

## Commercial Case Study - Long Term Care Facility- Corner Brook NL - Wastewater Treatment



This is a very successful commercial wetland application, built in 2009, provides wastewater treatment for the Long-Term Care Facility in Corner Brook, on the west coast of the Island of Newfoundland, Canada. The effluent is on average CBOD < 10mg/l and TSS <10 mg/l.

Located on the land below the facility its design was wrapped around the facility for landscaping purposes and to run along the boundaries of the adjacent park, with walking trails combined into the parks network.

The wetland design through treating all of the wastewater generated at the facility by Natural Infrastructure gained essential points for the building to achieve a LEED (Leadership in Energy and Environmental Design) Gold Status rating.

The wetland system is comprised of two horizontal beds, for a total of 2,750 m<sup>2</sup>. The first bed is a bilateral horizontal bed, such that its inlet is in the center of the bed and flows outward to both sides, bilaterally. The second bed is curved and has an inlet on one side and an outlet on the other. The system is unique in that the flow can be adjusted from two (2) parallel bed to 2 beds in series. This allows the treatment to move from high flow capacity to high treatment capacity, by adjusting the direction of flow between the horizontal beds. This unique design alternative was based on varying design needs of the client, the NL Provincial Government and LTC Facility.

Our engineering manager Glenn Sharp P. Eng was the lead engineer on this award-winning project. The LTC Facility is also a teaching school which means the loading is comprised of 500 patients, staff and students combined. The CBOD can reach 5000 mg/l at times, as blood is common in the average wastewater flow of 75 m<sup>3</sup>/day.

This project, along with others with our similar engineered wetland designs have received numerous environmental excellence awards from such entities as: CME, NRC, FCM, ACWWA, PEGNL, APEGNB, SPAWN, NL Dept. of Env., and other.

Our designs are now generating Carbon Offsets, through our broker Carbon Zero, funds are now starting to flow, where we expect soon to be able to provide a Zero Cost to operate option for our clients. Either the Carbon Offsets will generate sufficient revenue to pay for your low operational cost or we will provide free operations in exchange for future Carbon offsets.

For details on our Carbon Offsets from our wetlands, see our affiliated company Sharp Management [www.sharpmgmt.ca](http://www.sharpmgmt.ca) .

