The Professional Reliance Model in BC: Lessons Learned and the Path Ahead

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January 19, 2018

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PART I. INTRODUCTION

This review of the efficacy of professional reliance model as a vehicle for regulating natural resource sector, and protecting public health and the environment, is extremely timely. Many British Columbians have lost trust in the wide range of provincial regulatory processes including environmental assessment, resource permitting, and enforcement and compliance. A key reason for this loss of trust is the Province's growing reliance on industry, and its hired qualified professionals ("QPs"), to take on the traditional role of the government in protecting the public interest. This has contributed to a growing perception that the provincial government no longer has the will or capacity to make regulatory decisions, based on credible science, that protect British Columbia and British Columbians.

Similar concerns about the need to restore public trust in environmental and natural resource regulatory processes have been forcefully raised at the federal level, particularly since legislative changes to various federal environmental law regimes were brought in place in 2012. These calls created the momentum for a far-reaching federal law review and reform initiative that is currently under way with regards to the *Fisheries Act*, *National Energy Board Act*, *Navigation Protection Act*, and the *Canadian Environmental Assessment Act, 2012*. The key goal in these federal regulatory reviews is to restore public trust and social licence.[1]

There are many reasons why British Columbians are questioning the integrity and efficacy of the professional reliance model within our provincial regulatory regimes. Among them are:

1. The downsizing of the Province's regulatory and scientific capacity.[2]

2. The growing reliance by regulators on industry experts and the overly close relationship between the regulators and the regulated, raising questions about the transparency and independence of the science being relied upon by proponents and regulators.[3]

3. Major projects receiving provincial approval with perfunctory or no provincial environmental assessment ("EA").[4]

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[1] Government of Canada, Ministerial Statement, *Government of Canada Moves to Restore Trust in Environmental Assessment* (27 January 2016): https://www.newswire.ca/news-releases/ministerial-statement---government-of-canada-moves-to-restore-trust-in-environmental-assessment-566762041.html.

[2] See Andrew Gage, "The Problem With Relying (Too Much) On Industry-Hired Professionals" (4 January 2018), *Desmog Canada*: https://www.desmog.ca/2018/01/04/problem-relying-too-much-industry-hired-professionals.

[3] For example, a key aspect of the BC Supreme Court's decision in *Shawnigan Residents Association* concerned the financial relationship between the industry proponent and the qualified professionals that the proponent had hired to provide expert evidence before the Environmental Appeal Board ("EAB"): *Shawnigan Residents Association v. British Columbia (Director, Environmental Management Act)*, 2017 BCSC 107. Additionally, in *Toews*, the EAB itself dealt with an allegation of reasonable apprehension of bias involving a secondment agreement between the Ministry of Environment and the industry proponent in relation to the processing of a permitting application: *Toews v. British Columbia (Director, Environmental Management Act)* (2015), [2015] B.C.E.A. No. 25, 2015 CarswellBC 3804 at paras. 168-175 (BCEAB).

[4] For an example of a critique of a provincial EA of a major project, see the Prosperity Gold-Copper Mine Project proposed by Taseko Mines Limited: Mark Haddock, July 2011, *Comparison of the British Columbia and Federal Environmental Assessments for the Prosperity Mine*, Prepared for Northwest Institute for Bioregional Research: http://northwestinstitute.ca/images/uploads/NWI_EAreport_July2011.pdf. In addition, the Kitimat Modernization

4. Absence or inadequacy of basic baseline scientific data.[5]

5. Lack of integration between available science, permitting decisions, and steps taken to discharge the Crown's duty to consult and uphold the Honour of the Crown.[6]

6. Over reliance on adaptive management and the failure to identify situations in which a precautionary approach should be employed.[7]

7. Lack of or inadequate enforcement.[8]

As the foregoing shows, the issues surrounding professional reliance in British Columbia as a model for provincial regulation are broad and systemic, interwoven with questions of democratic legitimacy, scientific integrity, and constitutional obligations owed to the rights protected under section 35 of the Canadian *Constitution*. In contrast, the questions you have been asked to make recommendations on are quite narrow. In this review, you have been asked to make recommendations on the following questions:

1. Whether professional associations that oversee QPs employ best practices to protect the public interest;
2. Whether government oversight of professional associations is adequate; and,
3. Conditions governing the involvement of QPs in government's resource management decisions and the appropriate level of government oversight to assure the public their interests are protected.[9]

These questions are certainly important questions, but they tend to focus on how the current system of professional reliance can be tweaked at the margins; on how to make the current QP system work better. What they fail to grapple, however, is the more fundamental issue of

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Project is a proposal involving the modernization of an aluminum smelter owned and operated by Rio Tinto Alcan Inc. ("RTA") located in Kitimat, BC. As part of this modernization process, RTA applied to the provincial Ministry of Environment for an increase to its maximum allowable sulphur dioxide emissions, an air pollutant with links to increased health risks to asthmatics and those with chronic obstructive pulmonary disease, from 27 tonnes per day to 42 tonnes per day. This increase in air pollution was approved without a need for a provincial EA.

[5] For example, the EAs of both the Enbridge Northern Gateway Project and the Trans Mountain Expansion Project have been criticized for the absence or inadequacy of baseline scientific data, such as those for marine wildlife that may be impacted by a marine oil spill, thereby compromising the prediction of the degree and extent of the potential adverse environmental effects. Moreover, in the case of RTA's Kitimat Modernization Project, see *supra* note 4, the hearing panel grappled with the issue of lack of baseline public health information and, in its decision, recommended that the Province conduct a regional health study to gather such information: *Toews*, *supra* note 3 at para. 513.

[6] For an example of the complexity in using scientific information to challenge industry development in the context of an alleged aboriginal treaty right infringement, see *Yahey v. British Columbia*, 2017 BCSC 899. For a similar example within the tribunal context, see *Gale v. British Columbia (Assistant Regional Water Manager)* (2015), [2015] B.C.W.L.D. 6811, 2015 CarswellBC 2588 (BCEAB).

[7] In *Toews*, the appellants argued that the EAB should employ the precautionary principle and determine whether adaptive management is appropriate in the circumstances, drawing on the legal tests that have been established under case law from Australia and New Zealand: *Toews*, *supra* note 3 at paras. 201-236.

[8] See Auditor General of British Columbia, *An Audit of Compliance and Enforcement of the Mining Sector* (May 2016): https://www.bcauditor.com/sites/default/files/publications/reports/OAGBC%20Mining%20Report%20FINAL.pdf.

[9] https://engage.gov.bc.ca/govtogetherbc/consultation/professional-reliance-review/.

whether and to what extent the Province ought to continue down the path of employing, on a system-wide basis, the professional reliance model that was established by the previous government. It is our hope that this review will not neglect this bigger picture.

In light of the foregoing, we believe that it is critical to take this opportunity to offer submissions that address not only the specific questions mandated under this review, but also the broader systemic problems in provincial regulation and how professional reliance fits into this big picture.

PART II. ABOUT SKEENAWILD CONSERVATION TRUST

SkeenaWild Conservation Trust ("SkeenaWild") is a charitable purpose trust whose goal is to make the Skeena River watershed and nearby coastal communities a global model of sustainability. To achieve this, we have worked in northwestern British Columbia since 2007 to conserve and strengthen fish populations, sustain healthy communities, improve decision-making and long-term planning, and support the rights of Indigenous peoples to free, prior and informed consent on development in the region.

The foundation of SkeenaWild's work is using the best available science in working with local communities and all levels of government to increase the understanding of the impacts of existing and proposed development, as well as inform strategies to mitigate or avoid those impacts. SkeenaWild has been involved in numerous environmental assessments, planning processes, salmon conservations and rebuilding efforts, scientific studies, salmon population assessments, and public education initiatives in the region.

Through our work, we have had extensive exposure to the way in which the Province employs professional reliance in its regulatory processes.[10] For example, when Rio Tinto Alcan Inc. ("RTA") proposed to significantly increase its sulphur dioxide ("SO_2") emissions from its aluminum smelter in Kitimat, SkeenaWild was concerned, among other things, about the over reliance by the Ministry of Environment upon the information provided by the QPs retained by RTA. Throughout the permitting process and during the appeal of that permit before the Environmental Appeal Board, the Province relied heavily on the data, analyses, and advice provided by the consulting firm hired by RTA for the permit application.

SkeenaWild was also closely involved in the federal EA of the Pacific NorthWest LNG Project, a project involving the construction of a liquified natural gas facility and export terminal near Prince Rupert. During the EA process, SkeenaWild challenged the reliance by the Canadian Environmental Assessment Agency on the proponent's assessment of baseline data on fish, despite the existence of independent, peer-reviewed scientific evidence to the contrary.[11] Moreover, SkeenaWild challenged the Agency's reliance on the 3D modelling provided by the proponent's experts without adequate analysis of competing modeling results provided by independent experts from Indigenous and other groups.[12]

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[10] See Part III *infra* for a discussion of the definition of "professional reliance".

[11] SkeenaWild Conservation Trust, *Comments on the CEA Agency draft environmental assessment report into the Pacific NorthWest LNG Project* (11 March 2016) at para. 92: http://www.ceaa.gc.ca/050/documents/p80032/108704E.pdf.

[12] *Ibid*. at paras. 94-115.

These and other experiences (including KSM mine, Aurora LNG, LNG Canada, Pacific Future refinery) have given SkeenaWild significant insight into the Province's professional reliance model of regulation, and inform the submissions that SkeenaWild is now offering to this review.

PART III. DEFINING PROFESSIONAL RELIANCE

It is important to define what we mean by "professional reliance". In a pioneering report on professional reliance in British Columbia, Mark Haddock defines three broad types of reliance upon professional expertise:

1. **Common reliance.** This is the most common type of reliance that is ubiquitous in everyday life, in which we rely on professionals for all sorts of activities from the mechanics who repair our vehicles to architects who design our buildings. Some provincial regulations require certain activities to only be conducted by a QP, but this does not displace the government's role in providing regulatory decision-making and oversight.[13]

2. **Information or design reliance.** The government may require that an applicant for a permit or licence provide information that is endorsed by a QP. Such information includes site-specific information such as baseline data or design information for structures that are proposed to be constructed. This type of reliance ensures quality control over the information used in the permitting process and may be important for risk assessment and establishing permit conditions. Usually, the government retains discretion to withhold the permit or licence.[14]

3. **Decision-making or regulatory reliance.** This third type of reliance involves not only the provision of information by QPs to the statutory decision-maker, but also the substitution of expert opinions made by these external QPs for those that were formerly provided by internal government employees. This type of reliance "put independent professionals – i.e. employees or contractors to the party carrying out the activity – in the driver's seat by having them make decisions instead of government officials."[15] The Province has labeled this approach as "professional reliance".[16]

In these submissions, we are concerned with the second and third types of reliance upon professional expertise by the Province.

PART IV. DISCUSSION & RECOMMENDATIONS

In British Columbia, QPs, particularly those provided by industry proponents, have become the main knowledge providers within regulatory processes, such as permitting and licencing regimes (including enforcement) and within provincial environmental assessment, even though QPs are not the final decision-makers. Because QPs now frequently play a monopolistic role in

[13] Mark Haddock, *Professional Reliance and Environmental Regulation in British Columbia*, Prepared for the Environmental Law Centre (February 2015) at 13: http://www.elc.uvic.ca/wordpress/wp-content/uploads/2015/02/Professional-Reliance-and-Environmental-Regulation-in-BC_2015Feb9.pdf.
[14] *Ibid.* at 13-14.
[15] *Ibid*. at 14.
[16] *Ibid*.

knowledge provision, and due to budget cuts to regulatory agencies rendering them more reliant on outside advice, the influence of proponent-hired QPs over regulatory decision-making has become central and difficult to challenge.

In SkeenaWild's view, public trust in the Province's regulatory decision-making in environmental and resource development settings is intimately tied to process. This process must be transparent, fair, and balanced. Moreover, this process must use the best available and credible science to inform evidence-based decisions. The best available and credible science should include good baseline data, data transparency, and the consideration of cumulative effects, risk assessment of malfunctions and accidents, and Indigenous knowledge. Lastly, this process must recognize and respect Aboriginal rights guaranteed under section 35 of the *Constitution*.

Within these important process parameters, SkeenaWild recognizes that there can be a role for reliance on professionals, both in terms of *information or design reliance* and *decision-making or regulatory reliance* discussed in Part III. Further, it should not be assumed that reliance upon QPs for information and design in regulatory processes is necessarily benign, nor that professional reliance in decision-making is the most pressing concern. In the end, however, the Province must be able to show that QPs can play these roles without compromising the public interest, which in turn requires, among other things, regulatory regimes that are demonstrably free from industry control and manipulation.

In short, SkeenaWild believes that the role of QPs in provincial regulatory processes has been allowed to morph and grow with little or no oversight or sober second thought. This review is an important opportunity to provide that second thought. In this Part, we discuss and give recommendations on three key areas: a) restoring public trust, b) constraining professional reliance, and c) designing regulation to protect the public interest.

A. Restoring Public Trust

There are four areas of concern with respect to professional reliance that the Province must address in order to restore public trust in its regulatory processes.

1) <u>Regulatory Independence</u>

Regulatory agencies and processes must maintain both functional and optical distinction between the regulators and those being regulated. Where the relationship between regulators and the regulated has become so tangled that regulation is directed away from the public interest and towards the interest of industry, we call this regulatory capture.[17] According to MacLean, "[r]egulatory capture… is at the root of all other issues implicating the public interest... [and] must therefore be addressed before any other public interest regulatory issue can be properly resolved, including environmental protection."[18]

[17] Daniel Carpenter & David A. Moss, eds, *Preventing Regulatory Capture: Special Interest Influence and How to Limit It* (New York: Cambridge University Press, 2014) at 13.
[18] Jason MacLean, "Striking at the Root Problem of Canadian Environmental Law: Identifying and Escaping Regulatory Capture" (2016) 16 *JELP* 111 at 118-119.

The 2013 approval of a contaminated waste dump in a quarry near Shawnigan Lake on Vancouver Island illustrates some of the problems associated with regulatory capture. The proponent, Cobble Hill Holdings Ltd. ("CHH"), retained Active Earth Engineering Ltd. ("Active Earth") to act as CHH's QPs for the purpose of the permit application. Unbeknownst to the general public at the time was the fact that CHH and Active Earth had entered into a financial arrangement that gave Active Earth an ownership interest in the project.[19] The Ministry of Environment approved the permit in 2013, having relied on the information provided by Active Earth.

The Shawnigan Residents Association, Cowichan Valley Regional District, and several individuals challenged the approval before the EAB. While these appellants apparently did not know the full extent of the financial relationship between CHH and Active Earth at that time, they nevertheless argued before the EAB that Active Earth was acting as an "advocate" for the project rather than providing independent advice in their capacity as QPs.[20] This argument was based instead on evidence that Active Earth had not been fully paid by CHH for some of the work. Therefore, Active Earth was a biased advocate because payment would depend on the outcome of the permit application.

The EAB upheld the Ministry's approval. In its decision, it found that "it was clear to the [statutory decision-maker] that Active Earth was an advocate for the permit application."[21] Moreover, the EAB found "the fact that Active Earth was an advocate for the application… does not disqualify Active Earth from being a 'Qualified Professional' for the permit application."[22]

The full extent of the financial relationship between CHH and Active Earth became public after the EAB's decision. On judicial review, the BC Supreme Court overturned the EAB's decision, although the court was satisfied that the EAB came to its conclusion based on misinformation about the relationship between CHH and Active Earth.[23] The court remitted the decision back to the EAB for reconsideration.

The saga of the proposed Shawnigan Lake contaminated waste dump offers two key insights regarding professional reliance and regulatory capture in BC. Firstly, the statutory decision-maker was apparently unconcerned by the fact that Active Earth was acting as an advocate for the proponent while it was simultaneously providing independent advice to government in its capacity as QP. As made evident in the EAB's reasons, the statutory decision-maker relied upon Active Earth's information and advice even though it was clear to the statutory decision-maker that Active Earth was acting as an advocate. This is an example of how regulators can become so beholden to the advice provided by industry-hired QPs that they lose sight of the independent and critical role we expect them to play in representing the public interest.

Also concerning in this saga was the willingness of the EAB to condone the regulator's behaviour. As the BC Supreme Court found, a QP is expected to provide "unbiased and sound

[19] *Shawnigan* (BCSC), *supra* note 3 at paras. 113-167.
[20] *Shawnigan Residents Assn. v. British Columbia (Director's Delegate, Environmental Management Act)* (2015), [2015] B.C.W.L.D. 3010, 2015 CarswellBC 802 at paras. 269-270 (BCEAB).
[21] *Ibid.* at para. 272.
[22] *Ibid.*
[23] *Shawnigan* (BCSC), *supra* note 3 at para. 167.

information in connection with the project under consideration."[24] British Columbians should not be expected to trust a regulatory model in which a statutory decision-maker fails to take action when it becomes apparent that a QP has become an advocate for a project proponent. Likewise, the public has a right to expect that, when these facts come to light, swift action to hold the regulator accountable will be taken by the appropriate oversight body, in this case the EAB. In this era of professional reliance, the EAB must be ready to serve as a fearless and outspoken watchdog against conflict of interest and regulatory capture.

The story of Shawnigan Lake has some parallels with the story of RTA's application to increase its air pollution in Kitimat, discussed briefly in Part II. This story also arises within the context of a permitting process and a financial arrangement. However, in this case, the regulator itself was party to the financial arrangement. As early as 2007, RTA approached the Ministry of Environment about upgrading its aluminum smelter, which would involve increasing its SO_2 emissions.[25] In November 2007, the Ministry of Environment and RTA entered into a "secondment agreement" in which one of the ministry's employees who had been assigned to work exclusively on RTA's permit application would be "seconded" to RTA and, in return, RTA would reimburse the Province for the employee's salary and benefits.[26] This arrangement continued until 2013, when the Ministry approved RTA's application.[27]

Two Kitimat residents challenged the Ministry's approval before the EAB. As in the case of Shawnigan Lake, the EAB upheld the approval. One of the grounds for challenging the permit was this secondment agreement; in particular, whether the arrangement between the regulator and the industry proponent raised a reasonable apprehension of bias. The EAB found that the appellants failed to discharge their burden at law to show this reasonable apprehension of bias existed.[28]

Leaving aside this legal determination, however, it is instructive to take a closer look at the relationship between the regulator and industry in this example. This secondment arrangement can be seen as a novel and highly troubling variation on the conventional professional reliance theme. According to Haddock, "regulatory reliance" involves putting the proponent's contractor into the regulatory driver's seat.[29] Here, the secondment of the Ministry employee to the proponent could be interpreted as installing someone, who was already in the regulatory driver's seat, into a role where it could appear that they were working for and answerable to a powerful private proponent.

Public trust in the independence of our regulators goes hand-in-hand with public trust in any professional reliance model of regulation. The close nature of the relationship between regulators and industry as illustrated by these examples presents an inescapable challenge, both functionally and optically, to regulatory independence in this province. A key prerequisite to

[24] *Ibid.* at para. 120 (emphasis added).
[25] *Toews* (BCEAB), *supra* note 3 at paras. 9-10.
[26] *Ibid.* at para. 12.
[27] Carol Linnitt, "Tribunal Hears Regulatory Capture Behind B.C.'s Decision to Increase Rio Tinto Alcan Pollution in Kitimat Airshed" (28 April 2015), *Desmog Canada*: https://www.desmog.ca/2015/04/28/tribunal-hears-regulatory-capture-behind-b-c-s-decision-increase-rio-tinto-alcan-pollution-kitimat-airshed.
[28] *Toews* (BCEAB), *supra* note 3 at paras. 168-175.
[29] See discussion in Part III, *supra*.

charting the future role of professional reliance in British Columbia is the need to restore public trust in regulatory independence. Recent cases have undermined that trust. This review should recommend steps as to how that trust can be regained.

2) Using Best Available Science

Another key element in this review of professional reliance should be a commitment to ensuring that regulatory decision-making is based on the best available science. Science is both a process of gathering information and the knowledge that this process yields. Therefore, in our view, best available science relates to both the integrity of process and the quality of information.

Scientific process and data must be free of control and manipulation by industry proponents. They must also be transparent and available to the public. The information provided, and assessments conducted, by QPs in our regulatory processes should be unbiased and cannot be designed to achieve a desirable outcome for their industry clients. However, the current professional reliance model creates a perverse incentive for ostensibly independent QPs to provide scientific results and advice favourable to their clients' proposals.[30] Where science is a process of gathering information, regulatory independence helps to ensure the integrity of this process. We have already discussed some issues surrounding regulatory independence in the previous section.

With respect to best available science as it relates to the quality of the information, one of the key issues that arises in the context of professional reliance is the problem of gaps in available data and the failure of the professional reliance model to resolve these deficiencies. In the current regulatory setting, there are often significant gaps in the available scientific and technical data informing permitting and environmental assessment decisions. Under the professional reliance model, the responsibility falls upon the proponent and the QPs that it hires to gather and analyze the data and provide the results to the statutory decision-makers. Too often, however, proponents push back and decline to conduct adequate baseline research that is essential to informing responsible regulatory decisions and supporting continued monitoring and enforcement.

In the example of the RTA smelter discussed earlier, one of the key controversies in the appeal before the EAB was the Ministry of Environment's assessment of potential impacts of increased SO_2 emissions on human health.[31] The Ministry had accepted the predictions made by the QPs hired by RTA as to the potential impact of increased SO_2 on the health of local residents without any actual baseline public health data on the affected community. Instead of undertaking this baseline study, RTA ultimately was persuaded to commit to participate in a regional health study led by the Province to be undertaken at some point after the permit approval.[32] While it is reasonable and acceptable for a public health study to be led by government rather than by industry for privacy reasons alone, the fact that the regulator could approve a significant permit amendment despite the existence of such a key data gap is problematic. The professional reliance model provides no incentive for industry proponents to devote their resources to the gathering of baseline data (on the environment, public health, or otherwise). In the end, the EAB

[30] See Gage (2018), *supra* note 2.
[31] *Toews*, *supra* note 3 at paras. 263-379.
[32] *Ibid.* at paras. 308, 313, 319 & 336.

recommended that the Province conduct a regional health study of the Kitimat area in order to inform future planning.[33]

Quality control over the information provided by industry-hired QPs is another issue relating to using best available science. In the professional reliance model, industry-hired QPs are responsible for gathering the data in support of regulatory decisions, and they retain a broad degree of control over the distribution and publication of this data. In many instances, proponents and their QPs do not share the data that they collect, often stating that the data and information are proprietary, and the only information that is shared is the proponent's final analyses and conclusions. This lack of access to the data hampers the public's ability to hold proponents accountable.

Another issue is the growing reliance by both proponents and regulators on impact assessment models developed and manipulated by proponents and their QP's. These models have significant limitations at the best of times, and often inadequate data are used as inputs to the models. This issue was highlighted by First Nations and independent scientists during the federal EA for the Pacific NorthWest LNG Project. Federal agencies repeatedly requested that the proponent collect additional current flow data for input into the model used to assess potential erosion of Flora Bank, a key fish habitat that could be significantly impacted by the project. The proponent ignored these requests, and in the end the federal government accepted the proponent's modelling despite deficiencies in the data input. The Canadian Environmental Assessment Agency then used the proponent's modelling outputs as a primary reason for concluding that there would be no significant adverse environmental effect on Flora Bank and its salmon habitat.[34]

Issues about the quality of the science also arise when the government itself commissions independent QPs on various studies. One example is the pollution output data proponents provided for the Prince Rupert Airshed Study. This study, published in 2016, was commissioned by the Province to help inform future decisions on industrial development within the Prince Rupert airshed while examining any potential environmental and health impacts.[35] There was significant concern over the quality of the air pollution data that industry had provided to this study, including a lack of transparency over the data's accuracy, and the estimates of pollutants varied widely amongst different proponents despite similar size and technology being used by these proponents in their respective facilities. ESSA Technologies, the QP firm that conducted this study for the Province, highlighted this as a major concern, stating:

- "NO_x emission rates vary considerably among LNG facilities… the reason for this disparity is unknown…";[36]

[33] *Ibid.* at para. 513.
[34] Canadian Environmental Assessment Agency, *Pacific NorthWest LNG Project – Environmental Assessment Report* (September 2016) at 58-76: http://www.ceaa.gc.ca/050/documents/p80032/115668E.pdf. We also note that a similar controversy surrounding modelling also arose during the provincial EA for the Aurora LNG Project.
[35] ESSA Technologies Ltd., *Prince Rupert Airshed Study, Vol. 1 & 2 and Supplementary Report*, Prepared for BC Ministry of Environment (31 March 2016): https://www2.gov.bc.ca/assets/gov/environment/air-land-water/air/reports-pub/pr-airshed-study-report-summ.pdf.
[36] *Ibid. Vol. 1* at 11.

- "The emission intensity of SO_2 also varies substantially among LNG facilities… The wide range of SO_2 intensity indicates a wide variety of assumptions made by proponents…";[37]

- "The $PM_{2.5}$ emission intensity ranges from 0.017 t/d per mtpa to 0.066 t/d per mtpa… The variation also indicates different assumptions applied to the provided emission rates for $PM_{2.5}$."[38]

These data deficiency issues undermined the validity of the model outputs and the report's conclusions, yet the Province informed the public that "[t]he Prince Rupert airshed can safely accommodate emissions from new industrial development with proper management, according to an independent science-based study released today."[39]

Regaining public trust requires that all data and data collection methods be made public, that data used in impact modelling is sufficient, and that assumptions and limitations of impact assessments are transparent.

3) Aboriginal Rights and UNDRIP

The United Nations Declaration on the Rights of Indigenous Peoples ("UNDRIP") is an international instrument adopted by the United Nations in 2007 that provides a set of standards for the treatment of indigenous peoples by the state. In May 2016, Canada officially removed its objector status to UNDRIP and announced its intention to fully adopt and implement UNDRIP.

One of the cornerstones of UNDRIP is the concept of "free, prior and informed consent" ("FPIC").[40] Within the regulatory context, sound science that is done in a transparent manner, free of coercion and with the participation of potentially affected Indigenous groups is fundamental to achieving FPIC. The current model of industry proponents directly hiring QPs and controlling, withholding, and sometimes manipulating scientific and technical information does not allow for FPIC to be meaningfully obtained. This is a foundational flaw within the professional reliance model that will make it impossible for the Province to fulfil its mandate of reconciliation and to implement the UNDRIP.

In resource development regulation, project review and assessment are often done in isolation from processes that discharge the Crown's duty to consult and accommodate. At the federal level, issues and implications from this compartmentalization are still being sorted out in the courts.[41] Much less attention is given at the provincial level to this issue, especially to the implications of vesting key information gathering role to industry-hired QPs. Addressing this issue is an important step towards restoring public trust in the Province's regulatory regimes.

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[37] *Ibid.*
[38] *Ibid.* at 12.
[39] Government of British Columbia, Press Release, *Study finds Prince Rupert airshed can accommodate industrial growth* (30 September 2016): https://news.gov.bc.ca/releases/2016ENV0052-001866.
[40] United Nations Declaration on the Rights of Indigenous Peoples, Art. 10, 11, 19, 28, 29 & 32.
[41] See *Clyde River (Hamlet) v. Petroleum Geo-Services Inc.*, 2017 SCC 40 and *Chippewas of the Thames First Nation v. Enbridge Pipelines Inc.*, 2017 SCC 41; see also *Taseko Mines Limited v. Canada (Environment)*, 2017 FC 1100 for a useful discussion of consultation in the context of resource permitting post-EA.

4) Balancing Precautionary Principle and Adaptive Management

Regulatory decisions about resource management, environmental protection and public health inherently involve balancing the precautionary principle and the concept of adaptive management.[42] These concepts can push regulatory decisions in opposite directions. In fact, over reliance on adaptive management may be counterproductive to the precautionary principle, as adaptive management is used as an excuse to allow projects with serious threats to health or the environment to proceed when greater caution ought to be applied.[43] In the field of professional reliance, adaptive management is the approach that QPs market—it is their business model and plays to their expertise.[44] On the other hand, under provincial law (in contrast to federal legislation), the precautionary principle tends to be given a subordinate status. For example, the EAB has repeatedly refused to apply the precautionary principle in the interpretation and application of the *Environmental Management Act*, claiming that it is not bound to do so since the statute does not give express mention to the principle.[45]

However, the precautionary principle and adaptive management do not always need to be in conflict. When properly framed and utilized, adaptive management can be a useful component in the operationalization of the precautionary principle. A good example is contained in the reasons of the New South Wales Land and Environment Court in a case called *Telstra*[46] and the line of jurisprudence that it has produced in various courts in Australia and New Zealand, particularly the judgment of the Victoria Supreme Court in *Environment East Gippsland*.[47] Under this line of cases, where the precautionary principle is found to be engaged due to a real threat of serious or irreversible damage to the environment and a lack of full scientific certainty regarding that risk, the onus shifts to the proponent to demonstrate that the threat is negligible. If the proponent fails to do so, the regulator must assume that there would be serious or irreversible damage and identify appropriate preventive measures proportional to the threat. At this final stage, the regulator may consider adaptive management, provided that the threat can be addressed by adaptive management.

A recent decision of our Federal Court in *Taseko* likewise affirms that there can be a more balanced approach to the implementation of the precautionary principle and adaptive management within the context of professional reliance.[48] This case involved a judicial review

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[42] See *Pembina Institute for Appropriate Development v. Canada (Attorney General)*, 2008 FC 302 at paras. 29-34.

[43] For an academic critique of adaptive management, see Martin Olszynski, "Failed Experiments: An Empirical Assessment of Adaptive Management in Alberta's Energy Resources Sector" (2018) *UBC Law Review* (forthcoming).

[44] For example, ESSA Technologies Ltd., a major environmental consulting firm, markets adaptive management as one of its key services: https://essa.com/approach/.

[45] See *Toews*, *supra* note 3 at paras. 225-236 and *Shawnigan Lake* (BCEAB), *supra* note 20 at paras. 282-289.

[46] *Telstra Corporation Ltd. v. Hornsby Shire Council*, [2006] NSWLEC 133. See discussion of this case and subsequent jurisprudence on the precautionary principle in Chris Tollefson, "Trials and Tribulations of the Precautionary Principle" in Allan Ingelson (ed.) *Environment in the Courtroom* (forthcoming, 2018: U of C Press).

[47] *Environment East Gippsland Inc. v. VicForests*, [2010] VSC 335. For other Australia and New Zealand cases that have further elaborated the *Telstra* approach, see *e.g.*: *Newcastle v. Hunter Valley Speleological Society v. Upper Hunter Shire*, [2010] NSWLEC 48; *Southern Highlands Coal Action Group v. Minister for Planning and Infrastructure*, [2013] NSWLEC 1032; *Sustain our Sounds Inc. v. The New Zealand King Salmon Co Ltd.*, [2014] NZSC 40.

[48] *Taseko Mines Limited v. Canada (Environment)*, 2017 FC 1099. Other significant Canadian cases dealing with the precautionary principle include: *114957 Canada Ltee (Spraytech) v Hudson (Town of)*, [2001] 2 SCR 241;

of the federal EA review panel report concerning the New Prosperity Gold-Copper Mine proposed by Taseko Mines Limited. Taseko had proposed to rely upon adaptive management to deal with environmental risks during later stages of project development. However, the review panel rejected adaptive management as the proper approach in the circumstances. The Federal Court agreed, and its reasoning is worth reproducing:

> It was reasonable for the Panel not to accept Taseko's "vague assurances" that it would engage in adaptive management in order to deal with adverse environmental effects. The Panel sought information on environmental effects and mitigation measures, and Taseko refused to provide this information. It was entirely reasonable, and in line with the Panel's (reasonable) interpretation of the precautionary principle, for the Panel to conclude that the concentration of water quality variables in Fish Lake (Teztan Biny) and Wasp Lake would likely be a significant adverse environmental effect.
>
> Indeed, acceptance of vague adaptive management schemes in circumstances such as these would, in my view, tend to call into question the value of the entire review panel process – if all such decisions could be left to a later stage, then the review panel process would simply be for the sake of appearances.[49]

In keeping with the approach adopted in these Australasian cases, the Federal Court in *Taseko* recognized that, where there is a risk of significant adverse effects, industry proponents and their QPs who wish to rely upon adaptive management should not be allowed to do so without demonstrating that adaptive management would indeed be an appropriate way to address that risk. Indeed, where there are risks to public health that can have irreversible consequences (such as exposing to individuals to the potential that they develop life-long asthma), there is a powerful argument that adaptive management should *never* be relied on as regulatory tool. Moreover, regulators should refrain from issuing permits and licences on the basis of vague promises that risks to human health and the environment can be managed by the adaptive management measures so often promoted by industry-hired QPs (and which, at the end of the day, are often administered by these very same QPs).

B. Constraining Professional Reliance

There are situations in which professional reliance is not an appropriate model for government regulation. Haddock identifies nine factors to consider in this regard:

1. **Nature and degree of the risk.** The significance of the risk should help in determining the suitability of professional reliance.[50]

Castonguay Blasting Ltd. v Ontario (Environment), 2013 SCC 52; *Alberta Wilderness Assn. v. Canada (Minister of Environment)*, 2009 FC 710 (a.k.a. the Greater Sage-Grouse case); *Environmental Defence Canada v. Canada (Minister of Fisheries & Oceans)*, 2009 FC 878 (a.k.a. Nooksack Dace case); *Wier. v. Canada (Health)*, 2011 FC 1322; *Morton v. Canada (Minister of Fisheries and Oceans)*, 2015 FC 575.

[49] *Taseko*, *supra* note 48 at paras. 123-124.

[50] Haddock, *supra* note 13 at 32.

2. **Third-party interests.** Professional reliance may not be appropriate where the regulated activity can pose significant risk to private party rights, rights acquired through other Crown tenures, and Aboriginal rights and title.[51]

3. **Decisions involving trade-offs.** It is not appropriate to delegate decision-making over trade-offs to industry-hired QPs.[52]

4. **Values vs. technical expertise.** While it may be appropriate to rely on industry-hired QPs to provide technical expertise, it is less so where the question relates to the values society place on a given resource that may be impacted by the proposed activity.[53]

5. **Latitude for discretion.** It is more appropriate to use professional reliance on matters that have broad professional consensus on applicable standards, and less so on matters where there is broad discretion.[54]

6. **Scientific certainty.** It may be questionable to employ professional reliance with respect to broad biological and ecological issues where scientific uncertainty renders predictions and assessments difficult.[55]

7. **Conflicts of interest.** The regulatory system needs to better recognize the potential for conflict of interest and risks of bias when regulators delegate matters to QPs hired by industry proponents.[56]

8. **Essential government functions.** Some matters are essential government functions that should never be delegated to industry-hired QPs, such as compliance and enforcement.[57]

9. **Alternatives to professional reliance.** Where regulated activities have well-known impacts, alternatives to professional reliance should be used. Moreover, the government should need to justify its use of professional reliance rather than other types of regulation.[58]

SkeenaWild agrees with these factors and recommends that these factors be applied across natural resource sector activities to identify which activity should and should not be governed by professional reliance.

C. Re-designing Regulation to Protect the Public Interest

In this final section, we offer some recommendations on re-designing provincial regulation in order to protect the public interest. As we mentioned in Part I, the scope of this review is, in our view, too narrow. The problems associated with professional reliance in this province are pervasive. This review should not restrict itself to making recommendations on tweaking how

[51] *Ibid.*
[52] *Ibid.* at 32-33.
[53] *Ibid.* at 33.
[54] *Ibid.*
[55] *Ibid.*
[56] *Ibid.* at 34.
[57] *Ibid.*
[58] *Ibid.* at 35.

professional reliance is used. Rather, it needs to ask when and in what circumstances professional reliance is compatible with the public interest, including the Province's constitutional obligations.

In our view, rethinking professional reliance must go further than to identify matters that fall under essential government functions not appropriate for delegation to industry-hired QPs. The Province must also identify how it ought to allocate the full suite of regulatory functions. Below, we discuss five relevant considerations.

1) Defined Roles

The Province should examine all areas of natural resource regulation and determine whether the degree of professional reliance currently employed in each area is appropriate, using some of the factors discussed in section B above, and adjust as necessary. Once this is done, the proper role that line ministries, independent agencies, proponents, and QPs each play must be clearly understood and defined. These defined roles help guard against encroachment by proponents and proponent-hired QPs onto regulatory domains that should stay within the purview and control of the regulators themselves, thus protecting regulatory independence. Moreover, defined roles can also help delineate which agents of the Crown have the responsibility to fulfil the Province's constitutional duty to consult and accommodate, and under what situations would it be appropriate for procedural aspects of consultation to be delegated to proponents.[59] Similarly, responsibility for obtaining FPIC where appropriate should be clearly assigned and confirmed, including the division of labour as between the regulator and the regulated in this regard.

2) Checks & Balances

The architecture of provincial regulation in the natural resource sector requires greater checks and balances in order to restore public trust. These checks and balances must include not only ways to guard against regulatory capture, but also ways to ensure best available science is used to support all regulatory decision-making. For example, the Province should investigate whether it is appropriate in certain circumstances for the regulator to prepare technical reports, supported by government-hired QPs funded by the proponent. In the context of the federal review of regulatory processes, the expert panel on federal EA review made a similar finding:

> IA [impact assessment] must rely on unbiased evidence; this is essential to restoring trust. Current practice is to delegate many IA responsibilities to proponents: they collect the data, conduct studies, analyze results and document findings in an Environmental Impact Statement. This practice has led to a clear perception of bias in the results, regardless of whether this is warranted. Canada should look to alternative models for data collection and analysis that exist in other jurisdictions globally. In the United States, for example, Environmental Impact Statements are prepared by the government, supported by consultants who are also retained by the government and funded by the proponent. In

[59] *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73.

> Denmark, data are collected by the proponent and provided to the government for analysis and the preparation of an Environmental Impact Statement.[60]

Another check on the quality of the science feeding into regulatory processes is a way to introduce a system of peer-review. Under the current professional reliance model, regulators tend to rely heavily on the science conducted and provided by industry-hired QPs, with little opportunity for such science to be critiqued by other independent experts. The expert panel on federal EA review also made a similar finding in this regard:

> All participants [in the EA review process] recognized that trust in the accuracy and impartiality of this information is critical to its acceptability. Participants also expressed the need for peer review of studies and suggestions were made that this could be achieved through the use of advisory committees or working groups…. The development of the Impact Statement would be led by the Commission using a team of consultants and experts (the "assessment team") retained by the Commission that is free of any conflict of interest and chosen through a collaborative process involving the project committee and government expert committee.[61]

These are only some examples of checks and balances that may be put in place within the architecture of provincial regulation to enhance the integrity and quality of regulatory processes and restore public trust in provincial regulation. Industry control and influence over data collection, data analysis, and conclusions of possible impacts of their own activities, through directly hiring QPs, is a fundamental flaw in our regulatory system. Public trust cannot be restored unless industry control and bias are removed from the current system.

3) Citizen Involvement

Restoring public trust involves engaging with the public itself. Increasing public access to regulatory processes where appropriate not only enhances accountability, but may also improve the quality of the science that is fed into such processes. A key recommendation in this regard is allowing the public to have adequate and ready access to all the documents in the record before the regulator to ensure and allow meaningful participation and review by the public and by possible intervenors. For example, in provincial EA, the Environmental Assessment Office ("EAO") maintains a public registry of documents. Such publicly accessible online registries should be expanded to other areas of provincial regulation.

One of the criticisms and concerns relating to the permitting process for the SO_2 increase from RTA's aluminum smelter was inadequacy of public consultation.[62] The limited ways through which the public had access to RTA's scientific and technical data hampered the public's ability to meaningfully engage with the regulatory process. Moreover, public consultation sessions were held and led by the proponent so that the public only received information from QPs under the proponent's employ.

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[60] Expert Panel for the Review of Environmental Assessment Processes, *Building Common Ground: A New Vision for Impact Assessment in Canada* (2017): https://www.canada.ca/content/dam/themes/environment/conservation/environmental-reviews/building-common-ground/building-common-ground.pdf at 46.
[61] *Ibid.* at 61-62.
[62] *Toews*, *supra* note 3 at paras. 465-507.

With greater access to the record and more opportunities for public participation, citizens and citizen groups can also serve as conduits if not sources of peer review of the science provided by industry-hired QPs. In the EA context, the ability of public interveners to adduce their own expert technical reports can often help regulators identify and address weaknesses in the proponent's own science.

4) Judicial and Quasi-judicial Oversight

Courts and quasi-judicial tribunals also have their roles to play in restoring public trust in the Province's regulatory processes. Quasi-judicial tribunals like the EAB are often the forum of first instance for members of the general public to uphold the integrity of the government's environmental and natural resource decision-making. Tribunals need to be alert to the problems and dangers of regulatory capture, and sanction such behaviour to the extent possible within their statutory grant of power. Additionally, tribunals should be reminded of their obligation to uphold and enforce the precautionary principle in the Province's environmental decision-making.[63] Where the tribunal fails or hesitates to do so, its enabling legislation should be clarified and strengthened to better entrench this "emerging" principle of international law.[64]

5) Purpose-built Independent Agencies

Lastly, if the Province indeed investigates whether professional reliance even ought to be used in different areas of natural resource regulation, one of the alternatives to professional reliance that should be contemplated is to establish independent agencies specifically designed for certain types of regulatory processes. In the federal EA context, the expert panel on federal EA review recommended that a quasi-judicial tribunal should be established that has the mandate to conduct and decide upon federal impact assessments.[65]

Examples of independent agencies for resource regulation and management can be found internationally. New Zealand's model of resource management is an example of an alternative approach to professional reliance. New Zealand moved the majority of its federal scientists into Crown Research Institutes ("CRIs") in 1992.[66] These CRIs bid on contracts when proponents put out requests for proposals, and, if awarded a contract, the successful CRI would prepare the science used in an environmental impact assessment ("EIA").[67] The permit-granting agency within government would still have scientists on staff to review the EIA application.[68]

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[63] For a discussion of how courts and tribunals can put the precautionary principle to work, see Chris Tollefson, "Trials and Tribulations of the Precautionary Principle" in Allan Ingelson (ed.) *Environment in the Courtroom* (forthcoming, 2018: U of C Press).
[64] *Castonguay Blasting Ltd. v Ontario (Environment)*, 2013 SCC 52 at para. 20.
[65] Expert Panel for the Review of Environmental Assessment Processes, *supra* note 60 at 52.
[66] Ministry of Business, Innovation & Employment, "Crown Research Institutes" (updated 11 October 2017; accessed 20 December 2017): http://www.mbie.govt.nz/info-services/science-innovation/research-organisations/crown-research-institutes/ ("MBIE CRI webpage ").
[67] Personal communication with Dr. Rob Murdoch, National Institute for Water and Atmospheric Research, New Zealand, 17 December 2017 ("Personal Communication with Murdoch").
[68] Personal electronic communication with Adrian Gilby, Department of Conservation, New Zealand, 3 January 2018.

The CRIs are set-up as limited liability companies, subject to New Zealand's *Companies Act 1993*, and are legislatively required to be financially viable and to carry out scientific research for the benefit of the country.[69] They are therefore required to work in the public interest.

Independent panels conduct reviews of the CRIs every four years.[70] These reviews have shown that stakeholders regard the CRIs as producing sound science, though there are concerns that up to 95% of CRIs' funding must come from industry, so that there is at least the perception of bias.[71] Moreover, due to their public nature, CRIs are subject to New Zealand's freedom of information legislation.[72] They also allow for institutional knowledge to be accumulated in a similar fashion to a model in which scientists and other experts are housed within the government bureaucracy.

New Zealand has shown that there is a "hybrid" model of structuring the appropriate arms of government and the relationship between government, industry, and scientists that may provide many of the benefits of a model of government in-house experts, but with significantly less government expenditure. And with appropriate oversight and monitoring, it offers the flexibility to continuously adapt structures and relationships to meet the country's evolving resource management goals.

SkeenaWild does not suggest that the New Zealand model ought to be transplanted to British Columbia. However, the foregoing shows that there are potentially viable alternatives to professional reliance that is worth further investigation, and that the scope of this review is not sufficiently broad to provide the full analysis.

PART V. CONCLUSION

The professional reliance model now in place in British Columbia was an experiment in regulatory governance. It is now time to review the data and analyze the results. In our view, the results leave much to be desired, and pose many challenges for those concerned about restoring robust protection for the public interest.

This experiment has shaken the faith of many British Columbians about how decisions that profoundly affect our environment, public health, and natural resources are made. Professional reliance has come to be embedded in the architecture and processes of decision-making in manifold ways. We are only now beginning to appreciate the true nature and implications of this experiment.

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[69] Crown Research Institutes Act 1992, at s 5: http://www.legislation.govt.nz/act/public/1992/0047/latest/DLM265144.html.
[70] MBIE CRI webpage, *supra* note 66.
[71] For example, "Four year rolling review report NIWA Taihoro Nukurangi 2015: Report from the Review Panel" (18 December 2015) at 7: http://www.mbie.govt.nz/info-services/science-innovation/research-organisations/pdf-document-library/NIWA-report.pdf.
[72] Personal Communication with Murdoch, *supra* note 67.

As such, this is an extraordinarily timely and important review. If it limits its focus to the narrow questions remitted to it, however, this review will be a missed opportunity that neglects the big picture questions that this governance experiment raises and that have undermined the public's trust. We believe that the way forward is to grapple with these fundamental questions that go to core of the government's solemn duty to protect the public interest. We hope that our submission will be of assistance in doing just that.

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