

## Protecting the National Economy by Managing the Lower Fraser River

The Fraser River (the 'River') is a vitally important resource for the Greater Vancouver region, the province of British Columbia, and the entire country of Canada. Port activity on the Lower Fraser River rivals Canadian traffic on the St. Lawrence Seaway as well as supporting a myriad of other economic activities vital to the region and beyond.

The Lower Fraser River is crucially important to the 2.7 million people of the Fraser Valley and Metropolitan Vancouver, and is one of the prime economic generators in B.C., and a significant contributor to the national economy.

Port Metro Vancouver (PMV) is the largest port by tonnage in Canada, and its principal ocean gateway to the Pacific. Given that all of the developable port lands to accommodate PMV expected growth are on the River, it is destined to play an increasingly important role in overall port activity and future growth of the Canadian economy.

Although the Lower Mainland ports were amalgamated in 2008, if the Lower Fraser River port existed as a stand-alone port, it would still be a significant port for Canada. Prior to the amalgamation, the Fraser River Port Authority was the third largest port in Canada, based on domestic, export and import tonnage. The impact of the port function of the Lower Fraser is comparable in importance to the impact of Canadian traffic on the St. Lawrence Seaway both, in terms of tonnages and employment:

		<u>Lower Fraser River*</u>	<u>St. Lawrence**</u>
<b>Cargo</b>	(Million Tonnes)	25.7	36.5
<b>Jobs</b>	(FTE's)	52,900	63,000
<b>Wages</b>	(\$ Billions)	\$2.62	\$2.88

\* The Lower Fraser River impact shown above is for 2008, prior to the amalgamation of the three regional port authorities into Port Metro Vancouver in that year; the St. Lawrence Seaway impact is for 2010

\*\* St. Lawrence data covers Canadian cargo carried on the Montreal - Lake Ontario section of the Seaway and the Welland Canal between Lake Ontario and Lake Erie

In addition to the integral role to the operations of PMV, there are nine federal government Small Craft Harbours located on the Lower Fraser River. In addition to supporting the commercial fishing industry, these Small Craft Harbours enable a variety of fishing, aquaculture, recreation, tourism, shipping and other marine activities to occur.

### Other Major Industries of the Fraser River:

- Fisheries: Commercial and sport fishing are key economic contributors
- Agriculture: The Fraser River valley and delta agriculture production in 2011 was \$1.6 billion (the majority of the agricultural output for British Columbia)
- Forest Products: Approximately 47 forest industry facilities operate in and along the river

### The Risk

The positive economic growth and development of the region seems unstoppable. However, the security of much of the agriculture and industrial lands, as well as the road and rail infrastructure that connects Canada to the port, are vulnerable to flooding primarily, as well as earthquakes.

Each year during the spring freshet, approximately 32 million m<sup>3</sup> of sediment is transported by the River, with roughly 10 per cent of this material settling in the navigation channels of the lower reaches. To ensure continued navigation, and flood prevention, regular maintenance dredging is required. Dredging increases flow capacity which is a crucial flood prevention measure to keep the river below dyke levels during periods of increased flow.

In 2007 the River came perilously close to overtopping the dykes in the Fraser Valley during the spring freshet. Record snow packs on the mountains in the Fraser River catch basin began melting, and combined with heavy rainfall resulted in water levels not reached since 1972. If the dykes had been breached, a national railway and highway would have been cut off, impacting the movement of goods with the rest of Canada, resulting in significant economic losses.

Presently, the adjacent lands of the Lower Fraser River are home to over 50% of British Columbia's population, and in the actual flood plain, \$50 billion dollars' worth of development, which are increasingly vulnerable to frequent extreme weather events that are projected to impact the River.

### **Ensuring Future Prosperity**

According to recent studies, sea levels at the mouth of the River could rise in excess of one metre by the end of the century. In order to protect the businesses and livelihoods of those dependent on the river, residents and public facilities (including the highway and rail transportation infrastructure), an ongoing, coordinated program of investment in improved diking, dredging and other protective features is imperative. Preliminary estimates place the cost of this program during this century at nearly \$9 billion for the tidal areas of the River and adjacent coastal reaches.

The Fraser River is tidal up to Mission, B.C. and these influences coupled with rising sea levels in the coming years pose the threat of storm surges, which could overtop and defeat the diking system. There is an urgent need to revitalize the dikes and increase their height to protect the tidal areas as well as the upstream agricultural lands.

In addition to the threats from sea level rise and potential earthquake damage, storm surge combined with high tides in El Nino years (and 2014 is one of those) could overtop existing flood protection infrastructure even without additional sea level rise.

The results could be severe. The economic damage of losing one or more of the rail links to the port, as well as the major highways through the valley would be significant to the national economy. Damage could be similar to that seen in New Orleans, and require lengthy reconstruction periods, likely costing in the billions of dollars, combined with billions in lost revenue. In order to mitigate this potential, we must act with some urgency to ensure the appropriate preparations are made.

### **Coordinating the Administrative Challenge**

One of the main challenges to managing the Lower Fraser River is coordinating the many government and non-government stakeholders that maintain the River. There are currently 15 municipal governments and 29 first nations groups along the banks of the Lower Fraser. There are also over 20 Provincial and Federal ministries involved in the River's administration.

As authority and oversight is vested with a myriad of various government departments, work on the Fraser River is often done in isolation and not part of a comprehensive and coordinated plan to address ongoing maintenance and safety requirements.

Resolving these issues will require long-term management and funding with substantial financial obligation. Plans and commitments need to be made that extend well beyond the political mandate of any currently elected government. Compounding the problem is the fragmentation which requires compromise among various jurisdictions and authorities.

All levels of government and other key stakeholders must come together to manage the Lower Fraser River as an interconnected system in which the interests of the economy, the population, navigation, public safety, and the natural environment are managed holistically as one system. This will require the leadership of the Federal Government, the ultimate authority over the river.

**Recommendation**

That the federal government bring together relevant stakeholders to develop a collaborative strategy to address the long term funding and management requirements, to maintain the continuous flow of commerce to and from foreign markets and maintain, protect and further improve the sustainability of marine transportation resources, such as the Lower Fraser River and other nationally significant port authorities.