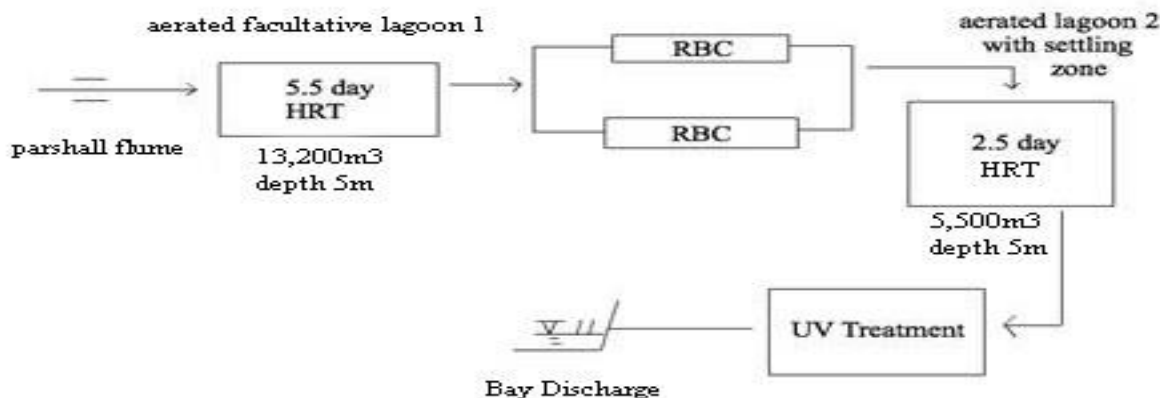


## Municipal WWTP Experience with SR2 Addition

### PROJECT BACKGROUND:

A demonstration study was carried out to investigate the benefit of adding a commercial biostimulant and micronutrient known as BIOLOGIC® SR2™ to a full scale municipal wastewater treatment plant suffering from odor issues, sludge accumulation, and poor effluent quality. The plant in Atlantic Canada is treating an average flow of 3,000 m<sup>3</sup>/d (0.8 MGD) and is surrounded within 200 meters by residential homes, motels and commercial establishments.

The wastewater plant description is summarized in the following Block Process Flow Diagram. After the successful demonstration, the plant has been using SR2 on a continuous basis.



### PERFORMANCE IMPROVEMENT SUMMARY

#### Initial Improvement

Within two weeks after the commencement of daily SR2 dosages, the following observations were made by plant operating staff:

- Odors from Lagoon 1 and the RBCs completely disappeared
- The biomass film on the discs in the RBCs changed from black to light brown
- The slime accumulated with the original film completely disappeared
- The DO in Lagoon 1 increased from 0.1 to 0.35 mg/l

#### Long-term Continuous Benefits Realized

- ✓ Increased bioactivity evidenced by continued surface bubbling in lagoon
- ✓ Accumulated sludge inventory was digested and disappeared
- ✓ Reduced blower energy consumption by 50% by turning down one of two blowers
- ✓ The RBC biofilm appeared healthy and DO levels of the effluent being discharged to Lagoon 2 improved from 3.0 to 3.5 mg/l
- ✓ Plant effluent had a much lower turbidity and suspended solids level. DO levels in plant effluent were in range of 0.2 - 0.3 mg/l. No odors from plant effluent were present as observed by plant staff.

