

Risk, Prevention, and Opportunity

NORTHERN GATEWAY AND THE MARINE ENVIRONMENT

Robert Hage

March 2015

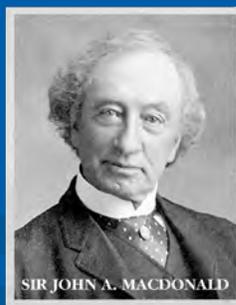


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Kitimat, British Columbia

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Executive Summary

Of the 19 proposed West Coast energy projects, the Enbridge Northern Gateway pipeline has been the most closely scrutinized, with the greatest public involvement and with the greatest economic potential. And yet the story of the project, which holds the promise of billions of dollars in future revenue for Canada, is one of conflicting narratives, paradoxes, misunderstandings and missed opportunities. Who takes the risk and who benefits? Will a pristine wilderness be threatened? How likely is a spill? Would those affected be compensated? And can Canada develop a safe, world-class response to the shipment of hydrocarbons?

Many Canadians do not understand the spill prevention and response measures already in place and so underestimate Canada's ability to address oil spill risks. This paper will address these questions and put to rest some of the heated debate and rhetoric. It will also explore an opportunity that has been missed to date, which is for the Federal Government, Alberta, and British Columbia to work together to engage the communities affected by Northern Gateway, particularly First Nations, in environmental protection measures. This engagement should include measures that will guarantee jobs for First Nations and inspire Aboriginal enterprises. Alaska's experience and existing First Nations' oil sands companies will offer guidance.

Northern Gateway has been the subject of an extraordinary consultation process, beginning in 2006 when the Federal Government established the Joint Review Panel for the project and concluding seven years later with its recommendation to approve the pipeline subject to 209 conditions. The Government accepted the recommendation with additional requirements. The panel heard from more than 1450 participants in 21 different communities, reviewed over 175,000 pages of evidence, and received 9000 letters of comment.

In addressing Northern Gateway and the marine environment, it is first of all important to have an understanding of the project itself, its physical and social setting, and the marine environment that surrounds it. Far from the pristine wilderness portrayed in many media stories, Kitimat is a lively

industrial centre. While the Kitimat Council voted to oppose Gateway, it voted at its next meeting to support the \$21 billion Kitimat Clean Refinery proposal to refine oil sands bitumen before shipment (seemingly ignoring the fact the crude would arrive by pipeline). The Douglas Channel has been well used for industrial purposes, with 1500 tankers having visited Kitimat since 1978.

Kitimat is a day closer to Asian markets than the Port of Vancouver. Prince Rupert, another potential Northern Gateway terminal site, is hundreds of miles farther West with a more treacherous route.

It must be understood that no one wants a spill. The Joint Review Panel found that a large spill is “not likely” and that Northern Gateway was taking a “precautionary approach to reduce risks associated with marine shipping to as low as reasonably practicable”. Northern Gateway undertook to develop a “world-class” oil spill response plan and the Panel found its emergency preparedness and response planning both credible and substantive at this stage of the project.

The Joint Review Panel recognized two complementary objectives: sustainable development (a healthy environment and healthy economy), and the public interest. The Panel said that while it did not accept diluted bitumen was more corrosive and abrasive than conventional crude oils, it required further scientific research on the effects of “dilbit” spilled in water, and made it a condition before operations can start.

The Panel determined that Northern Gateway’s voluntary commitments, exceeding the regulatory requirements, would be a requirement to proceed. The Panel also wanted to know who pays if there is spill damage. It heard evidence that Canadian and international ship liability requirements and compensation funds (totalling up to \$1.6 billion per incident) gave Canada, in the words of Transport Canada, “the most robust and comprehensive system in the world.”

Two Government reports have concluded that there had not been a constructive dialogue with First Nations on energy projects and there was no shared understanding across Canada of the regimes in place to prevent oil spills. Alaska’s 25 years of experience is instructive on the value of industry-funded regional citizens’ advisory councils and the role of Aboriginal enterprises in supervision and protection. Canada can learn from that experience.

Now what happens? There remains a great deal of work ahead for Northern Gateway and for the proponents of 18 other projects. There is still an opportunity for the Governments of Canada, BC, and Alberta to overcome the mistakes or oversights of the past to build public awareness and engage in collaborative regional planning among themselves, First Nations, and local communities. This paper makes the following recommendations:

- Establish a true, independent citizens' advisory council with Aboriginal membership for the northern BC Coast using the Alaska experience as a model to promote the environmentally safe operation of oil and LNG terminals and the tankers that will use them.
- Provide guarantees of Aboriginal employment along pipeline routes, at terminals, and in oil spill prevention and response, focusing on the establishment of Aboriginal enterprises drawing on First Nations’ energy-related experience in Saskatchewan, Alberta, British Columbia, the North, and Alaska.
- Work with the First Nations Financial Management Board and project backers to ensure First Nations are able to obtain equity interest in Northern Gateway and other projects including, if necessary, federal and provincial loan guarantees.
- Review the costs and benefits of upgrading crude oil prior to overseas shipment.

The Joint Review Panel always considered Canada’s national interest; not Alberta’s interest, or British Columbia’s, or that of one particular group. The Panel was clear: “the public interest is inclusive of all Canadians, locally, regionally and nationally.” This interest should be foremost in our minds.

Sommaire

Des dix-neuf projets d'énergie proposés sur la côte ouest, le pipeline Northern Gateway d'Enbridge, qui possède le meilleur potentiel économique, est aussi celui qui a été l'objet de l'examen le plus approfondi et de la mobilisation du public la plus considérable. Et pourtant, le projet, qui promet des retombées de plusieurs milliards de dollars de revenus futurs pour le Canada, a une histoire qui se décline en autant de trames narratives contradictoires, paradoxes, malentendus et occasions ratées. Qui prendra les risques et qui bénéficiera du projet? Un milieu encore sauvage sera-t-il menacé? Quelle est la probabilité d'un déversement accidentel? Dans un tel cas, les personnes touchées seront-elles indemnisées? Et le Canada peut-il élaborer des mesures de sécurité de calibre mondial pour le transport des hydrocarbures?

Beaucoup de Canadiens ne connaissent pas les mesures d'intervention et de prévention déjà en place et sous-estiment donc la capacité du Canada à répondre aux risques de déversements d'hydrocarbures. Dans cette étude, on réagit à ces questions et on cherche à apaiser les esprits et les débats houleux. On explore également ce qui, jusqu'à ce jour, est demeuré pour le gouvernement fédéral et les gouvernements de la Colombie-Britannique et de l'Alberta une opportunité manquée d'amener les collectivités directement touchées, en particulier les Premières nations, à participer à des mesures de protection de l'environnement pouvant générer des emplois pour elles, inspirer leurs entreprises et préserver le milieu marin. L'expérience de l'Alaska et des entreprises autochtones actuellement actives dans les sables bitumineux servent de guide.

Le projet Northern Gateway a fait l'objet d'un processus de consultation extraordinaire qui a commencé en 2006, lorsque le gouvernement fédéral a créé la Commission d'examen conjoint (la Commission) pour étudier le projet, et s'est terminé sept ans plus tard quand cette dernière recommandait son approbation sous réserve de 209 conditions. Le gouvernement a accepté la recommandation en ajoutant des exigences supplémentaires. La Commission a entendu plus de 1 450 participants dans 21 collectivités, a étudié plus de 175 000 pages de preuve documentaire et a reçu 9 000 lettres de commentaires.

Pour discourir du projet Northern Gateway et du milieu marin, il est important de bien comprendre d'abord le projet lui-même, son environnement physique et social ainsi que le milieu marin qui l'entoure. Loin d'être l'espace sauvage dépeint dans les nombreux reportages des médias, Kitimat est un centre industriel très actif. Son Conseil municipal a voté contre le projet Northern Gateway, mais, à la réunion suivante, ce dernier a appuyé la proposition de 21 milliards de dollars pour la raffinerie de Kitimat Clean qui traitera les sables bitumineux avant l'exportation (ignorant apparemment le fait que ce pétrole brut arriverait par pipeline). Le chenal marin de Douglas a été beaucoup exploité à des fins industrielles, 1 500 navires-citernes l'ayant emprunté depuis 1978 pour atteindre Kitimat.

Le trajet en mer de Kitimat vers les marchés asiatiques dure une journée de moins que depuis le port de Vancouver. Prince-Rupert, un autre site pouvant être utilisé comme terminal dans le cadre du projet Northern Gateway, est à des centaines de miles plus à l'ouest, un trajet bien plus dangereux.

Il faut bien comprendre que personne ne veut de déversement accidentel. La Commission a établi qu'un grand déversement est « peu probable » et que le projet Northern Gateway a adopté « une approche préventive pour réduire, dans toute la mesure du possible, les risques associés au transport maritime ». Le promoteur a entrepris d'élaborer un plan général d'intervention en cas de déversement d'hydrocarbures « de calibre mondial », et la Commission a reconnu que la planification de la préparation et de l'intervention d'urgence était à la fois crédible et substantielle à ce stade du projet.

La Commission a reconnu deux objectifs complémentaires : le développement durable (un environnement sain et une économie prospère) et l'intérêt public. Tout en rejetant l'affirmation selon laquelle le bitume dilué est plus corrosif et abrasif que le pétrole brut conventionnel, la Commission a exigé la poursuite des recherches scientifiques sur les effets du bitume dilué déversé dans l'eau, une condition à respecter avant le commencement des travaux.

Pour que le Northern Gateway puisse aller de l'avant, la Commission a statué que les engagements volontaires pris dans le cadre de ce projet doivent aller au-delà des exigences réglementaires. La Commission a également voulu savoir qui indemniserait en cas de déversement accidentel. Elle a pris connaissance de la preuve en matière de responsabilité canadienne et internationale imposée aux navires et de celle relative aux fonds d'indemnisation (totalisant jusqu'à 1,6 milliard de dollars par incident) qui font du Canada, comme l'a déclaré Transports Canada, le pays qui bénéficie du « système le plus robuste et le plus complet au monde ».

Au fil des travaux de la Commission, deux rapports du gouvernement ont conclu qu'il n'y avait pas eu un dialogue constructif avec les Premières nations sur les projets d'énergie et que la population était très partagée quant à sa perception des régimes déjà en place pour prévenir les déversements de pétrole. Les vingt-cinq années d'expérience de l'Alaska illustrent bien la valeur des conseils consultatifs régionaux de citoyens financés par l'industrie et le rôle joué par les entreprises autochtones dans la surveillance et la protection. Le Canada peut tirer des leçons de cette expérience.

Maintenant, où en est-on? Il reste beaucoup de travail à faire pour réaliser le projet Northern Gateway et pour les partisans de 18 autres projets. Le projet Northern Gateway offre une nouvelle occasion aux gouvernements du Canada, de la Colombie-Britannique et de l'Alberta de corriger les erreurs ou les oublis du passé en sensibilisant le public et en s'engageant dans une planification régionale qui serait le fruit d'une collaboration avec les Premières nations et les collectivités locales. Dans cette étude, on présente les recommandations suivantes :

- Établir un véritable conseil consultatif indépendant formé de citoyens, y compris les Autochtones de la côte nord de la Colombie-Britannique, en utilisant l'expérience de l'Alaska comme modèle pour promouvoir l'exploitation sécuritaire des terminaux pétroliers et méthaniers et des navires-citernes qui les utiliseront.
- Offrir des garanties d'emploi aux Autochtones sur place le long des pipelines et dans les terminaux, ainsi que dans les activités de prévention et d'intervention en cas de déversement, en mettant l'accent sur la création d'entreprises prenant modèle sur l'expérience acquise par les Premières nations de la Saskatchewan, de l'Alberta, de la Colombie-Britannique, du Nord et de l'Alaska dans le domaine de l'énergie.
- Collaborer avec le Conseil de gestion financière des premières nations et les bailleurs de fonds du projet pour assurer que les Premières nations seront en mesure d'obtenir des participations financières dans le projet Northern Gateway et d'autres projets, ce qui pourrait nécessiter des garanties de prêt de la part des autorités fédérale et provinciales.
- Examiner les coûts et les avantages des procédés de valorisation du pétrole brut avant l'expédition outre-mer.

La Commission d'examen conjoint a toujours été préoccupée par l'intérêt national du Canada; pas par l'intérêt de l'Alberta ni de la Colombie-Britannique, ni d'un groupe particulier. La Commission a été claire à ce sujet : « l'intérêt public englobe les intérêts locaux, régionaux et nationaux de tous les Canadiens ». Cet intérêt doit être primordial à nos yeux.

Introduction

On June 18, 2014 the *Globe and Mail's* front page carried a banner photo of the pristine waters of the Douglas Channel, taken from Kitimat, BC. Underneath, a headline announced “The Canadian Government Approves Enbridge’s Controversial Northern Gateway Project” to construct a pipeline to transport oil sands’ crude oil from Alberta to a tanker shipping terminal in Kitimat (McCarthy, Chase, and Jang). The classic Canadian picture of trees, water, and mountains did nothing to reveal the conflicting narratives and paradoxes the project has brought to this West Coast area and Canada as a whole.

For its proponents, including the Canadian Government, Northern Gateway is seen as a “nation building” project (O’Neil 2011). Enbridge told the federally-appointed Joint Review Panel examining the project that over 30 years Northern Gateway would increase Canada’s GDP by \$312 billion, would generate \$44 billion in federal revenues and \$54 billion for the provinces and territories, and would provide \$70 billion in labour income amounting to 907,000 person years of employment (Leggett, Bateman, and Matthews 2013a, 31, hereafter called “the Panel” or “JRP”). It would also diversify Canadian oil exports to the expanding Asian market. The same panel also heard from its opponents, including environmentalists and Aboriginal groups, that the project could harm society and the environment (1). The Panel noted that “almost all participants in the Panel’s process

From 2009–2013, the Joint Review Panel heard from over 1450 participants in 21 different communities, reviewed over 175,000 pages of evidence, and received 9000 letters of comment.

expressed concern about the potential for spills from pipelines, the Kitimat Terminal and tankers associated with the Enbridge Northern Gateway Project” (2013b, 102). In fact, the *Globe and Mail's* most prominent columnist, Jeffrey Simpson, had already declared in 2012: “You heard it here: Northern Gateway’s dead.”

The Joint Review Panel was established in 2006 with a subsequent mandate to conduct public hearings and assess, among other things, the project’s environmental effects, measures to

avoid or reduce any adverse impact, and determine whether the project is in the public interest (JRP 2013b, 400). From 2009 until it presented its Final Report to the Government in December, 2013, the Panel heard from over 1450 participants in 21 different communities, reviewed over 175,000 pages of evidence, and received 9000 letters of comment. It approved the project but subject to 209 conditions (Natural Resources Canada 2014a).

Is it possible, as Simpson said, that a project that holds the promise of billions of dollars in future revenue for Canada and has been rigorously scrutinized in the public sphere for four years is indeed dead? Or is it possible that Northern Gateway might be part, an important part, of the development of a sustainable West Coast energy industry built on cooperative efforts between the Federal Government, Alberta, British Columbia, and directly affected First Nations?

Alberta Premier Jim Prentice referred to the West Coast as Northern Gateway’s “economic driver” where the economic benefits will really accrue in a very substantive way (Mason 2014). The Northern Gateway project is not alone. Douglas Eyford, the special federal representative on West Coast energy infrastructure, looked at 19 proposed West Coast energy projects and their effect on Aboriginal interests in his 2013 report to the Prime Minister entitled *Forging Partnerships: Aboriginal Canadians and Energy Development*. This paper will focus on the West Coast “economic driver” and the implications of the Northern Gateway Project for the marine environment. The story of Northern Gateway

is not a cut-and-dried argument between proponents and opponents but one replete with conflicting narratives, paradoxes, misunderstandings, failures of consultation, unrequited economic aspirations, and missed opportunities.

The struggle between the environment and development is evident from Kitimat's (2015a) own brand name: "A Marvel of Nature and Industry." Its official website lists nine actual or proposed industrial activities valued at \$47.8 billion it hopes to attract (Kitimat 2015b). In the words of a City of Kitimat presentation, its harbour has seen "decades of tanker and petroleum product traffic" (Kitimat). While the Kitimat Council recently voted to oppose the Northern Gateway pipeline (2014a), it voted at its next meeting to support the \$21 billion Kitimat Clean Refinery proposal to refine the oil sands bitumen before shipment (2014b) (seemingly ignoring the fact the crude would arrive by pipeline). Enbridge forecasts 165 jobs in Kitimat if the pipeline goes ahead (JRP 2013a, 32); the refinery proponents foresee 3000 full time jobs there (Kitimat Clean Ltd 2014a).

The struggle between the environment and development is evident from Kitimat's own branding: "A Marvel of Nature and Industry."

The coastal Haisla First Nation opposes Northern Gateway but has leased some of its lands to Kitimat LNG for an export facility to ship liquefied natural gas (LNG) to Asia (Chevron Canada 2015)¹ and is itself a proponent of another LNG project (British Columbia Newsroom 2015). The Kitimat LNG gas will be brought to Kitimat by pipeline from fields in northeast BC along a route supported by a 15 First Nations Limited Partnership Agreement (Chevron Canada 2015). With a second proposed LNG project in Kitimat, LNG Canada led by Shell, there could be up to 400 LNG tankers per year in the Channel, significantly out-numbering the crude oil tankers proposed by Enbridge (Eyford 2013, 4).

Eyford (2013, 15) makes the point that what was lost in the debate about Canada's need to implement world-class standards for the safe transport of oil and the critics' contention a spill is inevitable, is the recognition that no one wants an oil spill and all parties share that as a common objective. Another Federal Government panel on tanker safety found many Canadians do not understand the ship-source spill prevention, preparedness, and response programmes that are already in place and therefore underestimate Canada's ability to address oil spill risks (Houston, Gadreau, and Sinclair 2013, 39, hereafter "Tanker Safety Panel").

Many Canadians do not understand the current ship-source spill prevention, preparedness, and response programmes and underestimate Canada's ability to address oil spill risks.

During the Panel process, opponents made frequent reference to the 1989 Exxon Valdez oil spill in Prince William Sound off the Gulf of Alaska. While an environmental tragedy, Alaska and the United States learned from that experience, reducing the risk of repetition through the 1990 *Oil Pollution Act*. The *Oil Pollution Act* created two regional citizens' advisory councils in Alaska funded in part by trans-Alaska pipeline revenues.

The Prince William Sound Advisory Council examined how oil transportation has changed in the past 25 years and concluded one of the most innovative changes was the establishment of permanent, industry-funded, independent citizen oversight giving those in the region a guaranteed voice in safety planning and scrutiny of oil transport. Benefitting from the innovative provisions of the 1971 *Alaska Native Claims Settlement Act*, native companies provide maintenance services for the trans-Alaska

pipeline as well as oil spill response on land and sea. In the case of Canada's West Coast, however, Eyford says: "There has not been a constructive dialogue (with Aboriginals) about energy projects" (2013, 4). Again, the Alaskan experience underlines how the involvement of native communities is crucial to the acceptance and smooth functioning of large energy projects.

In addressing Northern Gateway and the marine environment it is first of all important to have an understanding of the project itself, its physical and social setting, and the marine environment that surrounds it. Next, the paper examines the risks the project poses to the marine environment, how they can be reduced, what happens if something goes wrong and, if it does, what compensation might be available. Lastly, the paper looks at Northern Gateway in the larger context of the opportunities that this and other West Coast energy projects present, specifically: upgrading bitumen; utilizing LNG; working with First Nations in the context of the marine environment and learning from Alaska's and others' experience in collaborative regional planning and genuine Aboriginal economic involvement.

The Project

Northern Gateway is a limited partnership registered in Alberta in 2004 whose sole function is to build and operate the Enbridge Northern Gateway Project; Enbridge Inc., a major Canadian pipeline company, is currently the only shareholder. Ten energy companies are funding participants that have invested more than \$140 million in developing the proposal and can obtain pipeline shipping capacity and ownership shares if the project goes ahead (JRP 2013b, 399). Northern Gateway began ongoing public consultations in 2002 as part of its feasibility studies (JRP 2013a, 15).

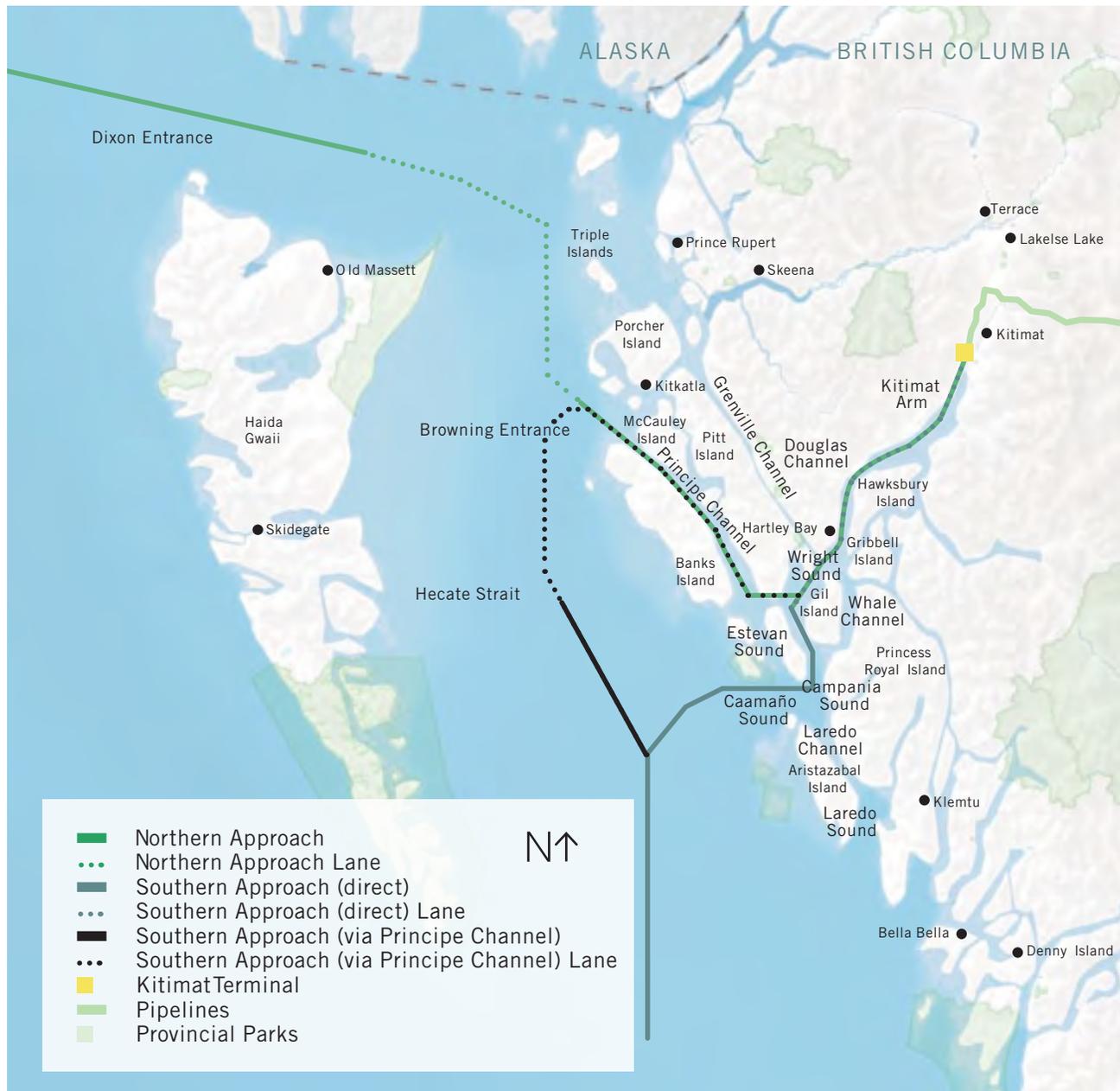
On September 29, 2006, the Minister of the Environment, responsible for the Canadian Environmental Assessment Agency, announced the proposed project was being referred for assessment by an independent review panel jointly with the National Energy Board. This was followed by an extensive public and Aboriginal consultation process to establish the Panel's mandate, which was set out in the Joint Review Panel Agreement on December 4, 2009 (JRP 2013b, 403). Under the terms of the Agreement, the Panel was required, among other things, to assess the project's environmental effects, to consider measures to avoid or reduce any adverse effects, to determine whether the project is in the public interest, to conduct public hearings, and submit a Final Report to Cabinet. The Report was to include an environmental assessment and a recommendation on whether or not the project should proceed (400). The three panel members were appointed on January 20, 2010, consisting of two permanent members of the National Energy Board and one temporary member appointed on the recommendation of the Minister of the Environment.

Northern Gateway applied to the National Energy Board on May 27, 2010 for authorization to construct and operate two pipelines, one from Bruderheim, Alberta to carry crude oil west to Kitimat, BC and the other to carry condensate in the opposite direction. Condensate is a gasoline-like mixture of light oil usually obtained from natural gas which would be brought to Kitimat by tankers. In addition, Northern Gateway applied to build a terminal at Kitimat with two tanker berths, three condensate storage tanks, and 16 oil storage tanks (399).

The larger 904 km westbound pipeline would carry a variety of oil types, particularly diluted bitumen. Since raw bitumen does not flow easily through pipelines, it is blended with condensate to create diluted bitumen or "dilbit." The pipeline could also carry synthetic crude oil (bitumen that

has been converted at facilities called upgraders) and conventional light, medium, and heavy crude oils (JRP 2013a, 7). The pipeline could also carry synthetic oil mixed with bitumen to form synbit or mixed with condensate to form dilsynbit, depending on the refiner’s requirements. The majority of tankers would carry dilbit from Kitimat to international markets. The tankers would follow several, already established shipping routes (6) (see figure 1).

Figure 1 Kitimat terminal and tanker routes



Source: JRP 2013a, 6.

The Government of Alberta and others have said most of the demand for bitumen comes from “complex refineries.” To obtain full value for the product it would have to reach refineries beyond those in the United States, particularly in East Asia and especially in China. The Northern Gateway Project would provide a relatively short and direct route to refineries there as well as “other refining markets” in India and California (27).

The Panel sought comments on both the application and the hearing process. On January 19, 2011, the Panel set out its plan to conduct oral hearings along the pipeline route and near the marine components of the project. This was followed by 16 public information sessions attended by 450 members of the public and Aboriginal groups to discuss the hearing process and participation options, which included letters of comment and oral statements. A special status was given to “intervenor” and government participants, both of which had to register with, and be confirmed by, the Panel. The latter two along with Northern Gateway were considered “parties” to the proceeding giving them a more active role including the right to ask oral or written questions of Northern Gateway and to make final arguments (JRP 2013b, 400–402).

Northern Gateway estimated the project’s cost at \$7.9 billion and told the Panel it expected it to be completed by 2018 (a date the company has since indicated as unlikely) (Lewis 2014). Once operational, about 220 tankers a year would call at the Kitimat terminal, and the largest ones would carry about three times as much oil as the tankers that previously visited the port (JRP 2013b, 399).

Once operational, about 220 tankers a year would call at the Kitimat terminal.

The Panel obtained a significant amount of its information from both community and final oral hearings (22). From March to August 2012, the Panel visited 21 communities, largely along the proposed pipeline route and in the vicinity of

the Kitimat marine terminal. Final hearings began in September 2012 in four Alberta and BC cities and concluded in June 2013. The Panel submitted its final report to the Government that December recommending the Federal Cabinet grant Northern Gateway “certificates of public convenience and necessity” incorporating 209 terms and conditions to permit the project to proceed (5–6).² On June 17, 2014 the Government issued an Order in Council directing the National Energy Board to grant the certificates to Northern Gateway Pipelines Inc (Canada Gazette 2014).

The Physical Setting

Kitimat, with a population of about 10,000, is located 650 km northwest of Vancouver and 110 km east of Prince Rupert at the head of the Kitimat Arm, which extends northeast from the Douglas Channel. The Channel, BC’s largest coastal fjord, extends inland approximately 96 km from open water (Kitimat 2015c). The area is the traditional home of the Haisla First Nation (the dwellers downriver) now numbering 1500 people. About half of them live in Kitimaat Village (Kitimat Two Reserve) at the Channel’s head (Haisla First Nation).

The city is surrounded by the Coast Mountains but the townsite is located along the east side of the Kitimat River, which runs through a largely flat 5 km wide valley connecting Kitimat to Terrace 60 km to the north. Kitimat advertises that the valley is unique on the West Coast of North America as “it is the only wide and flat coastal valley with an inventory of available or greenfield land” including tidewater and inland sites (Klukas 2012). Unlike the ports of Vancouver and Prince Rupert, Kitimat has a private international port owned and managed by the private sector (Kitimat). Both Kitimat and Prince Rupert are one day closer to Asia in shipping days than Vancouver. Kitimat’s location on the

Northwest Transportation and Trade Corridor, which comprises both CN Rail service and access to the Trans-Canada Highway, makes it competitive with Vancouver in rail distance and transit speed to the US Midwest (Kitimat).

The Rio Tinto Alcan aluminum smelter in Kitimat produces one third of British Columbia's primary metal manufacturing and is BC's largest value-added industry. Production is now being expanded to reach 400,000 metric tonnes of aluminum. Raw materials are imported from Australia and Korea and ingots are exported down the Douglas Channel to the US, Pacific Rim, and Europe (Kitimat 2015d). Over the decades the Channel has been well used for industrial purposes. From 1982 to 2005, the Canadian company Methanex produced methanol and ammonia at its Kitimat plant. After ceasing operations, it began offering terminal service in 2006 to Encana Corporation and subsequently to Cenovus Energy for the storage and handling of condensate. The condensate was shipped by rail to Alberta for use in oil sands projects. These shipments stopped in 2013.

Methanex reported that for the 25 years it operated in Kitimat, it shipped in excess of 22 million tonnes of methanol, ammonia, the gasoline additive MTBE, and condensate.³ The former Methanex site was sold in 2013 to an international consortium, LNG Canada, led by Royal Dutch Shell as the location for an LNG tanker facility exporting to Asia (LNG Canada). It is one of six proposed and potentially competing LNG facilities in Kitimat (2015b), including Kitimat LNG with a proposal to build its facility on land leased by the Haisla Nation. Northern Gateway told the Panel that about 1500 tankers had visited Kitimat since 1978 (JRP 2013a, 47).

Some of Kitimat's promotional investment material has a "next year country" aspect to it. In a section entitled "A delayed beginning" it refers to the late 19th and early 20th centuries when Kitimat was touted as the terminus for two trans-continental railways. Those honours went to Vancouver (CPR) and Prince Rupert (CNR). The undated material documents the competitive advantages of Kitimat then adds "yet ironically, Kitimat wasn't even assessed by the federal or provincial government as a port investment location or for promoting private container port investment." For 30 years the Eurocan pulp and paper mill operated its mill and exported from Kitimat until it closed in 2010. Methanex ceased operations in 2007. Now Kitimat has a list of nine major projects projecting billions in investment and thousands of new jobs – all but one of the projects are in the energy sector.

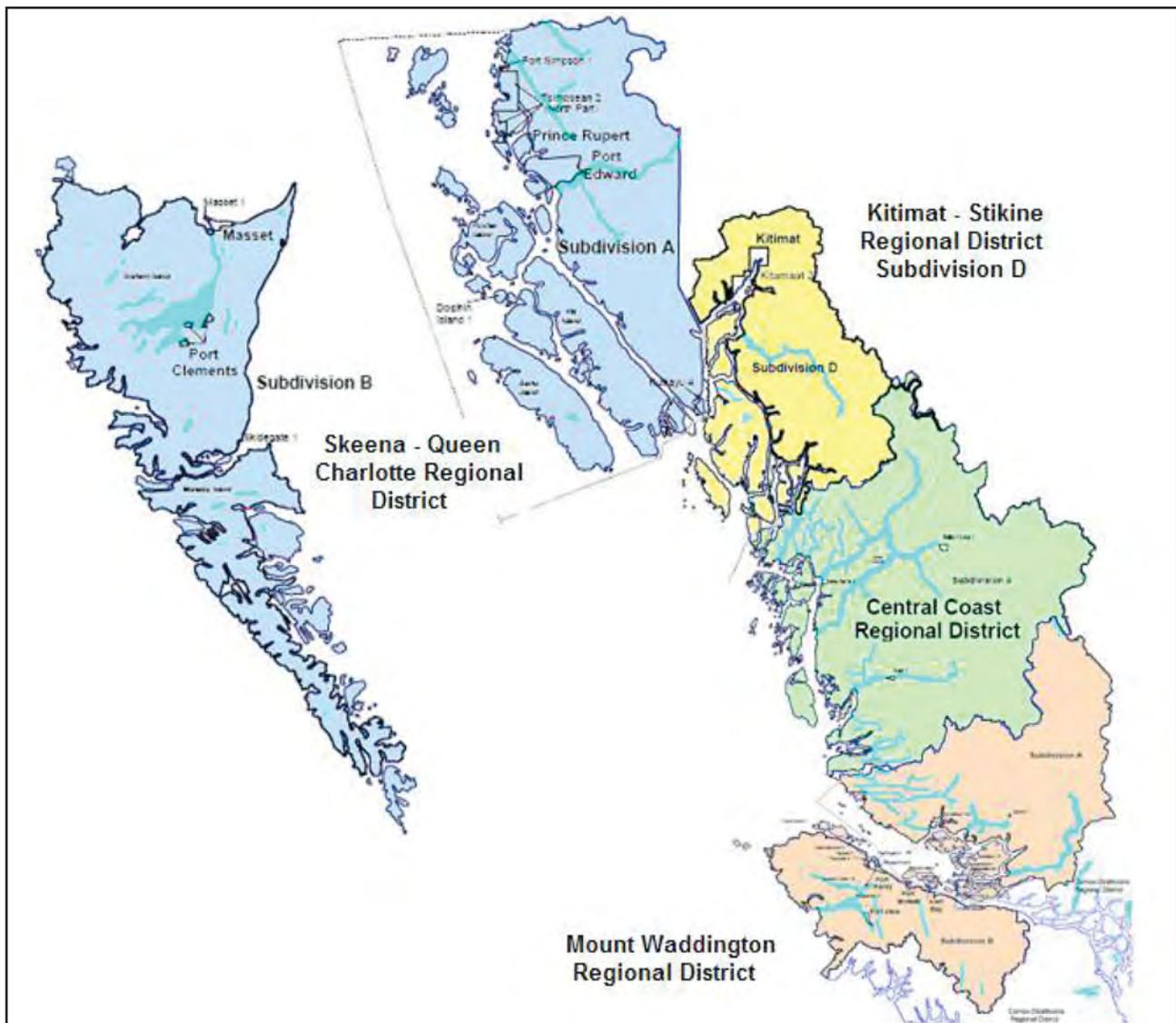
Kitimat "is the only wide and flat coastal valley with an inventory of available or greenfield land" on the West Coast of North America.

Northern Gateway said it analysed over a dozen potential port sites using six criteria to narrow the search to Kitimat and Prince Rupert (JRP 2013b, 172). The company then looked at the suitability of pipeline access to the potential terminals. The Haisla Nation noted there are existing and approved rights-of-way between Alberta and Prince Rupert that could be followed. Northern Gateway replied it found the route to Prince Rupert would encounter "moderate to serious environmental constraints and issues" including silt and erosion control in high-value fish habitat and avalanche and rockslide exposure in narrow valleys (173).⁴ It added the route to Prince Rupert would be hundreds of miles longer than to Kitimat and the pipelines would be immediately adjacent to the Bulkley and Skeena Rivers. While both routes would encounter geo-hazards and environmental constraints, Northern Gateway concluded Prince Rupert "was not a suitable location and that the safest, most effective route with the least potential environmental effects" was to Kitimat (173).

The Social Setting

As part of the process of obtaining the Joint Review Panel’s approval for the Kitimat Terminal, Northern Gateway took part in the Department of Transport’s voluntary TERMPOL process, which examines and advises on the routes that ships transporting pollutants or hazardous cargoes in bulk may take to marine terminals (Transport Canada 2001). Northern Gateway provided several surveys and studies identifying the proposed routes for tankers, a description and analysis of the regional marine traffic network, the local traffic related to the Port of Kitimat, and an evaluation of the combined effect (Enbridge Northern Gateway Project 2010, 1-1, hereafter “Enbridge”). These included the identification of “sensitive human use areas” along or adjacent to the proposed transport routes. The north central coast of BC was drawn into a Socio-Economic Region (SER) comprising four socio-economic study areas, particularly the Kitimat-Stikine Region District (RD) and the District Municipality (DM) of Kitimat including Kitimaat Village (see figure 2). There are 27 Aboriginal reserves located on coastal areas or inland channels, nine of which have no residential population (3-34–3-35).

Figure 2 Socio-Economic Region used for TERMPOL assessment



Source: Enbridge 2010, 3-35.

In 2006, the SER had a combined population of 44,096 people with the Kitimat District accounting for 26 percent. The study indicated the region's population has been dropping steadily since 1996 although the Aboriginal population increased slightly by 3 percent, accounting for 32 percent of the region's population (13,974 people, with most of the growth off reserves in the major communities). The Kitimat-Stikine had the lowest percentage (13 percent) (3-43). The study noted, however, that the Kitimat-Stikine, and particularly Kitimat, is "quite different" than the other areas in economic terms with high employment in manufacturing industries and associated higher education and higher incomes (employment at Alcan plays a significant role). However, it found that, despite the relative affluence, unemployment rates are higher than the provincial average and "especially high for the Aboriginal population" (3-43).

About one-third of the adult population in the Kitimaat Village fish for food making this community especially vulnerable to any marine activities that could affect the quality of fish or other marine resources. This would also be true for both Aboriginal and non-Aboriginal populations since Kitimat is also a base for ocean-related recreational activities (3-53). The challenge, however, is that the study found the district "also stands to benefit from employment and business opportunities associated with marine and terminal activities" (3-53).

Northern Gateway offered to share up to 10 percent of the project equity among 40 Aboriginal groups near the pipeline route.

Northern Gateway told the Joint Review Panel that, in communities affected by the project, there would be joint study initiatives, employment, contracting, and procurement in fields such as environmental management and spill preparedness. For coastal communities, the project would employ residents in constructing and operating the Kitimat terminal (52 jobs) as well as provide opportunities for pilots, tug boat operators, and crews (113 based in Kitimat for a total of 165) (JRP 2013a, 21; 32). Three-quarters of the construction jobs would be in BC with the province getting the largest share of direct benefits from ongoing operations (268 permanent jobs). Annual operations spending would be \$192 million (in 2009 dollars); \$94.8 million in BC, \$77.6 million in Alberta, and \$19.5 million in federal corporate income tax (32).

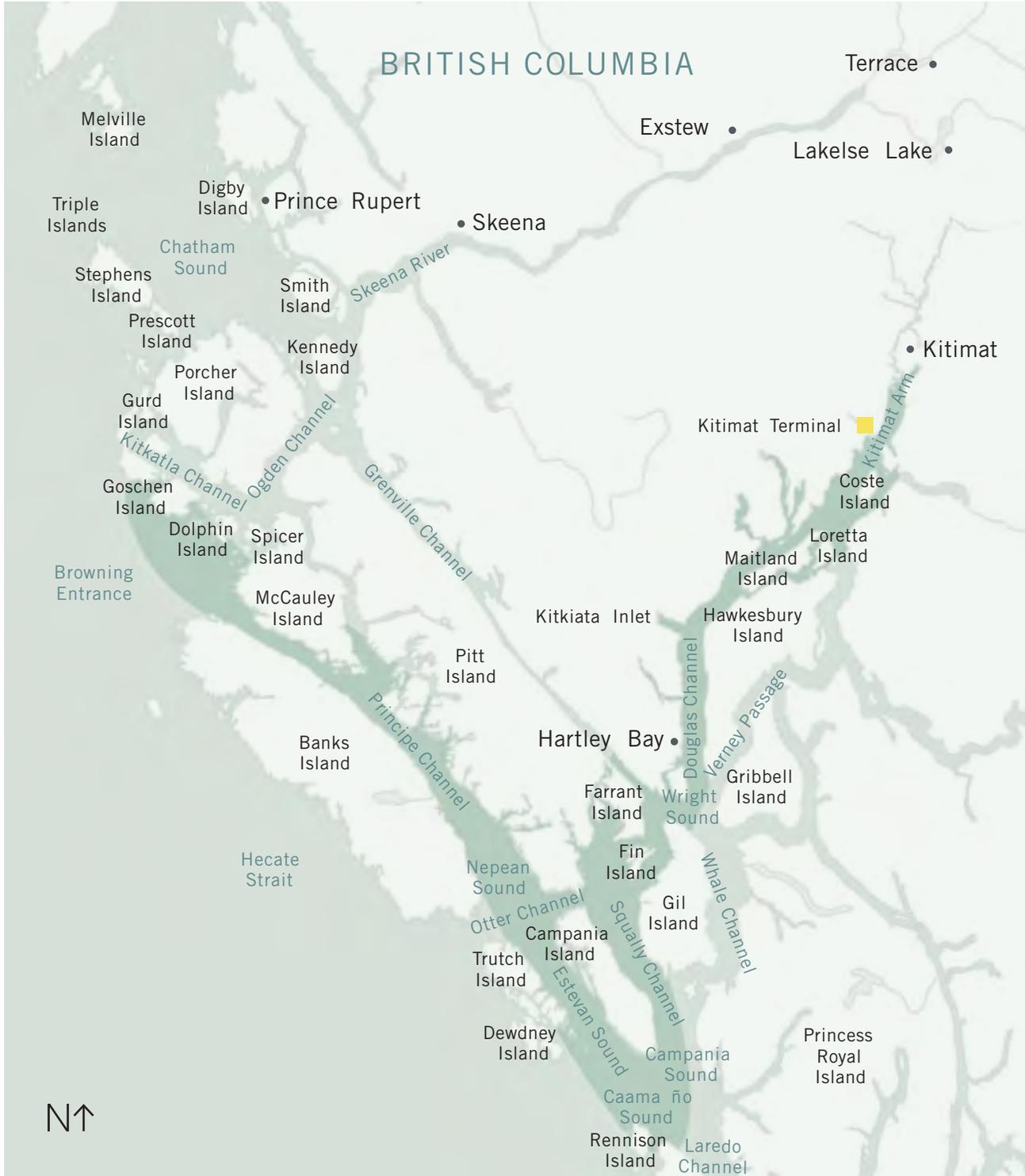
In the case of First Nations, the company said it has offered to share up to 10 percent of the project equity among 40 Aboriginal groups near the pipeline route and would consider later equity participation by coastal Aboriginal groups. It advised the Joint Review Panel that 15 of 18 offers in Alberta were accepted and 11 of 22 in BC (23).⁵ Condition 76 attached to the Panel's recommendation requires Northern Gateway to file, six months prior to commencing construction, an Aboriginal, local, and regional skills and business capacity inventory for the project. Conditions 93 and 135 require the company to monitor that employment and Condition 136 specifically requires monitoring reports on Aboriginal contracting and procurement (JRP 2013b, 376; 381; 385).

The Marine Environment

For the purposes of the study, Northern Gateway divided the BC coast and associated inland waters into two "project-specific regions", the Open Water Area (OWA) and the Confined Channel Assessment Area (CCAA), terms which are also used in the Joint Review Panel's Report (Enbridge 2010, 3-15).⁶ The Panel defined the CCAA as the portions of the northern and southern

approaches that bring condensate and oil carriers near land and other resources and where escort tugs would assist navigation to and from the marine terminal. It defines the OWA as the coastal waters between the CCAA and the limits of the territorial sea of Canada (JRP 2013b, 182) (see figure 3).

Figure 3 Confined channel assessment area and open water area near proposed Kitimat terminal



Source: JRP 2013a, 51.

The OWA is similar in ecological and administrative boundaries to the Department of Fisheries and Oceans Pacific North Coast Integrated Management Area (PNCIMA) (Enbridge 2010, 3-15). The study notes the CCAA “will receive an especially concentrated volume of marine traffic to and from the proposed terminal at the head of the Kitimat Arm” (3-15).

The Panel noted the proposed tanker shipping routes will “pass through waters used by aboriginal groups, commercial and recreational fisheries, sailors and kayakers, tourist vessels, ferries and other shipping” (2013a, 6). In addition, there are 13 Marine Parks and 11 Coastal Ecological Reserves in the Open Water Area (Taylor 2010). Within that Area there are more than 400 species of fish and it is the home to BC’s five major herring populations. Its hundreds of watersheds provide the spawning habitat for 58 percent of all West Coast salmon populations (Gunton and Broadbent 2012). The Panel found both salmon and eulachon⁷ travel through the Douglas Channel en route to freshwater spawning channels in the Kitimat River. Several fish species in the Kitimat Arm, where the proposed terminal is to be located, “are important commercially and recreationally and are used for food and social and ceremonial purposes (by the First Nations)” (JRP 2013b, 244). The Coast First Nations, whose traditional territories are within the Open Water Area, told the Panel the current market value of economic marine-related activities such as commercial fishing, seafood processing, and tourism within the territories is \$385.5 million (Gunton and Broadbent 2012).

The current market value of economic marine-related activities such as commercial fishing, seafood processing, and tourism within the territories is \$385.5 million.

The United Fishermen and Allied Workers Union (UFAWU) added that the fishing industry is the largest private sector employer on BC’s North Coast and its members were generally sceptical of the project’s economic opportunities and benefits (JRP 2013b, 289). To reduce both potential conflicts and mitigate effects, Northern Gateway undertook to create a Fisheries Liaison Committee, including representatives from the shipping industry and from commercial, Aboriginal, and recreational fishing communities (JRP 2013a, 42). Northern Gateway undertook baseline surveys over a five-year period in the two areas to supplement existing information on marine fish and fish habitat (JRP 2013b, 244). The Panel noted a large number of commercial and government vessels have been operating in the two areas for an extensive period of time and that, while the project would “result in adverse effects on marine fish and fish habitat after applying mitigation”, these effects would “not be significant” (249).

The most critical effects of any spills would be in the aquatic environments.

The Joint Review Panel said participants were concerned about the effect of tanker traffic and potential oil spills on both marine mammals and birds (2013a, 19). The company replied that there is limited knowledge about the abundance, distribution, and critical habitat of marine mammals in the Open Water and Confined Channel Areas adding that “interactions” between marine mammals and marine transportation are expected to occur (JRP 2013b, 230–231). A number of intervenors, including Fisheries and Oceans, said they found Northern Gateway’s baseline data inadequate. The company committed to conduct additional marine mammal surveys, a vessel strike analysis, and to develop a Marine Mammal Protection Plan which, among others things, would mitigate these strikes (230–231; 235–236).

Within, or adjacent to the two areas, there are two designated bird areas, two ecological reserves, 12 conservancies, and five provincial parks with 124 marine and coastal bird species (14 of which

are of conservation concern) (254). Environment Canada said Northern Gateway’s baseline data on marine bird species was also inadequate. The company undertook to develop a collaborative Marine Environmental Effects Monitoring Program, including obtaining information to mitigate sensory disturbance, habitat destruction, and wave turbulence (254). As part of its conditions for the project, the Panel required Northern Gateway to file its Monitoring Program for the operational life of the project one year after the certificate date (that would now be June 17, 2015). It would have to include a species survey framework, the survey results, and monitoring plans, which would have to be updated annually (Conditions 36–38, 371–372; Conditions 198, 397).

Oil Spills: An Overview

According to the Joint Review Panel, almost all participants expressed concern about the potential for spills from pipelines, the Kitimat Terminal, and tankers (102). Northern Gateway said the most critical effects of any spills would be in the aquatic environments (102). Under the Panel’s Terms of Reference and the *Canadian Environmental Assessment Act*, its environmental assessment had to take into account the environmental effects of any project malfunctions or accidents related to the project, including the marine shipping component out to the limit of Canada’s territorial sea (102). Regulation of maritime shipping is largely the responsibility of the Department of Transport. The Panel considered four key elements in Northern Gateway’s emergency preparedness and response planning: risk (including the product), prevention, response, and financial responsibility/compensation (102).

The Risk

The Panel defined *risk* as the chance that a malfunction or accident could happen and, if it did, asked: what would the potential negative effects be? Under the *National Energy Board Act* and regulations, a pipeline company is required to have “a systematic, comprehensive and proactive risk management system” that is integrated into its overall management system throughout the life of the project (103). Like any other pipeline company, Northern Gateway would be audited and evaluated against these legal requirements. Northern Gateway told the Panel that it evaluated risks for each component of the project in order to determine what aspects would require risk mitigation (JRP 2013a, 59).

In its assessment of the risk of spills, the Panel distinguishes between small and larger spills. It writes that while small spills from the pipeline, terminal, or tankers “are almost certain to occur during the life of the project”, those spills “are unlikely to cause significant adverse environmental effects” (2013b, 146). The Panel reports a large spill would involve an amount of oil spreading beyond the immediate spill area. This would require a medium to large-scale response that might not effectively clean it up (natural recovery would likely be the predominant means to restore the environment) (146). The Panel finds some level of risk inherent in the Northern Gateway Project: “no party could guarantee that a large spill would not occur” (2013a, 69).

Northern Gateway said its own risk assessment put the probability of a tanker spill of any size at about 0.4 percent in any given year with the average interval between events (the return period) at 250 years (2013a, 60; 2013b, 142–144). Northern Gateway pointed to data that demonstrates a steady reduction in the number and size of oil spills since the 1970s (2013a, 60; John 2012, 23–26). Contributing to this decline were changes in the international regulatory environment following the

1989 Exxon Valdez spill, including a requirement for double hulls, changes to facilitate inspections of cargo tanks, and design changes to limit oil outflow in the event of a collision or grounding (JRP 2013b, 109).

The company provided a number of additional risk-reducing factors including: utilizing 344 metre Very Large Crude Carriers (VLCCs) already being used on the East Coast to reduce the number of transits; implementation of a tanker vetting programme to ensure tankers comply with Northern Gateway's environmental commitments; mandatory use of pilots and employing both a close escort tug for all tankers plus a "tethered tug" for those using the Douglas Channel area (the CCAA) (136–138). In a letter, the Pacific Pilotage Authority said the weather conditions in the routes to Kitimat were "no worse than what tankers currently encounter at Canadian East Coast ports" (JRP 2013a, 60). The Panel finds a large spill due to a malfunction or action from the pipeline, terminal, or tankers "is not likely" and that Northern Gateway was taking a "precautionary approach to reduce risks associated with marine shipping to as low as reasonably practicable" (2013a, 69; 2013b, 147).⁸

Northern Gateway put the probability of a tanker spill of any size at about 0.4 percent in any given year with the average interval between events at 250 years.

The Product

Northern Gateway told the Joint Review Panel that the effects of a large tanker oil spill would "likely be significant" (2013b, 120). The potential effects would depend on numerous factors including the type of oil, the volume spilled, the season, and its location (environmental receptor). The Panel devoted a full chapter (chapter 6) to the type of oil used in the project entitled: "The environmental behaviour of products to be transported by the project." At the outset, it noted "many participants . . . expressed concerns about the behaviour and fate of spilled dilbit (bitumen blended with condensate or synthetic crude oil)" (90–101). Northern Gateway was confronted with the notion that dilbit, which will be the most prevalent product shipped in its pipeline and tankers, is a "sinking oil", oil that sinks to the bottom of the ocean floor because it has become denser than water (90; 98). The company said none of the hydrocarbon products it would be shipping would fit this category since they would initially be less dense than water and would float (the density of sea water is 1025 kg per cubic metre and the maximum density of the hydrocarbons on its pipeline is 940) (90; 92).

There is ongoing, unresolved debate regarding the behaviour of dilbit spilled in water and its potential to sink or submerge.

Chapter 6 of the Joint Review Panel Report underscores the ongoing, and as yet unresolved, debate about the true nature of dilbit with alliances forming and dissolving among the different Panel participants. The Canadian Government, the Province of British Columbia, Forest Ethics, Living Oceans, and Gitga'at First Nation all raised concerns regarding the behaviour of dilbit spilled in water and its potential to sink or submerge. Northern Gateway, Environment Canada, and Natural Resources Canada all agreed that, if spilled, the lighter hydrocarbon fractions from dilbit, as a new, blended product, would begin to evaporate (91). The Haisla and Gitxaala First Nations did not agree, however, with the company's contention that dilbit would float like typical crude oil or that it is similar to crude or refined oils (90).

Northern Gateway, Haisla Nation, and Environment Canada all agreed that oil can sink in water under certain circumstances, particularly if it attaches to sediment or organic particles (91).⁹ Transport Canada made the point that the most important oil behaviour indicators that spill response organizations need to know are the spilled product's physical characteristics. It added that response organizations would likely treat dilbit as a blended crude oil and "the current response regime was set up to respond to such spills" (92). Both Northern Gateway and Haisla Nation agreed that dilbit would be expected to behave similarly to an intermediate or lighter fuel oil when spilled (94).

The Panel Report asks, "is more research needed?" Northern Gateway responds that commercial vessels already carry "substantial volumes of heavy oil throughout coastal waters" and that dilbit is currently being transported by pipeline throughout North America and shipped by tankers through BC coastal waters (97). Environment Canada, Fisheries and Oceans Canada, and Natural Resources Canada all indicated the need for additional research on the fate, behaviour, and effects of heavy oil products to be transported by the project. Transport Canada adds that such research "would help inform spill response planning" (97).

The Panel finds that the toxic effects from a major spill would be "significant in the short term and that longer-term chronic effects could also occur" (100). In the end, it concludes "additional research is required to answer outstanding questions related to the detailed behaviour and fate of dilbit" (100). All parties with technical expertise on the topic were in agreement. In addition, Northern Gateway undertook to be responsible for research on the behaviour and cleanup of heavy oils. The Panel made this, and other related commitments, conditions attached to its recommendation that the project could proceed.¹⁰

Prevention

Canada has the world's longest coastline and every year 80 million tonnes of oil are shipped off Canada's east and west coasts (Transport Canada 2014a). In 2011, there were 18,500 inbound commercial vessel movements at West Coast ports with tankers accounting for 246 of those (1.3 percent). According to Transport Canada (2014a) "oil tankers have been moving safely and regularly along Canada's West Coast since the 1930s with 2.2 million tonnes of oil shipped out of Vancouver and largely transported in barges to and from BC coast communities". In the last 20 years, the only major spill was the sinking of the BC ferry *Queen of the North*, which discharged 240 tonnes of oil. The Panel and Northern Gateway both underlined the importance of Canada's aim to prevent oil spills through regulatory oversight, inspections, and enforcement measures. This "marine shipping regulatory framework" includes the

Canada Shipping Act, 2001 and the international regulations established by the International Maritime Organization (Transport Canada 2014a; JRP 2013b, 104).

Oil tankers have been moving safely and regularly along Canada's West Coast since the 1930s.

The Panel reviewed the *Act's* marine safety and pollution prevention measures: the establishment of vessel traffic services zones and mandatory vessel reporting requirements; traffic separation schemes; ship design and construction requirements including double hull requirements for tankers; crew qualification; and training

and implementation of an international safety management code (2013b, 105). In addition, and to mitigate against human error, Northern Gateway said tankers would have "custom-designed" escort tugs; loaded tankers would have a second tug attached by cable (a tethered tug) which, if necessary could halt a tanker or change its course (138; 141). A minimum of two pilots would be on board

for transit to and from Kitimat through coastal waters (105). Tankers in the CCAA would operate at relatively low speeds, 8 to 12 nautical miles per hour (knots) (2013a, 42). Northern Gateway said it would put a Tanker Acceptance Program in place to ensure tanker owners and operators agreed to implement its marine commitments before they could service the Kitimat terminal (2013b, 136).

The Department of Transport has recently designated Kitimat as a public port for marine traffic. Transport Canada's Port State Control ship inspection programme allows inspectors to board and inspect foreign vessels, including oil tankers, entering Canada's ports to ensure they comply with international maritime standards (Transport Canada 2014a). Northern Gateway made the point that the regulatory environment is not static but subject to continuous improvement in the areas of vessel construction and operation. In this respect, it said it would develop more detailed response plans and mitigation measures in advance of operations, if the project were approved (JRP 2013a, 62). For its part, the Panel finds the mandatory and voluntary measures provided by the company "would reduce the potential for human error to the greatest extent possible" (2013b, 145). To ensure compliance, the Panel set out at least 18 prevention-oriented conditions that Northern Gateway would have to comply with before it could load its first tanker at Kitimat.¹¹

Response

Northern Gateway said it would develop a "world-class" General Oil Spill Response Plan as part of its emergency preparedness and response planning. A spill management team would be responsible for the implementation of the plan as well as spill readiness, training, exercises, and drills (148). The Haisla Nation agreed with Northern Gateway's assertion that the preparation of emergency response planning documents is normally done following project approval during the detailed design and planning phase (149). Northern Gateway said it is not the "responsible party" for ship-source spills since the *Canada Shipping Act* requires every Canadian vessel to have a person, the authorized representative, who is responsible for acting with respect to the vessel. The authorized representative, as defined by the Act, for a Canadian vessel is its owner or if the vessel is owned by a foreign corporation, a Canadian subsidiary, a branch office employee, or a ship management company. Nevertheless, Northern Gateway voluntarily committed to extended responsibility for marine oil preparedness and response (156).

These commitments included: escort tugs with crews trained in emergency response; engaging a response organization able to respond to a 32,000 tonne spill (over three times the Canadian standard) and ensuring a task force arrived at a CCAA spill within six to 12 hours and an OWA spill within the same period plus travel time; strategic location of oil spill response equipment; and identification of particularly sensitive areas for oil spill response (157). Under Canadian law, Northern Gateway is required to engage a licensed response organization and is now in discussion with Western Canada Marine Response Corporation. Northern Gateway said it was investigating the possibilities for coastal First Nations to participate in the response organization (157).

Northern Gateway voluntarily committed to extended responsibility for marine oil preparedness and response.

Since Northern Gateway is not the responsible party in the event of a spill, the Panel asked the Canadian Government: who would be responsible for oversight of Northern Gateway's monitoring commitments? Environment Canada said its own Regional Environmental Emergencies Team would be limited to response and clean up and suggested these commitments could be linked to certificates the NEB might issue to Northern Gateway.

Northern Gateway committed itself to working with Transport Canada in its detailed marine oil spill preparedness and response planning process (159). Northern Gateway added that a marine spill would be managed in the same way as a pipeline spill using its Incident Command System. The initial incident commander would typically be the ship's captain followed by the representative of the flag state. Ultimately, it would be managed by a Unified Command, which would include the flag state representative and federal and provincial representatives (160). Northern Gateway would also participate in the Unified Command and its involvement would be a condition of acceptance for tankers using the Kitimat Terminal (160).

Northern Gateway said recovery of oil spilled in marine waters “can be very slow” with ranges of 0 to 15 percent of the oil spilled to as high as 90 percent depending on the circumstances (160). Because of its sheltered nature and lower wind and wave conditions, recovery might be much higher in the CCAA (up to 90 percent). In addition to natural dispersion and degradation following a spill, there are three response options: mechanical recovery, dispersants, and in-situ burning. Northern Gateway tested the effectiveness of dispersants on synthetic oil and dilbit, finding they were likely to be effective on the former but needed more work on the latter since dilbit may become too viscous for chemical dispersion (160). The company said it would employ shoreline protection and cleanup measures if spilled oil reached the shore or had the potential of doing so, outlining technological advances in heavy oil cleanup. It also noted response organizations are set up to respond to heavy oil spills (161–162).

To assist in response planning, Northern Gateway ran models for seven hypothetical spills in the area. Environment Canada said it found the results “of limited value” for response plans and risk assessment because of the uncertainties regarding the product (in other words, dilbit) in the marine environment. Northern Gateway agreed with the Department's recommendation that a multidisciplinary Scientific Advisory Committee be established to undertake additional spill modeling work (164). The Panel found Northern Gateway's extensive evidence regarding emergency preparedness and response planning was credible and sufficient *for this stage in the regulatory process* (emphasis added) and that Northern Gateway was being proactive in its planning and preparation for effective spill response (165). It did not share the views of the Province of British Columbia and the Gitxaala and Haisla First Nations that the company had not provided enough information.

The Panel reports that “an effective response does not guarantee recovery of all spilled oil and that no such guarantee could be provided, particularly in the event of a large terrestrial freshwater or marine spill” (165). Given the potential consequences, the Panel determined that Northern Gateway's voluntary commitments, which exceed the regulatory requirements, are appropriate for the project and it will require their implementation under any NEB certificate (167; Appendix 1, Conditions 167–179). In conclusion, the Panel held that a large oil spill would not cause permanent widespread damage to the environment and, after mitigation, “the likelihood of significant environmental effects from project malfunctions or accidents is very low” (168).

Compensation

While the Panel found a large spill was unlikely, it recognized one still might occur and asked: how are people affected by malfunctions or accidents to be compensated for any losses and who pays (102)? As with previous Panel questions, it is important to first understand the regulatory regime. Transport Canada (2014a) lists several sources of compensation: shipowners' liability, international liability, and the Canadian Ship Source Oil Pollution Fund. Canada's *Marine Liability Act*, based on the “polluter pays” principle, is the main piece of legislation dealing with shipowners' and operators' liability for pollution and property damage.

Canada is a party to the International Convention on Civil Liability for Oil Pollution Damage, which

makes the shipowner liable in the event of crude or fuel oil spills. The maximum liability is approximately \$145 million per incident. Much more compensation is available, however, through the International Oil Pollution Compensation Funds, to which Canada is also a party. Combined with tanker owner's liability coverage, they provide about \$1.2 billion for any one spill. In addition, the Panel was told, the Canadian Ship Source Pollution Fund can provide up to \$161 million for a total of \$1.36 billion thereby providing, in the words of Transport Canada (2014a), "the most robust and comprehensive system in the world."

Various intervenors before the Panel, including three First Nations, expressed concern that adequate compensation might not be available in the event of a marine spill. Northern Gateway said there has never been a spill in Canada, or indeed globally, that exceeded the available compensation. Northern Gateway brought these concerns to Transport Canada's Tanker Safety Expert Panel indicating that it supports the Federal Government's review to ensure compensation is aligned with potential cleanup costs (Carruthers 2013). On May 13, 2014 the Federal Government announced it was going to strengthen the polluter pays regime by removing the Canadian Fund's existing limit of \$161 million in order to make its full amount of \$400 million available bringing the total available amount to \$1.6 billion (Transport Canada 2014b).

There has never been a spill in Canada, or globally, that exceeded the available compensation.

In response to First Nations' and fishermen's associations' concern on the level of compensation for fishers, Northern Gateway committed to refer the matter to its proposed Fisheries Liaison Committee which would, among other things, examine compensation for both the project's routine effects and for oil spills (JRP 2013b, 113). While noting it is something that has never happened, the Panel said that in the event spill costs exceed available funds "the money would have to come from corporate entities or government" (114). Since the regime is not regulated by either the NEB or the Canadian Environmental Assessment Agency, "the Panel does not express a view as to the sufficiency of the current amount available" (114). Federal Transport Minister Raitt (2014) subsequently provided a response to the Panel's implicit questions stating that in the event all domestic and international pollution funds are exhausted, the Government will ensure compensation is provided to eligible claimants and would put a levy on the industry to recover the funds.

The Joint Review Panel's Decision

Based on the evidence and its findings, the Joint Review Panel recommended approval of the project, but subject to 209 binding conditions. Not all the answers to the Panel's and intervenors' questions and concerns are currently available. But Northern Gateway's commitments, including modelling, plans, and research programmes in the years before operations begin, will, in the Panel's words, "contribute to improved environmental knowledge and protection, especially in the marine ecosystems along the British Columbia northern coast" (JRP 2013a, 69).

The *National Energy Board Act* required the Panel to consider the overall "public interest" and the Panel concludes "Canada and Canadians would be better off with the Enbridge Northern Gateway

than without it” (70–71). In making this finding, the Panel weighs “the potential burdens and benefits of the project” that affect the environment, society, and the economy (2013b, 10). It considers “environmental protection and economic activity that benefit society are important aspects of the determination of the public interest” (2013a, 74).

The Joint Review Panel recommended approval of the project, but subject to 209 binding conditions.

When the Government accepted the project, its announcement indicated the need for the proponent to fulfill the 209 conditions noting in background information the inclusion of 400 voluntary commitments made during the hearings that are also included in the conditions. That background information also outlined Northern Gateway’s additional obligations before construction can begin including: the need to seek NEB approval for the pipeline route; provide the Board with plans regarding environmental monitoring and habitat restoration; obtain approvals under five federal acts; and obtain upwards of 50 permits from Alberta and 60 from BC (Natural Resources Canada 2014b; 2014c).

approval for the pipeline route; provide the Board with plans regarding environmental monitoring and habitat restoration; obtain approvals under five federal acts; and obtain upwards of 50 permits from Alberta and 60 from BC (Natural Resources Canada 2014b; 2014c).

Obtaining Public Acceptance

While the Joint Review Panel was finalizing its Northern Gateway report, another Government panel on tanker safety was engaged in reviewing Canada’s national ship-source oil spill preparedness and response regime and proposing ways to enhance it.¹² The Tanker Safety Panel presented its report to the Minister of Transport in November 2013. The Report underlined the challenges both the Government and industry face in obtaining public acceptance for major resource development and transport projects such as Northern Gateway. The Tanker Safety Panel said some of these challenges could be mitigated through a stronger Government-led engagement with Canadians on all aspects of the question, including the risks and strategies associated with ship-source oil spills (2013, 39).

The Panel said it heard repeatedly that Canada’s preparedness for oil spills could be improved. It reports that Canada’s preparedness is based “on a rigid, national structure that fails to account for the different risks that exist along our expansive coastline” (14). It found that many Canadians do not understand the ship-source spill prevention, preparedness, and response programmes that are already in place and therefore underestimate Canada’s ability to address oil spill risks (39). It said Canada needs a new regime that can adapt to changes in vessel traffic and that can take into account the differences between Canada’s coastal regions. The Tanker Safety Panel called for the establishment of a risk-based area response planning model, which would allow each of four regional coastal areas, including southern British Columbia, to have its own tailored set of standards and different requirements for Response Organizations (the northern coast of BC was not included since there has been, to date, limited tanker traffic) (15–16).

The Tanker Safety Panel believes more government information-sharing on the risks of oil spills, coupled with its proposal for Area Response Planning, would introduce a “new level of transparency” into the current oil-spill preparedness regime and would help bridge the current knowledge gap (39). It adds: “There is a need to engage interested parties, including municipalities, local communities, and Aboriginal organizations, in the planning for spill events” in order to provide a dialogue

between planners and the people who live and work in coastal communities (39).

In its consultations with stakeholders across the country, the Tanker Safety Panel said it was clear that there is no shared understanding of the regulated regimes in place to prevent, prepare for, and respond to ship-source oil spills. In fact, there seemed to be a general consensus that there is no coordinated and comprehensive explanation of the regime. This, in turn, led to misconceptions about the regime's components, their effectiveness, and the risk of ship-source oil spills in Canada. It found that, in contrast to the public view, many of the domestic and international stakeholders the Tanker Safety Panel contacted considered "Canada's ship-source oil spill preparedness and response regime to be comprehensive and effective." (40).

The Tanker Safety Panel concluded that it is in the public's and the Government's interests to develop a clearer understanding of these important regimes to build and maintain public confidence in the industry's and Government's ability to manage the safe transportation of oil as cargo or fuel (40). It recommended Transport Canada and the Canadian Coast Guard regularly communicate to the public on the level of oil spill risk and Transport Canada explain how the various components of the system function, including prevention, preparedness, response, and liability and compensation (40). In addition, the Tanker Safety Panel said its Area Response Planning model, including the requirement for broader bureaucratic involvement and an interdepartmental committee to strengthen federal coordination, would provide the Government with necessary vehicles for public input and engagement (170). While Transport Minister Raitt (2014) did not address that recommendation, she did state that Area Response Planning was the Tanker Safety Expert Panel's "most significant recommendation" in identifying the need to tailor response plans and cleanup resources for spills based on the geography of a region, its tanker traffic, and its environmental conditions. She stated the Government will put in place new area response planning and resources, in the four areas across the country that currently have relatively higher tanker traffic, including southern British Columbia.

The Opportunity

The Joint Review Panel process is over and the further steps Northern Gateway needs to take have been clearly spelled out. The federal government has approved the project but commentators note it was done in a very low-key way, perhaps not to rile BC voters in an election year. Alberta Premier Prentice has been quoted as saying getting First Nations approval for Northern Gateway will be "pretty tough" as long as the proposed terminus remains in Kitimat (Mason 2014). While Kitimat residents are not wholly in favour of the pipeline, their city council is very much in favour of a refinery that would upgrade the bitumen before shipment down the Douglas Channel. While the BC Government has attached five conditions to its acceptance of Northern Gateway (conditions which the company says on its website it is working hard to meet), it has embraced LNG projects, although none have completed the necessary regulatory processes.

The common thread is governments, federal, provincial, and local. Are they are doing enough together to achieve their objective of enhancing sustainable prosperity and to involve First Nations as decision-makers and potential beneficiaries? Can the debate over Northern Gateway go beyond "it ain't going to happen", to opening a door to new, co-operative, government-led initiatives that will realize the opportunities that West Coast energy offers?

Would a Refinery Make a Difference?

The Joint Review Panel made clear in its Report that product refining or upgrading capabilities were outside its mandate, adding that it and other listed questions “are issues of importance to Canadians . . . and should be discussed in forums and processes under their respective jurisdictions” (2013b, 170–171). That did not stop intervenors from bringing up the proposal to upgrade or refine the bitumen in Canada before shipping. The Communications, Energy and Paperworkers Union said this could create 26,000 jobs, basing the estimate on a previous project submission to the National Energy Board (JRP 2013a, 32). The Alberta Federation of Labour said the estimated 26 permanent Alberta jobs the project would create “is a paltry, insignificant and unacceptable number compared to the thousands of jobs that would be created in Canada if nearly \$13 billion worth of bitumen were upgraded here” (JRP 2013b, 290).

Northern Gateway (reinforcing that it is a pipeline company), the Government of Alberta, and others said industry would build more upgrading capacity in Canada “if it were economic to do so” (JRP 2013a, 32). A 2013 Macdonald-Laurier Institute paper by Philip Cross asked the question: “Why does Canada export more crude oil than refined petroleum products?” Cross says refiners contribute 13.6 percent of the gross output of refining petroleum, although they contribute the second

*Crude is where
the most value lies.*

largest value-added in absolute terms at \$8.6 billion. This reflects the fact that the value they add is dwarfed by the value they buy; the value generated by refining is low compared with that of extracting and transporting crude oil. The answer to the above question is, “crude is where the most value lies.”

Outside the Joint Review Panel hearings and its Final Report, a “refinery debate” has begun. Kitimat Clean Ltd. (2014b), led by BC publisher David Black, has proposed to build “one of the

ten largest refineries in the world” near Kitimat at a cost of \$21 billion. Pacific Future Energy Corp. (2015), led by executives from Mexico’s Grupo Salina, proposes to build a \$10 billion refinery, “the cleanest in the world”, in Prince Rupert. A third proposal was advanced at a 2013 conference entitled “Bitumen Adding Value: Canada’s National Opportunity”, which called for enhancing the value added of bitumen exports by upgrading them at a facility in Sarnia, Ontario (Marceau and Bowman eds. 2014).

In the two BC refinery proposals, the advocates underline the challenges of transporting diluted bitumen through coastal waters and the thousands of long term jobs a refinery would create (Kitimat Clean estimates 6000 construction jobs and 3000 permanent ones). Both say their refineries will produce gasoline and diesel “which float and evaporate if ever spilled at sea” (Kitimat Clean Ltd. 2014a). Neither company is saying there are no environmental risks. The US National Oceans and Atmospheric Administration’s (NOAA) Office of Response and Restoration (2015) indicates gasoline should evaporate in one to two days but describes it as “highly volatile” as opposed to diesel, which it describes as “moderately volatile” and its clean up as being “very effective.”

The idea that Canada should upgrade or refine its bitumen before exporting it has its advocates and detractors in the media. Konrad Yakabuski, in an August 11, 2014 *Globe and Mail* article entitled “We Need to Refine Our Oil Sands Ambitions”, recounted how 600,000 barrels of Alberta oil sands crude arrived in Bilbao, Spain for refining. The same newspaper ran an article a few months later entitled “David Black Faces Scepticism Over West Coast Refinery” although Black, who has invested millions of his own money in the project, says he is undeterred (Jang 2014). Kenneth Green (2014) of the Fraser Institute, in “The Proposed Kitimat Oil Refinery Is Just Another Barrier to Oil Sands

Development”, maintains BC environmentalists would never support such a large refinery, which would only add delay and money to the proposal.

At this stage, it is inconclusive whether a BC coastal refinery would contribute to the Northern Gateway Project. Since its proponents are looking for government guarantees or funding, nothing is likely to happen without federal and relevant provincial interest and support.

Liquid Natural Gas (LNG)

There is another, less noticed regulatory process involving a Kitimat energy facility underway. LNG Canada led by Shell (the world’s largest LNG shipping operator) and three other corporate partners is one of six consortia proposing LNG facilities at Kitimat to receive LNG by pipeline and then process, store, and ship it by tanker to Asian markets. LNG Canada obtained a National Energy Board Export Licence in February 2013 and in April filed a project description with the regulators, the Canadian Environmental Assessment Agency, and the BC Environmental Assessment Office. As with Northern Gateway, LNG Canada plans to initiate a TERMPOL review process. Once LNG Canada ensures, among other things, that the project is economically viable it will make a final investment decision as to whether or not to proceed.

LNG Canada is looking at a variety of LNG ships including the Q-Max which carries 216,000 cubic metres of LNG and is 345 metres long, the same length as the VLCC proposed by Northern Gateway. LNG Canada estimates that from 170 to 350 ships will visit the terminal annually or, at peak, about one a day. Like Northern Gateway tankers, their tankers will be guided by escort tugs with pilots on board and will be designed to meet international standards including double hulls. The LNG carriers will follow the same route through the Douglas Channel and Canada’s coastal waters on their voyages to Asia and back (LNG Canada).

LNG Canada and Northern Gateway propose to ship two different energy products arriving in Kitimat by pipeline and carried in tankers along the same maritime routes to Asia.

BC Premier Christie Clark sees her province “among the global leaders in natural gas production and export” with the “new money” generated by the industry providing tens of thousands of stable jobs (British Columbia 2014). LNG Canada and Northern Gateway propose to ship two different energy products (albeit with very different transportation histories) but arriving in Kitimat by the same means (pipelines carrying LNG from northeast BC or crude from Alberta) and carried in tankers along the same maritime routes to Asia. In the case of LNG, Premier Clark says growth expectations for LNG in BC show an addition of up to \$1 trillion in cumulative GDP between now and 2046.

Engaging First Nations

Alberta Premier Prentice has highlighted the need to address First Nations’ environmental concerns about the Northern Gateway project. “It’s not about money”, he told the *Globe and Mail*. “It’s actually about ensuring people who have lived on the West Coast of Canada from time immemorial, that their lives are not going to be changed irretrievably by some kind of disaster” (Hunter and Bailey 2014). In announcing the Government’s approval of Northern Gateway, Natural Resources Minister Greg Rickford put the onus on Enbridge to do more work to engage with Aboriginal groups (Natural Resources Canada 2014a). Douglas Eyford had also highlighted these concerns in his own November 2013 report. Eyford’s mandate was to look at how the 19 proposed West Coast energy projects would affect Aboriginal interests and to identify Aboriginal opportunities including options for employment

and business opportunities (2013, 6). By looking at all of the projects in both Alberta and BC, Eyford took a more holistic perspective on Aboriginal concerns.

Eyford (2013, 7) found that Aboriginal representatives have an interest in participating in partnerships with the Canadian Government and industry on a range of issues from research and publication of science-based information about pipeline and related marine risks to the effects of vessel traffic on the marine environment and coastal communities. He recommended that the Federal Government collaboratively engage in regional planning with the two provincial governments, Aboriginal communities, and local governments to assess the projects' cumulative effects and encourage sustainable development. More specifically, he recommended that the Government establish a joint initiative with

Aboriginal groups for environmental stewardship and sustainable development.

Aboriginal representatives have an interest in partnerships with the Canadian Government and industry on a range of issues.

Looking at all of the proposed oil and LNG vessel transport projects, Eyford sees the two LNG terminals in Kitimat serving approximately 230 to 430 LNG vessels per year in addition to the possible 250 Northern Gateway tankers visiting Kitimat annually. The Prince Rupert Port Authority estimated large vessel traffic will increase from about 400 a year to over 1100 by 2018, of which

200 could be LNG carriers (18). The corridors leading to these projects are adjacent to a large number of Aboriginal communities that “expect to be informed of marine safety systems and may want to participate in them, including oil spill preparedness planning and response. Aboriginal communities have considerable marine expertise and local knowledge and have expressed an interest in marine environmental protection and response” (18).

In Alberta, the oil and gas industry has created associations to support safety management and oil spill preparedness. Eyford notes that Aboriginal communities are not integral components of them (17). He saw particular opportunities for First Nations communities on BC's north coast where there has been little tanker traffic to date and a relative lack of response capability. Northern Gateway has said it is investigating how First Nations' communities could participate in the operations of the Western Canada Marine Response Corporation. Eyford envisioned the Corporation facilitating Aboriginal participation in the preparation of geographic response plans and identifying employment opportunities and related training. Considering the expected growth in vessel traffic, he suggested the Pacific Pilotage Authority develop opportunities for Aboriginal Canadians to train and qualify as pilots (19).

The expansion of tug traffic also offers employment possibilities. Small Aboriginal-led technical units could train or assist in training Aboriginal oil spill responders in small communities along the coast.

Successful Aboriginal energy businesses could serve as models or provide mentors for First Nations enterprises along the West Coast.

Eyford saw an unprecedented scale of potential employment opportunities with the possibility of 30,000 construction jobs if the five LNG and two oil pipeline projects proceed. To foster inclusion, Aboriginal employment must translate into real

jobs and successful businesses (22–23). He found, however, that Canada's Aboriginal development programmes were not designed to address the scale and scope of opportunities provided by the projects (26). In response, he recommended that the Federal Government look at regional strategic planning along the lines of the Canadian Northern Development Agency, which the Government created to deliver economic development programmes in the three northern territories. Eyford saw

an opening in the fact that the First Nations Financial Management Board approached the Canadian Government to explore acquiring equity interest in major energy projects that would be backed by federal loan guarantees (29).

There are a number of examples of successful Aboriginal businesses in the oil, gas, and mining industries that could serve as models or provide mentors for First Nations enterprises along the West Coast. The Fort McKay Group of Companies, wholly owned by the Fort McKay First Nations Band in Alberta, has provided services such as earthworks, logistics, and site services to the oil sands for more than 25 years. Aboriginal-owned Lynco Construction of Saskatchewan has provided construction and maintenance services to the energy, mining, and forestry industries for more than 20 years (Lynco Construction Ltd.). In 2013, Saskatchewan uranium companies Cameco and Areva reached a \$600 million collaborative agreement with the 1400 member English River First Nation requiring the companies to develop the community's workforce and to assist in the building of long-term sustainable businesses to deliver services to the companies' operations (Northern Village of Pinehouse et al. 2012).

The Alaskan Experience

Native Involvement

Comparing jurisdictions, especially foreign ones, can be a challenge but Alaska's decades-long pipeline and oil tanker experience might be instructive. There are two relevant areas: native involvement and engaging the community through regional advisory councils. In 1971, President Nixon signed the *Alaska Native Claims Settlement Act*, a controversial piece of legislation which created 12 regional profit making native corporations and over 200 village, group, and urban corporations receiving 45.5 million acres of land (Jaeger and Illingworth). The Chugach Alaska Corporation is particularly relevant here since its lands and communities include more than 5000 miles of coastline along the Gulf of Alaska and adjacent waters north of the BC coast. It also includes the port of Valdez in Prince William Sound, the marine terminal for the 800-mile trans-Alaskan pipeline. The Corporation represents more than 2500 Aleut, Eskimo (Inuit), and Native American stakeholders (Chugach Alaska Corporation 2014a; 2014b). As indicated, through its companies, Chugach (2014c) provides maintenance services along the pipeline's entire length as well as spill response and maintenance operations for the Alyeska Pipeline Service Company, "one of the world's largest spill response organizations." The Service Company also designed, built, and operates the Trans-Alaska Pipeline and, through the Alaska Native Program, a legislative requirement to obtain the pipelines' right of way, it ensures 20 percent native employment. In addition it funds programmes to increase employment, training and career development, and provides scholarships (Alyeska Pipeline Service Company 2011a; 2011b).

Engaging the Community: Regional Advisory Councils

Following the 1989 Exxon Valdez oil spill in Prince William Sound, both the United States and Canada provided a legislative response. Congress adopted the 1990 US *Oil Pollution Act* and Canada amended the *Canada Shipping Act* in 1993.¹³ Both pieces of legislation provided for the establishment of regional advisory councils: in the US case, two in Alaska (one for Prince William Sound and the other in the adjacent Cook Inlet) and six in Canada, one in the Arctic, four in eastern Canada, and one on the West Coast. The use and influence of these councils is very different in each country.

The Cook Inlet Regional Citizens Advisory Council 13-member board of directors represents the specific interest of the surrounding communities, including Alaskan native organizations. The Prince William Sound Regional Citizens' Advisory Council board has 19 members chosen along the same lines. Its mandate is to promote the environmentally safe operation of the Alyeska Pipeline marine terminal and the oil tankers that use it. The Council (2015) recognizes that its influence depends "on the quality and accuracy of research on oil transport safety and the environmental impacts of the Valdez Marine Terminal and tankers." The Council has a contract with the Alyeska Pipeline Service Co. under

Canadian RACs have no authority to make policy, direct operations, approve plans, review technical standards, or resolve disputes.

which the company provides annual funding while recognizing the Council's independence. Both Councils have developed partnerships with the oil industry, government agencies, and private citizens and organize a variety of studies, symposia, working groups, and risk assessments. Each maintains an informative website.

The Prince William Sound Advisory Council assessed how oil transportation has changed in the 25 years since the 1989 Exxon Valdez spill.

It lists new measures, which are also part of the

Joint Panel's considerations for Northern Gateway, such as double hulls, vessel monitoring, and tug escorts. As noted, one of the most innovative changes, the Council says, was the establishment of permanent, industry-funded independent citizen oversight giving those who live in the region a guaranteed voice in safety planning and scrutiny of oil transport industries. For example, the Council led a successful effort with the oil industry and regulatory agencies for the installation of ice-detecting radar near the reef where the Exxon Valdez foundered.

The Canadian experience with its six Regional Advisory Councils (RAC) on Oil Spill Response has been quite different. During the Joint Review Panel proceedings, Transport Canada provided the Pacific Advisory Council's terms of reference (which are identical to the other five RACs). The RACs are advisory bodies representing those who could be involved or impacted by a marine oil spill. They can make recommendations on policy issues affecting regional preparedness and response but Transport Canada makes it clear the Councils have no authority to make policy, direct operations, approve plans, review technical standards, or resolve disputes. Further, the RACs have no budget or authority to undertake independent studies or enquiries. There are seven members of the Pacific Region Council including a marine consultant, master mariner, fisher, port captain, and forestry manager (Transport Canada 2013). There is no Aboriginal representative although Federal Transport Minister Raitt (2014) has announced that her department wants to improve their representation. (The department is in the process of selecting new members for the Pacific Council). None of the six Regional Advisory Councils has a website.

The Tanker Safety Panel also considered the Regional Advisory Councils' roles to, first of all, promote public awareness and understanding of issues regarding oil spill preparedness and secondly to provide advice to the Minister of Transport on an adequate level of oil spill preparedness and response in each region (2013, 41). In the first instance, the Tanker Safety Panel concluded that this is the responsibility of the Government and that it should not be delegated to an external body (the RACs). In the second instance, the Tanker Safety Panel stated that using the Regional Advisory Councils was not an optimal way for providing expert advice. As indicated above, the Tanker Safety Panel maintained its proposed Area Response Planning model, including its requirement for broader engagement by Transport Canada and the Coast Guard and strengthened interdepartmental coordination, would provide the Government with the necessary vehicles for public input and engagement. The Tanker Safety Panel recommended the Government disband the Regional Advisory Councils (41).

While the Regional Advisory Councils have lacked public visibility and their effectiveness is open to question, the suggestion that they be disbanded in favour of more intensive bureaucratic action and responsibility for public information and consultation runs counter to the Alaskan experience. Their Regional Citizens Advisory Councils have given those in the areas affected by tanker traffic a guaranteed voice in safety planning and scrutiny of oil transport industries. The Tanker Safety Panel made no reference to this experience and with a changed mandate there is certainly a role for regional advisory councils in Canada, starting with British Columbia.

Conclusion

Politicians, proponents, intervenors, First Nations, and the Panel itself all identified protection of the marine environment as a key component of the Northern Gateway Project. This paper has found that this is an issue fraught with contradictory questions and contradictory answers, with economic needs but environmental misgivings, with public scrutiny but lack of public awareness, with careful planning but missed opportunities, and with assurances of First Nations' consultations and indications of the opposite. Kitimat and its Douglas Channel have seen decades of industrial use. It is important to recognize there is not just one West Coast energy project, Northern Gateway, but 19 involving British Columbia, the Federal Government and, in the case of oil projects, Alberta. Kitimat, other West Coast communities, the province, and indeed many First Nations have embraced LNG terminals and tankers that will greatly increase BC's northern West Coast tanker traffic whether Northern Gateway proceeds or not.

Of all the West Coast energy projects, Northern Gateway has been the most closely scrutinized with the greatest public involvement and with the greatest economic potential. This paper outlined the extraordinary consultative process for the Enbridge Northern Gateway Project beginning in 2006 with the Joint Review Panel's establishment and finishing seven years later.

The Joint Review Panel had to deal with the key question: can bitumen in its different forms be safely transported by tankers through West Coast waters from Kitimat? To answer that the Joint Review Panel had to determine whether any environmental burdens associated with the project could be effectively mitigated (2013a, 13). It recognized two complementary objectives: sustainable development (a healthy environment and healthy economy), and the public interest. It stated public interest relates to sustainable development (4). From the beginning the Panel said it sought at all times to ensure the joint review process was "fair, open to the public, safe, respectful and transparent" (2).

The Joint Review Panel said almost all participants expressed concern about the risk of spills both on land or water. The Panel addressed questions affecting the marine environment in all but one of the 11 chapters in its 417 page Report. Citing Northern Gateway's "precautionary approach", the Panel found it unlikely there would be a "large spill" due to a malfunction or action from the pipeline, terminal, or tankers. While unlikely, it said no party could guarantee that it would not occur, but if one did, it specifically wanted to know the environmental behaviour of bitumen blended with condensate or "dilbit." Here, the Panel said that while it did not accept diluted bitumen was more corrosive and abrasive than conventional crude oils, it required further scientific research on the effects of dilbit spilled in water and made it a condition before operations can start.

Northern Gateway undertook to develop a "world-class" oil spill response plan and the Panel found its emergency preparedness and response planning both credible and substantive at this stage of the project. The Panel determined that Northern Gateway's voluntary commitments, exceeding the

regulatory requirements, would be a requirement to proceed. The Panel also wanted to know who pays if there is spill damage. It heard evidence that Canadian and international ship liability requirements and compensation funds (totalling up to \$1.6 billion per incident) gave Canada, in the words of Transport Canada, “the most robust and comprehensive system in the world.”

Based on the evidence and its findings, the Joint Review Panel determined Northern Gateway was in the public interest and recommended its approval subject to 209 conditions to ensure the sustainable development of the project. The Federal Government accepted the recommendation while emphasizing the importance that all of the conditions plus other federal and provincial regulatory obligations be fulfilled.

Now what happens? The Panel’s public hearings are over, its work is complete and the Government has approved its recommendations. For those along the pipeline or tanker route, particularly First Nations, the promised benefits are in the future with limited guarantee they will be realized. There remains a great deal of work ahead for Northern Gateway and for the proponents of the other 18 projects. This time also presents an opportunity for the Governments of Canada, British Columbia, and Alberta to overcome the mistakes or oversights of the past and to build public awareness and engage in collaborative regional planning among themselves, First Nations, and local communities in order to:

- Establish a true, independent citizens' advisory council with Aboriginal membership for the northern BC Coast using the Alaska experience as a model to promote the environmentally safe operation of oil and LNG terminals and the tankers that will use them. As in Alaska, secure funding could eventually be provided by the pipeline and terminal owners.
- Provide guarantees of native employment along pipeline routes, terminals, and in oil spill prevention and response focusing on the establishment of Aboriginal enterprises drawing on First Nations’ energy-related experience and maritime knowledge in Saskatchewan, Alberta, British Columbia, the Canadian Northern Development Agency, and Alaska. Training and mentoring would be a part of the process.
- Work with the First Nations Financial Management Board and project backers to ensure First Nations are able to obtain equity interest in Northern Gateway and other projects including, if necessary, federal and provincial loan guarantees.
- Review the costs and benefits of upgrading crude oil prior to overseas shipment.

Overall, it is important to remember that the Joint Review Panel always considered Canada’s national interest; not Alberta’s interest, or British Columbia’s or that of one particular group. The Panel was clear: “the public interest is inclusive of all Canadians, locally, regionally and nationally” (2013b, 8). This interest should be uppermost in the minds of all those who seek, in the words of the Panel, to “produce economic and social benefits for Canadians” (2013a, 74).

About the Author



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Endnotes

- 1 In the summer of 2014, Chevron lost its partner in the project and while Kitimat LNG is the furthest along in the regulatory process, its CEO has said that many hurdles remain (Canadian Press 2014).
- 2 The *National Energy Board Act* requires the Panel to set out conditions it considers in the public interest should the Cabinet direct the project can proceed. Their purpose is “to mitigate potential risks and effects associated with the project” to ensure it would be designed, constructed, and operated in a safe a manner. They incorporate all of Northern Gateway’s voluntary commitments. The Panel made all of its proposed conditions available for comment during the hearings and considered them prior to finalization. All conditions are listed in Appendix 1 of the report.
- 3 Methanex Fact Sheet, June 6, 2007, provided to the author in personal communication.
- 4 TERMPOL (Technical Review Process of Marine Terminal Systems and Transshipment Sites) began in 1977 when Transport Canada and other interested departments identified the need for a precise and reliable way to measure the navigational risks associated with placing and operating marine terminals for large oil tankers. It is a voluntary process initiated by the proponents.
- 5 Northern Equity advised the author that “Per the wishes of our Aboriginal Equity Partners, Northern Gateway is unable to publicly discuss the identities of these partners until such time as they choose to disclose this information themselves. We are also unable to publicly discuss specified details or out equity ownership offers. However, I can confirm to you that the equity offering has not yet been finalized for coastal First Nations.”
- 6 In its study, Northern Gateway defined the OWA in a more detailed way as the marine waters from the Canada-US maritime border in the north to the top of Vancouver Island in the south and from the edge of the continental shelf (the JRP uses the term *territorial sea*) in the west to the mainland BC coast in the east (see Figure 3.16 in the TERMPOL survey, which also shows the proposed tanker routes). It defines the CCAA as extending from the top of Kitimat Arm, the location of the proposed terminal down the Douglas Channel and associated waters to the BC coast (JRP 2013a, 51; 2013b, 182).
- 7 Coastal Aboriginal communities told the Panel of the importance of eulachon, a small, fatty smelt species, to their culture and their fears over its sharp decline (JRP 2013a, 52).
- 8 At page 148, the Panel (2013b) writes it “finds that the marine shipping component of the projects presents a manageable level of risk taking into account Northern Gateway’s mitigation and commitments, the Panel’s conditions and the existing regulatory environment.”
- 9 Northern Gateway said in this reference that the total suspended solids concentrations are generally low in the CCAA.
- 10 See Conditions 167, 169, 170, 171 and 193 in Appendix 2 (JRP 2013b).
- 11 These Conditions are in Appendix 1 (JRP 2013b).
- 12 On March 18, 2013, the Government appointed the Tanker Safety Panel to review Canada’s ship-source oil spill preparedness and response regime and to propose new ways to enhance it. It delivered its first report, *A Review of Canada’s Ship-source Oil Spill Preparedness and Response Regime — Setting the Course for the Future*, to the Minister of Transport on November 15, 2013, and is available online at www.tc.gc.ca/eng/tankersafetyexpertpanel/menu.htm.
- 13 The Act was not proclaimed until 1995 when regulatory guidelines were prepared (Transport Canada 2010).

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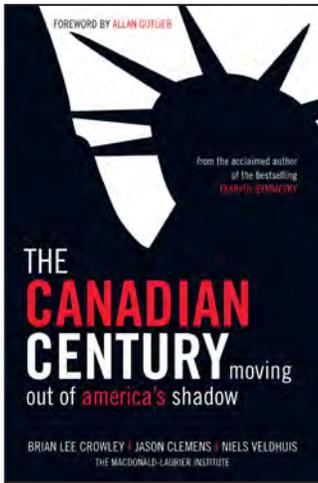
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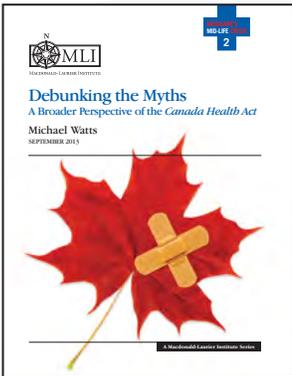


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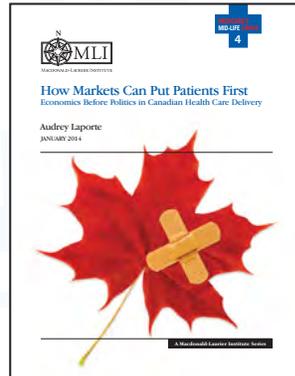
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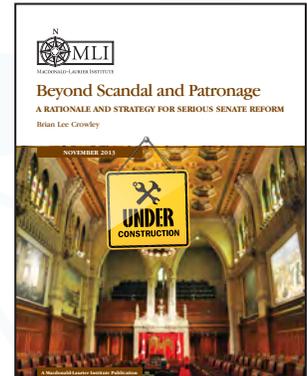
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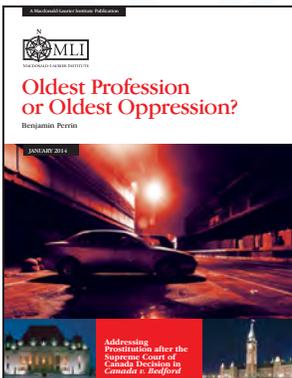
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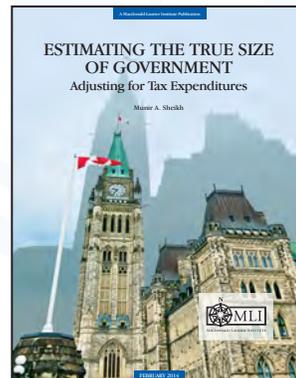
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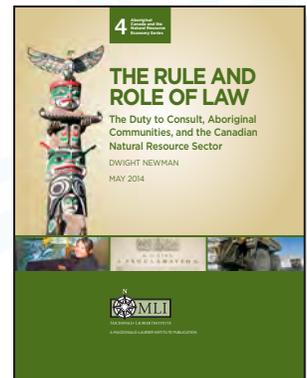
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