

Légumier Du Madawaska BioCord™ Upgrade

The Légumier du Madawaska is a vegetable processing facility located near Riviere-Verte, New Brunswick. The company has been in operation since 1974 and has grown continuously since then, with 3 different expansions involving increased processing capacity. The main vegetable processed is potatoes for fresh cut French Fries, but they also process carrots, turnips and cabbages. It employs 8-15 workers year-round, and purchases all of its vegetables from local producers.

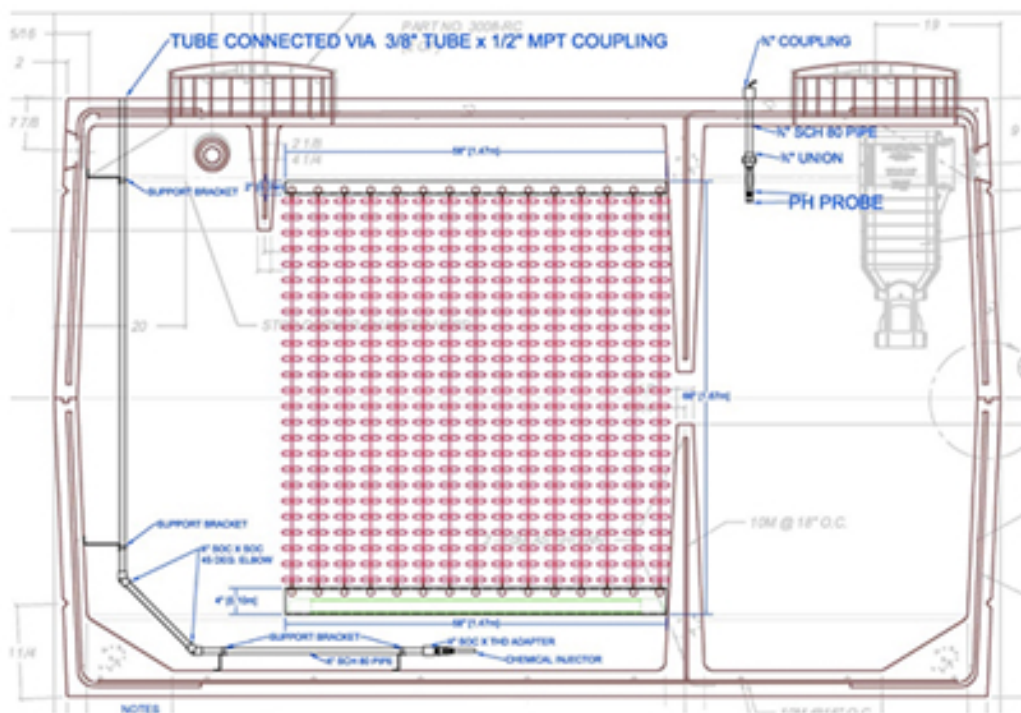
The Légumier had recently installed a system of 4 septic tanks to improve the treatment of the wastewater generated by the vegetable processing. While effective at removing suspended solids from the wastewater stream, an increased level of treatment was required to deal with the dissolved organics and increase the pH to the level required by the New Brunswick Department of the Environment.

BioCord™ Reactor Solution...

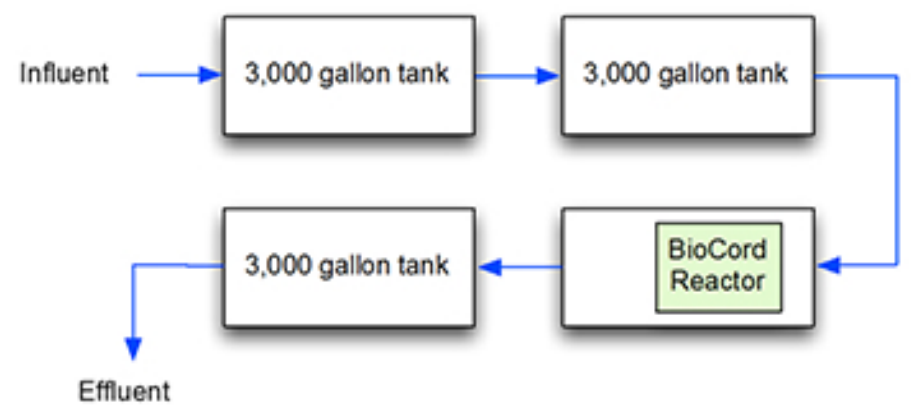
After examining several alternatives, the Légumier decided on installing BioCord™ Reactor Technology into their existing 4 tank septic system. BioCord Reactor Technology would provide a surface for treatment bacteria to grow, removing the organics from the wastewater treatment. A chemical dosing system was also installed to maintain the pH level.

Bishop Water Technologies prepared the full design of the BioCord™ Reactor system, including the aeration diffuser system and blower, stainless steel suspension brackets, and BioCord™ media. The pH adjustment system was designed and calibrated by Bishop Water Technologies.

In partnership with Complete Energy Systems of Grand Falls, New Brunswick, installation of the BioCord, aeration and chemical dosing system proceeded quickly, completed in two days. Proper scheduling allowed the Légumier to maintain full production while installation was proceeding.



BioCord in septic tank design



Process diagram



pH adjustment system and blower

After a period of acclimatization, the pH adjustment system was able to increase the pH from an average of 5.9 to 7.2, a level much more suitable for the development of treatment bacteria in the system. Initial concentrations of BOD range from 1300-1600 mg/L, and has been reduced to less than 400mg/L. These results are expected to improve as the amount of treatment bacteria increase on the BioCord.



Légumier du Madawaska BioCord installation

