



CASE STUDY

A Newterra Solution Offers a "Perfect Fit" for This Client's Expansion

Clear³ MBR technology is deployed as a technological upgrade to accommodate major growth at a busy hatchery allowing it to achieve strict discharge requirements.

Market Served: Commercial Poultry Hatchery
Application: Industrial Wastewater Treatment
Location: Abbotsford, BC (Canada)
Challenge: Treatment for Strict Discharge Levels
Solution/Service: Membrane Bioreactor (MBR) System

Summary

To accommodate growth, Lilydale needed to expand its Abbotsford facility to accommodate increased hatching of turkeys and broiler chicks and remodel the original hatchery to accommodate the addition of new equipment. The operation runs continuously, 365 days per year, producing 20 million broilers and 2 million turkeys annually.

The Challenge

Proper wastewater treatment (wash water) in a poultry hatchery is beneficial in many ways, such as protecting the environment, safeguarding human health, regulatory compliance, conserving resources, controlling odors, and promoting overall sustainability in poultry production.

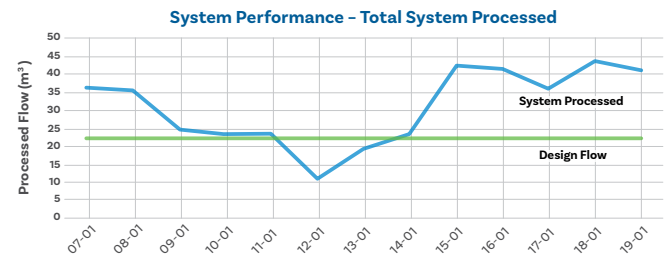
The current treatment of the hatchery's wash water had been addressed by an aging **Rotating Biological Contactor (RBC) System** that desperately needed replacement. The hatchery needed a better alternative to meet the strict discharge requirements that would allow effluent of sufficient quality to continue direct discharge into the local watershed under new, more stringent environmental requirements. Wash down water from the hatchery is high in BOD (Biochemical Oxygen Demand) and solids, as well as ammonia, thus requiring the inclusion of an Anoxic Tank in the treatment process.

The Solution

The Newterra **Clear³ Membrane Bioreactor (MBR) System** was ultimately selected for the hatchery based on the ability to maintain

all required discharge levels even when run for short periods at more than double the design flow. In addition, Newterra was able to offer technical expertise, manufacturing capability, and lifecycle equipment support for the long-term.

The Clear³ MBR System offers a compact footprint and is housed in an **ISO-certified** container for easy set-up. The membrane tanks feature side door access to the modules which simplifies periodic maintenance and eliminates the need for roof access. The Clear³ MBR System even maintains all required discharge levels - even when running at more than double the 22 m³/day (5,811 gpd) design flow of the system. (see chart below)



Complete Support for the Food and Agriculture Industry

Newterra empowers industry you to meet regulatory compliance and surpass environmental discharge regulations, shielding your company from legal issues and fines. Simultaneously, it fosters resource conservation through water recovery and reuse, contributing to sustainability and cost savings by reducing freshwater demand.

What's Your Unique Water Question?

Contact us today at **+1.800.420.4056** to solve your most challenging water issue.



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