

Green Scene: How much is too much tanker traffic in Burrard Inlet?

by Elaine Golds

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Without a doubt, Burrard Inlet offers stunning scenery, terrific opportunities for recreation and a rich diversity of fish and wildlife habitat. It is also an important harbour and shipping port for Metro Vancouver. Although some people think Burrard Inlet is a fiord, it is actually a very shallow basin with sills at its First (i.e., Lions Gate Bridge) and Second Narrows. The inner harbour becomes increasingly narrow and has ever-shifting currents of up to 6 knots due to two daily tides. While not as hazardous an area as the northern BC coast for shipping, it is not without its challenges as a port.

Oil tanker traffic in Burrard Inlet dates back to before the First World War when crude oil from California was delivered to the Ioco Refinery in Port Moody on much smaller ships than the present day tankers. Tanker traffic increased after 1953 with the construction of the Trans Mountain pipeline to Burnaby. Of course, in 1953, there was much less residential development around this portion of Burrard Inlet and, perhaps, it made sense then to operate three oil refineries (two in Port Moody) on Burrard Inlet to process some of this crude oil. One of the legacies of these three refineries is the highly polluted bottom sediment in Burrard Inlet especially in Port Moody Arm where a 1989 study found 75% of the English sole suffered from precancerous liver lesions.

Today, only one refinery, Chevron in Burnaby, remains in operation and serves mostly local needs. Thus, in 2003, only 12 crude oil tankers plied the waters of Burrard Inlet. Many people are unaware tanker traffic has been increased in recent years and reached 71 tankers in 2010. With the proposed new Kinder Morgan pipeline, tanker traffic could jump to approximately 300 per year. An additional worry with such a large increase in tanker traffic is that most of these tankers would be carrying diluted bitumen, a much more toxic and hazardous product than conventional crude oil.

A 25 fold increase in tanker traffic over what we had in 2003 will obviously increase the risk of a major spill in Burrard Inlet. Burrard Inlet is so shallow in places that tankers cannot leave fully loaded and must rely on high tide for adequate clearance. But, there is little room or time to maneuver on high slack tide. Additional dredging has been suggested but this could stir up toxic sediments left behind from an earlier industrial era. One of the particular problems with cleaning up a potential spill of diluted bitumen is that it tends to form a tarry mass which slowly sinks rather than floats. The currents from twice-daily tides would quickly transport any toxic material from a major spill throughout the extensive shorelines and significant habitat areas of Burrard Inlet and Salish Sea. This would be utterly destructive to their ecology.

There has been only limited experience in dealing with spills of diluted bitumen such as occurred on the Kalamazoo River in Michigan in 2010. There, the clean-up crew discovered this spill took many more months to clean up than anticipated and the sinking of some material has forever contaminated the river bottom. In 2009, the Auditor General of Canada reported our Coast Guard was not prepared for a major spill. Since then, the Harper government has severely cut back on Coast Guard services on our coast. Our present regulatory regime seems to be inadequate to even ensure the highest and best

management practices. The limited liability of the shipping industry means that taxpayers would be on the hook for the billions of dollars required for cleanups from a major spill.

All that I have read about the risks of diluted bitumen convinces me that transporting such hazardous material will lead to nothing but trouble. Diluted bitumen can be partially refined to something like crude oil at upgrader facilities. Apparently, production of tar sand oil is now increasing so rapidly in Alberta that it is out-growing the capacity of the existing upgraders. Why not build another upgrader in Alberta instead of shipping the problem elsewhere?

Between now and 2020, Canada is projected to have the third highest increase in oil production in the world (after Iran and the USA). Our oil, most of it to be exported, will be the most carbon intensive because most of it will originate from the tar sands and require huge energy inputs to heat the oil out of the sand. Apart from concerns about the impacts of spills and accidents, is it morally appropriate for us as nation to be exploiting the tar sands and vastly increasing our greenhouse gas emissions in a warming world?

For people who wish to learn more about tanker traffic, the next meeting of the Burke Mountain Naturalists on Tuesday, September 11 at 7:30 pm will feature guest speaker, Christianne Wilhelmson, from the Georgia Strait Alliance who will describe some of the hazards associated with increased tanker traffic. This meeting, free of charge and open to the public, will be held at Como Lake United Church on the corner of Marmont Street and King Albert Ave in Coquitlam.