

April 24, 2014

Re. Proposed Water pipeline crossing of Salmon River

Dear Councillors,

We are writing on behalf of the Salmon River Enhancement Society to express our deepest concerns regarding the current plan for the water pipeline crossing of the Salmon River mainstream and tributaries at 52 Avenue. We request that the Township of Langley take the necessary steps to waylay this effort in consideration of less intrusive alternatives.

The crossing at this location is a ravine 18 meters deep and spans 310 meters from the end of 52 Avenue on the East bank to the end of 52 Avenue on the West bank. The banks on either side are largely sand and gravel with a natural grade of 45 degrees. Substrate across the flat base of the ravine is fertile topsoil and coarse river rock 3 to 7 meters deep then more than 20 meters of grey clay or a combination of sand/gravel/grey clay as determined by test drilling carried out by TOL in the spring of 2013. The area east of the Salmon River mainstream has a number of fresh water springs fed from the Hoppington Aquifer forming Salmon River tributaries running through a wetland approximately 75 meters wide at the point the pipeline must cross. Riparian forest is made up of mature Cedar, Fir, Maple, Alder and Cottonwood trees with underbrush typical of the area.

The Salmon River middle reaches were last logged approximately 75 to 80 years ago. Evergreen trees have struggled to emerge through the rapid choking growth of Alder, Maple and Cottonwood having finally emerged above the deciduous canopy with Cedar and Fir trees reaching 25+ meters tall. The wetland, raw, untouched and largely inaccessible is a sensitive microbiological habitat essential to the ecology of the Salmon River middle reaches.

This area is zoned Suburban Residential SR-1. It was occupied by a Doukhobor Colony during the 1950's and 1960's. Following their departure the area was subdivided and four properties span the Salmon River corridor in the area of the proposed pipeline crossing. Three of these properties have homes within the riparian zone and would not be permitted to exist under current Department of Fisheries and Oceans regulations or Township of Langley Bylaws. The properties are maintained in accordance with guidelines for responsible river stewardship.

On 12 March 2014 in a public forum at DW Poppy High School, Township Engineering staff announced a plan to cross the Salmon River corridor using a combination of trenching and directional boring construction techniques. With the cooperation of two property owners and the use of undeveloped 52 Avenue right of way, TOL proposes to remove mature Cedar, Fir, Maple, Alder and Cottonwood trees for the 7.5 meter pipeline right of way then another 7.5 meter width to support the working right of way.

Trenching will extend down both the East and West banks of the corridor, through the wetland and Salmon River tributaries to within 30 meters of the Salmon River Mainstream.

Directional Boring will be utilized to cross under the Salmon River mainstream and the 30 meter margin on each side. Removal of trees will be permanent to eliminate the possibility of roots interfering with the pipeline in its shallow trench and to provide access for maintenance duplicating the Gas Pipeline route approximately 200 meters south of this location. Access to the base of the corridor and through the wetland is required to support the use of heavy equipment for trenching and boring activities.

This plan promises to disrupt the stability of the banks through permanent removal of mature coniferous and deciduous root structures and canopies that have struggled substantially to repair its self over the last 75 to 80 years. TOL has proposed the possibility of landfill to reduce the slope of the banks and/or the use of Geo Mat technology to stabilize the exposed banks. Trenching the wetland requires responsible water handling practices to prevent excessive silting in the Salmon River Mainstream. Access for heavy equipment will require the construction of a foundation in the form of a roadway together with drainage and future maintenance considerations.

Permanent removal of mature forest and sensitive microbiology of the wetland is damaging to essential Salmon River habitat.

These plans have been painted with a very broad brush as TOL staff defers specific details to contractor obligations for meeting DFO guidelines and approvals. TOL advised that Engineering Staff will carry out on site review of the right of way with the contractor to determine construction details. Interested members of the community were invited to attend and a schedule was proposed for Monday 17 March 2014. The site visit did not take place, being cancelled without notice and remains outstanding to date.

It is clear that although tendering has been completed and the project awarded to a contractor, much of the detail for construction remains unconfirmed.

SRES suggests that there are several viable alternatives to the currently underdeveloped plan.

TOL staff at the 12 March meeting confirmed that the equipment to directional bore the crossing from top-of-bank to top-of-bank is available, however, it was also stated that the cost is high and that there are risks. What the relative cost would be or what the risks are were not explained.

Our experience with the directional boring project at the Trinity Western location demonstrates that it is safe, expedient, highly cost effective and environmentally preferred.

We understand that each site may require different techniques and levels of attention due to type of substrate, the possibility of fracking or interference with existing utilities. We also recognize that there is greater than 20 years of experience and advancements with this technology and that it is widely considered to be "more" cost effective than other methods of construction and far less environmentally intrusive.

Given the high degree of risk for escalating cost and damage to the Salmon River ecology in the current plan, both initially and long term, we suggest that directional boring from top-of-bank to top-of-bank is the preferred method of construction for the 52 Avenue crossing of the Salmon River corridor.

We also suggest that the 52 Avenue crossing site is not the first best option in any case. There are three other locations that eliminate the duplication of environmental intrusion.

- Approximately 200 meters south the Gas Pipeline right of way is already cleared
- Four blocks North the 56 Avenue bridge crosses the river
- And finally, Fraser Highway as one of the original alternatives that had substantial public support, is within easy access from the pipeline route at its current stage of installation and it circumvents the need to cross the Salmon River altogether.

Don J. DeVoretz and David Gilroy
Salmon River Enhancement Society