

August 14, 2017

Sheri Young, Secretary National Energy Board 517 Tenth Avenue SW Calgary, Alberta T2R 0R8

Dear Sheri,

Re: Trans Mountain Pipeline ULC

Chilliwack BC Hydro Route Realignment

We write to provide comments regarding Trans Mountain Pipeline route realignment request made pursuant to section 21 of the *National Energy Board Act*.

The Realignment

We understand that Trans Mountain has proposed to change the current route alignment within the City of Chilliwack. If approved, the pipeline route would be located within the existing Trans Mountain right-of-way. We believe the change will lower costs for Trans Mountain, but the approved route is feasible and reduces impact to the Sardis-Vedder Aquifer.

The City recommends that the NEB reject the request for the Realignment. Instead, the City recommends that the NEB require Trans Mountain to proceed with the existing route alignment (along BC Hydro transmission right-of-way), or alternatively along the TCH.

If the Realignment is approved, the City recommends that the NEB impose conditions requested in the City's August 18, 2015 submission (a copy of which is attached with this letter), including requiring Trans Mountain to prepare an emergency management plan specific to the Sardis-Vedder aquifer.

Basis of Opposition to the Realignment

In its submission to the National Energy Board (NEB) dated August 18, 2015, the City of Chilliwack had recommended a route which would have minimal impact on the aquifer. On this consideration, the City submits that routing the pipeline along the Trans-Canada Highway (TCH) or along the BC Hydro transmission right-of-way are superior to the proposed Realignment.

The City operates eight wells within the Sardis-Vedder Aquifer which supplies 95% of the water for approximately 80,000 customers in Chilliwack. Of the eight wells, there are four (wells 1, 2, 6 & 7) that are close enough to the existing pipeline route to be of concern. The aquifer is a unique feature, with high quality of groundwater not available elsewhere in Chilliwack. If the wells are contaminated the replacement system would not have the same quality and would entail a very high capital and operating cost to develop.

South of the Vedder River the Trans Mountain pipeline route crosses through an area that is upstream of the drinking water wells for the community of Yarrow. The impact of a spill on that water system would have significant consequences for Yarrow residents. We understand that Kinder Morgan has not to date undertaken any spill response modelling for the Yarrow wells.

As summarized in our July 17th letter to the NEB, we have community drinking water wells 225m and 230m from the existing pipeline. These distances would be widened to 275m and 365m respectively from the proposed pipeline along the BC Hydro transmission right-of-way.

This extra distance is important. Historically, we have studied the aquifer response to water well operation, and we are currently updating our aquifer study. The firm of Golder & Associates is currently completing the Sardis-Vedder Aquifer Groundwater Model Update Study. The preliminary study results indicate that well pumping influences the ground water table to a distance of 450m from the well head. This finding confirms the importance of the physical separation between potable water wells and petroleum pipelines. See Golder & Associates Figure 1, attached, from the study.

In short, the BC Hydro Transmission right-of-way route contemplates wider physical separation between the wells and the pipeline than the proposed Realignment. Therefore, the City of Chilliwack prefers the current Trans Mountain Pipeline alignment, within the BC Hydro transmission right of way.

While we understand that the BC Hydro transmission alignment may increase pipeline construction costs and may impact Chilliwack property owners, the increased separation to our drinking water wells is in our opinion simply more important. As a result, the City of Chilliwack requests the NEB deny the proposed Realignment request by Trans Mountain Pipeline ULC.

Trans-Canada Highway (TCH)

Trans Mountain has provided a report prepared by Universal Pegasus International dated July 27, 2017 concludes that the TCH route for the Trans Mountain Pipeline is feasible (page 9). The report goes on to say that "the Highway 1 route was assessed as being inferior to the TMPL right-of-way route" due to five criteria identified. The report does not acknowledge the aquifer as an issue nor does it evaluate the selected criteria against the value of the aquifer. Evaluating the TCH route without assessing the impacts to the Sardis-Vedder aquifer will lead to incomplete or incorrect results.

As the assessment of the TCH route is incorrect or incomplete in its findings as a result of omitting an assessment of the impacts to the Sardis-Vedder aquifer, the City does not accept the conclusion that the TCH route is inferior to the proposed Realignment. We recommend that the NEB require Trans Mountain to re-assess the TCH route taking into account the relative impacts of the two routes on the Sardis-Vedder aquifer.

Impact on Natural Areas

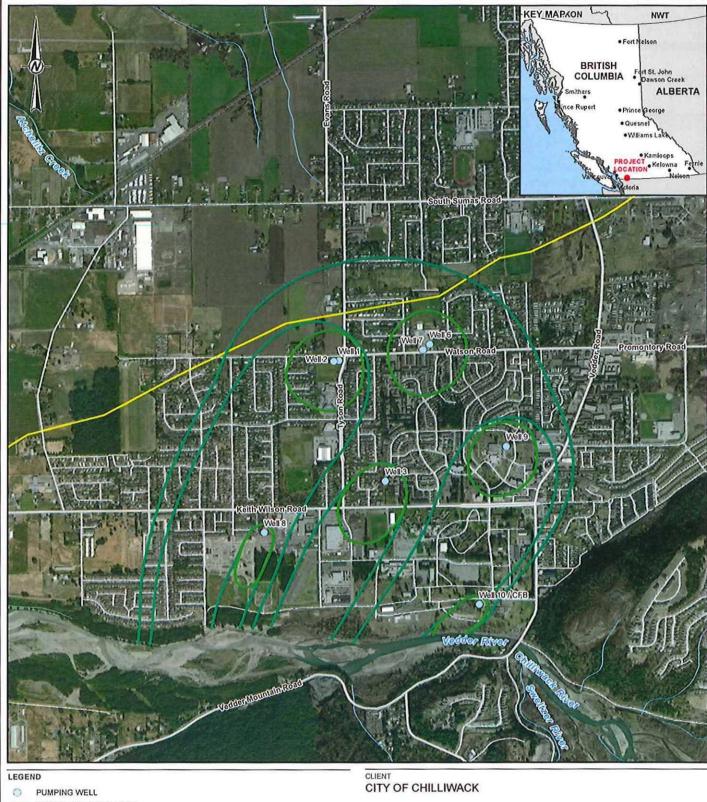
The last comment relates to the natural areas in Chilliwack and their value to the health and wellbeing of the community. A natural area of significance, the Browne Creek Wetlands, will be impacted by the proposed pipeline. Our goal is to encourage Trans Mountain to lengthen the tunneling component at the Browne Creek Wetlands to include the whole area. The tunneling will significantly reduce the impacts to the creeks and natural areas compared to open trench construction techniques. While we understand that soil conditions impact the maximum length of tunneling, we hope that techniques can be found to avoid open trench construction through the Browne Creek Wetlands.

Sincerely,

Sharon Gaetz

Mayor

Enclosure (1)



60-DAY ZONES OF TRAVEL

CAPTURE ZONES

KINDER MORGAN PIPELINE

MAJOR ROAD

LOCAL ROAD RAILWAY ---

WATERCOURSE

400 1:20,000 METRES

I. CAPTURE ZONES WERE PREDICTED USING A HYDROGEOLOGICAL MODEL OF THE SARDIS-VEDDER AQUIFER.
2. AN EFFECTIVE POROSITY OF 0.20 WAS APPLIED TO CALCULATE TRAVEL TIMES IN THE CAPTURE ZONES.

3. ROADS OBTAINED FROM CANVEC & DEPARTMENT OF NATURAL RESOURCES CANADA, ALL RIGHTS

3. ROADS OBTAINED FROM CANVEC © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.

4. PIPELINE AND RAILWAYS OBTAINED FROM IHS ENERGY INC.

5. WATER FEATURES CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENSE—BRITISH COLUMBIA.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N

PROJECT

SARDIS - VEDDER AQUIFER GROUNDWATER MODEL UPDATE

CONSULTANT

CAPTURE ZONES FOR CITY OF CHILLIWACK PUMPING WELLS **OPERATING AT PROJECTED DEMANDS**



	YYYY-MM-DD	2017-08-10	
	DESIGNED	MZ	
	PREPARED	мн	
	REVIEWED	WZ	_
	APPROVED	JS	_
-			_

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