

Case Profile: Rental System



Client: The National Trust

Project Background

This property is the National Trust's busiest visitor centre and restaurant. The original system was overloaded in terms of organic loading and at full capacity in terms of hydraulic loading. It was essentially acting as a septic tank rather than an aerated biological treatment plant. The original system was also housed in underground GRP tanks and was affected by inherent GRP tank problems in undulating ground, which caused an ingress of groundwater into the system. The National Trust negotiated to pump the site's effluent to the local utility's site. Pollution Control (UK) were commissioned in February 2004 to provide a rental system to cope with demand during the contract negotiations and construction phase.

Project Scope

To supply a complete biological system including primary settling and balance, Eco-SAF (Submerged Aerated Filter), and clarifier, which utilised one of the current tanks as the balance capacity. The plant was a 430pe plant based on use of 150l/head/day and a loading of 108g BOD/head/day.

Scope of Work

Pollution Control (UK) Ltd firstly undertook the responsibility of decommissioning the existing, failing biological plant. The National Trust were then supplied with a complete biological treatment system, which included a custom made Eco-SAF plant as well as a new primary tank (connected to and working in tandem with an existing tank that was modified to act as a balance tank), and final clarifier.

Equipment Supplied

- A mild steel 430pe EcoSAF system including primary/balance & final clarifier.
- Duty standby side channel inverter driven blowers in a separate kiosk.
- Fully integrated control panel in a small enclosure.
- All pumps, pipe work and connections.
- Fully automated alarm system.

Installation

Complete mechanical installation was undertaken by Pollution Control (UK) Ltd engineers including electrics, alarm systems and part of the civils. The system was fully functional within two weeks.



Maintenance

Pollution Control (UK) have a complete management contract with The National Trust. The program includes maintenance, sampling and continuous system evaluation.

Results

The system has coped extremely well with the demand that has been unexpectedly put on it (up to 2000 people per day) and is expected to be decommissioned in the spring of 2007.