

Timberland Basin Habitat Project

Description, location and size

The Timberland Basin Habitat Project is located adjacent to Tannery Road Park in the City of Surrey along the bank of the Fraser River (Figure 1). Prior to habitat enhancement works, the site was a log pond providing low habitat values for fish and wildlife. The site was converted into marsh, mudflat and riparian habitat in the late 1980s. Following completion of construction, the gross area of the site was approximately 30,000 square metres (3 hectares). While several parcels from the Timberland Basin Habitat were extracted for habitat compensation between the 1990s and 2000s, the remaining habitat area administered by the Vancouver Fraser Port Authority covers a gross area of approximately 2,777 square metres (0.28 hectares) of intertidal mudflat and 1,146 square metres (0.11 hectares) of intertidal freshwater marsh.

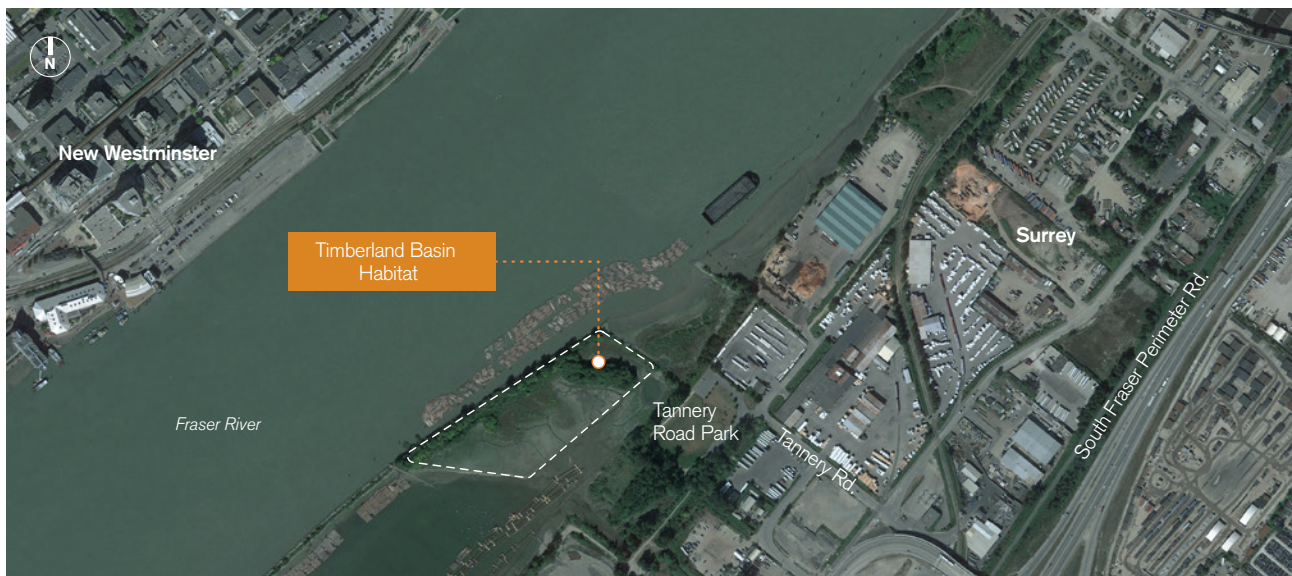


Figure 1 Location of the Timberland Basin Habitat Project area along the Fraser River in Surrey, B.C.

Overview of completed project

This project was built behind an existing training wall by infilling the former log pond with dredged sandy silt material from the adjacent Timberland Basin channel. Rip rap was placed around the perimeter of the site to retain the material at the appropriate height for establishment of an intertidal marsh bench. Trial planting of the site, predominantly with Lyngbye's sedge, was undertaken in the early 1990s. Although heavy grazing pressure was experienced due to geese, the site naturally transitioned into low marsh habitat through a combination of transplanting and natural colonization of vegetation.

Establishment of a productive intertidal brackish marsh along this stretch of shoreline has provided food and shelter for a wide range of wildlife. Wildlife that utilize this site include invertebrates (chironomids), fish (over 20 species of anadromous and freshwater fish), waterbirds including ducks (mallards, American widgeon and green-winged

teal), Canada geese and gulls, shorebirds, wading birds (great blue heron) and other wildlife such as raccoons and beavers.

Most notably, at high tide this brackish marsh provides important feeding and cover habitat for juvenile coho, Chinook and chum salmon and foraging and roosting habitat for waterbirds during high and low tides.

Through partnerships with the Fraser River Harbour Commission, Fisheries and Oceans Canada and Simon Fraser University, the Timberland Basin Habitat was proposed as a site to study marsh establishment and to compare factors related to marsh establishment such as natural colonization of vegetation versus marsh transplantation. This site has been providing productive fish and wildlife habitat on the south arm of the Fraser River for over 30 years. The port authority conducts regular monitoring to ensure the habitat continues to meet its biophysical objectives.



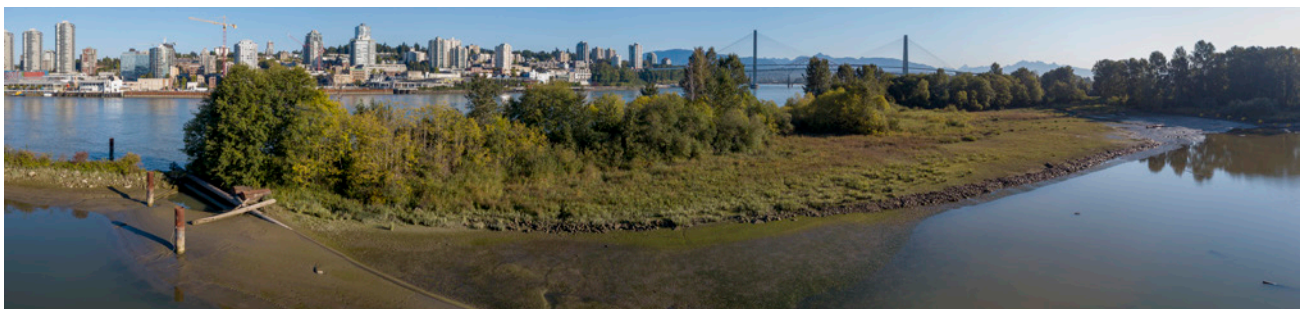
Site conditions, looking downstream (2021)



Aerial view of the upstream part of the project site, looking northeast (2021)



Aerial view of a downstream section of the project site (2021)



Aerial view of the project site (2021)

For more information

Habitat enhancement program: portvancouver.com/projects/habitat-restoration/

Email: habitat.enhancement@portvancouver.com