

# Ecoflo®

## Cluster treatment system



**Customer:** Inniskillin Winery  
Niagara region, ON, Canada

**A tale of two wineries. Two regions.** Thousands of miles apart. Vastly different as winemaking regions but united by a singular commitment to quality and innovation. In both Niagara and the Okanagan, Inniskillin offers a full collection of fine VQA wines made by dedicated winemakers and viticulturists committed to their craft. Building on that tradition, the adventure continues as Inniskillin continues to play a vital role in exploring new frontiers in winemaking and appreciation while maintaining strategic partnerships and forging new initiatives in research, education and environmental responsibility. Inniskillin's Niagara Winery is located on the Brae Burn Estate Vineyard.

### Facts

Back in 1999, a 6-Ecoflo® treatment plant (cluster) was installed on the premises on the winery. Not only was this solution addressing the demand for a high treatment level, but also the compactness of the technology was key as space is an issue in this premium land.

Following the announcement of Inniskillin's sponsorship of the 2010 Vancouver Winter Olympic Games in 2004, and consequently the upgrade of the facilities (a piazza, boutique, bar, etc), the number of visitors drastically increased to reach 300 000 a year.

In February 2008, the increase of the wastewater production due to these important changes demanded an upgrade of the existing treatment solution.



Case Study





## Challenges

### Achieving a Sustainable Operation

Wineries present a challenge for wastewater treatment solutions. Inniskillin Winery, which is located in a Biosphere Reserve (sensitive zone), runs all year round, compared to most vineyards that run only 3 months a year. However, the bulk (typically over 80 %) of the wastewater is generated during the three (3) summer months. The rest of the year, the wastewater volume is significantly lower.

Land at the winery is a premium – it must be utilized to produce grapes. As such, the wastewater treatment solution must have the smallest footprint possible. To this constraint, operating expenses, aesthetics and ecology also are additional important factors influencing the selection of a technology.

With that in mind, the main issues that had to be taken into consideration were:

- **Very compact** A small footprint installation is a must for any winery
- **Passive** A system with no electromechanical parts to simplify the operation and the maintenance
- **Flexible** A technology that can show stable performance in response to seasonal peak flows

## Solution

Since minimizing the space required to install a septic system is the biggest issue for all wineries, Ecoflo® is the answer to most of them as it shows not only for the smallest footprint among all systems marketed in Ontario, but also for the highest treatment level.

In 2008, to comply with the Winery expansion, Reimer Excavating designed and installed five (5) more Ecoflo® systems (ST-650) completely in grade to increase the treatment system capacity of the existing 6 - Ecoflo® cluster installation.

## Benefits and future

The Cluster Ecoflo® system allows for a lot of flexibility to add more units to address potential increases of the volume of wastewater to be treated. It's a year-round operational treatment solution providing excellent results even when flow rates differ from one season to the next.

The passive treatment process and residual storage volume afforded by the treatment tanks, coupled with the few required pump tanks, were advantageous as power failures are fairly common in this area. In fact, Ecoflo® remains operational even during power outages.

No electric energy is needed for the processing (\$0 per year, or less than \$8 per year when a pump is required). The operating expenses are minimized which is a major advantage for the long term.

*"Ecoflo® has a unique practicality: there are no moving parts! I don't need to sell Ecoflo®, because people already know that it is a simple and ecological system with no moving parts and they love it!"*

**Greg Reimer**

Designer and Installer, Reimer Excavating



☎ 1 800 632-6356  
 📠 418 862-6642  
 📧 pta@premiertech.com  
 🌐 PREMIERTECHAQUA.COM



**ALL THAT YOU NEED!**

Register to...

The toolbox for wastewater professionals

[ptzone.premiertechaqua.com](http://ptzone.premiertechaqua.com)