

2009

Sys

Distributor DBO Expert Canada

Project	Initial project for 60 sites, extended 2 years later to 130 sites
Treatment Capacity	Initially 18.2 m³/day, increased to 53.9 m³/day
Soil Analysis	Very permeable
stem Surface Area	688.9 m ²
articularities of the Site	The flexibility of System O)) solutions allows for subsequent site expansions.

Treatment results available upon request.



BACKGROUND

This project was to install, in two phases, a wastewater treatment system for the Trouser Lake campground in the Eastern Townships. Initially designed and installed for 60 camping sites, a second phase was necessary due to the expansion of the campground, reaching about 130 sites.

Campgrounds tend to have very little wastewater during the week and large amounts near the end of the week when campers empty their holding tanks before leaving. This results in large fluctuations in organic matter and volume.

Due to the proximity of the lake, heavily used for aquatic activities of all kinds, the septic system needed to guarantee that no poorlytreated water would seep into the lake.

PRIMARY TREATMENT

The System O)) is preceded by a primary treatment. Raw wastewater is collected in 2 pre-cast serial septic tanks with an effective total volume of 74,9 m³. A 3.75 m³ grease trap is installed between the kitchen and the septic tank. Inside the septic tanks, the wastewater separates into layers as the fats float to the top and the solids sink to the bottom of the tanks.



DISTRIBUTION

The proper functioning of the System O)) depends on a uniform distribution of wastewater between the Advanced Enviro))Septic pipe rows. The effluent from the septic tanks is pumped through an indexing valve so that the system can be fed one cell at a time, through a low pressure distribution system. The extremity of each row of Advanced Enviro))Septic pipes is connected to a low pressure injector with an opening through which water is squirted to then flow through the system. This distribution mode ensures even distribution through the 26 rows of a cell. After each pumping cycle, the indexing valve swaps to send the next dose towards the next cell. Each cycle sends about 1,000 L to the system. This pressurized system ensures that all of the rows of pipes are evenly supplied with wastewater with less than a 2% difference between the rows.





SECONDARY TREATMENT

This system is composed of three cells of 26 rows of six Advanced Enviro))Septic pipes. The wasterwater flows along the length of the rows where it is treated by bacteria living in the pipes and in the filter during the infiltration process.System O)) septic systems combine wastewater distribution, treatment and infiltration in one simple step.

ECONOMIC ADVANTAGES

By using a System O)) the client saves money in the long term. A System O)) costs roughly the same as a conventional system, but has a lifespan of over 30 years. Conventional installations can start to fail after 15 years even if they are treated well.

System O)) requires little maintenance as there are no parts to repair or replace and no filtering medium to change. Moreover, DBO Expert can train employees, at the client's request, to monitor the system and perform what little maintenance is required. This removes most of the annual maintenance costs.

ENVIRONMENTAL ADVANTAGES

Purification performance well below the country's standards:

- Less than 15mg/L of BOD5 (5-day biochemical oxygen demand)
- Less than 15 mg/L of suspended solids (SS)
- Less than 50,000 CFU/100ml of fecal coliforms

The treatment process of a conventional installation occurs in the soil, while System O)) treats the wastewater within the system, protecting the native soil and the nearby waterways.







