

Montmagny takes action on septic tank sludge

Regional County Municipality of Montmagny, Quebec



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Green Municipal Fund Case Study



The Montmagny region has many lakes and watercourses that must be protected by properly managing septic tank sludge (Photo: Regional County Municipality of Montmagny).

Management plan for septic tank sludge in the Regional County Municipality of Montmagny (GMEF 0158)

Date project completed: June 2005

Total project value: \$46,010

GMF grant: \$23,005

- The Regional County Municipality of Montmagny studied how to deal with septic tank sludge
- A variety of options were analyzed
- The county compared the advantages and disadvantages of service clustering
- Under the new management plan, septic tanks must be emptied regularly, and the sludge disposed of according to new rules

OVERVIEW The Regional County Municipality of Montmagny wanted to create a management strategy for septic tank sludge produced in its area. This meant drawing up a long-term best solution that could be adapted if necessary. The consultants hired by the county looked into several management plans that took the region's particular needs into account, paying special attention to the legal, logistical and financial aspects of managing septic tank sludge. They recommended continuing to treat sludge outside Montmagny in the short term, but planning to treat it within the region when it makes financial sense. They also recommended a sludge management strategy that will benefit the economy and the environment.

PROJECT TEAM

Regional County Municipality of Montmagny
BPR Inc.

CONTEXT The Regional County Municipality of Montmagny sits on the south shore of the St. Lawrence River and extends as far as the border with the United States. Montmagny has approximately 4,850 buildings that are not connected to a sewage system and that should have stand-alone wastewater facilities. The county had very little information on how well these facilities meet standards, but it seemed that a significant number did not do so. A sludge management strategy was seen as benefiting the environment in several ways: by improving the quality of groundwater and surface water, by reducing the risk of clogging septic fields, by safely releasing sludge and its co-products, and by resulting in the more efficient use of transportation. This last would reduce fuel consumption and production of greenhouse gases. But to develop a sludge management strategy, Montmagny had to quantify the problem first.



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APPROACH The county hired the consultancy firm BPR Inc. to study ways to manage septic tank sludge. The study included:

- collecting data on the various septic systems across the region
- drawing up and analyzing seven management approaches that could be divided into two broad categories: treatment within the region (either centralized or decentralized) or treatment outside the region (either centralized or decentralized)
- assessing how the volume of sludge to be treated would affect management costs
- listing all factors that should be taken into account before launching a regional management program for sludge
- estimating the environmental benefits of efficient management

RESULTS The inventory listed approximately 4,850 buildings — 67 per cent permanent residences and 30 per cent cottages — not connected to a sewage system. Sludge from these buildings was disposed of by private businesses. The study team reported a total of 1,200 sewage disposals in 2003 across the entire region. This was less than the number of disposals that would be carried out if current guidelines on systems were followed. Fewer than 60 per cent of systems were emptied as frequently as suggested. If the guidelines were followed, Montmagny would produce roughly 7,000 cubic metres of sludge each year.

The consultants considered seven options that took the following points into account: the method of sludge disposal and treatment, the frequency of disposal, and the treatment of sludge.

The consultants recommended that treatment continue to be carried out outside Montmagny for the foreseeable future. However, the legal, logistical and economic factors of establishing a sludge management program had to be taken

into account because the municipalities are bound to apply the regulations on sludge. The local economy would benefit once the nominal volume was reached. Moreover, the sludge management plan would produce real environmental benefits.

The analysis showed that the unit costs for each system emptied ranged between \$146 and \$178. Local options were found to offer better value than going outside the region.

NEXT STEPS The consultants suggested analyzing the pros and cons of clustering the treatment of septic tank sludge. Clustering appeared to be potentially beneficial from both an environmental and economic perspective for Montmagny.

The consultants recommended that the county draft a management plan for septic tank sludge based on the following four general points:

- coordinating disposal and transportation
- coordinating sludge treatment practices
- ensuring technical follow-up on septic systems
- introducing a communications plan

The region made it compulsory to empty septic tanks regularly as of January 1, 2007. A communications strategy was drafted in 2006 and a seven-month public information campaign, a joint effort with local municipalities, was launched in September 2006. A new program to manage this sludge was implemented in the spring of 2007.

LESSONS LEARNED “Our information technology supplier developed software specifically for sewage management. This proved invaluable, and it should not be overlooked during the follow-up for this project,” said Nancy Labrecque, chief administrative officer of the Regional County Municipality of Montmagny.



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As well, any new service usually raises questions or complaints. Labrecque added that ideally there should be a policy for managing questions and complaints from the beginning.

CONTACTS

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ADDITIONAL RESOURCES To read the full report or to learn about other GMF-funded initiatives, please visit the GMF website at www.fcm.ca/gmf or contact us at 613-907-6208 or at gmf@fcm.ca.

About the Green Municipal Fund

The Government of Canada endowed the Federation of Canadian Municipalities (FCM) with \$550 million to establish the Green Municipal Fund™ (GMF). The Fund provides low-interest loans and grants, builds capacity, and shares knowledge to support municipal governments and their partners in developing communities that are more environmentally, socially and economically sustainable.

Federation of Canadian Municipalities Green Municipal Fund

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