

Wastewater type: Sanitary  
Design flow: 49,310 L/day  
Pre-treatment: Septic tank  
Discharge: Surface water

In the fall of 2004 Aqua Treatment Technologies Inc. and Canadian Shield Consultants Inc. designed and installed the *AQUA Wetland System* (AWS) for treatment of 49,310 L/day of sanitary sewage generated at a seasonally operated trailer park. The



system design replaced an aging and failing tile bed system. Because available land area was severely limited, it was decided to apply for a Certificate of Approval that would allow discharge of treated water into Dobson's Creek.

### Project description

The AWS is designed to treat 49,310 L/day of septic tank effluent. The AWS consists of two separate systems, each system contains three cells operating in series. Treated water receives UV sterilization prior to discharge into Dobson's Creek.

### Performance

The following discharge limits were imposed: Total Phosphorus (1.0 mg/L), Suspended Solids (10 mg/L), CBOD<sub>5</sub> (10 mg/L), Total Ammonia (5.0 mg/L) and E.coli (200 cfu/100mL). In addition, unionized ammonia was calculated and recorded.

The system began operation June 1, 2004. Discharge water samples are collected every two weeks, commencing 14 days after Spring system start-up until system shut down in the Fall. The AWS performance data is shown to the right. As of 2011 the treated effluent continues to meet MOE discharge limits.

