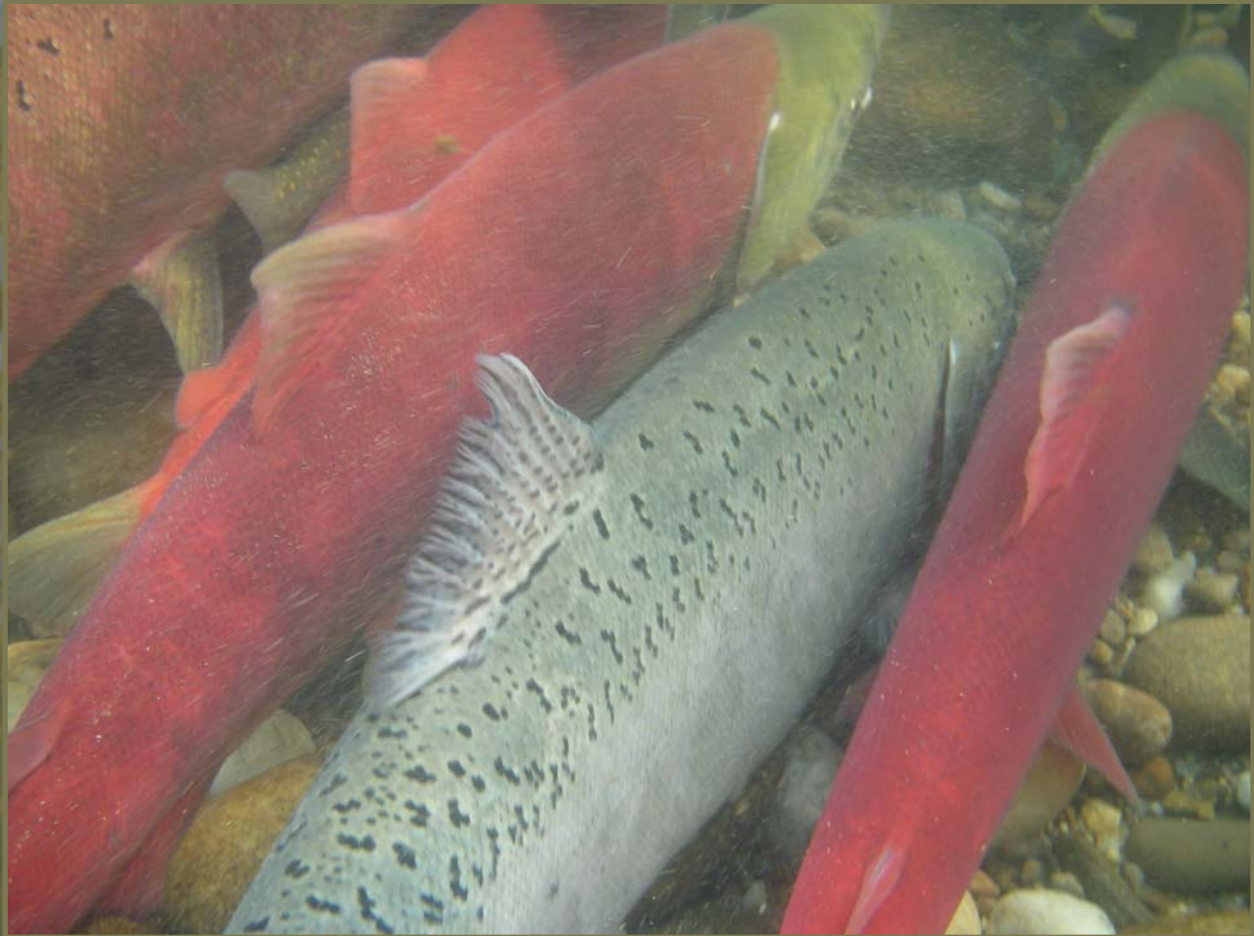
8.5.4 Access to extract Groundwater on Maa-nulth First Nation Lands requires the consent of the applicable Maa-nulth First Nation.

Conclusion

Courts have acted to protect the environment in support of Aboriginal and treaty rights. The *Tsilhqot'in* and *Saanichton Marina* decisions demonstrate this. The courts of the United States have acted in a similar fashion in the *Culvert* decision. These decisions point toward a potential legal shield that can be used to protect groundwater, and the fisheries resources that depend upon it, against the adverse affects of Crown decisions that would infringe upon those rights in an unjustified manner.

Augmenting this protective shield, Aboriginal title holds the promise of being a positive source of jurisdiction over Aboriginal title lands which could be used to protect groundwater and salmon. Inherent in the very definition of Aboriginal title is that it must be used in a way that ensures that future generations of Aboriginal peoples will continue to benefit from the relationship and connection to their lands. However, it remains to be clearly determined how Aboriginal jurisdiction over groundwater would interact with potential future provincial or federal groundwater legislation, and the costs entailed in proving an Aboriginal title claim mean that cases determinatively establishing Aboriginal title in BC are likely some ways off.

Reconciliation of the prior existence of Aboriginal peoples with the assertion of Crown sovereignty must still be pursued through the consultation and accommodation process while the broader processes of rights recognition and negotiation are pursued. It is through these processes, where the Crown must demonstrably integrate Aboriginal peoples and concerns into the groundwater management process, which likely hold the most immediate potential to affect and limit provincial actions regarding groundwater in BC. This is particularly so in relation to groundwater decisions that have the potential to affect the waters on which Aboriginal fishing rights depend.



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