

MUNICIPAL WASTEWATER TREATMENT
PRINCE EDWARD ISLAND, CANADA

TOWN OF STRATFORD
Wastewater Treatment Plant



The Town of Stratford wastewater plant (WWTP) has an average flow of 3,000 m³/day (0.8 MGD) of raw wastewater with a treatment system involving multi-stage aerated lagoons along with rotating biological contactors (RBC's) located within 200 meters of residential homes, motels, and commercial establishments.

The Challenge/Problem

The WWTP was overloaded and as a result was experiencing operational upsets including odor issues, sludge management challenges, and poor effluent quality.

Specific problems included:

- Immediate action required due to odor complaints being received neighbors
- The aeration system was unable to meet the DO demand of the incoming flow and accumulated sludge
- The RBC units were emitting odors and had poor biomass buildup on the rotating discs
- Floating sludge, fats, oils and greases were present on the surface of the lagoon
- Lagoon effluent quality was in violation of regulatory limits

SciCorp Treatment Plan and Execution

The plant manager contacted SciCorp to help with finding a solution to eliminate the odor complaints and to bring the plant into regulatory compliance. SciCorp engineers reviewed the plant operating data and developed a treatment approach that involved the following:

- ✓ Application of an initial shock dose by spraying BIOLOGIC™ SR2 over the surface of the lagoons
- ✓ Implementation a continual dose of BIOLOGIC™ SR2 at the influent works of the plant

Success

As a result of treatment, the following results were achieved:

Odors from the lagoons and the RBCs disappeared

The biomass film on the discs in the RBCs changed from black to light brown



Increase in lagoon DO concentrations



Reduction in aeration energy consumption



Reduction in effluent TSS, bringing the plant into compliance with regulatory standards



Reduction in effluent BOD concentrations

Issues Avoided

By working with SciCorp, the plant operators were able to help the facility avoid:

- Regulatory enforcement associated with odor complaints and effluent discharge concentrations
- Damage to the reputation of municipal government and management