



ALBERTA INNOVATES

Research and Innovation Project – Knowledge Transfer Summary

Project Title: Wastewater Lagoon Utilization Project
Project No: 2393
Project Lead: Peter Christou, Swirltex
Partners: Alberta Innovates, Swirltex, Alberta Municipality
Status: Ongoing

Project Summary:

Rural communities are struggling with increasing population, commercial and residential growth, and aging under capacity of wastewater infrastructure. These communities are increasingly unable to meet current and future wastewater environmental standards. Over ninety percent of rural communities in Canada rely on sewage lagoons for wastewater treatment. The cost to upgrade a lagoon with an additional cell, increased aeration or continuous mixing, is costly and a financial burden on the community and its rate payers. The Swirltex Lagoon Unit (SLU) system is extremely energy efficient and compact providing aeration and filtration of wastewater using existing filtering technology, as this simplifies the implementation process. Swirltex's unique process and business model provides wastewater treatment for the community at a cost per cubic meter basis, so no capital funding is needed by the community. The reuse water from the lagoon will be marketed and sold to local industry and used to encourage economic development.

The objective of this project is to demonstrate the immediate and long-term effects the SLU will have on the nutrient concentration in the lagoon in addition to the effluent. A third-party consultant will help validate the performance of the SLU which will in turn reinforce the business plan.

Outcomes:

None available.

Links:

<https://swirltex.com/>

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