Enbridge Northern Gateway Project
JRP Hearing Notes

Day 46 – December 13, 2012 – Prince Rupert – Vol 114

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Order of Appearances

Northern Gateway Panel 1

Marine, Environmental & Socio-Economic Assessment

Mr. John Carruthers	Ms. Andrea Ahrens	Mr. David Fissel
Mr. Jeffrey Green	Mr. David Hannay	Mr. John Thompson
Dr. Tom Watson	Mr. Paul Anderson	Mr. Peter Reid
Mr. Malcolm Stephenson		

Examination by Ms. Jennifer Griffith for the Haisla Nation (continued)

12737

Ms. Griffith asked Mr. Green to explain CEAA's consideration of the zoning context in assessing significance of impacts. He said that an impact in an area zoned for industrial use – which in Kitimat is from the current Rio Tinto plant past the terminal site to Bish Cove – could be viewed differently than the same impact might be viewed in a protected area. "You're still required under Acts like the Fisheries Act to still fully compensate for habitat loss or disturbance; you're still required to look at the Migratory Bird Act. It doesn't exempt you from the regulations, it's simply a context for the significance determination."

She asked where the Haisla Nation's Aboriginal title to these lands enters into the context of the significance determination. He replied, "the environmental team did not consider that."

Ms. Griffith asked about chum salmon as a key indicator (KI) species and underwater noise effects. Mr. Hannay said that Northern Gateway Pipelines (NGP) used Atlantic salmon as the indicator species as far as acoustic acuity is concerned. Herring was used as the KI for hearing specialists. 12743

Mr. Green added that they used chum salmon as the representative for two reasons: because they're abundant, and so very likely to interact with the project, and secondly, because they're widely distributed, and again likely to interact.

Three effects mechanisms at the marine terminal

Ms. Griffith said, "My understanding is that the effects mechanisms at the marine terminal consist of habitat destruction, underwater noise, sedimentation and surface water runoff. Mr. Anderson said "That's correct" though later (at 12778) he restates this to three effect pathways: 1. acoustic disturbance from blasting, drilling and vessel operation, 2. sedimentation from in-water construction, 3. Habitat loss. 12749

He said that chum salmon would be the key indicator for all of the pathways of effects that were analyzed. The fact that chum was the most ubiquitous of the species is one of the main reasons why it was selected. 12752

Mr. Green added to the discussion on KIs and valued environmental components (VECs). Marine fish are the VEC, chum and three other species are the KIs. "Four different marine fish which we believe represent a variety of vulnerabilities or susceptibilities to different project effects. By looking at those four species, we start to better understand how this -- the routine activities of this project can interact with marine fish." 12754

Marine terminal construction window

Ms. Griffith referred to the potential work work window of November 30th to February 15th. Exhibit B3-13, page 6, includes the quote, "Fall chum … spawn from October to January. Chum salmon fry migrate into the marine waters of Kitimat Arm and Douglas Channel in late winter and early spring and aggregate in [the] nearshore waters for weeks to months before travelling toward open habitat." She said, "Northern Gateway's

proposed work window will coincide with the chum salmon fry migration in Kitimat Arm." 12767

Dr. Watson replied, "The timing does overlap but ... it was assumed that all five species of Pacific salmon, eulachon and other … fish species … are present in the PDA at certain times of the year."

Mr. Anderson described work windows as one of a suite of mitigation options or tools. He explains the three effect pathways in more detail and concluded: "Bottom line for the effects pathways was that, the construction and routine operations of the project could not be shown to have a significant adverse or even measurable residual effect on the environment. And to date, we've not seen anything that would change that conclusion." 12773

Sedimentation

Mr. Anderson said, in a discussion about sedimentation, that "The nature and extent of the sedimentation … is expected to be extremely small in terms of size and extremely low in terms of concentration." The behavioural effect (on fish) is typically avoidance. The evidence referred to is Exhibit B3-13, page 52, "Follow-up and Monitoring for Marine Fish", which Mr. Anderson said is "the follow-up and monitoring program for marine fish generally. It would include all of the monitoring and follow-up on all the mitigation on the marine environment in this area. It would include both erosion and sediment control, monitoring, as well as in-water construction and operations." 12791

Eulachon

With respect to the limited information about eulachon in the area, Mr. Anderson said they had not done any sampling because "the size of the population is extremely small in this area. … In doing that sampling you might further exacerbate the problem. Capturing … a small number individuals could have a detrimental effect on the population." Dr. Watson said, "It is a challenge to get better information than what we currently have. … Probably the best local knowledge would be resting with the Haisla fishing group itself."

Ms. Griffith asked that since the populations of the eulachon are so small that they can't withstand sampling could an oil spill wipe them out completely. Mr. Anderson said that this panel is not prepared to speak to oil spills. 12819

Sedimentation and dredging

Ms Griffith quoted from Exhibit B3-12, page 227: "It is assumed that dredging and blasting and associated sediment dispersion could affect a combined area of 70,000 m^2." Mr. Fissel said they estimate "1,600 square metres where the deposition is greater than half a centimetre, and half a centimetre is less than the deposition per year from natural processes." Ms. Griffith said, "If it's not sedimentation, then what is it, the dredging or the blasting? Mr. Fissel: Blasting: 50,000 m^2, sedimentation dispersal: 20,000 m^2. 12822

Mr. Fissel put up a technical data report (TDR) with a schematic of how the model that informed the sedimentation study works, from Exhibit B9-29, page 10. Ms. Griffith noted that the loss rate from dredging of 1% is an assumption, which she questioned. Mr.

Anderson said, “There’s a much larger dredge footprint for the KLNG project that’s already initiated, Rio Tinto Alcan, Eurocan and others, have all had massive dredging operations that were much larger than what we’re proposing.” Details are best read in the transcript from paragraph 12841 to 13003.

Ms. Griffith questioned the inclusion of the effect of silt curtains, which limits the range of distribution of spilled dredged material, to arrive at the 1% loss rate assumption. “It seems to me that by relying on a potential mitigation measure to reduce the input into the model, we’re not really getting a clear view of what the potential effects are. Mr. Anderson replied, “Well I do think though it is appropriate looking at the potential effects with mitigation. That is a very common practice environmental assessment and so that is what we did in this case.” 12884

Mr. Green described the seabed at the terminal site as “essentially a bedrock area with a sediment veneer in certain areas. The Kitimat River plume actually moves down along this coastline … past the terminal site. And sediment from the Kitimat River is already being deposited along these areas.” “The estuary of the Kitimat River is 8 km to the north. The closest eel grass beds are quite a distance north of this site and they’re minimal.” 12888

Herring at the marine terminal site

Ms. Griffith asked about herring spawning habitat. Had they done field studies? Mr. Anderson replied that their information was in the literature. Mr. Green said that herring prefer kelp as a spawning substrate, but that herring are ingenious: they’ll use kelp; they'll use branches that are hanging from riparian vegetation. If there's something floating in the near shore, they'll find it and they'll spawn on it. Dr. Watson said that dredging is not anticipated during herring spawning, “which, from what we can gather, is not prevalent in the area … where dredging is considered.” Mr. Green put up Figure 3-11, Herring Spawning Areas, in Exhibit B9-26. 12965

Marine fisheries data

Exhibit B46-2 is NGP’s reply to DFO IR 2.12. DFO had asked NGP to provide more recent fisheries data than the data from 1998-2008 which had been presented in the Marine Fisheries TDR. Dr. Watson explained that they had a chosen a ten year period to “cover the notorious variability in salmon stock returns, in terms of numbers. We also see variability in other stocks. In 10

years you can see quite a large amount of environmental changes, both in weather, water quality, et cetera." 13005

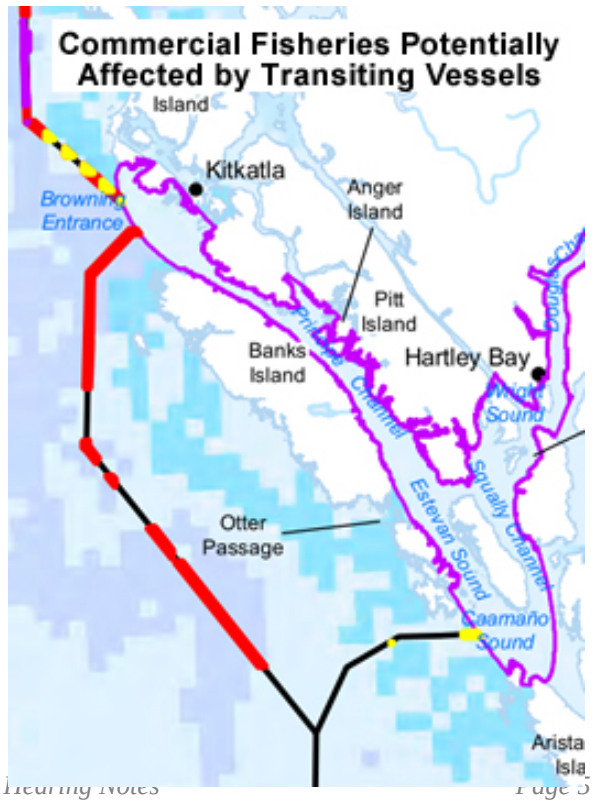
In IR 2.14, DFO said that "The proponent presents catch and effort data for groundfish fisheries and catch data are presented by sector, year and species. DFO has been unable to replicate the catch numbers provided by the proponent." DFO asked NGP to "Review and, if necessary, revise the catch and effort data." NGP stated in reply that "…the information in the TDR accurately presents this information." [in the transcript] or "… catch data presented in the Marine Fisheries TDR accurately reflects the data provided to Northern Gateway by DFO." [in Exhibit B46-2]. Ms. Griffith asked some questions about this apparent difference of opinion between NGP and DFO. 13025

Dr. Watson said later with respect to the "DFO … allegations about our data not being accurate and so on. We have satisfied ourselves that the data, as we've represented it, from DFO's websites is indeed accurate." 13072

Fishing and tanker overlap

In IR 2.16, DFO requested requested an analysis of overlap between commercial fishing efforts and the project's vessel traffic for all three approaches. NGP had said that the analysis is not possible because the necessary data is not publicly available, but proposed that the Fisheries Liaison Committee (FLC) would be the place to resolve conflicts. Ms. Griffith asked, "Without knowing the full extent to which there may be conflicts, how can Northern Gateway, or anyone, rely on the Fisheries Liaison Committee as a means to minimize them?" Dr. Watson said that the history of two similar programs on Canada's Atlantic coast demonstrates the effectiveness of the FLC model, and we can rely on it to the extent that people are willing to participate it in good faith.

As to overlap, Dr. Watson put up Figure 13-5, "Commercial Fisheries Potentially Affected by Transiting Vessels", from Exhibit B3-26. In the transcript he explains in some detail how the map was constructed. "The end result … is that all overlap for those various fisheries were … an approximate .5 percent overlap. We did not look at the temporal basis. There's 220 per year so the frequency of [tankers] even passing through this area is also low. 13034



Is DFO best source of data about fishing?

Ms. Griffith asked, "Is it common EA practice to seek to rely on data to be provided by government? And if that data is limited, to submit an EA based on limited data? Mr. Green replied that

information on commercial fishing is difficult, “and DFO … collects that information and has the best data source that is publicly available.” Ms. Griffith asked questions about other possible sources of data, of which NGP had found or used none.
13066

Mr. Green said, “Gateway has committed to funding studies by each of the eight coastal First Nations within the confined channel assessment area (CCAA) general region, and the purpose of those studies is to quantify the FSC (food, social and ceremonial) fishery as well as other harvesting. 13078

Dr.Watson explained that they have received information about fishing from several coastal First Nations, including the Haisla. Ms. Griffith asked, “Does Northern Gateway intend to take any steps to update its marine fisheries TDR with this information?” Dr. Watson talked around a direct answer. Ms. Griffith asked the question again. Mr. Anderson said, “We have no current plans to update the technical data report in this respect.” 13075

Ms. Griffith turned to 13.6.4, Prediction Confidence, in Exhibit B3-15, and said, “It refers specifically to the exclusion of a number of recreational fishers from the terminal area and then it says the: ‘Prediction confidence is considered low because little data are available on the locations of fishing sites for marine fisheries (including fish and invertebrates) within the marine PDA.’” Dr. Watson and Mr. Anderson both spoke about continuing to get more information and the FLC. Mr. Green said a comparable situation exists near the Valdez Terminal in Alaska. 13098

Marine effects monitoring plan

Ms. Griffith turned to section 6, Financial Support, in Exhibit B46-38, and quoted “Many of the concerns regarding potential effects of marine transportation are shared by numerous commercial vessel operators...” She asked, “Can you confirm that a number of aspects of the Marine EEMP are really specific to just Northern Gateway’s project?” Mr. Green replied, “We would agree with that statement for the transects and study area that would be located directly in front of the marine terminal and in the adjacent area. As to the other sites along the CCAA, no, we would not agree.” 13117

Would you agree that this additional work in the CCAA and the open water area (OWA) would provide relevant additional information in the event of a spill of oil? Mr. Green: Absolutely. 13125

Ms. Griffith: “Is Northern Gateway willing to … fully fund the marine EEMP?” Mr. Anderson replied, “It is our intent to fund the EEMP ourselves unless it does get broadened for others.” 13131

She asked which federal and provincial regulators have been provided the draft framework for review? Mr. Green said DFO and Environment Canada. She asked if coastal Aboriginal groups have been asked for feedback. Mr. Green said, not this draft, but we had a series of meetings with the Gitga’at in 2009 and early 2010. 13135

Mr. Green said, “The intent is to establish a robust, site-specific, quantitative database for representative areas throughout the CCAA and at the marine terminal site that then serves as the basis for observing, first of all, during the first three years after operations, how and if there's any effect on these communities as a result of marine routine operations at the terminal site.” 13144

Ms. Griffith noted that the EEMP is still a draft, and asked if it will be finalized and submitted before the next panel. After the lunch break, Mr. Anderson said they have received no feedback that would change the draft. 13166

Exhibit B41-4 contains a response to Federal Government IR 1.79 and says “The intent of the program would be to initially document baseline conditions including the existing quality of the marine environment [and] existing abundance, distribution and diversity of marine biota, focusing on certain indicator species, groups, and functions.” Ms. Griffith said, that this suggests that NGP intends to carry out those activities for certain indicator species, groups and functions only. Mr. Green said this is in response to marine birds, and the Canadian Wildlife Service would like us to still focus on some key indicators that they’re interested in but they’re more interested in us also pursuing what I would call a habitat based approach where we’re looking at the guilds of species that use certain habitat types within the CCAA. That’s what this is referring to, as opposed to the broader marine EEMP. 13175

Mr. Green said the language is vague but gives participants flexibility to focus on a species, a group or a function. The phrase “certain indicator species” is a little different than “key indicator species”

Marine ecological risk assessment (ERA)

Ms. Griffith next turned to Exhibit B9-19, page 40, and read, “The collected runoff in the containment reservoir will be pumped to the reservoir for firefighting. This water will be tested in-line on a continuous basis to confirm that it has a hydrocarbon content not greater than 15 parts per million (ppm) oil and water and is suitable for release to the environment.” The water will later be released to the environment. 13191

She also read, “Tankers will be boomed before loading of oil, and any, oily water thus recovered from berth areas would be collected and treated before being sent to the surface water runoff reservoir.”

She asked, “Can concentrations of oil at levels lower than 15 parts per million have acute toxic effects?” Dr. Stephenson they would not, that the oil-water separators are designed to produce water that is not toxic to fish. 13210

Ms. Griffith asked more questions about controlling runoff. Dr. Stephenson said, “The ecological risk assessment for marine terminal operations considers the precipitation that could fall on the footprint of the marine terminal and tank farm. It makes a very conservative assumption that any of that water may contact oil during its handling or passage through the facility, that it goes through a treatment system and is discharged at some point. It’s under management the whole time.” 13230

He said that the 15 milligram per litre number is an upper limit. … It would be a concentration that, if it were to be encountered in the water being discharged (by sensors which control the discharge valves), would be a trigger to stop the discharge. “Most of the time, we expect that the concentration in water would be much lower than that.”

Indicator species for the ERA

Dr. Stephenson explained that a number of species were considered as indicators for the ERA. Regarding fish, he said, we looked at fish as a collective. “The effects benchmarks that were established under the target lipid model represent essentially the most sensitive species in the spectrum of all species that are out there.” “We looked at the exposure of all aquatic organisms and we treated them all as if they were extremely sensitive.” 13235

Ms. Griffith asked whether the ERA assumed that for semi-aquatic and marine mammals and birds, as well as three of the four species at risk - marbled murrelet, Steller sea lion and harbour porpoises - exposure to COPCs (chemicals of potential concern) may occur through the ingestion of seawater, sediment, marine plants, marine invertebrates or fish. Dr. Stephenson agreed. 13245

For the fourth specie at risk, eulachon, and for fish and other aquatic organisms, the primary exposure mechanism to hydrocarbons is the water column, because they have gills or they live in the sediments. For the other species, including marine mammals, the primary mechanism is ingestion. 13251

Ms. Griffith turned to section 3.7, Chemical Screening, in Exhibit B9-19 and discussed the screening principle. Dr. Stephenson explained that this was for trace elements only - if a chemical existed at a concentration of 1 mg per kg in the original oil, then it was considered to have negligible toxic effect. If that oil containing the trace element is being discharged only at or under 15 mg per litre, the amount of the trace element being discharged is therefore very small and “would not likely be present in treated storm water at a concentration exceeding water quality guideline (WQG) values.” 13265, 13279

Dr. Stephenson confirmed that no organic compounds were being screened out. 13273

The WQGs consulted in the assessment are described in section 3.7.2, Baseline Water Concentration in Exhibit B9-19. Dr. Stephenson said the order of preference in the assessment was Canada, BC, US EPA, Australia and New Zealand. 13285

Ms. Griffith asked, for the COPCs that weren’t screened out, did the ERA look at both acute effects and at sub-lethal effects which might have long-term population impacts? Dr. Stephenson directed her to Table 5-1, “Marine Water Effect Magnitude Benchmarks” in Exhibit B9-20, as an example, where concentrations of each COPC are given (in mg/litre)for CHC5 and CHC50. He explained that the CHC5 column is the concentration that is considered to be safe under chronic exposure for the fifth percentile species in a species sensitivity distribution. That is essentially a long-term safe exposure value for a sensitive species. CHC50 would be the equivalent long-term exposure concentration that

would be considered safe for an average species of average sensitivity. “The value that we screen against in the ecological risk assessment is that CHC5 value.”. 13287

This detailed and technical discussion includes information about the additive nature of the COPCs and about the receptors – the species – considered in the assessment. It continues in the transcript from 13292.

One of the factors that informs sensitivity is life stage, and Dr. Stephenson said that early life stages are usually more sensitive than older life stages. 13307

PAH levels below any effect threshold for herring embryos

Ms. Griffith begins a discussion about PAHs and their toxicity to herring with an AQ. She explained that from a “study of impacts of PAHs on herring after Exxon Valdez, scientists determined that toxic effects were found to occur in herring at very low concentrations of oil and concluded that safety standards for total dissolved PAHs should be set at less than one microgram per litre, TPAH.” She asked, “Have you confirmed in your ERA that the discharge of surface water from the terminal will not result in TPAHs of greater than 1 microgram per litre?

Dr. Stephenson said, “We're comfortable working with a threshold of one,” and a bit later, “We’re many orders of magnitude below any effect threshold on developing herring embryos as a result of routine project activities.” “We also look at the risk that is posed by these compounds all together accumulatively using the narcosis toxicity end point. Again, we find there is no significant risk to aquatic life in the vicinity of these marine terminal operations from that narcosis mechanism either.” This discussion begins at 13341.

Examination by Mr. Jesse McCormick for the Haisla Nation 13360

Fisheries Liaison Committee

In the transcript from Vol 112 of these hearings on December 11, NGP confirmed that the FLC “will need to have value in order for Northern Gateway to provide limited operational funding to support it.” Mr. McCormick’s questions are about who determines whether it has value, what conditions apply to NGP’s funding, what scope and authority the FLC will have. “You’ve stated that Northern Gateway is committing to fund the administrative costs of the committee for the period of operations of the project.”

“My understanding is that administrative costs would not include any travel or other costs incurred by stakeholders in order to attend and participate in the work of the committee?” Mr. Carruthers said, “We would not want funds to be a barrier to participation so we’d need to look at that. I would want that to be something developed by the FLC.” Mr. McCormick: “Is Northern Gateway prepared to commit today to funding the participation costs of stakeholders?” Mr. Carruthers: No. 13380

Mr. McCormick asked with respect to the power and structure of the FLC whether it will be empowered to implement windows of time where tanker traffic will be restricted. Mr.

Carruthers replied, “We saw … that they would jointly work out how to best minimize any negative interactions.” 13395

Mr. Carruthers said, “We see [this as] a collaborative effort to work jointly. It’s not one to create conflict. It’s one of resolving conflict. It’s set up for that purpose. Mr. McCormick: “As we understand it, Mr. Carruthers, the conflict will be brought by the implementation of the project.” 13429

Speak slowly: will First Nations fishers have veto power?

Asked by Mr. Carruthers to restate a question, Mr. McCormick said “I will restate the question and I’ll state it very slowly. “[Will] representatives of First Nations FSC fishers have decision making power within the committee, including the power to deny or prevent the committee from taking certain positions and identifying certain mitigation measures?” Mr. Carruthers replied, “I did not see the parties having a veto on each other.” 13433

Mr. Carruthers had said that the project will be less than 2% of the marine traffice in the Prince Rupert area. Mr. McCormick said that is not indicative of the percentage of traffic within the entire area. Mr. Carruthers replied, “At Wright Sound it would be about 11%. And Douglas Channel would be 32%.” 13441

Mr. McCormick noted that “the Fisheries Liaison Committee would identify protocols for compensation for lost or damaged gear.” He asked “Will Northern Gateway commit to providing full replacement value of any lost or damaged gear?” Mr. Carruthers replied, in part, “There’s more at stake than Northern Gateway.” Mr. McCormick said, “We’re not discussing other projects here today, Mr. Carruthers. It is only the Northern Gateway Project that’s under review.” 13444

With respect to another question relating to compensation for loss of income and other damages from damaged gear, Mr. Carruthers said, “Mr. McCormick, can you read that again? And you can read it at whatever speed you’d like.” 13455

Cumulative effects of marine transportation on fisheries

In IR 1.1b(l), Marine Transportation, (Exhibit B45-6) Northern Gateway responded to Gitga’at. The question posed was to provide details about how the conclusion was arrived at that cumulative impacts to fisheries would not be significant. Mr. McCormick asked, “Am I correct that Northern Gateway has determined that cumulative effects of marine transportation on fisheries in the CCAA are expected to be not significant?” Dr. Watson replied, “That’s our assessment.” 13472

Mr. McCormick’s questions took him to “Screening for Cumulative Environmental Effects” in section 3.2.3.2 of Exhibit B3-16. One of the three screening tests is “There is a reasonable expectation that the Project’s contribution to cumulative environmental effects will affect the viability or sustainability of the resource or value.” 13482

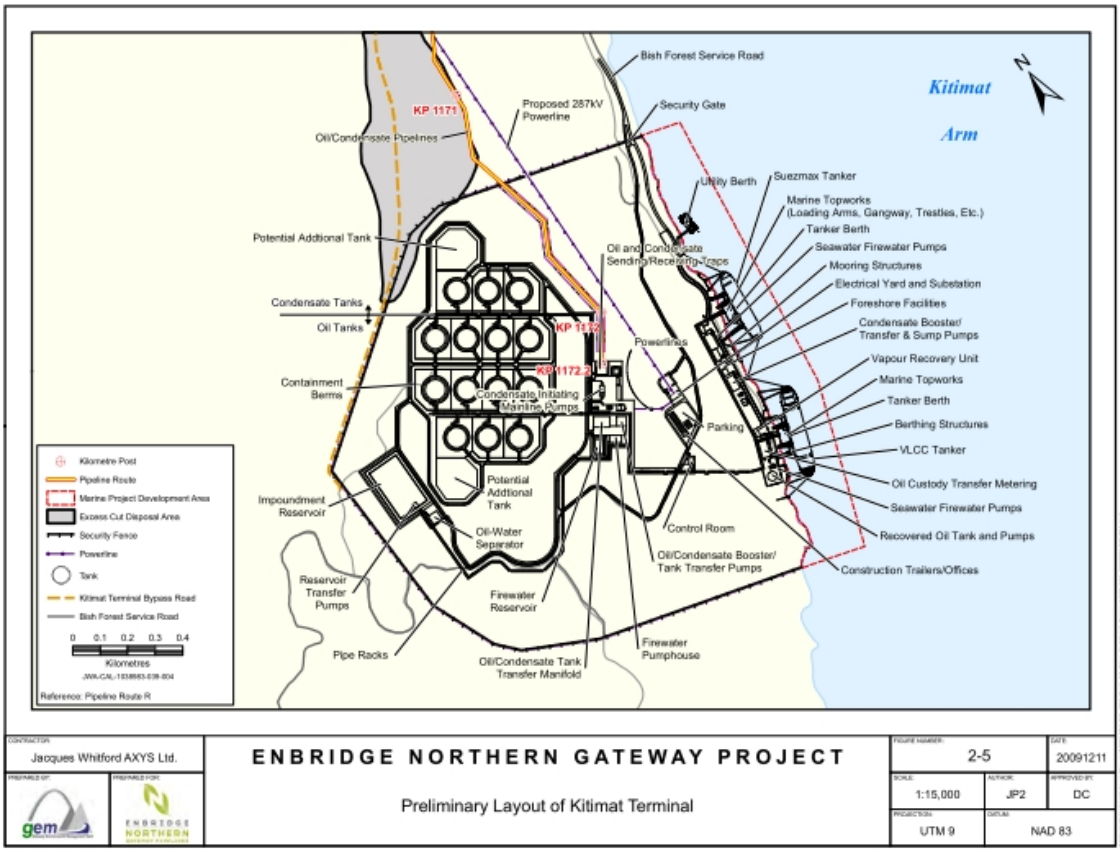
Returning to Exhibit B45-6, Mr. McCormick read, ““It is important to note that the cumulative effects determination for marine fisheries was made with a low degree of

confidence...” Dr. Watson confirmed that “Northern Gateway has proposed a follow-up catch monitoring program to be overseen and developed under the auspices of the Fisheries Liaison Committee. Mr. McCormick said, “Both the follow-up monitoring proposed and the harvest studies that you’ve just mentioned will occur post-approval.” Dr. Watson said, “That is the intent.” 13489

Mr. McCormick asked, “Appreciating that the confidence assessment is an important part of the process, is there anything preventing Northern Gateway from initiating these studies presently?” Dr. Watson would not answer the question. Mr. Anderson said,”We’ve provided an environmental assessment which we believe is valid and appropriate at this stage of the process. … This is not for the purposes of the environmental assessment. It’s for the purpose of follow-up and mitigation.” Mr. Carruthers said, “In terms of doing the environmental assessment. We believe there’s sufficient information to make that determination.” 13503

Kitimat marine terminal

Exhibit B3-16 provides a description of the Kitimat marine terminal. Mr. McCormick quoted, “It includes a 150-m safety zone seaward of the berth structures.” Below is the “Preliminary Layout of Kitimat Terminal” Mr. McCormick said that the 150-metre safety zone is not identified in the figure. Mr. Green said that, subject to confirmation, the dotted line is the boundary of both the project development area (PDA) and the 150-metre safety area. Mr. Carruthers said that third-parties will be excluded from the 150-metre safety zone. 13535



Mr. McCormick then put up Figure 3-18, Proposed Turning Basins, Navigational Clearances and Vessel Manoeuvres in Exhibit B23-34. He said that this is the TERMPOL TDR, marine shipping quantitative risk analysis, and noted that "the Suezmax tanker has an identified 750 metre diameter turning circle and the VLCC tanker has an 850 metre diameter turning circle and including as well the presence of tugs." He asked if there will be effective exclusion of third-parties from an area much larger than the 150-metre safety zone whenever tankers are arriving or leaving the terminal?" Mr. Carruthers said, "On a practical basis that would be true. 13545

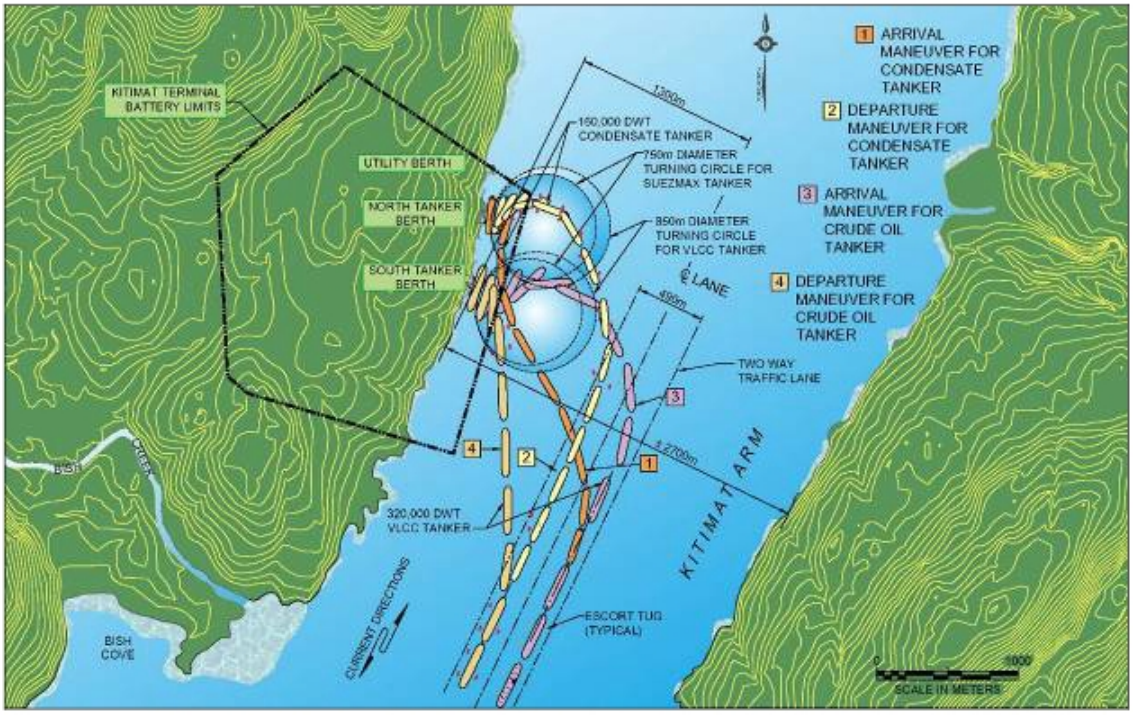


Figure 3-18 Proposed Turning Basins, Navigational Clearances and Vessel Manoeuvres (TERMPOL 3.10)

Employment impacts

Mr. McCormick canvassed information about employment impacts cited in the evidence, including the possible need for foreign workers (Mr. Thompson said most labour will be sourced domestically), from outside BC (An experienced labour force with specialized pipeline construction skills is not found in BC) and when construction would begin (2015) 12578

Mr. McCormick said, "It's not likely that positions such as those [specialized skills] will be available to individuals in the local region. Is that correct?" Mr. Thompson replied, "I think that the better interpretation is that as part of the whole procurement, training, hiring programs that opportunities will be provided so that if interested parties want to upgrade their skills, Northern Gateway will attempt to facilitate that." 13615

Mr. McCormick reviewed information about the capacity of the oil pipeline: it is designed to transport on average 525,000 barrels per day, and has an expansion capacity

to 850,000 bpd. He asked that the figures be converted to litres: 30 billion and 48.57 litres respectively. 13618

Returning to the three tests which will determine if a cumulative environmental effects assessment is to take place, which are in "Screening for Cumulative Environmental Effects" in section 3.2.3.2 of Exhibit B3-16, Mr. McCormick asked more questions about the tests, including a definition of viability or sustainability. Mr. Green said, "You have to go to the specific valued environmental component (VEC) in the assessment." 13640

Effects on traditional culture

Mr. McCormick turned to Table 4.4-57, "Potential Project Effects on Traditional Culture" in Exhibit B8-2 for a confusing set of questions that resulted in him discovering that this section was only concerned with socio-economic impacts on language retention and traditional land use. He concluded that it's a very limited table. Mr. Thompson said,." We only attempted to address what might be considered two specific key indicators, if you will, within this particular VEC and that there are other indicators related to traditional culture elsewhere in the application." 13678

Mr. Thompson added, "There is a substantial component of our application which is associated with Aboriginal traditional use and the effects of the project on the -- the potential effects of the project on that use, and so then that is going to be spoken to in the public consultation and Aboriginal engagement component of these proceedings. 13705

Examination by Ms. Cheryl Brown for Douglas Channel Watch 13739

Ballast water management

Referring to section 2.6.1, Marine Terminal, of Exhibit B3-16, Ms. Brown said she is concerned about ballast water management. The section says the tankers will have segregated ballast on board that has been exchanged not less than 200 nautical miles from shore and oily ballast water will not be discharged at the Kitimat Terminal. The terminal will have oil/water separator facilities to receive, treat and recover oil from the vessel's cargo slops tanks. The terminal will not provide on-site facilities to treat or dispose of engine room slops, but a third-party service will be available to transport those to an offsite facility.

Ms. Brown turned to the technical data report that's specific to this issue, Exhibit B23-12 but discovered that none of her questions were appropriate for this panel.

Exhibit B3-16 says that ""Grey water and sewage will be transported [from the terminal] to existing facilities in Kitimat". Ms. Brown asked if Kitimat has the capacity to do that. Mr. Carruthers said, "It appears they do." He added that there may be infrastructure limitations in terms of the provision of clean water. Ms. Brown thought it was sewage. Mr. Carruthers agreed she was correct. 13794

Referring to the 2005 preliminary information package for the NGP, Ms. Brown asks how the list of information requirements for the marine environment was developed. Mr. Green explained that the 2005 document just started the process, but they are now

working to the specific terms of reference for this review, as well as CEAA guidance documents. 13814

Mr. Green provides a description of the structure of the application document, beginning with "Volumes 1 through 8 constitutes the environmental and social impact assessment." 13878

Recreation in the terminal area

Ms. Brown asked about consideration of effects on recreation and protected areas. Ms. Ahrens puts up a map, Figure 9-3, from Exhibit B3-41. Ms. Brown was concerned about protection of these areas. She noted that historically there has been a lot of recreation on that portion of Douglas Channel. She asked, "How will you ensure access for the public to recreational areas along that have been identified and not identified by you along this portion of the channel? Mr. Green replied, "As part of the proposed on-land development, Bish Cove Road will be re-routed up and around the terminal site. Mr. Thompson added that they had identified three trails and one recreation area, none of which would be affected by the development. Discussion is in Exhibit B3-18. 13949, 13974

Ms. Brown is also concerned about the visual impacts of the terminal, especially the view from Kitimat. Mr. Thompson puts up Figure 5-14, which is a "rendition of what the site would in fact look like from that viewpoint, which is not quite in Kitimat, but pretty close to Kitimat." He explained that though it is industrial zoning, they located the tanks over a ridge so you will see only two or three tanks from just about anywhere in the channel.

Mitigation of risk & monitoring

With respect to human health risk Ms. Brown said, "It sounds almost like you're going to make it better than it has been," so what is actually being said here? Mr. Green said that there is a legacy of contaminants, sediments in the area. "Earlier in this particular panel we've talked about why we believe that neither are air emissions or discharges from the terminal will add to that." 14061

Ms. Brown asked about monitoring, and Mr. Green described the marine environmental effects monitoring program. "The intent is to establish permanent transects and then take samples of water, sediment, benthic organisms, resident fish and then other indicators that the community may want us to identify." His explanation is continued. 14070

“Have you considered doing an epidemiological ongoing piece of the health of citizens of Kitimat and workers at the terminal? Mr. Green replied, “No, we have not, for reasons that the human health risk assessment indicates that the risks are not significant. We would not expect effects on humans.” 14107

Ms. Brown started a discussion about the emotional and social problems and well-being of employees. Mr. Thompson said that in construction camps they provide recreation facilities.

Kitimat is changing

Ms. Brown observed that the description of Kitimat in the application does not reflect the city today. Mr. Thompson said, “There's even more excess housing than there was in 2006.” Ms. Brown said, “You're already behind because there is no housing in Kitimat right now, and no renting -- no rental availability.” 14167