

HSBC Fraser River Sturgeon Education Program



Gravel Extraction Stakeholder

The BC Ministry of Public Safety is responsible for flood mitigation on the Fraser River. This agency has a \$100 million, 10 year budget to mitigate flooding. With this money the agency will monitor and upgrade dykes along the Fraser as well as finance gravel extraction. The excavation of gravel deposits from the course of the Fraser River is done to reduce the risk of flooding in the upper reaches of the Fraser River Valley.

In the fall of 2008, 75 homes were damaged by rising flood waters when heavy rainfall helped to melt high levels of snow accumulation. As a result, some low lying areas were flooded as local streams rose and dykes were breached.

A crew of 25 removed the equivalent of 50 Olympic-sized swimming pools worth of gravel from the Fraser River in the spring of 2009. The gravel bars form naturally as river water carry and deposit sand and gravel. Urban development, farming and the construction of extensive dyke systems has changed the floodplain which was for millennia subject to seasonal flooding. These deposits used to disperse naturally but now tend to concentrate in the channels of the river.

In the lower reaches of the Fraser River, yearly dredging is needed to keep valuable shipping channels open to port facilities in Delta, Richmond, Vancouver, New Westminster, Surrey and Coquitlam. The impact of this dredging undoubtedly impacts white sturgeon habitat and the growth of juvenile fish. The construction of bridge footings on new construction disturbs the flow of water and the movement of sediment further impacting the instream and foreshore habitat of many fish.

The gravel extracted is used as aggregate in construction projects throughout the Lower Mainland. Projects like the Sky Train's Canada Line create huge demand for sand and gravel needed in concrete construction. The newly opened Golden Ears Bridge linking Langley and Maple Ridge used millions of tons of aggregate materials. The benefits brought about by the construction of this bridge, which reduces transportation congestion in the region, would be seen by many as greatly outweighing the negligible negative costs to fish habitat.

Some conservation and environmental groups are opposed to gravel extraction in the upper courses of the Fraser River Valley as they claim the process does irreparable damage to the spawning grounds of salmon and sturgeon. Juvenile fish feed in these reaches of the river and are sensitive to disturbances of their habitat.

Others argue that the river itself carries millions of tons of sediment down the course of the river every year, pushing mountains of silt and sand in natural and haphazard processes. They suggest that these processes are natural and dynamic. They point out that human impacts on river sediment and its deposition are minor compared to the natural forces that shape the Fraser daily. Hundreds of thousands of cubic meters of rock and gravel are deposited between Hope and Mission as the river, pouring out of the steep confines of the canyon loses velocity and carrying capacity, dropping its bed load of sediment.