

Project Profile

Pioneer Sportsmen Club

Wastewater Collection System

Kitchener, Ontario

The Pioneer Sportsmen Club is a seasonal campground located within the City of Kitchener. The property lies on the shores of the Grand River and the trailer sites lie within the floodplain. The Club was established before municipal sewers extended to that area of Kitchener.

The water supply for the campground is a drilled well and the sanitary sewage is handled by holding tanks that are pumped out as required. As the City developed, the surrounding area was built up as residential housing and municipal sewers were installed.

Holding tanks in a floodplain are an environmental issue due to concerns of leaks and flooding resulting in the release of raw sewage to the environment.



Installation of Environment One Grinder Pump Station

The Grand River Conservation Authority and the Ministry of the Environment are against holding tanks or septic systems in floodplains. For this reason, the Pioneer Sportsmen Club decided to put in a sewage collection system and connect to the municipal sewer at the road.



Final Installation of Pump Station and Control Panel

There is approximately a 25 m elevation difference between the campground and the road, making a gravity collection system impossible. Due to the low flows typical of campgrounds and the extreme elevation difference, a low pressure collection system was designed using Environment One's grinder pumps.

A total of 18 pump chambers were installed. The trailer lots were grouped so that each group drained by gravity to a pump chamber. The design called for the main force-main to discharge into a manhole at the top of the hill, and then a gravity connection to the sanitary service would be made. However, during construction, the sanitary service to the property could not be located and there were issues with groundwater and slope stability. Therefore the main force-main was directionally bored into the municipal manhole at the road.

This project required approvals from the Ministry of the Environment, the Grand River Conservation Authority and the City of Kitchener.