

FEDERAL GAS TAX FUND PROJECT SPOTLIGHT
THE MUNICIPALITY OF THE COUNTY OF COLCHESTER'S
COMPOST HANDLING FACILITY PROJECT

The Municipality of the County of Colchester

Incorporated: 1835

Population: 50,023 (2006 Census)

Project: Compost Handling Facility

Qualitative benefits: Groundwater and ecological protection; environmental sustainability; fewer greenhouse gas emissions

Federal Gas Tax Fund contribution to project: \$2,135,804

Total project cost: \$5.8 million

THE MUNICIPALITY OF THE COUNTY OF COLCHESTER



The Municipality of the County of Colchester stretches 3,628 km² in north central Nova Scotia and has a population of 50,023. Named after Colchester, England, it was part of Halifax County until 1835.

Colchester County is a rural municipality, extending from the Minas Basin to the Northumberland Strait, and through Acadian forests, the Cobequid Mountains and vast pastoral lands. Rich in natural resources, these diverse landscapes support a number of resource industries, including farming, forestry and fishing. The Municipality also provides many recreational opportunities through its parks and extensive trail system.

Colchester County is home to over 100 communities (including the towns of Truro and Stewiacke, the Village of Tatamagouche and the communities of Brookfield and Debert), which serve as economic hubs and provide a variety of businesses, services and industries. As vestiges of the Municipality's past, a number of its smaller communities have preserved their schoolhouses, churches and other historic buildings, offering glimpses into the rich cultural history of the area.

A NEW COMPOST HANDLING FACILITY FOR THE COUNTY OF COLCHESTER

Demonstrating leadership in solid waste management and a commitment to the environment, the Municipality of the County of Colchester sought an innovative solution to its former composting facility, which opened in Kemptown in 1996. When green carts were made available to every household in 2010 and clear bags introduced in 2012, the volume of material entering the old facility increased considerably, pushing it beyond its capacity. As part of a waste management master plan to address the limitations of its old site, the Municipality chose to invest in a facility that would improve its sustainability capacity through better and more efficient composting practices.



After many years of research and measured consideration in search of a system best suited to its needs, Colchester County decided on a low-tech design that would give it maximum control over the composting process to produce the highest quality end-product. Their new compost handling facility has been operational since the spring of

2015 and is the only one of its kind in Canada. It is enabling the Municipality to efficiently turn waste into a valuable commodity, extend the life of its landfill, reduce negative impacts on the environment and achieve considerable energy savings.

The new facility includes three large dome buildings (rightly-named *MegaDomes*) that are made out of fire-retardant material and span 90 feet wide by about 274 feet long. Organic material is moved from one building to the next as it goes through the various stages of decomposition. Incoming waste is shredded and mixed with wood chips, which is used as a bulking agent and a source of carbon to accelerate the composting process.

As another step to improve its processing ability, the Municipality purchased a compost turner, designed for space optimization and efficiency. The turner lifts and fully aerates organic material in a single pass and then places it in a continuous pile. This not only saves time but optimizes the space required to cure the compost. By eliminating empty space within buildings, the Municipality was able to reduce the facility's footprint by approximately 60 per cent



With more efficient use of space and procedures for handling organics, the Municipality expects to process upwards of 8,500 tons of material annually, a considerably increase from the 2,500 tons it managed in the old facility. Finding end-markets for the finished product has never been a challenge for Colchester County – it all stays within the province with the majority going to residents (free of charge) and the remainder is used by the public works department or sold as a valuable soil amendment. Within the old facility, it took upwards of a year to produce finished compost, but the Municipality now anticipates a much shorter processing time.

The investment in time and expenditure to get the right facility for Colchester County is already paying off in many ways. One unanticipated benefit is how much pride staff is taking in the ownership of the process – learning and tweaking it each day to improve its efficiency. This is allowing them to set a high benchmark for municipal composting at the lowest possible cost to taxpayers. *“By investing the time and money to get the best system for Colchester County we are doing right by everyone in terms of our investment,”* says Wayne Wamboldt, Director of Waste Management.

Through its vision, long-term planning and commitment to improving its solid waste services, Colchester County has been able to finance a facility that truly works for its circumstances, while creating many environmental, economic and social benefits. This makes the Municipality's investment a very wise one that will serve its communities and residents for many years to come.