

CASE STUDY

Quick4 Chambers Used in Town's WWTP Dispersal Field

Kawartha Lakes, ON

SYSTEM SPECIFICATIONS

1,353 m³/day disposal bed system

INSTALLATION DATE

Summer 2013

PRODUCTS

Quick4® Chambers

OWNER

City of Kawartha Lakes, ON

ENGINEER

Cambium, Inc., Peterborough, ON

DESCRIPTION

Located within the City of Kawartha Lakes, ON, the Village of Omemee had a wastewater system of lagoons and a spray irrigation system was exceeding the system's capacity. With the existing system limiting community growth and discharging to a nearby river, the Village was placed under regulatory orders to implement a new solution.

Initial proposals recommended a centralized solution for water and wastewater servicing, however the high capital and operating costs of such a system was not palatable to the residents. Due to the presence of permeable soils and deep position of the water table on the site, engineers determined that a large subsurface disposal system could be an effective solution. With development in the Village halted by the Ministry of the Environment and the need for a year-round solution they could afford, approval for the subsurface system was granted.

There were many benefits: the community already owned the property, the soils were well drained and had proper separation to groundwater, and the lagoon treated effluent was of a quality ready for disposal without additional treatment. Not to mention that the cost for installing the subsurface system was less than \$3M; a dramatic savings compared to the \$14.9M cost of a centralized solution.

Sized for 1,353 m³/day, the Omemee modular disposal system design includes the existing flow and allows for expansion for future growth. This will enable the Village of Omemee to remove the development ban, while moderating the initial capital expenditure of the wastewater system.

A series of disposal beds in 24 cells incorporate Infiltrator Quick4 chambers. The chambers were selected due to the lower material cost compared to stone and a significant reduction in labor required for installation. The distribution piping attached to the inside of the chamber allows effluent to spray across the chamber's inside area, resulting in even distribution of the effluent across the infiltrative surface.



The disposal system was completed in 2013 and is receiving wastewater and operating as designed.

