

Kim,

From inception of the ELWS project, TOL Engineering staff has been elusive and inconsistent in providing thorough and accurate information regarding plans for the pipeline installation.

The memorandum of 30 April 2014, File No: 5330-27-032 is consistent with historical communication issues. SRES finds that essential concerns regarding environmental issues, identified in our letter of 24 April 2014. It is also understood that several of these same issues were discussed between concerned individuals and TOL engineering staff well before awarding of contracts. Concerns for delays and repercussions due to redesign requirements are due to reluctance within TOL Engineering to adequately address real issues in a timely and forthcoming manner.

The memorandum fails to address plans for crossing the Salmon River Tributaries and the surrounding wetland. This area is equally subject to section 10 of the water act. In accordance with current TOL plans, trenching will pass directly through this area. All equipment to support “auger boring” or “directional drilling” options need to be transported across the tributaries and wetland area to set up, carry out construction, water retention, remedial work and to exit.

- 1) Have applications for changes in or about a stream been filed with the BC Ministry of Environment for the trenching and provisions for heavy equipment access through the Salmon River tributaries and surrounding wetland?
- 2) What is known about the depth of the clay layer over the aquifer in the area of the Salmon River Tributary crossing? The tributaries are fed by water leaking from the aquifer through its covering clay layer.
- 3) Will the aquifer be breached during the trenching operation? There is currently no access to the area due to the steep and unstable bank, preventing test drilling.
- 4) In the event of a breach, what remedial action is available to seal such a breach?
- 5) What potential cost to repair such a breach?
- 6) What potential environmental impact would a breach have?
- 7) There are serious concerns from Residents in the area of 246<sup>th</sup> Street regarding an anomaly in the aquifer. Will an intrusive breach in the area of the tributaries adversely affect the existing shallow access to water in the area? (Ref: 20 May 2014 from Gloria Stelting and Pam Erikson)

- 8) Trenching and road construction down the bank and through this area will require foundation building, extensive drainage, retention of disturbed silt, removal of trees. This intrusion is permanent and will need to be maintained ad infinitum. What are the planned costs for the project and projected costs for ongoing maintenance?
- 9) There is substantial risk due to potential variables due to disturbing the Tributaries and the surrounding wetland. What are the contingencies and projected costs?
- 10) There are 34 trees indicated on Attachment C that are within the pipeline right of way and the working right of way. Will all of these trees be removed? If not, which ones will?
- 11) Coniferous trees have struggled to reestablish and survive since the last time the area was clear cut. Removing mature coniferous trees is highly degrading, adversely affecting slope stability and the microbiology of the area. Exactly which trees are affected and what is the reparation?
- 12) Attachment A describes the proposed Augering process as requiring a large pit for the equipment to set up in. The area where this pit is required is in the wetland surrounding the Salmon River Tributaries and will be below the surface water table. What are the plans and associated costs for draining the water table, estimated volume of water, silt control and estimated area required to support it all?
- 13) What is the environmental impact associated with draining the water table?
- 14) Will all project activities for construction, water retention and remedial action remain within the boundaries for right of ways?

The ongoing resistance to providing answers to these concerns indicates that TOL Engineering has chosen to blindly carry on with this project and hope for the best. Relying on open ended remedial action, dissuading concerns with the availability of many levels of technology and solutions without regard for potential costs or long term environmental impact.

It is stated that Directional Drilling will cost \$1M more than the current plan. It is evident that the potential costs for the current plan are not well understood making such a statement inaccurate.

In fact, once these questions are answered, costs attributed to variables, reparations and ongoing maintenance, it is likely a wash or potentially less expensive to directional drill from top of bank to top of bank.

Hydraulic fracture is the sole risk identified with the directional drilling process. It is noted that the drilling fluid is primarily water and Bentonite clay with the addition of some “admixtures”. In the event of a fracture, water and Bentonite are not an environmental risk beyond immediate silting. The clay layer on the aquifer is Bentonite based and is environmentally neutral.

15)What are the “admixtures” and are they environmentally safe?

It is stated that “some phases of the directional drilling installation may require continuous operation, creating noise outside the normal construction operational hours”.

16)Will the inevitable requirement for draining water from the Salmon River Tributaries and wet land water table require continuous running pumps for drainage and water retention handling during trenching and auguring?

17)Will auguring under the Salmon River require continuous operation?

18)Finally what is the total cost of the ELWS project? This figure is needed to determine the relative importance of the alleged \$1million saved from not using directional drilling.

Sincerely Dr. Don J. DeVoretz  
Director of Salmon River Enhancement Society