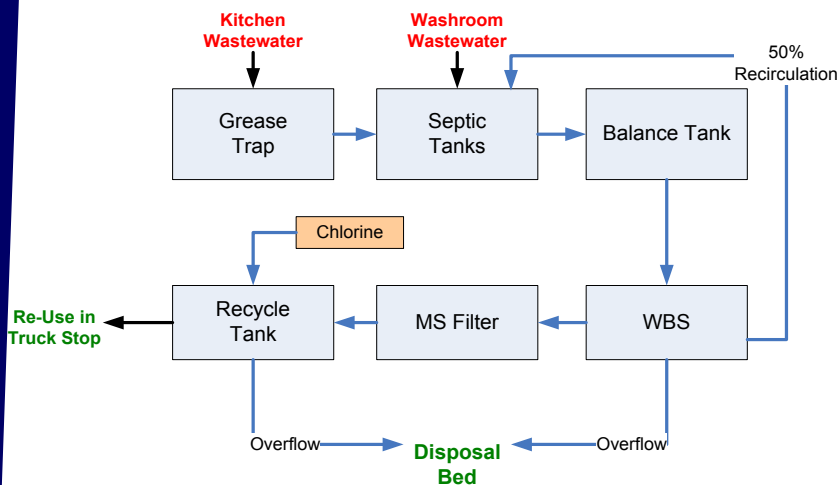


Project Profile

Husky Oil Truck Stop On Site Wastewater Treatment System

Belmont, Ontario

Husky Oil wanted to redevelop the Husky Oil Truck Stop located on the 401 near Belmont, Ontario. Re-development included building a new building containing a 200 seat restaurant, washroom facilities, kitchen, gift shop and miscellaneous facilities for truck drivers including shower rooms and laundry room. As part of the site re-development, additional truck parking was constructed and the existing lagoon facility was decommissioned and the area used for truck parking. The re-development meant that a new waste-



50% recycling of treated effluent from the Waterloo Biofilter tanks back to the septic tanks in order to reduce total nitrogen and to provide dilution of the wastewater from the septic tanks.

In order to reduce the demand for clean water to service the facility and reduce the amount of treated wastewater to be disposed of in ground, approximately 35% of the treated effluent from the Waterloo Biofilter System is reused for toilet flushing. The treated wastewater intended for reuse is polished using a two stage slow sand filter and ozone (MS Filter) in order to control colour, odour

and turbidity of the effluent. Prior to reuse, chlorine is added to the filtered effluent for disinfection and to prevent bacteria regrowth.

Wastewater reuse is an environmentally sound practice because it reduces water demand as well as wastewater discharge to the environment.

water treatment system was required on site.

K. Smart Associates Limited was retained to design a new treatment system. The new wastewater treatment system for the truck stop is based on the Waterloo Biofilter technology. The treatment train consists of 3 large septic tanks and a Biofilter dosing/flow equalization tank. The Waterloo Biofilter System (WBS) consists of 2 shipping containers filled with Biofilter media. The treatment process includes



Building that houses the MS Filter is on the left and Waterloo Biofilter Treatment System shipping containers are on the right.