

October 25, 2012

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Re: Narrows Inlet Hydro

I wish to be on record as opposed to the Narrows Inlet Hydro project.

The purpose of this second public meeting was to provide responses to questions raised at the time of the 2008 EAO meetings and to prove net benefit to BC citizens without substantial environmental risk. This has not been done. The proponent's responses have not alleviated initial concerns voiced in my submission dated Jan 22, 2009. In fact my concerns are elevated. The proponent's report has used the words "**negative in direction**" many times, most of which refer to impact on the Ramona component. They are correct.

Garry Alexander of the EAO definitively stated no decision has been contemplated. This despite the fact BC Hydro has already issued an Energy Purchase Agreement. I submit it is unlikely the proponent would have spent such a large amount of money on this most recent presentation without a reasonable expectation of success. To my knowledge EAO has only disallowed 1 of 75 applications that have had EPA agreements. It is clear the majority of the electorate is opposed to this project. Considering the less than open decisions made on so many other very prominent issues recently, Mr. Alexander and Minister Thomson have a challenge to restore confidence this provincial government.

All quotes in red are direct from the proponent. All points I raise can be backed up by supporting documents. The EAO reviewers of this file are bound to examine all points mentioned as "socio-economic" is part of their mandate.

NEED FOR THIS PROJECT

The thousands of pages submitted for this report clearly demonstrates it is very complex and requires extra-ordinary justification. Extra-ordinary need for this project has not been shown. This year BC Hydro was forced to buy from IPP's at higher than market prices even though its own reservoirs were overflowing, a cycle sure to repeat. There is no correlation between production of electricity in Narrows Inlet and direct reduction in use of fossil fuel generated electricity in our market area. There is no explanation of the actual physical sources of the 15,000,000 tons of GHG purported to be eliminated if this project were to go ahead. The figure is suspect and requires review. The proponent states "Many watersheds were not included in the assessment, as they were already permitted or in application for hydroelectric development". I submit Narrows Inlet and the Ramona component were the last resort in finding a vehicle to generate profit for a group of investors. That is the only need. There is no monetary benefit to the average BC resident; in fact it is burdening BC Hydro with unmanageable long term debt. The figures for actual reduction in GHG emissions are unsubstantiated.

The section "Alternate Means of Producing Energy" does not mention the single most important alternative....conservation..... obviously not a priority for a profit motivated venture.

PRECEDENCE

The proponents had a chance to prove their design, construction and operating expertise with the Tyson Lake project. They were admonished for not following best practices in construction and ultimately had a major sediment flush incident. Such an event was predicted 1 1/2 years earlier in my public comments of Jan 22, 2009 on the EAO website. We cannot wait for three strikes you're out. The acknowledged environmental risks grow exponentially if something goes wrong with this project. The Ramona component is of particular concern as there is a community directly below, it is not an exaggeration to say human lives put at risk.

PUBLIC INPUT

This has gone backwards. The public meeting was called very shortly after several thousand pages were submitted by the proponent. It is not a reasonable amount of time for diligent third party review. "I extend the time limit specified in section 2 of the Prescribed Time Limits Regulation B.C. Reg. 372/2002 by 12 days". The proponent was granted a 12 day extension (not a good reflection on their organizational skills), but the public was only granted 7 days extra (even though the public had no advance warning of the submission). There are many more negative issues than formally presented in my submission....."negative in direction" if you will. The public meetings were still held in venues hard to get to for most BC residents. The public question and answer period was eliminated. This was a major change in procedure from the format in place at the time of initial application. The perception is growing negative public opinion needed to be suppressed. The challenge will be for Mr. Alexander and Minister Thomson to cultivate confidence this government has not reached a pre-determined decision.

DECEPTION AND LACK OF RESPECT

This project is still touted as “Run of River”. This is not true. Tunnels are being bored into 2 lakes and Ramona Lake is being drained by 45m, an even greater amount than original 20m planned. Only one component is “Run of River”. The general public is still under the impression this is a small run-of river project. This limits the number of negative responses submitted to the EAO.

This company did not inform authorities of a severe lake drawdown event at their Tyson project. When it was discovered by Water Stewardship, it was shut down until the situation was remedied. One month later they started it back up without permission. The same problem with a silt dump occurred again. If members of the public had not been at the head of Narrows Inlet to notice this second extreme glacial silt event, the proponents would have kept operating illegally. Regardless of the design fault that created the problem, integrity of the proponent is in question by not acting responsibly.

Without the first round of public opposition (before the Tyson event), Ramona would still be drained by tunnelling rather than a floating pump station. This company will only make changes that reduce profitability if forced to do so. We have no reason to believe what we are being told in this submission is the full story. This is evidenced by comments such as this by the proponent.....” **Dan asked that information around these kinds of drops and scenarios be kept confidential”.**

The original ecological consulting that resulted in this project advancing to this stage was performed by Dan Soprovich, brother of one of the proponents.

The CEAA website states that action was in process under Section 35(2) of the Federal Fisheries Act against the proponents for their Tyson Lake drawdown incident. The only reason action halted was because Federal legislation disbanded the CEAA as well as eliminating DFO oversight of fisheries habitat.

There have been issues relating to fair and equitable payment of contractors by the proponent. “Generous Electric Ltd. v. 0726981 B.C. Ltd. and Tyson Creek Hydro Corp” is one example.

As property owners directly adjacent to the Lower Ramona powerhouse, we were not contacted in any way at all before this proposal had already reached the first EAO public meeting stage. Our properties were not even shown on the officially submitted maps. This shows arrogance and lack of respect for stakeholders unless forced to do so. How are we to believe best practices will be followed in order to protect people they pretended were not there? There is zero room for shortcutting with construction on slopes between 50% and vertical directly above the Ramona community.

“However, the Lower Ramona Creek component will have a substantial negative effect on the quality of experience for recreational property users at Ramona Creek, a sub-set of the recreational property user group. Project activities are likely to have an effect on this group that would lead to adverse relocation or behavioral change. That is, a substantial proportion of the sub-user group is likely to sell their recreational property or visit their recreational property less often, as a result of Project activities.

This effect however is considered 'not significant' as it affects only a sub-set of the recreational property user group." The recreational property users are not a subset of the user group. All values and concerns are shared equally by the entire user group. It is of the utmost disrespect to all users of the inlet to expect us to change our behaviour in order to accept the policies of this government.

Approval of the project in its present form will re-inforce the present mood of the public....this government views the electorate as insignificant and in need of behavioral change.

The independent power industry association has adopted a new name "Clean Energy BC". This leads people of reasonable intelligence to assume they are an arm of the provincial government. The EAO staff at the Sechelt meeting were surprised to hear this was formerly the "Independent Power Producers of BC"....known commonly as IPPBC. Mr. Alexander and Minister Thomson have a challenge to dispel the perception Clean Energy BC is an arm of the provincial government.

Kathy Eichenberger was the initial EAO representative in charge. Ms. Eichenberger was dispatched to address the Californian senate and espouse on the benefits of BC's "Run of River" projects. This is a direct conflict of interest as the EAO is mandated to be a neutral examining body. Mr. Alexander and Minister Thomson have a challenge to restore public confidence in the integrity of the present government.

TOURISM AND VISUALS

The consultant's mandate was limited to evaluate tourism value based on commercial enterprises....yet in their own words "It should be emphasized that 'recreation', although defined as a non-profit activity, provides economic benefits to the local economy." These benefits were not quantified even though they represent a significant dollar figure. They go on to say "The potential for commercial tourism development is high". Narrows Inlet is unique and a much sought after destination over industrialized Salmon Inlet. The impact of the Ramona component alone will negate that draw by way of reducing the quality of experience. We are talking about the people of BC's front yard here.

"Cumulative effects of roads and powerlines is high". Defining wilderness value as "moderate" is not correct and in itself shows slanting of the report. Forestry cut blocks are not very visible from the water as reported; they have already been replanted and soon will be indistinguishable. Any suggestion otherwise is disrespectful to the logging companies. This means much less than 10% of viewscape is presently affected; by definition the wilderness value is high. The upper Ramona component with the penstock, associated dam, powerlines and powerhouses becomes a prominent feature of the landscape, yet are shown as unimportant in the summary tables. The consultants have erred by not taking into account the amount of time boaters will be looking at these features while travelling up the Inlet. Depending on mode of transport, visitors will be fixated on the dam and penstock between 30min and 2 hours. The lower Ramona component severely impacts the visual of the waterfall. Not only is there a wide clearcut paralleling the waterfall that is extremely visible from the Inlet, approximately 20% of the flow is diverted from view. "The residual effect of reduced aesthetic quality of the landscape during the construction phase is negative and occurs on a disturbed

landscape (Ramona)". The present landscape is not disturbed, what are they referring to? The remark "The residual effect is localized to the Ramona Creek area, and is long term and continuous as permanent structures would exist on the landscape throughout the operations phase" is an example of how our concerns are indeed validated.

"Marine-based recreation boats in Narrows Inlet (estimated at 510 boats per year, the majority of which likely do not reach the head of Narrows Inlet);". This is not correct; every boater who goes through Tzoonie Narrows into Narrows Inlet proper makes a point of going to the head of the Inlet. The waterfall is a major attraction, as is overnight mooring at the mouth of the Tzoonie. The Ramona component is in plain view from this location.

"At the 10% mean annual discharge threshold, the Ramona Falls visual appearance is still within its natural variation of flow, but will most likely lack the splendor of the falls if viewed during the summer and fall months." There is no reason to give up the splendor of Narrows Inlet to satisfy private profit motives.

"Construction traffic at Lower Ramona (April 2015 to November 2016) is projected to be: 1118 air trips, 1348 marine trips, and 3538 road trips". This statement is self explanatory, many years of recreational and commercial logging use do not begin to approach this traffic level...and this is for one component only! A major disruption to enjoyment, major wake safety issue for kayakers, and a major wake damage issue for shoreline and docks. Referring to the Tyson project, the wake from crew boats travelling in groups down the middle of the inlet was intolerable...enough to knock coffee cups from the cupboards of 42,000 pound ex West Coast trollers while tied to our dock.

There has been no mention of the effect of sun reflection on penstocks and powerlines. Times of sunrise and sunset are most enjoyable for recreational users as the Inlet is mirror-like in calmness. The visuals of sunlight reflecting of man-made structures will be most disturbing. This is a wilderness area.

The length of new powerline is stated as 27.3km total. This is incorrect. They state they will be tying into the TCHP (Tyson Creek Hydro Power) line. The 16km length of this line is new as well, only completed in 2009. The only reason it got built is the proponent avoided public consultation. The Tyson project applied for approval 1Mw under the 50Mw threshold for environmental assessment. The proverbial "foot in the door". This comment could be placed under the "deception" heading. The length of new powerline is really 43.3 km.

"However, the framework of the EA process is not conducive to including an assessment of wilderness

quality. This is because wilderness is defined according the three measurable parameters, and these measurable parameters also encompass the definition of wilderness. Therefore, all identified effects would be determined to be significant regardless of mitigation measures taken” I submit the entire preamble in “19.2.4 Assessment of Project Effects on Wilderness Quality” is structured in a way to confuse the reader and does not reflect up to date academic study on the subject. I challenge the EAO to critique this. It assumes mitigation of effects is the only alternative. This is not true. Cancellation of the project is the answer.

In a submission on wilderness value, Parks Canada references Alan E. Watson “If the human impact is done to support privatization or commercialization of nature at the expense of spiritual or intrinsic values associated with that wild place, it becomes corrupted.” This project corrupts Narrows Inlet.

JOBS

Only 5 permanent jobs with an additional 9 supplier related jobs are shown in the report. Of the temporary construction jobs, half of the \$33.8 million in wages is shown to be for non-resident workers. This is in direct conflict with newspaper reports of 100+ permanent direct full time jobs during the operational phase. On the Tyson project (by the same proponents), construction crews were by and large not from the Sunshine Coast and there was a large contingent of out of province workers.

CUMULATIVE AND HABITAT IMPACT

The EAO analysis must take into account the Tyson Lake project. Leaving it out is not an option. Narrows Inlet is one of the most unique bodies of water on the West Coast. Tzoonie Narrows restricts flow and tidal change to the point Narrows Inlet becomes lake-like in character.

Effects of temperature change due to operation are unknown at this time. “Water temperature will be monitored continuously during the first five years of operation on all three Project streams, as outlined in the OEMP (Section 22.3), to determine the extent to which stream temperatures are affected by operation of the facilities.” The effects of ramping will be discovered by “checking for fish stranding”.

The proponent repeatedly acknowledges that there is “uncertainty”, that habitat use “information is not available”, impacts are “poorly understood” or “unknown”, and that there is a “low degree of confidence” in the limited data collected on habitat and fish presence. In other words, this is an experiment.

The section “Characterization of Residual Effects and Determination of Significance due to Habitat Alteration for the Fish Habitat” lists every scenario during regular operation “negative in direction” with “moderate magnitude” and “long-term duration” yet shows “not significant” in the tabular summary. This is incongruent. “Given that Ramona Lake will be converted into managed storage; a number of thermal features of the lake may be altered. The overall average temperature regime of the lake may change”... another one of the countless examples of the experimentation that will occur.

Construction of the Upper and Lower Ramona Creek components will result in long-term effects that cannot be mitigated and reversed until component infrastructure is fully decommissioned. Narrows Inlet is too confined a body of water to have every freshwater source impacted with no discernible benefit to the general population of BC.

LAND USE

The EAO mandate is to consider approved land use plans that designate the most appropriate activities on the land base. The base of Ramona Falls is designated for rural residential use, not industrial. This industrial project is immediately adjacent to private rural residential property lines. The Sechelt Coastal Inlets Strategy of 1992 states the goal is to “maintain the wild and park-like character”. This project clearly does not fit an approved land use plan.

LACK OF DATA ACQUISITION

The proponent states they have only monitored river flows for one year. This is clearly not enough time to establish credible results. The study of Ramona Lake is lacking. Consultants report that only 20% of the lake was analyzed for sediment and that 50% of that analysis is classed as uncertain. Yet another example this whole project is uncertain.

SLOPE STABILITY

The assessment was done by aerial observation. A landslide was witnessed a short while ago directly across the inlet where there was no construction whatsoever. The risk of harm to property and life in the event of improper construction procedure or of failure of equipment after commissioning is stated as “**high**”. This is unacceptable for the populated Ramona component, too much relies on there being no human error, materials supplied that truly meet North American specifications and integrity and due diligence in construction practice. Further evidence of incomplete information relates to penstock placement on the Upper Ramona component. “**Debris flows, rockfall and snow avalanches represent potential hazards and a recommendation was made to further assess this particular section of the surface-mounted penstock and lay down area**”. At this stage of the approval process, there should be no more study required. I take this to mean “we don’t know if this will cause a landslide”. I repeat it is unacceptable to construct on such adverse in an area where people reside, there are no benefits that will offset loss of life or extreme damage to property. “**In the Project Area, extreme freshet events could lead to flooding in all valleys, intake and penstock locations.**” “**Flood hazards result from overbank flooding, channel avulsion and bank erosion. Providing that the detailed TSAs lead to sitespecific construction prescriptions intended to reduce potential effects to an acceptable level of hazard/risk, and then no residual effects are anticipated.**” “Providing that” is not a plan, it is a way to

avoid responsibility. IPP projects are not subject to government oversight of construction practices...even the road construction on the Tyson project did not meet industry standard. There is no reason to expect different. My concerns relating to landslides in my Jan 22, 2009 submission are elevated, not alleviated.

NOISE

People who have visited the area near the Tyson powerhouse are on record in this report stating the noise level was surprisingly high. This contradicts the proponent's statement. The Lower Ramona powerhouse is only a few metres from private property lines. "Noise levels are expected to comply with the OGC PSL of 40 dBA at night" is not good enough. The levels and frequencies are relating to human disturbances.....I submit wildlife and birds will be affected even more. This is wilderness. There is not supposed to be any unnatural noise. The inlet traffic associated with Tyson Lake construction absolutely diminished wildlife and bird sightings. This project will be much worse.

VALUE AND INDEMNITY

If this project was as good as purported, property values should skyrocket, however the report states a 20% reduction is to be expected. If monetary value is decreased 20% so is intrinsic value of the Inlet to non-resident users. "The new access road is proposed to run adjacent to the back property lines of nearby residential lots, providing a new route for residents to access". This is highly undesirable. Residents do not want access to private property made possible for users of the forestry road system. The risk of vandalism is much greater. The expanded road system will be inviting for the recently transplanted grizzly population.

Consultants hired by the proponent walked Lower Ramona. They expressed concern about many sections of the riverbank on private property being a problem if flows are increased for longer periods of the year than natural. It is a certainty we will suffer loss of land and have greatly increased risk of tree root failure and subsequent damage when they fall.

My question Jan 22, 2009 relating to compensation "in the event of any damage any damage caused by catastrophic landslides, rockslides or flooding that may be caused by errors in engineering, negligence during construction, permanent changes in mountainside stability or malfunction of equipment? This applies not only during construction phase, but for the duration of the future."..... has not been answered. I submit that by approving this project in its present form, Mr. Alexander and Minister Thomson put the Province of BC in a position of responsibility should any of our published fears come to fruition. My question "What financial mechanism is in place" has not been answered. Who will pay to return the land to its original state if financing for the project falls through part way through the construction phase?

WATER QUALITY

The report states “it is highly likely domestic water supplies will be affected to the point they are no longer considered potable” and “There is abundant fine sediment available for erosion upon drawdown of Ramona Lake.” This is also a major issue for the blue listed cutthroat trout population in Ramona Creek. It is preposterous to have access of clean, fresh mountain stream water in a coastal rainforest setting taken away from residents. The tailrace of Lower Ramona powerhouse would be only 100m from our domestic water intake. The water will be adversely affected to the point they speak of providing alternate supplies, even in the operation stage!

HABITAT

“Residual effects from changes to water temperature on steelhead, cutthroat trout, coho, and chum during operations are anticipated to be not significant. Overall, this assessment of significance has a low scientific confidence as there is limited knowledge about the thermal incubation regime in Lower Ramona Creek, fish species present and how temperatures outside their optimal ranges affect the productivity.” Comments like this appear throughout the analysis. It is clear there is “low scientific confidence” on every single habitat issue related to this project. My questions on Jan 22, 2009 relating to effects of changing flow regimes and water chemistry have not yet been answered. I repeat, it is an experiment not worth the risk.

“The reduction in water within the natural system may adversely affect plants and communities within adjacent Ramona creek and lake riparian areas. Especially, for the Ramona Creek waterfall zone, the confidence in the assertion of no significant effect is low.” Confidence in the assertion of no significant effect is low? In simple terms that means “we don’t know what will happen”.

Cutthroat trout are present above the fish barrier designated by the proponent. This is substantiated by visual sightings by residents and actual catch and release by a credible professional. Emails to Dave Bates confirm this with photographs.

There is no knowledge of the effects of elimination of natural periods of low water in Lower Ramona as it relates to fish habitat or to vegetation. My question of Jan 22, 2009 “how will the change from cyclic river levels to constantly high levels affect fish habitat, bank erosion and general stability of terrain” has not been answered with reliable data, nor have similar projects been cited.

There is no study of the fact removal of natural vegetation adjacent to steep mountain streams will increase wildlife access to areas unnatural to them. This may result in a higher risk of fatality in the waterway with subsequent increase in biological contamination. Biological contamination is proven to increase in magnitude with higher sediment levels.

This lack of confidence is found for every aspect of the environmental review. It is not reasonable to say “not significant” in the checkbox of every table. The natural high and low flows of the river systems are being completely manipulated in order to produce electricity at times of the year they get paid

more. There is nowhere else in the world that alters the natural flow regime of so many fresh water sources feeding a relatively small and confined salt water fjord. Narrows Inlet is a poor location for a project of this magnitude. My questions of Jan 22, 2009 asking for examples of directly comparable projects have not been answered.

FUTURE

All penstocks are oversized for the nameplate capacity. There are no assurances generating capacity will not be increased in the future....with increased issues relating to lake drawdowns, waterfall diversions and unnatural flow regimes in the lower rivers. There is no requirement in place for a full and public environmental review at that time.

The owners of this project have changed several times during the course of application. We are uncertain of the majority ownership at this time, though news releases earlier this year intimate it is AltaGas, an out of province company. Taxpayers of BC will lose a portion of electricity bill payment to profit for out of province companies. There is no guarantee that the majority shareholder will not change again. Often these are foreign multi-nationals. There has been no definitive legal document that states the benefits that may accrue to local communities will remain constant. No one has ruled out NAFTA, TILMA, CETA and now FIPPA as mechanisms to give up even more control of our resources. The water used to generate electricity is deemed an industrial commodity under these bodies and as such it becomes available for all uses, even bulk export. This raises another concern about oversize penstocks for extra volume of water available, but not required for electricity generation. This is a serious socio-economic consideration. One of the financial motives for private ownership is the trade in carbon credits, the validity of this project being called "green" is very questionable....disturbance of sea-run trout habitat in itself precludes this.

CONCLUSION

Impact on environment and habitat in the confines of pristine upper Narrows Inlet is negative. Economic burden on the general population of BC is increased. The need to have electricity generated in this manner, in this location, is not identified. Objectives to physically reduce BC (or export market) GHG emissions are not well articulated and appear inaccurate. The proponent Application and Supporting Studies document has many inconsistencies, duplications, and inaccurate portrayals of commentary in the tabular summaries. Many times issues are identified as noteworthy, yet the box is checked "not significant".

The proponents have demonstrated a poor track record with their Tyson Lake project. Professional engineers and consultants repeatedly state there are unknowns, impacts are poorly understood, and that they have a low degree of confidence in predicted results. This is understandable for the experiment that it is. Risks associated with the Ramona component alone are reason enough the experiment should not be approved.

Ken Holowanky

PREVIOUS PROJECT CONSTRUCTION PHOTOS











