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Dear CEAA

The United Fishermen and Allied Workers' Union-Unifor represents organized commercial salmon and herring fishermen in B.C. There are over 630 gillnet license holders, 105 seine licenses and 250 troll license holders who are eligible to harvest fish originating from the Skeena watershed or who migrate, live or feed in the Skeena estuary area.

The Union is quite dismayed to find that neither PNW LNG nor CEAA have considered the impacts of the LNG terminal on commercial fishing.

DFO north coast managers comments have not been recorded regarding impacts on salmon or herring fisheries and we cannot find that they were even consulted.

**Fisheries Impacts:** Fisheries impacts are different than the "impact on fish".

Fish productivity is different for each species and within each species productivity varies over individual stocks. Fisheries management must take into consideration the differing productivities and stock status of different salmon stocks in order to develop a fishing plan. For instance, a stock which has a spawning abundance above MSY and is a highly productive stock can co-migrate with a salmon stock which has low abundance and low productivity. DFO's present management regime is to harvest the abundant stocks at levels lower than they can support in order to maintain or increase the numbers of the stock of lower abundance/productivity.

On the Skeena, the commercial harvest rate for Skeena sockeye mixed stock fisheries is restricted in order to protect and rebuild numerous wild salmon stocks. For instance, we do not harvest sockeye in the first two weeks of July in order to protect Lakelse and Morice/Nanika bound sockeye. These are two low abundance wild Skeena sockeye stocks that are identified as conservation concerns. Prior to identification of these stocks as conservation concerns, our Skeena sockeye fisheries began in the last two weeks of June and we fished through the first two weeks of July.

#### **Figure 5-4 - Overview of Skeena Sockeye Salmon**

The Skeena River is the second largest producer of sockeye in B.C. The largest producers of sockeye salmon in the Skeena system are the enhanced runs to the Babine Lake tributary spawning channels at Fulton River and Pinkut Creek.

Sockeye from various streams and lake systems migrate up the Skeena from June through August. Wild stocks are generally less productive and therefore cannot withstand the same exploitation rate as the enhanced Babine stocks of Pinkut Creek and Fulton River. While there are a number of wild stocks of concern, current IFMP discussions have concentrated on three wild sockeye stocks, the Morice/Nanika-Morice, Kitwanga and Babine River. The Morice/Nanika-Morice sockeye peak through the fishing area in early July (early timing), and the Kitwanga and Babine River sockeye stocks peak through the fishing area in late July and early August.

***Measures have been taken to reduce fishery impacts on Skeena River chum, steelhead, and wild sockeye stocks. These measures include non-retention of some species, gear and fishing modifications, and specific timing closures or sockeye harvest rate reductions when weak stocks are present. (our emphasis)***

2016/2017 Draft Salmon Integrated Fisheries Management Plan Northern BC. Page 223 of 335

Kitwanga and Babine River sockeye are also stocks of concern and our fishery is limited even during the peak weeks of the aggregate sockeye return to the Babine Spawning Channels to protect these wild sockeye stocks.

All Skeena chum stocks have been identified by DFO to be well below desired escapement numbers and our Skeena sockeye and pink fisheries in August are limited by Chum impacts.

DFO has rebuilding plans for Lakelse sockeye, Morice/Nanika sockeye, Kitwanga sockeye, and Skeena chum. The rebuilding plans for Lakelse sockeye and Kitwanga sockeye have been partially successful. They have included some habitat restoration and hatchery components, but the major rebuilding contribution has been made through fisheries cuts. However, even with fisheries impact reductions extending over 12 years and with fresh water habitat restoration, Lakelse and Kitwanga sockeye are considered to remain stocks of concern and the commercial fishery has not been allowed to increase its fishery when these stocks are in the fisheries areas.

#### **North Coast IFMP APPENDIX 8: SKEENA CHUM DRAFT REBUILDING PLAN**

##### **Current Management Actions**

The objective of the Skeena chum rebuilding plan is to: “rebuild Skeena chum and improve Skeena chum stock status”.

***The Canadian Area 4 fishery is currently managed to significantly reduce Skeena chum Canadian exploitation rates from historical levels, as a measure to rebuild Skeena chum stocks.***

The harvest reductions have been achieved, with recent Canadian exploitation rates averaging well below 10% (Figure 1). The rebuilding plan for the immediate future is to keep the Canadian average exploitation rates below 10%. ***(our emphasis)***

Morice/Nanika sockeye and Skeena chum are not rebuilding even though the Canadian harvest impacts are at less than 10%. There are no fresh water habitat restoration projects for these stocks and DFO apparently does not consider fresh water habitat the major cause for either the decline or failure to rebuild. Fisheries impacts are at levels far below what is necessary for the stocks to rebuild.

First Nations’ stock ID show that all these stocks have juveniles feeding in the Project area.

As these stocks are not responding to fisheries cuts, North Coast Fisheries and Oceans Stock Assessment staff report that ocean productivity seems to be the problem. Because DFO cannot pinpoint what has driven these stocks down and so cannot remediate the problem, they rely on fishery reductions to protect the stocks of concern.

The UFAWU has heard, over the years, that it was near-shore productivity changes that are driving stocks down or it was the 'blob' or the de-oxygenated 'zone of death' in the North Pacific Ocean, or the latest – the Dixon Entrance demarcation line between the California and Alaska currents.

Our point is that

- Science can't seem to tell us what is the matter,
- No one knows if it is the near-shore, Dixon Entrance, or the North Pacific influences,
- Therefore, our commercial fisheries are the only thing under DFO's control and so our fisheries are cut back or completely stopped.

The socio-economic impacts of fisheries failures and reductions on industry members and our communities are well documented in studies sponsored by Fisheries and Oceans Canada and in a whole body of independent findings published in social science Journals.

### **PNW LNG fishery impacts**

The impacts of the PNW LNG on fisheries have not been calculated.

If impacts are only on one sockeye stock of concern, causing a "insignificant" 5% decrease in return, the result to the commercial fishery could be a further fishery reduction, impacting the potential harvest of hundreds of thousands of co-migrating sockeye from productive systems. Even if a stock of concern is impacted equally to the productive stocks so that one juvenile year class is reduced on all sockeye stocks equally, there will likely be disparate results. The productive runs could rebound in one sockeye cycle year, but as we have seen, the depressed stocks are not rebuilding, and would likely be additionally depressed, the outcome being a further fisheries reduction on the productive runs.

The Union fails to see how the Project impacts on fish will be correlated to impacts on fisheries. There are no longstanding baseline data on juvenile densities on Flora or Agnew Banks. There are no reliable numerical counts – PNW LNG and First Nations' counts are very different and not comprehensive in time or area. There is no approved model to extrapolate counts to total density.

There is no baseline on juvenile salmon 'health' or 'condition' upon arrival or leaving the Flora/Agnew Bank area over a sufficient time series to have value, so no determination can be made on the Project's impact on the condition of juveniles after the Project goes ahead.

What we do know, is that juvenile Skeena chum salmon are found in large numbers on Flora Banks and any negative impacts on these juveniles, whether through direct mortality or indirect mortalities due to insufficient or less caloric feed, will reduce the number of returning adults, and reduce our fisheries on co-migrating pinks and sockeye even further.

Under Section 6 of the *Fisheries Act*, the Minister of Fisheries and Oceans must take into account the following factors in reviewing the application for an authorization:

- the contribution of the relevant fish to the ongoing productivity of commercial, recreational or Aboriginal fisheries;
- fisheries management objectives;
- whether there are measures and standards to avoid, mitigate or offset *serious harm to fish* that are part of a commercial, recreational or Aboriginal fishery, or that support such a fishery; and
- the public interest.

**Fisheries Productivity Investment Policy: A Proponent's Guide to Offsetting November 2013 Page 6**

How does PNW LNG (or CEEA) suggest that any impacts on commercial fisheries be determined if

- There is no juvenile salmon baseline data for Flora/Agnew Banks and the data that exists is insufficient and is over an insufficient time period
- There is no approved model to determine density
- There is no recommendation on how to determine any Project impact on juveniles, but if it was calculated, there is no model to determine the resultant impacts on adult returns

How is the Project going to calculate the impacts on commercial fisheries?

### **Mitigation/offsetting:**

DFO's **Fisheries Productivity Investment Policy: A Proponent's Guide** says that

Proponents are responsible for implementing offsetting plans and monitoring their effectiveness, as well as for reporting on implementation and the results of monitoring. Monitoring must be designed to confirm that the offsetting measures have been effective in counterbalancing the *serious harm to fish* and may identify the need for contingency measures should deficiencies be found.

How does PNW LNG or CEEA propose that the monitoring be designed to confirm that offsetting measures have been effective?

How are the results of any mitigation-offsetting going to be measured? By juvenile density? By juvenile salmon health? By fishery success?.

How much mitigation-offsetting will be necessary so that fisheries will be 'made whole' or not negatively impacted?

### **Monitoring:**

The CEEA report is not clear on the purposes for monitoring. If, for example, part of Flora Bank disintegrates, how is the impact on fish to be measured? Which species or stocks are impacted? Differentially or the same? What would the impacts be on the fishery?

As far as we can understand, without sufficient baseline data on how juvenile salmon used Flora/Agnew Banks – numbers, growth, health, monitoring can only show what happens post-Project if the baseline data is that ongoing data collected after construction starts.

Salmon runs are not the same every year so it is not clear in any report how the Project impacts are to be separated from the non-Project impacts.

If negative impacts are found on habitat, through monitoring, how does this get translated to impacts on juvenile fish and then impacts on fisheries?

### **What are the risks for the commercial fishery?**

For all the reasons above, the prime risk is that we will never be able to ascertain the impacts of the Project on the fishery. It will just be one more affect that will go under the category of poor Ocean productivity.

There is no proposal on how to compensate the fishery if we could show that we are impacted.

### **Conclusion:**

- 1) CEAA did not refer the issue of the fishery for comment to North Coast Fisheries Managers.
- 2) There is no reliable or sufficient baseline data over a sufficient time period to determine juvenile use or juvenile health (condition) of salmon or herring migrating through the project area.
- 3) There is no methodology to determine if the Banks become less productive and there is no data on the impacts of lower productivity of Flora/Agnew Banks on the health of Juvenile salmonids or herring.
- 4) There is no suggested method to determine responsibility for negative impacts on fisheries.
- 5) There is no method to determine compensation nor any requirement for compensation

We trust that CEAA will review its DRAFT ENVIRONMENTAL ASSESSMENT REPORT and determine that the impact on fisheries has not been assessed.

Thank you for your consideration.

Respectfully,

Joy Thorkelson  
Northern Representative