

Wastewater type: Winery Wastewater  
 Design flow: Less than 10,000 L/day  
 Pre-treatment: Septic tank  
 Discharge: To a Class 4 sewage system

Beginning in the fall of 2011 the Regional Municipality of Niagara discontinued the practice of approving holding tanks for storage and off site disposal of high strength winery wash water. Aqua Treatment Technologies Inc. was successful in obtaining approval from the Region for use of the 'AQUA Wetland System' (AWS) to provide pretreatment of this wash water prior to discharge into a Class 4 system that is designed to the specifications outlined in the Ontario Building Code (O.B.C.).

The approved design consists of a septic tank followed by a two cell AWS with subsequent discharge into an O.B.C. approved Class 4 sewage system. The permit issued by the Region requires routine monthly sampling of AWS effluent to ensure that the effluent meets the following discharge criteria: BOD 300 mg/L and TSS 350 mg/L. The design must be prepared and approved by a licensed engineer.

All system components are sized in accordance with the calculated daily design flow from the winery property. The Region will only issue the permit if the total calculated sewage flow from all components of the property are less than 10,000 L/day. Calculated flows over 10,000 L/day must be approved through an Environmental Compliance Approval issued by the Ontario Ministry of Environment.

Typical Winery Wash Water Treatment System Layout

