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May 10, 2021

File No. 20-0045-001
Reply to: Greg J. McDade, Q.C.
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BY EMAIL

Via Electronic Filing

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC Canada
V6Z 2N3

Attention: Patrick Wruck, Commission Secretary

Dear Sirs/Mesdames:

Re: Pacific Northern Gas Ltd. – PNG-West Division – Application for a Certificate of Public Convenience and Necessity (“CPCN”) for the Salvus to Galloway Gas Line Upgrade Project (the “Project”) – Project Number 1599140

We write as legal counsel for the Lax Kw’alaams Band in response to the letter from PNG dated May 6, 2021 (Exhibit B-8) and the Commission letter of May 4, 2021 (Exhibit A-9) requesting submissions on the issues raised and on further process.

Lax Kw’alaams repeats and relies upon the statements made in their letter of April 30, 2021 (Exhibit E-1):

“The BC Utilities Commission is an agent of the Crown and has a duty to ensure that appropriate consultation with the affected aboriginal nations has been adequately completed in respect of an application.

“We wish to advise you on behalf of the Lax Kw’alaams Band that such consultation has not occurred in respect of the Salvus to Galloway Gas Line Upgrade Project...”

We do not believe that the Commission has ever considered the degree of consultation with our Band, and has made no reasonable effort to verify the statements of the proponent or to gather that evidence directly.”

The Applicant PNG objects primarily to the timing of the letter and the failure of Lax Kw’alaams to register as an intervenor. It refers to the letter as a ‘letter of comment’ and relies upon Rule 8.08 and 8.09, as being too late in the process.

On behalf of Lax Kw'alaams, we suggest that its letter of April 30, 2021 should not be viewed simply as a letter of comment (defined as an opportunity "for any member of the public to contribute views": Rule 8.01). Rather it is notice that the evidence before the Commission is incomplete and that a constitutional obligation in respect of the decision upcoming has not been met.

The Commission must be concerned about the integrity of its own process, and must have the responsibility and the necessary discretionary power to ensure that its processes are fair, complete and meet constitutional and legal obligations.

We submit that the Commission should wish to hear evidence as necessary and to ensure that its decisions are lawful, and made upon the best information.

The primary objection raised by PNG is one of timing. PNG does not effectively deny that the Lax Kw'alaams concerns have not been addressed nor that it failed to fully advise the Commission of those facts.

Part 9.4.4 and Table 9.2 of the Application did not fairly represent the concerns of Lax Kw'alaams. That was followed at pg 140 of the application with this statement:

"PNG considers that there are no substantive outstanding issues or concerns related to engagement with Indigenous communities at the time of application. The Indigenous communities engaged to date all recognize the importance of the proposed Project in ensuring a reliable supply of gas to local communities. PNG committed to continuing engagement on environmental impacts of the Project ahead of permit applications when more detailed information is available. PNG will work with the individual communities to accommodate and mitigate any concerns, where possible." (pg 140, referenced in BCUC IR1 at pg 27 Exhibit A-4)

PNG subsequently assured the Commission (at pg 107 of the IR1 response Exhibit B-2) that

"PNG will continue to engage with First Nations on subsequent work packages and will continue to update the Communication Log accordingly." [We note that the Consultation Log is confidential and Lax Kw'alaams staff have not been able to see what has been claimed or disclosed)

[We note that the IR response, dated January 14, 2021, was well after the letter of November 2, 2020 attached at Appendix A outlining the issues.]

The 'consultation' apparently relied upon by PNG in its May 6 response letter refers the Commission only to the generic fact sheets and presentation to all First Nations in 2020 (see Appendices T1, T2 and T3 from the Application). While these documents might have given some notice of an upcoming application to the BCUC, there is not sufficient information in them to constitute the 'consultation' required by law, nor notice to Lax Kw'alaams of the positions and evidence to be filed by PNG suggesting that Lax Kw'alaams had no issues or supported the project..

The statements made in the application and in IR 1 that “there are no substantive issues or concerns related to engagement with indigenous communities” is demonstrably incorrect, and PNG failed to correct it. When further correspondence came to PNG’s attention it also failed to provide corrections to the BCUC. As part of the evidence that would be relevant, showing unresolved concerns that have not been disclosed by PNG to the Commission, we attach copies of

- Letter to PNG and OGC dated November 2, 2020 (Appendix A)
- Letter to OGC March 5 2021 with attachments (Appendix B)
- Letter to OGC (cc’d to PNG) dated April 27, 2021 (Appendix C)
- Recent letter to PNG dated May 7, 2021 (Appendix D)

Lax Kw’alaams submits that it is entitled to assume BCUC will perform its duties and that the proponent will provide such evidence as requested by the BCUC. Where evidence is being provided to the Commission that there are no concerns, it is reasonable to expect that such positions would be copied to or verified with the relevant First Nation.

Lax Kw’alaams only recently obtained legal counsel, initially to investigate the lack of consultation and accommodation in the OGC permitting process. It was only in their meeting of April 23, 2021 that Lax Kw’alaams learned that the OGC regarded itself as dealing only with the permitting outside the right of way and stream crossings and otherwise did not regard itself as having the responsibility or jurisdiction to address the impacts of activities inside the right of way. Lax Kw’alaams also contends that they were told in that meeting that if there was a duty on the Crown to consult on those impacts it would fall elsewhere (although the OGC now denies having said that). And subsequently, following that meeting and legal counsel’s review of the BCUC record, Lax Kw’alaams learned that the facts of their continued concerns about the project was not before the BCUC, and learned of the statements made by PNG in the Application and Information Response, as discussed above.

Irrespective of whether or not the BCUC itself has an obligation to consult with First Nations, it is uncontested that the Commission has an obligation to assess adequacy:

“where the duty to consult is triggered, the Commission has the obligation to assess the adequacy of Crown consultation with First Nations within the scheme of its regulation”
First Nations Information Filing Guidelines for Crown Utilities (Appendix A to Order G-51-10), p. 1 of 7 [as cited by PNG in their May 6 letter]

Where the Commission takes no independent steps to determine the extent of consultation and relies upon the Proponent, through the Application, information requests, and/or evidence, it might wish to verify that information in some manner, or at least ensure that the First Nations are made aware of the information provided, especially where the First Nation is not a party. Where, as here, it subsequently obtains knowledge that the information before it is lacking, it should take the necessary steps to reopen the proceedings to protect its own process.

The PNG submission asserts that “Had Lax Kw’alaams believed statements that PNG was making were inaccurate, it had ample opportunity to challenge them.” This submission requires the Commission to assume 1) that First Nations cannot rely upon the Commission to fulfill its duties and/or the proponent to accurately file complete evidence if they are not watched; and 2)

that Lax Kw'alaams (and any First Nation) will be closely following the evidence and submissions before the BCUC in a proceeding in which they are not a participant.

In response to the submissions made by PNG that the duty to consult only arises in respect of "Crown Utilities", we respectfully disagree. The duty to consult is not limited to actions by Crown entities. The duty of the Crown to consult arises whenever the Crown exercises a permitting authority which permits a non-Crown applicant to undertake works which impact aboriginal rights or unextinguished aboriginal title. The case of *Rio Tinto Alcan* cited by PNG (2010 SCC 43, [2010] 2 SCR 650) is completely consistent with this – Rio Tinto Alcan was the private party applicant who was causing the impacts (as was the private party logging company MacMillan Bloedel in the seminal *Haida* case).

Lax Kw'alaams does not ask that the BCUC act as an "appeal tribunal" over the OGC's process, as suggested by the PNG response – rather, it identifies a gap in the regulatory and consultation process that has not been considered by the BCUC, and the absence of evidence before the BCUC in its own process. We note that the BCUC authorization is the only Crown authorization sought for that portion of the project within the right of way, where the primary impacts will occur. The BCUC has an obligation to ensure that gap is rectified before it authorizes the Project and issues its decision on this Application.

In relation to timing, in *Gitxaala*, the Federal Court of Appeal stated that the importance and constitutional significance of the duty to consult provides ample reason to extend deadlines, and refusing to consider the request formed part of the Crown's failure to fulfill its duty in that case. (*Gitxaala Nation v. Canada*, 2016 FCA 187, par. 251)

[251] While the Governor in Council was subject to a deadline for decision under [subsection 54\(3\)](#) of the [National Energy Board Act](#), that subsection allows the Governor in Council, by order, to extend that deadline. The importance and constitutional significance of the duty to consult provides ample reason for the Governor in Council, in appropriate circumstances, to extend the deadline. There is no evidence that Canada gave any thought to asking the Governor in Council to extend the deadline.

Yours truly,

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November 2, 2020

Sandy O'Flaherty, First Nation Liaison Officer
BC Oil and Gas Commission
6534 Airport Road
Fort St. John, BC V1J 2B0

AND

Joe Mazza, Senior Vice President, Operations and Engineering, and
Jason Pope, Coordinator, Lands – Permitting and Indigenous Relations (Smithers, BC)
Pacific Northern Gas Ltd.
2550 – 1066 West Hastings Ltd.
Vancouver, BC V6E 3X2

RE: Salvus to Galloway Pipeline Upgrades and Temporary Permit Issuance and Works

As you know, the Lax Kw'alaams Band works very hard to ensure our territories and ancestral lands are managed in a manner that they are sustained for the benefit of present and future generations of our citizens. As such, we have reviewed information provided by the BC Oil and Gas Commission ("the Commission") and Pacific Northern Gas Ltd. ("PNG") concerning the Salvus to Galloway Upgrades Project ("the Project"), which runs directly through the central corridor of the Lax Kw'alaams traditional territory, three Special Management Areas, a Cultural and Natural Area, and two reserves (see Appendix B on land management).

As you know, the Province of British Columbia's *Oil and Gas Activities Act*, among numerous other sources of law, require appropriate and meaningful consultation and accommodation where there are potential impacts to Indigenous rights and interests. Refurbishing an existing natural gas pipeline requires a considerable amount of construction and related activities along the right of way, which was likely undisturbed for decades in many areas. The proposed upgrades and activities have potential to impact biology and ecology, as well as numerous Lax Kw'alaams harvesting, cultural, social, ceremonial, spiritual, and other interests throughout our traditional territory.¹

Based on the following timeline and consultation activities, we have assessed that the level of consultation on the Project to date has been insufficient and inadequate:

¹ Please see the Appendix to this letter outlining our management intent for the impacted areas, and our biological and ecological comments and concerns on the most recent construction and activities plans.

- On July 30, 2020, the Commission sent a letter (date July 28, 2020) to Lax Kw'alaams notifying us of the Salvus to Galloway pipeline upgrade project ("the Project") and provided an online link and password to access the permitting application.
- In August and September PNG provided Lax Kw'alaams with a general fact sheet, and on September 3 a basic presentation was made to us with a general and very high-level overview of the Project.
- On September 22, 2020, Lax Kw'alaams provided land management and environmental comments, concerns, and questions to PNG and the Commission regarding the project.
- September 28, 2020, PNG made another general and very high-level presentation to two additional Lax Kw'alaams representatives. At this presentation meeting, PNG and assured Lax Kw'alaams that they would be time for meaningful engagement and consultation on the Project moving forward.
- PNG responded on September 30 and October 2, 2020 to Lax Kw'alaams comments, questions, and concerns, and provided a Construction Environmental Management Plan ("the Plan"). These responses appeared incomplete, and inadequate in many respects (see Appendix A). The responses fell short of providing the specific information requested by Lax Kw'alaams, and did not offer for mitigation or accommodation opportunities whatsoever.
- Around October 5, 2020, Lax Kw'alaams began working to review PNG's responses, and cross reference them with the Plan and other basic information and materials previously provided. It is important to understand Lax Kw'alaams reviews dozens of various project referrals, Environment Assessments, and other project reviews that require in-depth review at any given time. Neither PNG or the Commission gave Lax Kw'alaams any warning, time period guide, or notice that the time period to indicate permit issuance was imminent.
- Three business days later on October 7, 2020, the Commission sent a letter to Lax Kw'alaams and prematurely concluded consultation on the proposed activities. The OGC declared the decision-making process for the PNG permit application was going to "move forward" and the application would be sent to the "decision-maker" for final review. There was no clear indication when a decision on the Permit application would occur, or when and how our comments and concerns would be mitigated or accommodated.
- Two business days later on October 9, 2020, the Commission issued the Permit to PNG. Lax Kw'alaams was not notified about the Permit issuance (until October 15, 2020 – see below).
- October 14, 2020, five business days after receiving the Plan from PNG, Lax Kw'alaams informed PNG we were preparing a formal letter/response concerning the Project. Concurrently, PNG requested Lax Kw'alaams archeological monitoring.

- On October 15, 2020, PNG sent Lax Kw'alaams notification of works, with the approved Permit, notifying Lax Kw'alaams that work/activities would commence in five days.²

Lax Kw'alaams is concerned about the lack of clear communication and breakdown in consultation that began around October 2, 2020, and the rapid and precipitous activity around October 7 and 9. This hurried pace paralyzed Lax Kw'alaams ability to influence or affect the permitting and commencement of works, which does not meet our reasonable standard of consultation.

Lax Kw'alaams would like PNG to immediately re-engage in an effective process whereby we will have opportunity to learn crucial Project details regarding works and activities, and discuss necessary mitigation, accommodation, or other critical elements of meaningful consultation. We recommend reviewing Article 6.3 of the Commission's [Oil and Gas Activities Application Manual](#) as a minimum starting point, and we would also like the opportunity to explore a project-specific consultation agreement or protocol with PNG and the Commission setting out standards, timelines, and other essential engagement procedures.

Further, Lax Kw'alaams is requesting the following action from PNG and the Commission immediately:

- A capacity funding agreement for the consultation process;
- An immediate suspension of work and activities under the Permit until a site visit and subsequent mitigation and accommodation discussion with Lax Kw'alaams representatives; and,
- A consultation agreement or protocol for the Project.

Please contact our Manager of Lands and Resources Development, Neegann Aaswaakshin, as soon as possible at Neegann.Aaswaakshin@laxbdl.com to move this consultation process forward in the right way.

Thank you,

Mayor Gary Reece
Lax Kw'alaams Band

² Please note a few additional communications have been omitted, as they are not material to the issues raised by Lax Kw'alaams.

APPENDIX A

Lax Kw'alaams Comments regarding PNG Salvus to Galloway Project:

- 1) Comments and outstanding items from PNG responses to Lax Kw'alaams initial environmental concerns (response sent via email September 30, 2020)
- 2) Comments on the proposed Construction Environmental Management Plan (CEMP) 2020 Integrity Dig Program (document dated September 2020) - Not provided to Lax Kw'alaams until September 30, 2020

Comments and outstanding items from PNG response to Lax Kw'alaams initial environmental concerns

Comment 1:

- The proponent provided a general non-detailed description of what the impact timeline is going to be, "any impacts to the environment will be resolved within one year."
- Lax Kw'alaams considered this to be a moderate length of time as one 1 year is sufficient to have a negative impact on Section 35(1) rights for band members to be able to harvest for food, social and ceremonial purposes in this area. In addition, it is more than sufficient time for an invasive species to move into an area and change the ecological standing. Lax Kw'alaams would like to ensure that the proponent return to the site monthly following work completion to ensure that no invasive have settled into the region to allow for proper serial regeneration of native species.

Comment 2:

- The proponent provided a chart to show the location and type of cut that was going to be completed however they did not answer the question was that it was important to understand the exact amount of area to be cleared for each location (how was the 4.924 ha divided between the 12 workspaces.
- In addition, the proponent still has not provided Lax Kw'alaams with the requested biological data to be able to complete a fulsome assessment of impacts.

Comment 3:

- Proponent has answered question to Lax Kw'alaams satisfaction.

Comment 4:

- Proponent directs Lax Kw'alaams to review the CEMP for the answers to the questions in comment 4, however the CEMP does not fully address this issue.
- Without a full understanding of what keystone, blue , red listed species and ecological communities are present in the areas that the work will be conducted in, determination of

effect on the ecology is impossible, Lax Kw'alaams requests for a second time that the proponent provide a full and complete response to this question and provide Lax Kw'alaams the requested information. Again, this is important for Lax Kw'alaams to have this information as it is necessary to determine effects to FSC rights as well as how proposed works will affect Lax Kw'alaams management of its traditional territory.

Comment 5:

- Mitigations are moderate for management of invasive species, as the proponent is conducting activities within Lax Kw'alaams Special Management Areas, it is requested that the proponent return to the sites on a monthly interval post completion for a period of one year and evaluate and mitigate for invasive species during the revegetation periods.

Comment 6:

- With regards to mitigation measures for erosion control, the mitigations measures discussed in table 10 of the CEMP do not specify what measures will be implemented it just states that measures will be employed, this is insufficient data for the determination of erosion control efficacy as there are many different kinds of erosion control measures that can be implemented.
- Lax Kw'alaams requests that the proponent provides a complete list of the potential measures that might be employed, and under which conditions they plan on employing them. For example, when would silt fencing be used, how would it be installed, how often would it be checked and why would this method be selected in deference to another method?
- Providing Lax Kw'alaams with this information will demonstrate that the proponent has a fulsome plan not just "we will employ measures to prevent erosion when necessary" which is the impression that is garnered from their response to this comment.

Comment 7:

- Lax Kw'alaams will provide details in comments on this matter in the comments on the CEMP. The proponent fails to address this question, and does not respond to any of the concerns directly and fails to direct to the correct location in the proposed CEMP to address this concerns raised. Plant Ecosystem and Invasive species Management is only part of the issue. It is obvious the proponent did not consider the comments carefully and was in a rush to provide a response. This is inadequate consultation.

Comment 8:

- This comment and the concerns within it are not even addressed at all, the proponent refers to the CEMP which only provides a high-level overview of management best practices for fish and fish habitat management. Again, it is obvious that the proponent did not consider the comments or concerns at all and rushed to provide an inadequate answer. This is inadequate consultation.

- The proponent needs to address each of the following concerns directly.
 - 1) The information provided by the OGC (the Triton Report on Watercourse assessment) is too basic and superficial and does not provide sufficient information to determine the impact on the aquatic environment- Lax Kw'alaams requires the proponent to provide them with a properly developed assessment which includes all of the sampling methods, protocols time frames for work, full and complete comprehensive water habitat assessment (what conditions they consider poor, good and excellent habitat);
 - 2) No fish sampling was completed; it is impossible to be certain that there are no fish in an area when no actual sampling is conducted. Lax Kw'alaams requires the proponent to conduct proper fish sampling (not using electrofishing) and to provide Lax Kw'alaams with methodology, timing and species and abundance captured. Ideally, this work should be completed in the same timing window that work is to be completed in to be able to determine impacts to fish species (species are temporally separated in geographic areas);
 - 3) The assessment of moderate to low habitat is not defensible as man of the areas have good substates and drainage for temporary use for activities like rearing, feeding spawning and overwintering with the appropriate cover and lack of barriers to fish. These water systems are well known to DFO and are studied annually for all 5 species of salmon. It is well known to Lax Kw'alaams through DFO funded spawn enumeration that these systems Lachmach (is a key spawning area for pink and chum and there is a population of Kokanee present in lake and near by streams. The proponent needs to address this issue in clear detail to Lax Kw'alaams biological scientist how exactly these will be protected; and,
 - 4) the assessment did not provide an inventory of species present nor the abundance, nor did it provide detail on the amphibians or other species that might utilize these areas. This information needs to be provided to Lax Kw'alaams. This information is vital in Lax Kw'alaams assessment and understanding or the potential impacts to the environment. It is not acceptable for the proponent to assume that because they state there is no or limited impact that Lax Kw'alaams will accept this without wanting to conduct its own evaluation of the information.

Comment 9:

- Not one of the information that was requested in this comment was answered. Information referenced in the CEMP is insufficient to fully address each question. Lax Kw'alaams request that the proponent address and provide and answer for each of the questions posed below (second ask for information).
 - 1) provide a detailed description of the activities that will be occurring in each area with sufficient detail;
 - 2) how much riparian damage will occur in each area (m2 and species impacted);

- 3) Will any stream be infilled or rerouted, if so which ones for how long, process to complete, timeline and method or restoration;
- 4) Will screens be placed on intake and output hoses at all times and under all circumstances to prevent fish and amphibian entrainment;
- 5) will animal salvage be performed? What method will be employed (detailed);
- 6) how will the proponent prevent erodible materials from entering the water column, provide detailed plans for each location;
- 7) If crossing streams, fording is not acceptable to Lax Kw'alaams unless a barrier is set up to prevent fish and amphibians from accidentally becoming harmed and the proponent provide Lax Kw'alaams with proof that machinery will cause damage to the area;
- 8) If crossings need to be constructed, provide Lax Kw'alaams with detailed plans of methods of construction, how wide, amount and kind of materials needed and if removed when complete;

Comment 10:

- The proponent acknowledges that it cannot have sufficient information to provide judgment on whether impacts are significant for any particular species, this is of grave concerns to Lax Kw'alaams as this is of vital key importance to truly understanding the impacts to Lax Kw'alaams Rights and management. Lax Kw'alaams requests that the proponent completes an assessment to understand the potential impacts to species (less habitat fragmentation) and provide that information to Lax Kw'alaams.
- This is a deep concern that the proponent would consider proceeding with a project that spans this geographic distance without this level of understanding.

Comment 11:

- Lax Kw'alaams will provide comments on the CEMP and its lack of information to address the issues raised with this question

Comment 12:

- Lax Kw'alaams that the proponent just referenced the CEMP to address the request that Lax Kw'alaams wanted to work with the proponent to deal with and come up with a plan that is acceptable for fording within Lax Kw'alaams Special Management Area.
It is obvious from this comment that the proponent does not feel that fulsome consultation is more than just notifying and nation that work is to be conducted and this is unacceptable.

Comment 13:

- Lax Kw'alaams indicated to the proponent that there are two very significant areas that could affect Lax Kw'alaams rights and was again directed to the CEMP. This is not acceptable. These areas need special management plan developed in conjunction with Lax Kw'alaams to prevent significant damage to Lax Kw'alaams section 35(1) rights.
- Lax Kw'alaams request the proponent work with Lax Kw'alaams to develop a plan that will address Lax Kw'alaams specific concerns. A CEMP does not address these issues sufficiently.

Comment 14:

- Although the proponent states that it is willing to work with Lax Kw'alaams in the collation of environmental data, this is not what was requested, Lax Kw'alaams requested that the biological team (not environmental monitors) work with the proponent at each location to provide a full terrestrial and aquatic biological inventory, to help plan methodology and site plan schematics' and work to develop a joint approach to minimize impacts to resources within Lax Kw'alaams traditional territory.
- However, work has started in some areas and plans have been implemented without fulsome consultation so assessment of these areas for biological impacts is no longer possible, nor was the plan a joint approach. Lax Kw'alaams is deeply concerned that the proponent thinks this is acceptable consultation or aid in the development of good working relationships.

Comments on the Construction Environmental Management Plan 2020 Integrity Dig Program

Page 1 Table 2

- Log fills will block fish passage, how does the proponent plan to ensure that this does not happen
- What is considered minimal clearing?
- How much buffer area is required to be cleared in each of these work areas at each location?

Page 2 Table 2

- Surveys for species and abundances should have been performed prior to development of the CEMP or work commencement to ensure proper mitigations.
- Salvage and surveys are 2 completely different things, what salvage methods will be employed and under what circumstances, provide detailed information on what method and methodology will be employed for each salvage species.
- Temporary stockpile locations must be cleared areas so that the overburden does not kill the plant species below them, the proponent needs to complete a full inventory of species present prior to removal.

Page 2

- Site specific work plans have not been provided to Lax Kw'alaams for consultative purposes and need to be approved by Lax Kw'alaams to ensure proper management and protection of its resources.

Page 2 Section 1.1.1

- Pipeline re-routes and re-alignments, excavation and placement of materials why is this not included in the CEMP and where is this addressed, Lax Kw'alaams need to evaluate prior to work commencing.

Page 3

- Dig site 49 is located within federal reserve lands IR 8. This IR is owned by Lax Kw'alaams and Metlakatla, The proponent must have written permission from both nations to perform any works, at this time , no consent has been granted to the proponent from Lax Kw'alaams and all works on this IR are to stop immediately until such time as full consultation and accommodation and work plans are developed and approved by Lax Kw'alaams.
- Table 3 crossings with fording are not acceptable in these locations at dig site 48 until such time as Lax Kw'alaams can be assured that there will be no impacts to fish and other aquatic organism it is suggested that barriers be placed on either side of the crossing to prevent potential harm.
- Table 3 Dig site 49 no work is acceptable until permission and appropriate work plan has been developed with Lax Kw'alaams at this time, this plan as presented in this table is not acceptable.
- Section 1.3 Digs 50-65 Lachmach Valley, more information is needed to be provided by the proponent detailing the variability at each of these sites, what the challenges are associated with access, what are the potential impacts to the environment.
- A complete plan should be developed for each site, with site specific mitigations, construction, and management information.
- These sites are accessed at various location and information in each site plan must include distances that equipment will have to travel from forestry road to get to site, amount of clearing that will need to be completed (width and length), how that will be performed and all mitigations that will be employed.
- Table 4: Site 54- How much clearing and grubbing will be necessary, what species will be removed, how long and wide a path, what methods will be used for clearing and grubbing, this location is important to Lax Kw'alaams and the CEMP does not provide sufficient developed mitigations to address the concerns.
- Table 4 Site 53: What are the water crossings exact locations, will this be done with fording if so will there be barriers to prevent harm to fish and amphibians erected , if not what materials and how much will be used to develop crossing, will it be permeant what kinds of mitigations will be implemented at this site specifically to prevent issues , fish are possibly present and 10 specific crossings what measures will be put into place to prevent damages

Page 4

- Table 4: Site 52: the new trail that will be constructed there are no details provided in the CEMP on how long, wide, how clearing will be done, what species will be removed, where grubbed materials will be stored or removed to, nor is there a detail plan for this site. Information was not provided in the initial information package so there does not seem to be a site-specific environmental construction plan for each site which there should be.
- Table 4 Site 51/50: issues surrounding fording , does not provide sufficient information to evaluate management plan for the area, information was not provided in sufficient details to be able to evaluate if the construction environmental management plan is appropriate for this site,.
- Table 5 Summary of Lackmach Valley, the information provided is not sufficient to be able to determine if the generalized CEMP plan is sufficient to deal with the issues that might arise at each site. Lax Kw'alaams requires much more information regarding the biological and environmental conditions at each site and a site specific environmental management plan review for each site to determine if the general concepts proposed within the CEMP are sufficient to address the bands concerns surrounding Section 35(1) rights and potential impacts to management strategies as detailed in Lax Kw'alaams Land Use Management Plan.

Page 5

- Table 6 : site specific management plans need to be prepared and evaluated by Lax Kw'alaams and compared against the general CEMP to determine if appropriate, currently Lax Kw'alaams technical teams cannot support the CEMP as presented as there is insufficient data to determine if will be appropriate.

Page 6

- Table 8 indicates that there is a requirement for an amphibian and fish collection permit from FLNROD, has this permit been applied for and granted, if so, please provide evidence to Lax Kw'alaams. This table also indicates that a DFO request for project review was required Lax Kw'alaams was not consulted on this request for review by DFO was the request made and if so, please provide evidence and outcome to Lax Kw'alaams.

Page 7

Section 2 Environmental components and anticipated effects

- Lax Kw'alaams would like to make it clear that insufficient evidence has been provided to them to be able to perform a fulsome review during any stage of consultation on the impact of the project on the environment and Lax Kw'alaams rights . At this stage, Lax Kw'alaams can only comment on the components included in this CEMP and does not have any evidence to support the conclusions.

Page 8

- Fish scare, the CEMP does not describe the methods of fish scare, there is no information on the type of fish scare or how will be implemented.
- Lax Kw'alaams does not support fish scare processes as a means of moving errant fish from the work area, it would approve fish salvage with dip nets and minnow traps but not electrofishing.

Page 9/10

- 3.1 No where in the CEMP are there full disclosure about what environmental protections are going to be implemented in the project other than best management practices, since there is no good and fulsome understanding of the environment, there is no way to be certain that the minimum best practices are sufficient to mitigate properly.
- The development and modification of the CEMP and any EWP needed to be prepared in conjunction with Lax Kw'alaams before implementation, it is imperative that any adjustments due to unanticipated environmental; conditions or challenges be developed and approved by Lax Kw'alaams not solely by a QEP of the proponent.
- Environmental monitors should be preparing environmental incident reports but these reports must be shared on a regular (i.e. bi-weekly basis) with Lax Kw'alaams. It should be the duty of the project manager to ensure that these reports are emailed to the Lax Kw'alaams environmental assessment team.
- Environmental monitors do not have the qualification to be able to evaluate equipment for leaks and they might or might not have the qualification as an invasive species specialist and therefore should not be responsible for ensuring the equipment is clean and leak free and free from invasive species, If the construction company wishes for the EM to perform these duties, they need to ensure that the individuals are properly trained and certified, if not than someone who is trained and certified must be assigned to perform these activities. It is the responsibility of the site supervisor to ensure that these qualification and guidelines are met by someone qualified to perform the activity in a fulsome manner.
- 3.2 Environmental protection measures:
- Noise suppression and emission control equipment required but the manufacture is not a mitigation for noise and emissions.
- Add engines will not be left to idle for more than 10 minutes.
- How will fine particulate matter be protected from erosion.
- Equipment operators will regularly inspect equipment, please define regularly i.e. daily, weekly provide a concrete time interval for evaluation.

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- 3.2.2 Erosion and sediment controls:
- What are the site specific plans for current work being completed and what are the specific erosion control methods that will be implemented where will they be implemented what

materials will be used and provide a rationale for why these measures are being implemented in each location over other methods.

- Environmental monitors are monitors not workers and do not necessarily have the skill or knowledge for implementation of erosion control measures, it is imperative that a qualified individual implement these measures for best efficacy according to a pre-developed site specific erosion control plan the information in the CEMP is insufficient to determine if and what erosion control measures will be employed and therefore Lax Kw'alaams cannot determine if the measures will be effective as no details are provided.
- Inspection to ensure erosion control measures are effective should be completed at least once per week in a work area and after heavy rains within 12 hours.
- 3.2.3 Plant ecosystem and invasive species management:
- The plan speaks of the permitted temporary workspaces, who determine these spaces? Were environmental surveys for plant and animals completed for each area, will these areas be cleared how much are at each site, none of this information was provided by the proponent so there is no way to determine if this is an appropriate action as listed within the CEMP.
- Stockpiles of materials within an approved EM chosen location, is the EM a biologist, if not they do not have a concrete or compressive understanding of the biology, ecology and First Nation important species to be able to make that determination. These areas need to be established in consultation with a RP Bio and First Nations to ensure that no environmental damage is done with the placement of these stockpiles.
- Imported material needs to be evaluated by a soil specialist not an environmental monitor unless they have the qualifications to do so. In addition, the CEMP states that fill can be brought onto sites if approved by the EM without chemical analysis, Lax Kw'alaams does not support this at all, ALL IMPORTED MATERIAL MUST HAVE CHEMICAL ANALYSIS to ensure safe and will not cause adverse effects on the environment.
- 3.2.4.1 Unanticipated and suspected contamination:
- Testing should be completed on samples wherever there is suspected contamination period! Prior to the movement of any soils or used in the environment. There is too high a risk not to have it tested.
- 3.2.5 Fish and Fish Habitat Management:
- Lax Kw'alaams does not have faith that any of these proposed mitigations and activities will be sufficient to address and carefully mitigate any issues to fish and fish habitat within the Lax Kw'alaams Special Management Areas and strongly encourages the proponent to revise and develop more specific mitigations for each site in conjunction with Lax Kw'alaams and DFO to ensure there are no impacts to Lax Kw'alaams Aboriginal rights and title.
- A QEP should not modify or have the authority to revise work being completed inside the windows of least risk as determined by DFO. This can only be done with DFO written approval.

- Equipment delivered to site needs to be inspected for cleanliness and spills by someone who has the qualifications to determine (i.e. a mechanic) not an EM, they can assess if the equipment was clean and should have the authority to tell operator to remove from site.
- 3.2.5.1 Access:
- Lax Kw'alaams does not support fording activities, however, if they are to be employed fish and amphibian barriers must be erected either side of the fording pathway to temporarily stop fish and amphibians from accidentally getting harmed by vehicles, these are to be removed once the vehicles have passed to allow fish and amphibians to safely pass once more
- For existing ford sites, if on a fish bearing stream, a up to date and complete habitat and fish species abundance reports must be prepared and evaluated in conjunction with Lax Kw'alaams fisheries biologist to ensure that appropriate care is taken to satisfy Lax Kw'alaams environmental and rights.
- Fish scare tactics are not acceptable to be completed in advance of crossings, these activities increase cortisol levels in fish, and cause lactic acid to build up in tissues, muscle contractibility becomes increased and scare tactics have been known to harm fish. If there are fish in the region of the crossing barriers are the preferred method to keep fish from harm but fish salvage using dip nets and traps are also acceptable methods, electrofishing to salvage fish is not an acceptable practice by Lax Kw'alaams as it disrupts the lateral line system , confuses fish navigation and can cause muscle paralysis and death in some fish
- 3.2.5.2 Integrity Dig work:
- Screens must be employed on all pumps in the water to prevent fish and amphibian entrainment
- No electrofishing as a means of fish salvage.

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- Integrity dig work continued
- EM will perform surveys on advance of construction daily
- Removal of trees cannot include any tree that is a CMT or trees that are used by or have evidence of use by animals
- All waste will be removed from the site daily, and an end of day garbage sweep of the worksite will be completed to ensure that no garbage is on site
- Lax Kw'alaams will be notified of any wildlife human interactions within the bi-weekly reports
- 3.2.6.1 Birds:
- Lax Kw'alaams would prefer a nest search sweep be conducted at the commencement of each workday on site to ensure that no bird have constructed or begun to construct nests
- 3.2.6.3 Amphibians:
- Amphibian salvaged animals can be moved away 1 km to ensure they do not return to site

- Site reclamation- native seed must be applied to all exposed soils exposed because of the project, storage and laydown areas will be overseeded as well to ensure that incidental harm is corrected.
- 3.2.9.1 Non-Hazardous Materials/3.2.9.2 Hazardous materials:
- All nonhazardous materials need to be removed from site daily and disposed of according to governmental approved methods
- All hazardous waste materials need to be removed daily,
- During daily inspection of equipment any is found to have hazardous material leaks or over abundances of hazardous material (grease) these pieces of equipment will be removed from site immediately, will be repaired and certified as such by a mechanic in good standing before returning to site.
- If a vehicle is leaking the leak will be contained and measures taken to prevent leak from dripping hazardous materials into environment as it leaves the site for service
- Provide details of content of spill kits to ensure there are sufficient supplies (abundance is not a definitive explanation for Lax Kw'alaams to evaluate if this is enough
- Spill kits need to be checked daily by operator and restocked to ensure that there are the supplies on hand, checking only when new equipment comes to site is not sufficient
- Lax Kw'alaams does not support the storage of hazardous materials on site nor does it support the transfer of hazardous materials on site, it is there opinion there is too great a risk to their territory for spill and leaks. These activities need to be competed off site in an appropriate location to conduct and contain the potential of any spills.
- In addition to the general contents of spill kits each one should contain duct tape, this is an indispensable item and if there is a vehicle that is leaving the site with a dripping leak duct tape can be used to secure a spill pad to the vehicle to capture any drips temporarily until the vehicle is off site

Summary

- There has not been sufficient information provided to effectively evaluate the impact of the proposed plans, and as such Lax Kw'alaams cannot determine if there are appropriate EWPs.

APPENDIX B

Lax Kw'alaams Land Use Plan and Management Intentions

In accordance with the Lax Kw'alaams Land and Marine Use Management Plan, we have identified, three Special Management Areas, a Cultural and Natural Area, and two reserves directly impacted by the Project. Please be advised of the following Lax Kw'alaams land use planning intentions and requirements.

Special Management Areas ("SMAs")

Skeena River Corridor – Management Intent:

- Protect, and where necessary restore traditional harvesting resources, particularly salmon.
- Sustain and where necessary restore traditional use opportunities.
- Protect archeological sites and cultural values.
 - Permitted: Traditional use subject to the protocols of Lax Kw'alaams; low impact tourism; and, Lax Kw'alaams cultural and community forestry.
 - Restrictions: Intensive Tourism and Commercial Recreational; Industrial Resources Development; Roaded Access; Commercial and Sport Fishing; and, Shellfish aquaculture.

Klax Mach SMA – Management Intent:

- Protect traditional harvesting resources and sustain traditional use opportunities; and,
- Protect scenic, cultural and archeological resources in support of Lax Kw'alaams cultural and nature-based tourism opportunities.
 - Permitted: traditional use subject to the protocol of the specific Tribes and House groups; low impact tourism and recreation; and Lax Kw'alaams cultural and community forestry; and, Lax Kw'alaams cultural and community forestry.
 - Restricted: Intensive tourism and commercial recreation; industrial resources development; road access; sport fishing; and, shellfish aquaculture.

Kxeen SMA – Management Intent:

- Identify, conserve and protect the centre of the archeological record of Tsimshian culture that is evidenced throughout this planning unit; and,
- Support Lax Kw'alaams' cultural and nature based development.
 - Permitted: Traditional use subject to the protocols of the nine Allied Tsimshian of Lax Kw'alaams; low impact tourism and recreation; and, Lax Kw'alaams cultural and community forestry.
 - Restricted: Intensive tourism and commercial recreation; industrial resources development; additional roaded access; sport fishing; and, shellfish aquaculture.

Cultural and Natural Areas (“CNAs”)

K’stool CMA – Management Intent:

- Protect traditional harvesting resources, wildlife and biological diversity;
- Sustain and enhance traditional use opportunities;
- Protect Lax Kw’alaams heritage and cultural sites;
- Restore abundance of depleted resources to historic levels; and,
- Support development of Lax Kw’alaams cultural and nature-based tourism opportunities.
 - Permitted uses: Traditional use subject to specific Tribe and House groups and Lax Kw’alaams members; low impact tourism and recreation, subject to a management plan approved by Lax Kw’alaams that addresses tourism carrying capacity, and priority access for Lax Kw’alaams recreational use and commercial opportunities; limited Lax Kw’alaams cultural and community forestry; on-Aboriginal commercial and sport fishing, subject to consultation and specific terms and conditions set out in the Lax Kw’alaams Land and Marine Use Plan.
 - Restricted uses: Roaded access; open net cage salmon aquaculture; offshore oil and gas exploration and development; intensive tourism development; and, intensive or industrial resources development (activities listed in the Lax Kw’alaams Land and Marine Use Plan); and, any activity not approved through consultation and accommodation with Lax Kw’alaams (subject to specific terms and conditions set out in the Lax Kw’alaams Land and Marine Use Plan).

Reserves Lands

The existing pipeline and Project directly affect two Lax Kw’alaams reserves:

- Statutory Easement on Lax Kw’alaams Indian Reserve Kasiks No. 72; and,
- Statutory Easement on Lax Kw’alaams Indian Reserve Khyex No. 8.

Lax Kw’alaams must be consulted and accommodated regarding maintenance and works to existing on-reserve utility easements. Lax Kw’alaams is currently exploring any fiduciary, taxatios, and other relevant issues that arise from the statutory instruments and easements related to the Project.



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SENT VIA EMAIL

March 8, 2021

Sandy O'Flaherty, First Nation Liaison Officer
BC Oil and Gas Commission
6534 Airport Road
Fort St. John, BC V1J 2B0

AND

Dean Rawson, Vice President, Operations and Engineering
Pacific Northern Gas Ltd.
2550 – 1066 West Hastings Ltd.
Vancouver, BC V6E 3X2

RE: Salvus to Galloway Pipeline Upgrades – Project Phase Review

We thank the BC Oil and Gas Commission (“the Commission”) and Pacific Northern Gas Ltd. (“PNG”) for recently submitting the Environmental Management Plan, Application Management System Reports, various maps, and the Environmental Overview Assessment (and appendixes) for phase two of the Salvus to Galloway Integrity Digs Project (“the Project”).

As you know, Lax Kw'alaams takes the management of ancestral lands and use of territorial resources very seriously, as we are required by our citizens and membership to manage our lands and resources in manner that they are sustained for present and future generations. As you are aware, our Lands, Resources Development, and Stewardship department has been under a tremendous amount of pressure to respond to countless referrals, which has placed excessive and unreasonable pressure on our internal capacity, especially over the last six months amidst local peaks of the global pandemic.

We are still reviewing the application and documents, and so far have made some biological assessments, though we are still conducting an assessment on a series of issues related to the application(s) – we have determined some of the following issues will require deeper consultation with Lax Kw'alaams before the permits can be issued or the work can commence:

1. **Environmental and Biological Concerns:** Lax Kw'alaams is submitting two biological reports and confidential valued species list (attached), which will require a full and complete response from PNG before the permits can be issued or the work can commence;
2. **Ceremonial, Sacred, and Cultural Sites:** Lax Kw'alaams is in the process of preparing an assessment of the highly sensitive ceremonial, sacred, and cultural use sites, and a full and complete response and mitigation plan will be required from PNG before any permits can be issued or the work commences;
3. **Traditional Use Study Required:** Lax Kw'alaams requires capacity funding from PNG to complete an up-to-date project and site-specific traditional use study in order to adequately inform the consultation before any permits can be issued or the work commences;
4. **Cultural Heritage and Archeology:** Lax Kw'alaams is still in the process of completing a final cultural heritage and archeological impact and management assessment, which is required before any permits can be issued or the work can commence;
5. **Contravention of Lax Kw'alaams Land Use Plan:** Lax Kw'alaams requires the opportunity to have an in-depth discussion with PNG regarding the elements, activities, implications of the Project that are inconsistent with or contravene our Land Use Plan;
6. **Interference with Lax Kw'alaams Governance:** Lax Kw'alaams requires the opportunity to have an in-depth discussion with the Commission regarding the Project's interference and infringement of Lax Kw'alaams right to self-government over the territory and Indian Reserves impacted by the Commission's conduct and this Project;
7. **No Capacity Funding:** Despite repeated requests, Lax Kw'alaams has still not received any agreement from PNG to enable us with the necessary capacity funding required to meaningfully contribute to the Project consultation process. Lax Kw'alaams has assessed this Project as requiring a very deep level of consultation and accommodation under the *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73 decision consultation spectrum framework, and we require capacity funding to ensure a full and complete internal review can be conducted to adequately protect our rights and interests from potentially irreparable harm and impacts caused by the Project;
8. **No Commercial or Economic Benefits:** Despite repeated requests by Lax Kw'alaams to discuss economic, employment, partnership, and commercial benefits with PNG, no benefits or opportunity have been offered or presented. This complete lack of benefits to Lax Kw'alaams furthers economic determinant contrary to principles of reconciliation under section 35 of the *Constitution Act*, 1982 and other provincial commitments and legislative guarantees; and,
9. **Taxation Legal Review:** Lax Kw'alaams is currently undergoing an internal taxation legal review, and requires time to complete this legal review and assess whether any

outstanding land use taxes or levies are owed to Lax Kw'alaams for any Order In Council and land use instruments affecting Lax Kw'alaams Indian Reserve holdings.

Please find attached our biological reports and request for responses, and confidential valued species list for consideration and response specific to the Project (e.g. phase two). Lax Kw'alaams is working to complete our assessment reports for each of the remaining above-mentioned issues, and we will submit these reports available as soon they become available. In the meantime, we await your efforts to coordinate a meeting between the Commission, PNG, and Lax Kw'alaams to discuss our concerns.

Until we have made some good-faith progress to reasonably address our concerns, we request that the Commission reserve any decision or permitting related to the Project.

Respectfully,



Neegann Aaswaakshin
Manager of Lands and Resources Development
Lax Kw'alaams Lands, Resources Development, and Stewardship Department

Cc: Mayor Gary Reece, Lax Kw'alaams Band
Carl Sampson, Chief Operating Officer, Lax Kw'alaams Business Development

AND

Jason Pope, Coordinator, Lands – Permitting and Indigenous Relations (Smithers, BC),
Pacific Northern Gas Ltd.



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BIOLOGIST REPORT

Intake Date:	Jan 7 th 2021
Report Date	Feb 17 th 2021
Project:	AMS#100112512 PNG Phase 2 work channel to Galloway station
Document(s) Reviewed:	Environmental Management Plan, application Management System Reports, Various Maps, Environmental Overview Assessment (and appendixes)

1. Project Description: Repair and maintain current pipeline along the Skeena Corridor at various locations

2. Protection Areas and Zones:

3. Wildlife Assessment:

Potential impacts to wildlife (yes/no/unknown/incidental/possible)		
	Project Site	Other Sites
Moose	yes	no
Deer	potential	no
Mountain Goat	No	no
Amphibians	yes	yes
Fish	Yes	Yes
Marine Mammals	no	no
Birds/Bats	yes	
Other species Beaver, bear, other mammals	Yes	Yes
invertebrates	Yes	No

- **Potential impacts on Moose:** Moose habitat is present in the project area, but limited activity might result in displacement during works, especially with forage and denning areas. Pre work surveys should be conducted to ensure not present in area, and exclusion zones should be established, or site should be avoided until moved
- **Potential Impacts on Deer:** Should the presence of licks and wallows be located, works could temporarily displace and cause stress on individuals. These stresses can lead to issues of behavioral, increased risk of predation, decreased fecundity, inability to forage and other issues. Pre work surveys should be conducted to ensure not present in area, and exclusion zones should be established, or site should be avoided until moved
- **Potential impacts on Mountain Goat:** None anticipated
- **Potential impacts on other Terrestrial/Aquatic species:** Beaver, removal and displacement of beaver might have negative impacts. Stress on removal might negatively impact individuals causing behavioral issues which could lead to increased predation, lack of survival prior to development of new home, Bears might be displaced during activities and loose access to food resources.
- **Potential impacts to Birds/Bats:** Several species of birds will be displaced, pre work surveys need to be conducted to ensure there are no active nests. If found, these need to be left in situ, and exclusion barriers be erected. For raptor, all nests should be left in place as nests are used year after year.
- **Potential impacts to Amphibians:** Adults, larva and eggs might be destroyed during crossings and work activities, pre work salvage needs to be conducted and relocated to appropriate areas
- **Potential impacts to Invertebrates:** Several species of invertebrates identified and could be incidentally killed; proponent states could be killed. Salvage and relocation are recommended
- **Potential impacts on Fish:** 35 Fish bearing streams identified in plan, many of these are key salmon escapement streams, impacts to fish include suffocation due to increased sedimentation and destruction of juveniles, fry, and eggs accidentally during crossings
- **Potential impacts to Marine Mammals:** none anticipated
- **Potential impacts to Marine Invertebrates** none anticipated
- **Species at Risk/Invasive species:** No species at risk identified by proponent, Mitigations need to be in place to prevent invasive species

4. Potential Impact on Habitat and Environment:

- **Potential impacts on Plant species:** Clearing and grubbing activities will result in loss of species in the area, serial regeneration might result in different species compositions and abundances. Work activities will result in trampling of some species which will expose area to increased levels of plant mortality, increasing risk of invasive species establishment
- **Potential impacts regarding Water:** Increased in suspended sediments from erosion and other works, potential impacts from spills and leaks possible

- **Potential impacts regarding Soil Quality:** Erosion issues, potential for spills and leaks to get into soil and translocate into the aquatic environment or into plant and other wildlife over time
- **Potential impacts regarding Air Quality and Noise (related to wildlife):** None anticipated due to short term nature of project; however, proponent should employ methods to reduce emissions and noise (reduce idling time)

5. Potential Impacts on FSC Rights (under section 35 of the *Constitution Act, 1982*)

- Many of these areas of work are key harvest zones for Lax Kw'alaams for food fish on species such as salmon, steelhead, rainbow trout, cutthroat trout, and Dolly Varden. Activities in these areas have the potential to prevent Lax Kw'alaams members to harvest these important species in the event that work is completed outside of harvest period, potential impact on juveniles in these areas could be experienced by the membership in later years.
- Work Channel, Morse Basin, Kloiya Bay, and Prudhomme are all extremely important salmon bearing water systems for Lax Kw'alaams for FSC requirements, any works that occur in this region have the potential to impact eggs, rudds, fry and adults and extreme care must be implemented in any works within these systems to ensure no harm, which could lead to negative impacts on the Nations FSC harvests.
- Clearing and grubbing activities will result in loss of harvestable plants for FSC by band members until such time as the area re-establishes vegetation, issues might arise should species regenerate differently creating different species composition and abundances pre works.
- Since full report on plant species composition and abundances is unknown, the impact to FSC rights of harvest of plant species is unknown. See section 6.

6. Additional Concerns, Questions, Comments and Requests:

- How much clearing and development of temporary workspaces will be required to be created?
- Does PNG have an estimation of the number of new areas that will need to be developed?
- Will temporary workspaces be within the ROW or outside?
- Will the development of staging and laydown areas be within the ROW?
- What will the footprint of these staging and laydown areas be?
- How many helicopter access pads will be created?
- Will these access pads be temporary or permanent?
- What is the estimated footprint be for each area?
- Will the pads be within the ROW?
- Please provide Lax Kw'alaams with letters from DFO/ FLNRO and other regulators stating if need permits, project reviews when application submitted, responses and permit approval dates

- Please provide a copy of the DFO RFR or FAA for review and comment prior to any works
- Please provide a copy of any CEMP or EMP for review prior to work commencement
- Lax Kw'alaams would like the opportunity to review and comment on site specific detailed Erosion and sediment control plan prior to work commencing
- Lax Kw'alaams requests regular environmental monitoring reports be forwarded to Lax Kw'alaams biologist for review on a regular basis
- Please provide information on amphibian salvage and relocation methods
- Request for pre-site surveys for fish, animal, birds/bats den and nesting site, please implement exclusion and avoidance areas and perform salvage and relocation where possible
- The proponent states that field surveys for species composition and abundance have not been completed for these works. This entire area is an area of importance for Lax Kw'alaams members to harvest for FSC needs. A list of valued species was provided to the proponent by Lax Kw'alaams during phase one and Lax Kw'alaams would like the proponent to survey each work area prior to working and provide Lax Kw'alaams a report on species composition and abundance.
- This depending on species abundances, location and uses by the Nation will aid Lax Kw'alaams in the determination of impacts to FSC rights, without this information a fulsome assessment is not possible. It would be ideal if this information were provided to Lax Kw'alaams at least 30 days prior to the commencement of work at each site, to allow Lax Kw'alaams biological team to assess the information and provide feedback to the proponent to help minimize any potential impacts to the nation FSC rights
- Please provide a definitive listing of what field work was performed to make the assessment. Based on the package provided, the components on aquatic, wildlife and plant distribution were obtained from website only. This method will provide an overview of what might be present but does not provide a definitive and comprehensive evaluation
- Lax Kw'alaams has requested the proponent provide more detailed information and potentially video that demonstrates the process of fording across a variety of stream types to allow for a more confidence that the process is not harmful to life and the general minimization of impacts to the banks and stream bed, Lax Kw'alaams look forward to reviewing this information
- How much of the 7.080Ha of land to be cleared will contain merchantable timber?
- How will merchantable timber be disposed of?
- Lax Kw'alaams would like to request copies of all wildlife sightings and signs, dates and locations observed and any interactions between humans/ refuge and site for their records
- In the event of any issues where an animal of any type is injured or dies, Lax Kw'alaams would like to be notified as soon as possible with a summary description of what

happened, the cause, any mitigations to minimize impacts and what will be done in the future to prevent that kind of injury/death occurring again

- Lax Kw'alaams understand the proposed windows of least risk the proponent puts forward as key times when salmon return to streams to spawn, however, from April to mid July each year, salmon rudds develop into fry and juvenile and begin the outmigration from natal streams to the ocean. This is a key fundamental important time for these species and believe that harm to fish might occur during these times,
- Since these areas are key salmon streams to Lax Kw'alaams for FSC needs, and the potential harm to fish, **it is imperative that the proponent consult with DFO to confirm the timing windows. All timing windows should be applied to all streams.** Timing windows can be proposed by the proponent and QP but DFO needs to confirm the appropriateness of these windows

7. Requested Mitigations

- All food wastes should be removed from the work site daily to prevent wildlife from being attracted to containers holding food wastes on site
- The proponent should ensure that all refuelling occur on lands that are as flat as possible and if not possible should be cognisant of slope and direction of flow in the event of a spill
- All contaminated spill materials should be removed from the site daily and disposed of in accordance with regulations
- Any spill materials used should be replaced within 24-48 hours to ensure each area when spill equipment is present and at full stock
- Lax Kw'alaams would like to be notified of all spills and leaks of any deleterious material as soon as possible with an incident summary and follow up telephone conversations when necessary
- Although Lax agrees that the works need to be pursued without delay to completion, they would request a caveat that should the environmental conditions change such that continuing the works would result in large ruts, water accumulation and other issues that might impact the environment, due to heavy equipment movement, those works be put on hold temporarily to allow the conditions to change to minimize potential impacts
- ensure that all staff know how to properly install mitigation measures, site specific measures which are left in situ should be inspected at the start and end of each day to ensure that they are secure and sufficient for the environmental conditions which can change within hours,
- Lax Kw'alaams would also like to recommend that the proponent install at least 2 if not 3 measures at each site as standard practice to ensure backup in case one measure fails or is insufficient with changing conditions

- All fills including granular imported fills, should come with a chemical analysis to ensure that there are no contaminants, and pH balance of the fills will not interfere or affect the local environment
- All vehicles arriving on the site must be free of excess oil and leaks to ensure that no deleterious substances get into the environment and water table
- At all fish crossings, measures need to be put into place to ensure that crossings do not impact fish, for example, barrier fences could be installed temporarily during crossing periods and removed once completed to create complete exclusion zones, fish scares (according to the methods indicated in conversations with the proponent are acceptable)
- Lax Kw'alaams would like to request the proponent perform pre-clearing bird nest surveys for all species not just in areas of known Marbled Murrelet Habitat to ensure the safety of all bird species and offspring that might be nesting in trees in a proposed clearing area
- Amphibian salvage where possible should be completed, due to the proposed run time of phase 2 of the project, the proponent should watch carefully for amphibian eggs and neonates and salvage should be performed
- According to FLNRORD, eggs and neonates should be salvaged and moved 100m from the site of work, and live adults should be moved up to 5km away into suitable habitat. Lax Kw'alaams preference for adult salvage is that they be move at least 1 km away if possible, to prevent them from returning to the site rapidly
- salvage surveys for all wildlife including fish, amphibians, birds, bats, and mammals should be performed before each workday to ensure that no individuals have entered the work site between each day's work
- Bird nests if active should be left in situ and contractors should create a no disturbance buffer surrounding them, if they are raptor nests, these nests need to be undisturbed and left in place if possible as raptors reuse nests each year
- Rare and endangered plant species should be protected and avoided at all costs, if not possible to avoid at a work site, for rare plants, it would be Lax Kw'alaams preference that those plants be salvaged and re-planted if possible
- Endangered species should be maintained in accordance with SARA /Cosewic protocols and standards in accordance with the recovery plans for those species or in conjunction with consultative plans developed with SARA/Cosewic staff
- In dealing with the prevention of spread of invasive species, please ensure that all vehicles arriving on site are cleaned prior to arrival to prevent spread

Katherine Butts, HBSoc., MSc., R.P. Bio

Senior Biologist, Lax Kw'alaams Fisheries & Lax Kw'alaams Business Development LP



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BIOLOGIST REPORT

Intake Date:	Feb 9 th 2021
Report Date	Feb 18 th 2021
Project:	Amendment to PNG Salus to Galloway Work Package 2
Document(s) Reviewed:	PNG -EWP diversion, PNG s2g integrity remediation stream crossings, PNG EWP Beaver Dam removal

1. Project Description: Various locations within Lax Kw'alaams territory

2. Protection Areas and Zones:

3. Wildlife Assessment:

Potential impacts to wildlife (yes/no/unknown/incidental/possible)		
	Project Site	Other Sites
Moose	no	no
Deer	no	no
Mountain Goat	no	no
Wolves	no	no
Other small mammals (beavers)	yes	yes
Birds/Bats	no	no
Amphibians	Potential incidental	Potential incidental
Marine Mammals	no	no
Fish (marine and freshwater) (salmon)	potential	potential
Marine Invertebrates	no	no

- **Potential impacts on Moose:** none anticipated
- **Potential Impacts on Deer:** none anticipated
- **Potential impacts on Mountain Goat:** none anticipated
- **Potential impacts on Wolves:** none anticipated
- **Potential impact on other Small Mammals:** Beaver removal /displacement, dependent on methods of capture, sedation, movement protocols, relocations can cause negative impacts to beavers, including stress from sedation and capture , sedation and movement(increases in cortisol and other hormones leading to physiological and behavioral impacts), Time for re-acclimation to new location can lead to acclimation stress, disorientation stress, lack of home for period to take to rebuild dam leaves beavers open and exposed to the elements and higher levels of predation, all of these issues could result in death of individuals
- **Potential impacts to Birds/Bats:** none anticipated
- **Potential impacts to Amphibians:** Incidental losses may occur due to loss of dam structures if they have been in place for a long time as these dams provide habitat for various other species than beaver
- **Potential impacts on Fish:** Potential impacts could include creating barriers to salmon migration if beavers are relocated to streams that salmon of various species use for spawning activities, any location chosen to relocate displaced beavers to must have absolute confirmation not to have any salmon spawning activities occurring within them. Additionally, removal of dams may remove fish habitat critical for protection from predation and access to prey. Removal of dams might open closed and inaccessible spawning grounds to fish
- **Potential impacts to Marine Mammals** none anticipated
- **Potential impacts to Marine Invertebrates** none anticipated
- **Species at Risk/Invasive species:** potential for invasive species to fill ecological niche in water if present in the environment

4. Potential Impact on Habitat and Environment:

- **Potential impacts on aquatic plant species:** potential loss of aquatic algae and other aquatic plants which provide food for various species
- **Potential impacts on terrestrial plant species** none anticipated
- **Potential impacts regarding Water:** short term increase in TSS due to removal of dam and increased mobilization of sediment, which could impact aquatic species
- **Potential impacts regarding Soil Quality:** none anticipated
- **Potential impacts regarding Air Quality and Noise (related to wildlife):** short term limited in water noise from works to remove dam could have effect of scaring fish and other species

5. Potential Impacts on Sect 35(1) FSC Rights

- All species of salmon and other fish that are within this area are of great importance for Lax Kw'alaams FSC harvest, if the removal and relocation of beavers and the removal of dams is not done with the greatest care, and a salmon spawning stream or other valued

fish species is cut off, population losses can occur which can result in reductions of FSC resource availability for the Nation

- Should a new dam be constructed by a beaver in a relocation area, care should be taken to ensure that this area remains accessible for terrestrial access for plant/wildlife FSC access.
- Loss of beavers would constitute a loss of a valued resource to Lax Kw'alaams where the individual would not be available for harvest

6. Additional Concerns, Questions, Comments and Requests:

- Propose during removal of dam and exclusion barrier is put in place, aquatic animals are salvaged and placed outside of barrier at safe distance to prevent harm,
- Exclusion barrier be of a design to keep any particulate matter from the Dam and suspended sediments contained, to prevent travel within the water column and allow for components to settle before barrier is removed to prevent harm to fish and other aquatic species
- During in water works, monitor animal behaviour to ensure that noise is not causing undue stress. Specific for fish species, if possible, keep noise levels below 12 dB (this is the level at which fish can experience hearing loss and large impacts to lateral line system occur.
- For dewatering activities, please ensure that screens are placed on intakes to prevent animal entrainment and loss of life if an individual is missed or moves into the work area following salvage
- Before removal of beavers, it is imperative to ensure that nesting and juveniles are not at critical periods of development which might place them at greater risk of mortality or increase the chance that the stress of movement of the mother would cause her to abandon offspring

Katherine Butts, HBSoc., MSc., R.P. Bio

Senior Biologist, Lax Kw'alaams Fisheries & Lax Kw'alaams Business Development LP

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SENT VIA EMAIL

April 27, 2021

Ryan Stark
Manager, Decision Support
BC Oil and Gas Commission
6534 Airport Road
Fort St. John, BC V1J 2B0

Re: AMS #100112512 – Pacific Northern Gas Ltd. – Salvus to Galloway Phase Two 2021 Integrity Works Application

We write in respect of our meeting on April 23, 2021, and your letter of April 26, 2021. You advised us at our meeting that the OGC does not consider the impacts of the construction works and damage within the existing pipeline right-of-way to be within the scope of the proposed permit or the OGC's duty to consult. Rather, the consultation process to date has been only about the works outside of the right of way.

You advised us that you also believed it was beyond the OGC's authority to impose permit conditions on the proposed permit that would address issues with the damage within the right of way.

We confirm that you acknowledged that the existing right of way was granted in the 1960's and was not then the subject of consultation and accommodation which considered Lax Kw'alaams aboriginal title and rights, and therefore that within your knowledge there has never been consultation or any effort to accommodate Lax Kw'alaams since that time.

You also acknowledged that the proposed physical works – the 'integrity-dig' construction and repairs -- contemplated under this permit could have an impact on Lax Kw'alaams title and rights, which might be subject to the duty of the Crown to consult, but advised us that such

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consultation would not be the responsibility of the OGC and you suggested we should look elsewhere for another entity of the Crown.

Further, you accepted that the purpose of the proposed works subject in your view to the permit (i.e. outside of the right of way) – such as access roads, helipads and staging or work areas – is directly for the purpose of the works within the right of way, and therefore lead directly to such damage; but you nevertheless have no power to consider those parts of the project.

Lax Kw'alaams does not believe it is appropriate or reasonable to separate these issues – i.e. to ignore the most impactful parts of the project from the more narrow view of works outside of it, and to ignore the overall purpose of those narrow works.

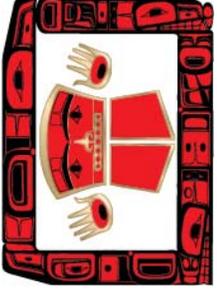
We believe that this view of consultation is overly narrow, and does not accord with the Crown's legal obligations. We also believe that it is not fair or legally correct to delegate consultation to some other (unnamed and unidentified) Crown agency, while issuing a permit for those limited works and ignoring others.

We also note that part of the purpose of this project is to enable the further project of "Reactivation and Recommissioning" that is the subject of a CPCN application that we have just been notified (two days ago) has been made to the BC Utilities Commission. We note that you do not intend to consider the impacts of that project on this application.

Accordingly, we ask that you postpone issuance of the permit while we seek a legal ruling from the courts to correct this mistaken view of scope. Alternatively, we ask that you pause your consideration of the permit application to allow whatever other entity of the Crown you propose to have the power to consult about the real impacts of this project.

Your letter of April 26 suggests that "the Commission recognizes that further dialogue between Lax Kw'alaams and the PNG may bring forward actions that could mitigate or minimize the potential impacts of these ongoing maintenance works" and presumably suggests that dialogue should happen. However, the Commission then says you are determined to issue the permit by April 30, and does not change your view that you have no authority to consider such

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“mitigation” in the permit. It does not explain how that dialogue is supposed to occur prior to your permit issuance. That is simply unworkable.

We also note your reference to the Commission’s summary of April 6. We have advised you that we wish to respond to that summary, but we need further info from the proponent as to the nature and locations of the work. We understood you to recognize that and to agree that we could respond next week or within a week of getting the additional mapping and explanations from the proponent. Your letter seems to be renegeing from that promise, which we have relied upon, and again without a satisfactory explanation.

We do not agree that the Commission is in possession of sufficient information from us to determine this application and meet your legal obligations to consult. If a permit was to be issued at this time, we would regard it as legally deficient, and our members would take action accordingly.

We are aware that PNG wishes to do this work promptly as part of their regular maintenance and safety obligations, but we also note that there is no proven urgency. Work has been scheduled under this project not just for 2021 but also in 2022 and 2023. A short delay to meet legal obligations has not been shown to be unreasonable. PNG has an obligation to schedule their applications while allowing whatever time is necessary for a proper review.

A handwritten signature in black ink, appearing to read 'Neegann Aaswaakshin, JD'. The signature is fluid and cursive, with a large initial 'N'.

Neegann Aaswaakshin, JD
Director of Lands, Resources and Stewardship

Cc: Mayor Gary Reece, Lax Kw'alaams Band
Greg McDade, Senior Legal Counsel (Lax Kw'alaams)
Carl Sampson, Chief Operating Officer, Lax Kw'alaams Business Development LP
Dean Rawson, Vice-President of Operations and Engineering, Pacific Northern Gas Ltd.

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SENT VIA EMAIL

May 7, 2021

Dean Rawson, Senior Vice President, Operations and Engineering
Pacific Northern Gas Ltd.
2550 – 1066 West Hastings Ltd.
Vancouver, BC V6E 3X2

RE: Salvus to Galloway Pipeline Works – Segment 4

Please find enclosed the Lax Kw'alaams Band's comments on outstanding technical concerns pertaining to Pacific Northern Gas' (PNG) Salvus to Galloway Upgrade Project (S2G or the Project). These comments focus on concerns with the British Columbia Oil and Gas Commission (BC OGC) application for Segment 4 of the Project, from Prudhomme Summit to Galloway (Mile Markers 349 to 361.5).

Lax Kw'alaams has submitted previous concerns and information requests pertaining to the Segment 4 application for the S2G Project. While some of these concerns and information gaps have been addressed through PNG responses and discussions with the Lax Kw'alaams biologist, substantial outstanding concerns remain. These concerns have implications for fish and wildlife of high importance to Lax Kw'alaams. Impacts to these species represent a threat to Lax Kw'alaams rights and interests, including constitutionally protected Food, Social, and Ceremonial harvesting rights under section 35 of the *Constitution Act* (1982). In the absence of a clearly defined monitoring regime and adaptive management approach that includes information sharing and collaborative decision making, Lax Kw'alaams cannot be confident that the mitigation measures will in fact produce the desired ecological and cultural outcomes.

Recommended measures described in the enclosed memo are critical to filling existing gaps in the S2G Segment 4 application. It is Lax Kw'alaam's expectation that these recommended measures will be adopted by PNG. Where PNG is considering not adopting any of these measures, Lax Kw'alaams requires written justification from PNG and additional direct consultation toward an appropriate solution. Lax Kw'alaams expects further engagement with PNG on the development of a fulsome approach for mitigating impacts to this culturally and ecologically important area within our territory, including a strong monitoring and adaptive

management approach that integrates considerations of our values associated with these areas. We look forward to meeting with PNG to engage in these critical conversations.

Respectfully,

A handwritten signature in black ink, appearing to read 'Neegann Aaswaakshin', with a stylized flourish at the end.

Neegann Aaswaakshin
Director of Lands, Resources and Stewardship
Lax Kw'alaams Band

TECHNICAL MEMORANDUM

Lax Kw'alaams comments on outstanding technical concerns with the Salvus to Galloway Upgrade Project (Segment 4)

Prepared By: Lax Kw'alaams Band with Firelight Research Inc.

Submitted To: Dean Rawson, Pacific Northern Gas Ltd.

Date: May 7, 2021

LAX KW'ALAAMS TERRITORY AND THE SALVUS TO GALLOWAY PROJECT

Lax Kw'alaams territory and valued species

The lands and waters in Lax Kw'alaams traditional territory have been a part of our members' way of life and economic wellbeing since time immemorial. The pre-contact economy of the Coast Tsimshian was based upon fishing, hunting and the harvest of plants. Situated between two of the most productive salmon spawning rivers for anadromous fish on the west coast, the Coast Tsimshian served as a hub of north coast trade and commerce. Transportation corridors, including terrestrial trail systems, rivers, lakes, and creeks, provided and continue to provide Lax Kw'alaams members with access to important fishing areas, hunting grounds, trap lines, and plant and berry collection areas across the territory.

Previous studies unrelated to the S2G Project emphasize the connection between Lax Kw'alaams identity and continued practice of land-based activities such as fishing, hunting, berry picking, medicine gathering, and trapping (e.g., Lax Kw'alaams Band 2019). Subsistence activities of the Coast Tsimshian, for example, follow a traditional seasonal round. These seasonal patterns reflect Lax Kw'alaams Band members' intimate knowledge and familiarity with the species in their territory, the productive areas for harvesting, and the seasonality of the environment. It is apparent from past data collected with Lax Kw'alaams members that the community uses and continues to value terrestrial and aquatic environments across their traditional territory.

In Lax Kw'alaams, impacts on traditional land use sites and access do not happen in isolation – they are cumulative across time and space. As a result, the sum of impacts from individual project components must be evaluated together, and in consideration of other projects on the landscape (including those that exist in the past, present and future). Lax Kw'alaams is concerned that the combined effects of development over time, including the construction of accesses, clearing of Right-of-Ways (ROWs), and impacts of anthropogenic noise, will have adverse cumulative effects over a substantial portion of the territory. The potential impacts of this Project have not been adequately characterized, and without the adequate assessment and mitigation of impacts across projects, serious impacts to Lax Kw'alaams rights and interests are inevitable.

The Salvus to Galloway Project: Segment 4

Pacific Northern Gas (PNG) is proposing to conduct infrastructure upgrades to repair and replace sections along an 80-kilometer segment of the Western Transmission gas line between the Salvus maintenance yard and the Galloway pressure regulation station. The S2G Project runs through a remote mountainous region of Highway 16 West and south of Work Channel. The construction phase of the Project is projected to extend over 3 years, with Phase 1 construction already underway. Phase 2 of the project includes upgrades and repair to Segment 4 of the S2G gas line, which passes through the heart of Lax Kw'alaams territory.

Segment 4 of the S2G project extends from Prudhomme Summit and follows Prudhomme Creek to the north side of Prudhomme Lake. The pipeline crosses and follows the south side of the Kloiya River before returning to Highway 16 at the Galloways Substation. Within this area, Segment 4 overlaps with important fishing and moose harvesting areas, as well as berry picking and plant harvesting sites for Lax Kw'alaams members. Important habitat occurs in this area for valued species, including salmon, wudzii (moose, *Alces alces*), sts'ool (beaver, *Castor canadensis*), t'u'utsgm ol (black bear, *Ursus americanus*), midiik (grizzly bear, *Ursus arctos*), as well as food and medicinal plants. These species are integral to the maintenance of Lax Kw'alaams culture and way of life, including Food, Social, and Ceremonial (FSC) harvesting rights under section 35 of the *Constitution Act* (1982).

Lax Kw'alaams has submitted numerous concerns and information requests pertaining to the S2G Project application for Segment 4, as well as recommended mitigations. While some of these concerns have been addressed through information provided by PNG and discussions with the Lax Kw'alaams biologist, there remains substantial outstanding concerns. This technical memorandum focuses on key outstanding concerns pertaining to fish, wildlife, and access management, as well as the lack of meaningful Indigenous engagement on these topics in the consultation process to date. Lax Kw'alaams reserves the right to identify additional information requests and concerns as the Project progresses.

OUTSTANDING TECHNICAL CONCERNS

Impacts to fish, fish habitat, and fishing

PNG's summary of potential project impacts to fish and fishing practices within Segment 4 is severely limited by a lack of fish sampling surveys and the absence of a traditional use study for the project area. Fish habitat assessments documented in the Environmental Overview Assessment for Phase 1, for example, did not include fish sampling (Pacific Northern Gas Ltd. 2020). PNG's evaluation of fish community structure, presence, and distribution appears to have been instead based on desktop review and the results of opportunistic observations made during other field surveys. These information gaps are exacerbated by the lack of a Traditional Land and Resource Use Study for the project, which would have provided information on Lax Kw'alaams knowledge of fish distribution and species composition, as well as important fishing sites within the study area.

Despite these limitations, the results of desktop review demonstrate the importance of locations in the study area for salmon and other fish species. Prudhomme Lake, for example, provides well documented habitat for Chinook, coho and sockeye salmon, cutthroat trout,

rainbow trout and dolly varden. Similarly, important spawning habitat for Chinook and coho has been documented upstream of the lake, in Prudhomme Creek (Pacific Northern Gas Ltd. 2020). Spawning salmon were also noted where the pipeline crosses the Kloiya River during 2019 field studies, and spawning pink and chum salmon as well as steelhead have been historically observed in this location (Pacific Northern Gas Ltd. 2020).

Work Channel, Morse Basin, Kloiya Bay, and Prudhomme are highly important salmon bearing water systems for Lax Kw'alaams FSC requirements. The presence of Lax Kw'alaams fishing sites documented in traditional land and resource use studies for unrelated projects emphasize the importance of lakes, rivers, and streams in the Segment 4 study area for valued fish species, including salmon. The presence and importance of these fishing sites has been raised in previous comments submitted by Lax Kw'alaams. Lax Kw'alaams has expressed substantial concerns that Segment 4 of the S2G Project will result in cumulative impacts to fish, fish habitat, and traditional fishing practices. Any impact to these populations represents a significant adverse effect and must not be permitted to proceed until adequate mitigation measures have been developed.

The Segment 4 application includes 108 stream crossings, with potential to create acute physical and water quality impacts affecting salmon and other fish species. Many of these crossings overlap the same streams repeatedly. The unnamed stream ID# PD-356, for example, is crossed 15 times. This can have cumulative effects related to sedimentation and increases in total suspended solids, which may be compounded by erosion and run-off from adjacent upland accesses and worksites, as well as increased sedimentation from beaver dam removal activities associated with the Project. Sedimentation effects to fish include behavioural effects (e.g., alarm, abandonment of cover and avoidance), sublethal effects (e.g., physiological stress, habitat degradation, and reduced feeding success), and lethal or para-lethal effects (e.g., reduced growth, delayed hatching, and increased predation) (Levy 2009). Behavioural effects during migration or spawning are particularly important for adult spawners, while impacts to prey availability or physiology may be of greater significance for juvenile fish (Levy 2009). Direct mortality from the accidental destruction of juveniles, fry, and eggs during stream crossings or beaver dam removals pose yet another threat to fish in these important water systems.

Lax Kw'alaams has also expressed concern with the levels of noise that will be generated by proposed project activities in the vicinity of fish bearing streams. These activities involve the movement and operation of heavy machinery along new and existing access routes (including the 108 stream crossings), at beaver dam removal sites (eight locations), as well as at workspaces and dig sites in the vicinity of freshwater habitats. Helicopter overflights for shuttling crews, construction materials, and fuel to remote locations represent another source of anthropogenic noise associated with the proposed activities in Segment 4 of the S2G Project. Sound is an important sensory stimulus for fish, and increased levels of anthropogenic noise can have an array of well documented impacts to fish physiology (e.g., increased stress levels and hearing impairment) and fish behaviour (e.g., reduced foraging efficiency and antipredator responses) (Mickle and Higgs 2018; Cox et al. 2018). Terrestrial sources of sound, such as road traffic noise, can propagate a long distance into freshwater streams. Traffic noise from a bridge, for example, can reportedly disrupt the natural soundscape of a stream up 12,000 m away (Holt and Johnston 2015). Laboratory studies examining the effects of road traffic noise on *Cyprinella venusta*, a freshwater fish, documented an elevation in *C. venusta* cortisol levels during acute traffic noise exposure (Crovo et al. 2015). Auditory shifts were also

documented in *C. venusta*, suggesting possible damage to sensory hair cells from traffic noise exposure (Crovo et al. 2015). While some fish have the opportunity to avoid anthropogenic noise, the movement of fishes in small streams may be restricted.

These concerns are exacerbated by the timing of proposed project activities, which the Proponent claims will be scheduled around windows of least risk. Stream-dwelling salmonids such as coho, Chinook, and steelhead, however, are present throughout the year. During the windows of least risk identified by the Proponent, salmon eggs develop into fry and juvenile salmon begin their outmigration from natal streams. This is a key and fundamentally important time for these species. Furthermore, the windows of least risk identified by PNG overlap with important salmon harvesting periods (June through October) in the Coast Tsimshian's seasonal round (Lax Kw'alaams Band 2019). Development activities within Lax Kw'alaams territory must consider not only resource harvesting locations, but also seasonal importance, to mitigate impacts to important species and associated cultural practices over the course of a seasonal round.

Given the timing of proposed activities, S2G Project activities in Segment 4 have the potential to prevent or deter Lax Kw'alaams membership from accessing and utilizing traditional fishing sites, important to the maintenance of FSC rights. Where activities occur outside of the Lax Kw'alaams' harvest period, impacts to juvenile fish may create longer term effects that are felt by Lax Kw'alaams harvesters in the years to come. While the Proponent claims that project-related impacts to fish will be mitigated by best management practices and site-specific strategies, detailed information on these measures has not been shared with Lax Kw'alaams for review or comment.

Outstanding information and mitigation requests:

- PNG to develop a detailed management plan for fish and fish habitat in collaboration with Lax Kw'alaams. This management plan must address impacts to Lax Kw'alaams access and FSC harvesting rights, including potential adverse effects to adult and juvenile fish. The management plan should include timing windows for work activities identified with Lax Kw'alaams, as well as monitoring based on Lax Kw'alaams knowledge. Thresholds should be established, with clear actions to be taken if these thresholds are exceeded, including the potential to stop work.
- PNG to share site-specific strategies for the mitigation of project impacts to fish and fish habitat for Lax Kw'alaams' review or comment
- PNG to provide a commitment that the management plan and site-specific strategies will be developed prior to permitting, so that this valued resource is protected to the highest level possible.

Impacts to wildlife

Activities included in the Segment 4 S2G application have an array of potential short-term and long-term impacts to important forested habitat, where Lax Kw'alaams community members hunt and trap. Segment 4, for example, is located within a key traditional harvest area for moose and deer, important to the maintenance of FSC rights. In addition to the potential for short-term displacement of wildlife and Lax Kw'alaams harvesters during project activities, due to noise and human presence, clearing activities (associated with new and existing accesses, workspaces, and helicopter pads) represent a long-term alteration of forested habitat. Linear

features, in particular, have well-documented effects on culturally important species, such as moose, including increased hunting and predation pressure (GOABC 2016; Beazley et al. 2004; Davis 2012). These features also have a disproportionately large and persistent fragmentation impact, given their higher edge to area ratios (Ficken, Cobbaert, and Rooney 2019). The proposed removal of beaver dams within Segment 4 of the S2G Project area stands to further alter the distribution and availability of wetland habitat, as well as access to traditional harvesting sites important for the maintenance of FSC rights. Despite previous requests by Lax Kw'alaams, the Proponent has not committed to pre-work inspections to check for moose or deer in the area before commencing works.

Segment 4 of the S2G Project also overlaps with habitat for several wildlife species of conservation concern, protected under the federal *Species At Risk Act* (SARA 2002). These include Northern Goshawk (Threatened), Marbled Murrelet (Threatened), and northern myotis (Endangered), among others. Clearing of old growth forest in Segment 4 will reduce nesting habitat for Northern Goshawk, which rely on nest areas of 5-15 ha in size, containing more old forest, higher canopy cover, fewer large openings, and less forest edge than random sites of similar size (COSEWIC 2013). Critical habitat polygons for Marbled Murrelet have also been identified throughout the Project area (Pacific Northern Gas Ltd. 2020). While no new access creation or workspace clearing is proposed within these polygons, some activities (e.g., digs 66-69) are located immediately adjacent. Furthermore, approximately 260 m of existing RoW occurs within the critical habitat polygons between MP 349 and 350, which may be subject to brushing. Given the conservation status of these species, any further impacts to these at-risk populations are unacceptable. Previous responses from the Proponent have lacked information on specific mitigations for species at risk. Such information must be shared with Lax Kw'alaams for review and comment prior to the issuance of a permit. Lax Kw'alaams requests that they be notified in the event of the discovery of a raptor nest, including consultation and engagement should the nest need to be removed.

Potential residual effects are predicted for grizzly bear (listed as Special Concern under Schedule 1 of SARA), given that the displacement of individuals from areas of important food resources may have local population effects. These areas include avalanche tracks near Prudhomme Summit, and important fishing sites for grizzly bears near Lachmach River, Fortune Creek, and Kloiya River. The Proponent claims these impacts will be addressed through pre-work surveys and site-specific mitigations, for which the specifics have not been provided. Lax Kw'alaams requires more information on the proposed mitigation measures for bears, including the size of exclusion zones for denning animals, and details on how the impacts of human presence will be mitigated for foraging bears. Lax Kw'alaams requests a clear commitment from the Proponent to time project activities around the least risk period for foraging bears.

To better understand potential project-related impacts to wildlife, including moose, bears, and species at-risk, Lax Kw'alaams requires additional information on the presence and distribution of these species within the Segment 4 study area, including habitat features such as denning/nesting sites, foraging areas, and mineral licks. Lax Kw'alaams has previously requested pre-work inspections to document the presence of moose and deer to inform the development of exclusion zones. Lax Kw'alaams has also requested additional information on the locations of observed raptor nests, as well as exclusion zones for bear denning sites. These requests remain unaddressed by the Proponent.

Outstanding information and mitigation requests:

- PNG to work with Lax Kw'alaams to identify appropriate beaver relocation sites and monitor the construction of new beaver dams in relocation areas to ensure that these remain accessible for FSC harvesting.
- PNG to work with Lax Kw'alaams to develop pre-work wildlife inspection plans and construction monitoring plans for moose and deer.
- PNG to provide detailed information on the mitigation strategies for bears and species at risk, for Lax Kw'alaams review or comment.
- PNG to notify Lax Kw'alaams in the event of a raptor nest discovery, including information on the location of the nest and project-related activities in the vicinity of the nest. In the event that a nest needs to be removed, the Lax Kw'alaams biologist would like to have a dialog with the Proponent prior to any action.
- PNG to provide a commitment to time project activities around the least risk period for foraging bears.

Access Management

Access is a major component of the proposed S2G upgrade project, given the remote locations of the dig sites. The Segment 4 application includes the creation of 13 new accesses, brushing of existing access routes, and the installation of a permanent bridge across the Kloiya River. These activities will significantly improve access to highly remote areas, including to the backside of Prudhomme Lake. The Kloiya River bridge will create significantly greater access to the Prudhomme Summit, where the construction of a shoo-fly road is proposed (Pacific Northern Gas Ltd. 2020). Once connected to this road, it will provide a continuous linear traverse between the Prudhomme and Lachmach areas. Increased access to fishing, harvesting, and gathering sites may have a variety of implications for the maintenance of Lax Kw'alaams rights and interests. For example, it may increase access for non-Indigenous fishers, hunters, and berry pickers, resulting in greater pressure on local resources and increased competition. Furthermore, access routes and increased presence of non-Indigenous harvesters may contribute to land alienation, displacing Lax Kw'alaams membership from traditional harvesting areas.

Mitigating these impacts requires strong wildlife management protocols that prohibit project workers from engaging in fishing, hunting, or other harvesting activities. Creative access management plans will be required to maintain access for Lax Kw'alaams harvesters, while preventing access by non-Indigenous fishers. Further consultation with Lax Kw'alaams is recommended on this topic.

Outstanding information and mitigation requests:

- PNG to work with Lax Kw'alaams on the development of wildlife protocols and access management measures that will promote the continuity of FSC harvesting practices, while mitigating resource competition and alienation as a result of increased land use by non-Indigenous harvesters.

Indigenous Engagement

Lax Kw'alaams engagement and participation to date has been severely limited by a lack of timely information sharing. For example, the Lax Kw'alaams biologist has previously noted that the Construction Environmental Management Plan (CEMP) for Phase 1 of the S2G Project was not provided for Lax Kw'alaams review and comment until after permitting concluded and works had begun. The Lax Kw'alaams biologist has indicated that comments were provided on the CEMP for Phase 1 but responses from PNG on this matter have not yet been received. An updated plan has been requested by Lax Kw'alaams but has not yet been provided. Similarly, Lax Kw'alaams has previously requested additional information on the species composition and abundance data documented during field assessments, including complete methodological procedures. This information, however, has yet to be shared and these issues remain unresolved.

Lax Kw'alaams has also requested more information on the permitting process for project activities in Segment 4, including the date that each permit is approved. Lax Kw'alaams has requested a commitment from the Proponent that project works will not be initiated until the permitting process is complete. Given the potential impacts to FSC rights, Project works must be implemented with extreme care and should occur under the supervision of Lax Kw'alaams biologists and specialists in traditional use and harvesting practices. Previous requests for such involvement in the monitoring of Project activities remain unaddressed by the Proponent.

Application materials submitted by PNG include no clear role for Lax Kw'alaams in the development of mitigation strategies, monitoring of project activities and effectiveness of mitigation measures, or the development and implementation of adaptive management decisions. Lax Kw'alaams has requested ongoing information sharing and involvement in wildlife management decisions, such as notification in the event of a raptor nest discovery, including details on nest location, activities occurring in the area, and involvement in nest removal decisions. Lax Kw'alaams requests meaningful engagement in the development of mitigation measures, monitoring, and adaptive management decisions throughout the lifetime of the project.

Outstanding information and mitigation requests:

- PNG to provide information sharing commitments, including ongoing updates on the documentation of fish and wildlife observations in the study area, and proposed changes to environmental management plans.
- PNG to provide regular updates on the permitting process, including the dates on which permits are approved, and a commitment that Project works will not begin until the permitting process is complete.
- PNG to provide Lax Kw'alaams the time and resources necessary to collaboratively develop monitoring and adaptive management plans that support the retention and regaining of ecological and cultural function of lands and aquatic habitat in Segment 4 of the S2G Project. These plans must involve Lax Kw'alaams biologists and specialists in traditional use and harvest practices in the supervision of project activities to support the protection and preservation of biological and FSC values.

We note that key issues we flag in this memorandum are not the full extent of Lax Kw'alaams' outstanding concerns with the proposed Project. Lax Kw'alaams reserves the right to identify

additional concerns and information requirements as the plans are developed and finalized and looks forward to PNG increasing the level of engagement with us toward accomplishing these tasks.

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