

CASE STUDY

ECOPOD & Whitewater Used in New System Design for School

Corbyville, ON

SYSTEM SPECIFICATIONS

4,500 GPD Wastewater Treatment System

PRODUCTS

Whitewater® Aerobic Treatment Unit

ECOPOD® Advanced Wastewater Treatment System

DESCRIPTION

Harmony School is located in Ontario and is designed for a flow rate of 4,500 GPD, influent strength of 300 mg/L BOD, 300 mg/L TSS and 60-75 mg/L of total nitrogen. Due to the stringent nitrogen effluent requirements, this system was setup with primary treatment, first stage nitrification, second stage denitrification and a polishing stage to remove any excess carbon. After several months of operation, test data showed that the primary stage Whitewater units were nearly completely nitrifying the available ammonia in the influent. The first stage ECOPOD unit was equipped with alkalinity feed, and reduced that total nitrogen load by a minimum 53%. With a minimum 1x recirculation rate being pumped from the final pump tank back to the ECOPOD E450D unit, the effluent nitrogen will again be reduced to a calculated level of 20 mg/l. The ECOPOD E450D reactor was setup with a carbon source dose system into the dilution

zone in order to feed the denitrification process, since the BOD is at such low levels coming from the Whitewater units. The final ECOPOD E100 unit serves to polish the final effluent, removing any carbon not utilized in the denitrification process prior to effluent discharge.



After some fine-tuning of the recirculation rates and feed rates to accommodate the variety of influent flows at this site, the system currently has a consistent effluent output of less than 10mg/L total nitrogen.



IWTCS-ECOPOD-01092018

 **Infiltrator**[™]
Water Technologies
Part of **ADS**

infiltratorwater.com • (800) 221-4436