



## 2013 AWARDS FOR ENGINEERING EXCELLENCE

### Award of Excellence Wilson Farm Habitat Enhancement



#### Consultant

Kerr Wood Leidal Associates Ltd.

#### Owner/Client

Transportation Investment Corporation

#### Category

Natural Resource, Energy & Industry

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For the first time in 100 years, salmon are swimming in the channels at Wilson Farm. In the early 1900s, the Coquitlam River estuary was diked and drained for farming, isolating the floodplain and depriving salmon of valuable habitat.

The Wilson Farm Habitat Enhancement Project, located within Metro Vancouver's Colony Farm Regional Park, encompasses 178,000 m<sup>2</sup> of aquatic and riparian habitat enhancement for fish and wildlife. It was undertaken by Transportation Investment Corporation to provide environmental compensation for the Port Mann Highway 1 infrastructure improvement project.

The goals for Wilson Farm were to re-establish the tidal connection and fish access to the floodplain channels, improve drainage for wildlife habitat, and to minimize disturbance to park users. The project includes a self-regulated tide gate and overshot gate, new channels and ponds, enhancements to existing channels, pump station upgrades, and riparian plantings. Kerr Wood Leidal Associates completed hydraulic modelling of habitat channels and prepared the detailed engineering design for the tide gates, overshot gate, and channels.

What makes this project truly outstanding is the innovative self-regulated tide gate system, which enables full tidal exchange and easy fish passage thus restoring habitat while at the same time providing a simple, low-maintenance means of flood protection.

The tide gates were opened in November 2011. In 2012, biologists found young coho, chum, pink and chinook salmon in abundance in the reconnected channels. The project is a success from a fisheries and wildlife perspective and has enhanced a valuable recreational and wildlife viewing area for area residents.