



Maritime Provinces Water & Wastewater REPORT

VOLUME 16 / NUMBER 2

\$3

APRIL 2009

PM# 40064924



NOTE FROM THE CHAIR

Andrew Garnett
MPWWA Chairperson

It has been a little better than eight months now since we hired Clara as our registrar. Since this time I can say, without a doubt, we have come a long way in how we are structured and how we do business. Efficiency is very key to being successful in whatever you do. Thanks Clara for all your hard work and dedication.

Over the past year, the MPWWA education committee has worked with government representatives to ensure the workshops offered by the association are structured properly and present the necessary information to satisfy the training requirements for certification. Your feedback is welcomed at every workshop and we invite you to share with us your needs or that of your municipality.

The MPWWA website has seen some major changes in recent months and more are planned. Opportunities to interact through the internet are limitless. In time, everything that our association does will be available with a click of a mouse.

Our annual conference will be held in Charlottetown, Prince Edward Island, from April 26 to 29. A lot of hard work has been put into organizing the various workshops, displays and programs. I hope that you get the chance to attend as it is well worth it.

Best of luck in 2009!



Photo courtesy of the Canada-Nova Scotia Infrastructure Secretariat
The funding announcement on February 20 was attended by: Carolyn Bolivar-Getson, Lunenburg West MLA; Lawrence Mawhinney, mayor of Lunenburg; Premier of Nova Scotia Rodney MacDonald; MP Gerald Keddy, Parliamentary Secretary to the Minister of International Trade.

Lunenburg and Bridgewater receive funding

Residents of Bridgewater and Lunenburg can look forward to enhanced water and wastewater systems thanks to funding under the communities component of the Building Canada Fund.

On February 20, federal, provincial and municipal funding of \$3,652,800 was announced by Premier of Nova Scotia Rodney MacDonald and MP Gerald Keddy, Parliamentary Secretary to the Minister of International Trade, on behalf of John Baird, Minister of Transport, Infrastructure and Communities.

“This investment is part of the largest infra-

structure program in the history of the province,” says Premier MacDonald. “We are building for growth, with infrastructure, with financial support to create and protect jobs and with other measures to stimulate the economy and prepare for a stronger future. Projects like this one will contribute to stronger communities and a stronger economy.”

The Town of Bridgewater project includes the installation of new storm sewers and part of the sanitary sewer system. The project will also enable backup power to be installed at two pumping stations. About 150 households will benefit from im-

proved wastewater treatment. The total cost of the project is \$2,303,400, to be funded equally by the federal and provincial governments and the Town of Bridgewater.

The project in the Town of Lunenburg includes the installation of new sanitary sewers, a pumping station and a watermain replacement for 50 households. The removal of the current sewer outfall will eliminate untreated wastewater from entering Lunenburg’s front harbour. The total cost of the project is \$1,349,400, to be funded equally by the federal and provincial governments and the Town of Lunenburg.

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Photography by Alanna Jankov

Details of the Tignish infrastructure projects were announced at the Tignish village office on February 28. Participating in the announcement were (from left to right): Elmer Arsenault, chairperson of the Tignish Community Council; Gail Shea, Minister Fisheries and Oceans; Neil LeClair, PEI Minister of Fisheries, Aquaculture and Rural Development; Allen Gavin, chairman of water, sewage and policy for Tignish Community Council.

Tignish projects receive financial boost

Residents of Tignish will benefit from infrastructure improvements as a result of joint investments by the governments of Canada, Prince Edward Island and the Community of Tignish through the Prince Edward Island communities component of the Building Canada Fund.

Federal, provincial and municipal funding of \$144,092 for the Tignish projects was announced on February 28 by: Gail Shea, Minister of Fisheries and Oceans (on behalf of John Baird, Minister of Transport, Infrastructure, and Communities); Keith Ashfield, Minister of State - Atlantic Canada Opportunities Agency; Neil LeClair, PEI Minister of Fisheries, Aquaculture and Rural Development (on behalf of Carolyn Bertram, Minister of Communities, Cultural Affairs and Labour); Elmer Arsenault, chairperson of the Tignish Community Council.

The Tignish funding will be used to develop a second well field site and perform upgrades to the lagoon.

"Sustainable infrastructure is key to creating a vibrant, healthy community," says LeClair. "Our government is proud to be supporting these projects which will lead to improving our environment, as well as providing a high quality and quantity of potable water for the residents of Tignish. Through infrastructure investments, we are committed to do all we can to create a stronger, safer, one-island community."

To complete the two projects, the Government of Canada will invest up to \$48,031 from the communities component of the Building Canada Fund and up to \$21,250 from the Canada-Prince Edward Island Gas Tax Fund. The Government of Prince Edward Island, through the Department of Communities, Cultural Affairs and Labour, will fund up to \$48,031. The municipal government will provide the balance of the total eligible project costs up to \$26,780. Thanks to these contributions, these projects are two of many across the province that will break ground quickly.

About the projects...

Lagoon upgrades:

The outlet manholes are key to maintaining the water levels at the Tignish Sewage Treatment Plant. Since the structure is 40 to 50 years old and deteriorating, this project will replace the concrete discharge manhole and the secondary corrugated metal discharge manhole, thus lengthening the life span of the lagoon. A secondary bypass will be constructed to enable draining of the lagoon for necessary repairs and maintenance.

The total project cost is estimated to be up to \$50,592. The governments of Canada and Prince Edward Island will each invest up to \$16,864 through the Building Canada Fund communities component

(BCF-CC). The municipal allocation from the Canada-Prince Edward Island Gas Tax program will be up to \$7,500. The municipal government will fund up to \$9,364 of the remaining eligible project costs.

Development of a second well field site:

The community of Tignish currently has one well field that services approximately half of the residents and cannot sustain the level of service to the remainder. A second well field site will increase the community's capacity to add more customers to the utility and also serve as a backup if the first well field should ever be contaminated.

This project will fund the evaluation and provision of test wells for an additional well field site, as well as hydrogeological well drilling to determine the probability of a potential site to provide the quality and quantity of ground water required. Recommendations of the best wells for production will be possible once the drilling program is complete.

The total project cost is estimated at \$93,500. Through the BCF-CC, federal and provincial governments will each contribute up to \$31,167. Up to \$13,750 will be covered by the municipal allocation from the Canada-Prince Edward Island Gas Tax program. The municipal government will fund the remaining eligible project costs up to \$17,416.

Stimulus package offers hope to Coalburn residents

BY JENNIFER VARDY LITTLE

THE NEWS TRANSCONTINENTAL MEDIA

The failing economy could actually have a positive effect on the Coalburn and Greenwood area in Nova Scotia with talks that the federal stimulus package may mean funding for a major sewer project.

This extensive sewer project could potentially stretch from the Crossroads Country Market to the highway and might also include the MacLellans Brook area.

"They're looking for any shovel-ready projects to go in for consideration," says warden Ronnie Baillie. "This is something that we can do quickly to qualify for this new money from the federal government."

In order to qualify for the funding, projects must be able to be completed within two years. Baillie says that timeframe is possible for this sewer project.

Councillor Randy Palmer proposed the idea at a recent council meeting saying the sewer line could hook onto the processing plant in Thorburn which already services the village. It would make the installation of the system much easier and less expensive than it would be for other areas, he explains.

One of the main benefits of installing a line would be future development in the area. A developer recently purchased 40 acres of land in the Coalburn area and is considering constructing a subdivision. "But without a sewer in, it won't take place," says Palmer.

Before the municipality can go any further with the sewer project proposal, they first need to find out if the residents want a sewer line. Letters will be sent out to ratepayers in the area to see if they're interested in the project. Palmer also plans to contact them personally, either by phone or by going door to door.

"It's up to the people — it's not up to me," Palmer says. "With all the stimulus money available right now, we want to try and take advantage of it. A number of people have been asking for it for years. Now's the time to get it if we want it, so we're trying to put it out there to them."

Residents would have the opportunity to vote on the project, which would only proceed if the majority of residents are in favour of it. The project would also have to go before a vote of council and the infrastructure funding would have to be approved.

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Photo courtesy of the New Brunswick Regional Development Corporation
Premier Shawn Graham and Greg Thompson, Minister of Veterans Affairs and MP for New Brunswick Southwest, made the recent funding announcement. From left: Browns Flat Mayor David LeRoy; McAdam mayor Frank Carroll; Greg Thompson; Shawn Graham; St. Stephen mayor Jed Purcell.

Governments invest in New Brunswick's rural infrastructure

Federal, provincial and municipal governments have joined forces to help New Brunswick communities meet their infrastructure needs with a combined \$57.3-million investment in 32 community infrastructure projects. Funding is being provided under the communities component of the Building Canada plan.

Premier Shawn Graham and Greg Thompson, Minister of Veterans Affairs and MP for New Brunswick Southwest, made the announcement on February 27.

"These investments will help ensure that New Brunswick communities have quality infrastructure to protect residents' health and wellness," says Graham. "Ensuring that we have strong infrastructure is vital in order for New Brunswick to remain positioned to be self-sufficient."

The projects will help stimulate local economies and support economic growth and environmental protection now and for years to come.

Some of the funded projects:

- The Village of McAdam's study on its wastewater collection system and the installation of a drinking-water residual-chlorination monitoring system. The village will receive \$63,092 from the

federal and provincial governments for the study, and an additional \$16,894 from both for the new chlorination monitoring system.

- The Town of St. Stephen's project to separate combined sanitary and storm water flows and renew existing water mains. The federal and provincial governments will both provide \$1.2 million toward the \$3.6-million project.
- Browns Flat's wastewater infrastructure project which will receive combined funding of \$1.649 million.

The federal and provincial governments are providing up to two-thirds of the funding for eligible project costs across New Brunswick, with local governments covering the remainder. Federal and provincial contributions for this investment total \$38.2 million. Funding for the projects is contingent upon the completion of all contractual agreements, including pending environmental impact assessments with the municipalities.

The two governments have also taken steps to begin construction and to provide funding more quickly for targeted infrastructure projects in New Brunswick for the 2009 and 2010 construction seasons.

Bridgetown Council flooded with questions on sewage tax bills

Controversy attracts dozens to clear the air

BY GEOFFREY AGOMBAR

ANNAPOLIS COUNTY SPECTATOR
TRANSCONTINENTAL MEDIA

Last fall, Bridgetown passed a new sewer tax bylaw to resounding public silence. A few weeks ago, the first bills went out, and that silence was resoundingly broken. E-mail lists were abuzz. Facebook groups were started. A mock outhouse popped up on a front lawn near the entrance to town.

On March 9, town council held its first meeting since those bills were sent out and the place was packed. Suddenly there were three dozen residents, where normally it would not be surprising to see none.

"I counted 33," says mayor Art Marshall. "33 people at a town council meeting? I think that got the attention of everyone present, myself included."

Marshall says council took great pains to give everyone time to speak and recorded all ideas and concerns raised.

"Everyone had the opportunity to present their concerns and views, to provide feedback and input. It became a fairly lengthy public forum, actually."

Dan Forbes, president of the Bridgetown and Area Chamber of Commerce and creator of a Facebook protest group called "I Hate the New Bridgetown Sewer Tax" was satisfied with the turnout as well.

"I was pleased too see that people were taking an interest and that council was willing to modify its structure to allow for an open discussion. They opened up the meeting for at least an hour and a half to allow discussion to take place — everyone had a chance to speak."

Public discussion of contentious and controversial subjects can easily turn into shouting matches. In this case, for the most part, conversation won out. Forbes, Marshall and dissatisfied residents like Ted and Angela Clark all agreed on the major points raised: effects on residents on a fixed income, effects on businesses and property values, difficulties communicating the scope and size of the charges, a formula perhaps too skewed by lawn watering, pools, gardening, etc., and delays issuing the first bills that have led to short intervals between bills which has exacerbated all the other problems.

The Clarks were somewhat less impressed than Forbes, but were similarly glad that everyone had a chance to speak.

"They certainly let everyone say their peace," says

Angela Clark. "But, I still don't think the numbers add up. I told them I want to see proof of how much money this brings in and how it gets spent. I want to see proof that the sewage tax is paying for sewage costs."

Ted Clark is also convinced there are many town residents who still don't understand how much they will be expected to pay.

"They don't realize there's going to be another bill next month. And, more after that. They don't know they're getting four or five more bills this year. When that next round of bills comes out, I bet another bunch of angry people are going to be out there asking 'What is going on here?'"

The Clarks stress that their concerns are not just personal. They want the best for their family and their community like everyone else.

"We're trying to fix something here, not fight over it. This area is not growing; it's getting smaller.

But, if the costs keep going up, who's going to want to buy a house here? Who's going to want to start a business?" asks Ted. Angela adds: "I just think it's too much, too fast."

Chamber of commerce president Forbes agrees that property values and business expenses are troubling, but

admits, "I don't think anyone at the meeting felt the tax is unnecessary, or that it can be avoided altogether. And, the need for funds is real. It's just a question of how can we work together to create a financial environment that doesn't appear to deter or hamper business expansion or migration to Bridgetown."

Marshall says that the bylaw has gone through the process dictated by the Municipal Government Act and any changes cannot be retroactive.

"It is what it is. We've learned a lot about the details and intricacies of its application, and that is what we are working on. We will be taking a hard look at the bylaw when we get back into the budget process this year. Hopefully we can improve it in the future. In the meantime, council has directed staff to take a look at ways we might be able to mitigate problems, in terms of intervals between bills, for example."

For their part, the Clarks have taken down the protest outhouse from their lawn. But that doesn't mean they're ready to wash their hands of the issue.

"I told them the other night, I'm watching now," says Ted Clark. "I will be a watchdog at those meetings, and if I have to go door to door to make sure people know what is going on, I will."

Everyone had the opportunity to present their concerns and views, to provide feedback and input. It became a fairly lengthy public forum, actually.



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Publications Mail Reg # 7145
Return undeliverable addresses to:
Transcontinental Specialty Publications/Holiday Media
1888 Brunswick Street, Suite 609, Halifax, N.S., B3J 3J8
General Manager: Jeff Nearing
Sales Manager: Henry Flowers
Editor: Barb McCay Cashin
Designer: David Schaffner
Sales Executive: Naster Tracz
Circulation: Bonnie Marchand
Traffic: Kim Macphail

Mailed under Canada Post Publications Mail
Agreement No. 40064924

Maritime Provinces Water & Wastewater Report
1888 Brunswick Street, Suite 609, Halifax, N.S., B3J 3J8
Phone: (902) 468-8027 Fax: (902) 468-1775
www.transcontinental-media.com

E-mail: barb.cashin@transcontinental.ca



MPWWA PROFILE: *Allan Young*

Every issue, the MPWWR shines a spotlight on an MPWWA member making a difference in the industry. Allan Young is the focus of our April issue.

■ BY STEPHEN CLARE

Allan Young means business.

“Most mornings I’m in here by 5 a.m.,” says the senior water treatment plant operator for the Cape Breton Regional Municipality. “I like to get an early start.”

A veteran by industry standards – the 58 year old has been with CBRM for nearly a quarter of a century – Young is fully aware of the example he is expected to set for his younger associates.

“I don’t think that I’m too tough on them or anything,” he smiles. “We need to keep in mind that we are responsible for a vital service that directly affects the health and well-being of people in our community.”

Young joined the municipality’s public works department back in 1985 after years of dabbling in the construction industry as a plumber. Four years later he became a replacement operator and has worked in water treatment ever since.

“I’m a level III operator, which means that I oversee all aspects of day-to-day operations for all of the plants,” he says. “Whether it’s water sampling, monitoring the SCADA system, or

carrying out repairs, there is always something to do.”

With 11 water systems of all types spread out across the region, Young admits to having his hands full most days, but says everything that needs to get done is done.

The lifelong Cape Breton native, who was awarded the 2006 Operator of the Year Award by the ACWWA, hasn’t given much thought to how he is going to celebrate his 25th anniversary with the CBRM next year.

“Maybe someone will bake a cake or take me out for a beer. Or maybe I’ll take a vacation.”

Getting away is something that he and his wife have been doing a lot of in recent years.

“We try and get down to the Caribbean, Cuba, Mexico or the Dominican Republic each February or March for a week or two, mostly to get away from these harsh winters,” he says.

Young says while it’s nice to go away, he always enjoys coming back.

“I love my job. And the people I work with every day are fantastic. I can’t imagine leaving everyone and everything and retiring at this point.”

Young says that when that day comes, he plans to set off on adventure with his wife to see more of the world.

“Until then,” he says, “it’s business as usual.”



Photo Contributed

Allan Young oversees all aspects of day-to-day operations of the water treatment plants in Cape Breton Regional Municipality.

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Photo courtesy of HRM

Spokesperson James Campbell says the primary goal for all involved is to quickly return the Halifax WWTF to operation and get the harbour's water quality back on track.

Temporary set-back for Halifax WWTF

On January 14, the Halifax Wastewater Treatment Facility (WWTF) suffered wastewater flooding damage due to an extended local area power outage.

As a result, the Halifax WWTF has been temporarily shut down and all wastewater previously routed through the Halifax WWTF is being screened through various combined sewer overflow chambers (to remove "floatables") and discharged into Halifax Harbour.

The flooding in the plant was limited to the basement and wet well areas. The equipment and systems in those areas that were exposed to wastewater will need to be repaired and/or replaced. Fortunately for the Halifax WWTF, it is in its second month of a three-year warranty period and substantial insurance policies are in place.

"An extensive forensic investigation into the mal-

function at the Halifax facility has not yet determined a cause," says James Campbell, communications manager for the Harbour Solutions Project.

But he says restoration work is well underway. This effort began with an extensive clean up of the affected areas. Some systems have been returned to service.

"Of course, the primary goal for all involved is to quickly return the Halifax WWTF to operation and ensure another event doesn't occur in the future," says Campbell.

The Halifax WWTF became operational back in November 2007. At the time, it was the first of three new advanced-primary treatment WWTFs to be completed as part of the Harbour Solutions Project. Since then, operations have commenced at the Dartmouth WWTF and construction on the Herring Cove WWTF is slated to be completed this summer.

PRODUCT SHOWCASE

Handy maintenance kits for Amarex KRT family of submersible pumps



All-inclusive: Spare parts kits for Amarex KRT submersible pumps

Photo courtesy of KSB Pumps Inc.

Time for a tune-up? KSB Canada is now stocking convenient maintenance kits for its extremely popular Amarex KRT family of submersible pumps for water and wastewater applications.

Available for standard KRT pumps, these spare parts kits come in three variations. The basic version contains a complete set of replaceable seal elements, while the bigger kit includes both the seal elements and a full set of replacement bearings and associated fasteners. A full-scale set is complemented by the impeller and is available upon request.

"Each and every pump needs some maintenance," says Jens-Uwe Strunk of KSB. "Our new all-inclusive service kits make life a little easier and offer time and

cost savings for the water or wastewater operator."

While the first kit includes all parts necessary for basic maintenance, the second set is geared at a full "tune-up" of long-service or heavily used pumps. The impeller kit comes into action when a full-scale overhaul of the pump is needed. Everything is there in a convenient, complete package and offered at approximately 30 per cent less than individual parts prices.

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Photo courtesy of the Government of PEI – Communities, Cultural Affairs and Labour
On March 13, Premier Robert Ghiz spoke about the combined investment of more than \$7.1 million for residents in Charlottetown and Stratford.


Making headlines...

- On March 13, Gail Shea, Minister of Fisheries and Oceans, and Robert Ghiz, Premier of Prince Edward Island, announced the combined investment of more than \$7.1 million for residents in Charlottetown and Stratford, who will benefit from sewer extensions and road improvements, as well as a pedestrian pedway and improved Canada Games facilities, thanks to the governments of Canada and PEI. The Town of Stratford will be extending its sewer mains in the Sundance Cove area and on Georgetown Road. These two projects will eliminate the discharge of water from septic systems into the ground and, in turn, will improve the quality of groundwater in the area and eliminate potential sources of future contamination. The total cost of these two projects is \$664,000 and \$605,000 respectively; the federal, provincial and municipal governments will each contribute one-third of the project costs.
- Nova Scotia's Terra Firma is winning worldwide acclaim with its Flow Splitter. A major international study was conducted by the Department of Civil, Structural and Environmental Engineering at the University of Dublin in Ireland. This study tested numerous distribution devices — from distribution boxes and stilling chambers to splitter tees — for their ability to evenly split effluent in gravity-fed septic systems. The trials found the splitting tees performed the best, in particular Terra Firma's Flow Splitter with the baffles. Terra Firma's device displayed superior flow-splitting efficiency and was relatively insensitive to a range of off-level installation angles.
- Residents of Doaktown, New Brunswick, will benefit from improved wastewater treatment thanks to joint federal-provincial funding of more than \$1.8 million. The announcement was made on March 14 by Human Resources Minister Rick Brewer and Miramichi MP Tilly O'Neill-Gordon. The governments of Canada and New Brunswick will each invest up to \$934,088, with the Village of Doaktown contributing the remaining \$934,089 of total eligible project costs. The project involves the construction of a new wastewater lagoon that will increase the capacity and improve the reliability of the wastewater treatment system. By reducing the amount of untreated effluent into the Miramichi River, the project will play a key role in protecting the health of the salmon population and the river, both focal points of the region's tourism industry.
- On March 25, Acadia University in Wolfville, NS, hosted a water issues discussion panel. Topics included: privatization and corporate control of water; state of Canada's water; bottling companies and their impacts on communities; consumer perspective of bottled versus tap water; technologies used by municipal treatment plants; water as a human right. Brian O'Neill of Oxfam Canada, Angela Giles of the Council of Canadians, political scientist Dr. Andrew Biro and biologist Graham Daborn were featured panelists. The discussion was held in celebration of World Water Week.

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- The Tusket Industrial Park in the Municipality of Argyle sees opportunity on the horizon with the completion of a wastewater extension project. On February 6, the Province of Nova Scotia announced that it is investing \$60,000 towards the extension of a wastewater line that will serve the remaining lots in the park. The project also includes improvements to the system's pumping station. The investment is part of the Provincial Capital Assistance Program. Referring to the project as a vital component to the industrial growth of the Municipality of Argyle, the municipality says it is an enhancement that will help attract new businesses to the park.
- On March 14, joint federal and provincial funding of nearly \$1 million was announced to help Miramichi upgrade its water and wastewater system. The governments of Canada and New Brunswick will each invest up to \$492,739 in the project. The City of Miramichi will contribute an equal amount toward total eligible project costs of \$1,478,217. The project involves replacing century-old water and sanitary sewer piping, as well as a section of storm sewer along Pleasant Street between Jane Street and Newcastle Boulevard. The new watertight system will decrease incidents of discharge of untreated water and reduce the risk of water contamination. The resulting benefits will include decreased water use and higher levels of reliability and service for the water and wastewater collection and treatment systems.

Storm sewer work on Starrs Road



PHOTOGRAPHY BY TINA COMEAU - YARMOUTH VANGUARD/TRANSCONTINENTAL MEDIA

In mid-March, work was well underway on a storm sewer on Starrs Road in Yarmouth, Nova Scotia. One of the primary aims? To alleviate a flooding problem that happens frequently at the intersection of Starrs Road and Haley Road.

At this intersection, storm water pools in deep ditches and then spills onto the road. The enhancement will allow the storm water to connect with the storm system on Cottage Road, where it will flow out to Broad Brook.

Good news for Petitcodiac

Residents in Petitcodiac, New Brunswick, will soon benefit from joint federal and provincial investments to improve local wastewater treatment services.

Combined federal and provincial funding of about \$900,000 under the communities component of the Building Canada Fund was announced on March 13 by Natural Resources Minister Wally Stiles and Fundy Royal MP Rob Moore.

The project will enhance local facilities and services as well as create local jobs. Federal, provincial and municipal governments will each invest up to \$448,604 in a project to upgrade the sanitary sewer collection system, ensuring that raw sewage from these areas will no longer be a threat to the surrounding environment.

The project will extend the sanitary sewer collection system on Old Post Road and Crandall Road in order to eliminate ongoing discharge of 31 individual septic systems into the neighbouring Petitcodiac River. In addition, it will ensure that the wastewater that will be treated at the new lagoon presently under construction will result in effluent that meets Department of Environment requirements. Funding for the project is contingent on completion of all contractual agreements, including pending environmental impact assessments with municipalities.

"We are pleased to be working in partnership with both levels of government through the Building Canada Fund program to construct a new, environmentally safe sewage disposal system," says Peter Saunders, mayor of Petitcodiac. "This project demonstrates the commitment of governments to enhance local facilities and indicates their willingness to work toward improving the environment and providing our residents with a healthier, more sustainable community."

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New funding focuses on PEI's rural infrastructure

Residents in Resort Municipality, Kensington and Kinkora will benefit from water and sewer replacements and extensions, as well as the installation of wind turbines, thanks to joint investments by the governments of Canada, Prince Edward Island and the local municipalities.

On March 6, the combined investment of \$1,982,787 was announced by: Gail Shea, Minister of Fisheries and Oceans; Carolyn Bertram, Minister of Communities, Cultural Affairs and Labour; Mel Gass, chairperson of the Resort Municipal Council; Barry Campbell, mayor of the Town of Kensington; Roger Savoie, chairperson of Kinkora Community Council.

"We are investing in the heart of this province and delivering results to rural PEI during these difficult economic times," says Shea. "Investments like these will help boost our regional economy."

The support to extend the sewers in Seawood Estates in the Resort Municipality, to install two wind turbines in Kinkora, and to replace and extend water and sewer mains in Kensington, demonstrates a commitment to enhance local facilities and services, create jobs for Islanders and get shovels in the ground.

"These communities have identified their priority projects and the Province of Prince Edward Island is pleased to contribute to these worthwhile initiatives," says Bertram. "The funding announced will not only help promote environmental sustainability in Resort Municipality, Kensington and Kinkora, but will also contribute to the safety and efficiency of their municipal infrastructure."

The Seawood Estates subdivision is located on a peninsula and contains many on-site septic systems that have either reached their life expectancy or were not constructed to meet environmental standards. This project will involve the extension of the sanitary sewer main, services and manholes. In addition, sev-



Photography by Brian Simpson
Carolyn Bertram, Minister of Communities, Cultural Affairs and Labour, and Gail Shea, Minister of Fisheries and Oceans, were joined by residents from Resort Municipality to announce important infrastructure funding for Seawood Estates. (Left to right) Municipal administrator Brenda MacDonald; businessperson Matt Jelley; Carolyn Bertram; chairperson Mel Gass; Gail Shea.

eral septic systems that are considered potential hazards will be decommissioned, which will help protect the area from contamination and improve the safety of the water source and distribution system. The total project cost is \$1,160,880. The federal and provincial governments will each invest up to \$386,960. The municipal allocation from the Canada-Prince Edward Island Gas Tax Fund will contribute up to \$55,000. The municipal government will fund the remaining eligible project costs up to \$331,960.

The Town of Kensington project will replace aging sewer line and older brick manholes in a number of

locations. This project will provide residents with a safe, secure source of drinking water and will protect the groundwater from contamination caused by deteriorating sewer lines. The total project cost of \$633,000 will be covered by equal contributions from all three levels of government.

The Town of Kinkora project will have two 20-kilowatt wind turbines installed to replace energy now being purchased from the electrical utility. The total project cost is \$188,907. The governments of Canada and Prince Edward Island will each invest up to \$63,478. The Canada-Prince Edward Island Gas Tax

Fund will contribute \$31,485. The municipal government will fund \$31,485 of the remaining eligible project costs.

To complete these three projects, the Government of Canada will invest up to \$642,929 from the communities component of the Building Canada Fund and up to \$85,975 from the Canada-Prince Edward Island Gas Tax Fund. The Government of Prince Edward Island, through the Department of Communities, Cultural Affairs and Labour, will fund up to \$642,929. The municipal government will provide the balance of total eligible project costs up to \$574,954.

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Kings County projects receive Building Canada support

New water and wastewater funding is coming down the pipe for five communities in the Kings County area.

On March 6, funding of more than \$6 million was announced by Premier of Nova Scotia Rodney MacDonald and Senator Donald Oliver, on behalf of John Baird, Minister of Transport, Infrastructure and Communities. The funding, made possible through the communities component of the Building Canada Fund, will go toward projects in the Municipality of Kings, Wolfville, New Minas, Canning and Port Williams.

“The Government of Canada, through the Nova Scotia communities component of the Building Canada Fund, is very proud to partner in projects that will provide modern and reliable infrastructure for Kings County,” says Senator Oliver. “These investments will not only lay the foundation for sustainable economic growth, but will also provide residents with a healthier, safer and more prosperous community.”

The project in the Municipality of Kings includes an upgrade to the wastewater treatment facility which will benefit approximately 9,600 households. The facility will provide enhanced treatment of wastewater and will be designed to accommodate future growth. The total cost of the project is \$2,774,700, funded equally by the federal and provincial governments and the Municipality of Kings.

The Town of Wolfville project includes the design and construction of new sewer lines and watermains along Front Street. The project will involve replacing aging infrastructure and will help reduce operation and maintenance costs. The total cost of the project is \$887,700 which



On March 6, the funding announcement of more than \$6 million was attended by: Lewis Benedict, chair of the Village Commissioners of Port Williams; Mike Carter, vice-chair of the Village Commissioners of Canning; David Morse, Minister of Environment; Rodney MacDonald, Premier of Nova Scotia; Senator Donald Oliver; Diana Brothers, deputy warden, Municipality of the County of Kings; Maynard Stevens, chair of the New Minas Water Commission; Hugh Simpson, deputy mayor of the Town of Wolfville.

Photo courtesy of the Canada-Nova Scotia Infrastructure Secretariat

will be funded equally by the federal and provincial governments and the Town of Wolfville.

The project in the Village of New Minas includes the design and construction of water and sewer lines along Prospect Road. The project will install sanitary sewer and watermains for 20 households which now have on-site systems. The total cost of the project is \$783,600 and will be funded equally by the federal and provincial gov-

ernments and the Village of New Minas.

The villages of Canning and Port Williams are both to receive new water reservoirs. In Canning, more than 387 households will have improved drinking water and in Port Williams, better water quality will be available to 360 households. The reservoirs will each cost \$792,300 and will be funded equally by the federal and provincial governments and the villages of Canning and Port

Williams.

“Today's funding enables communities to move forward with important infrastructure projects,” says Lloyd Hines, president of the Union of Nova Scotia Municipalities. “These projects not only provide safe drinking water and improved wastewater systems, they bring jobs and opportunities for future development in these communities.”



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Communities in Pictou County await improvements to wastewater

Through a shared investment by the governments of Canada and Nova Scotia under the Communities Component of the Building Canada Fund, residents in New Glasgow, Stellarton, Trenton, Westville, and the Municipality of Pictou will benefit from enhanced wastewater treatment.

Federal, provincial and municipal funding for two projects totaling \$3,175,200 was announced on January 11 in New Glasgow by Pat Dunn, Minister of Health Promotion and Protection (on behalf of Richard Hurlburt, Minister of Service Nova Scotia and Municipal Relations) and by Peter MacKay, Minister of National Defence (on behalf of John Baird, Minister of Transport, Infrastructure and Communities).

"Our government's more than \$1-million investment in these projects comes from our \$33-billion Building Canada Plan — the most ambitious infrastructure renewal effort in half a century," says

MacKay. "The plan is about providing long-term, stable and predictable funding to help meet infrastructure needs across Canada."

The Town of New Glasgow's storm-separation project includes new storm sewers for 12 streets, servicing 300 households. The East River Environmental Control Centre pumping station project involves upgrades to 12 pumping stations that serve New Glasgow, Stellarton, Trenton, Westville, and others areas of Pictou County. The projects will help remove storm water from the sewer system to make the East River Environmental Control Centre operate more efficiently. It will also make the East River safer for recreational activities.

"This investment will ultimately enable development to take place in many communities throughout Pictou County," says Lloyd Hines, president of the Union of Nova Scotia Municipalities.



Photo courtesy of the Canada-Nova Scotia Infrastructure Secretariat
Attending the announcement in New Glasgow were: Clarence Prince, vice-president of the Union of Nova Scotia Municipalities; Peter MacKay, Minister of National Defence; Barrie MacMillan, mayor of the Town of New Glasgow; Pat Dunn, Minister of Health Promotion and Protection; Joel Gennoe, mayor of the Town of Stellarton and chair of the Pictou County District Planning Commission.

Valley communities benefit from support

The communities of Middleton, Annapolis Royal and Kingston in Nova Scotia will enjoy improvements to their drinking water and wastewater treatment systems thanks to \$5 million in funding under the communities component of the Building Canada Fund.

The Town of Middleton project includes the construction of a new wastewater treatment facility which will benefit approximately 1,000 households. The new facility will provide enhanced treatment of wastewater and will be designed to accommodate future growth. The total cost of the project is \$3,936,900 and will be funded equally by the federal and provincial governments and the Town of Middleton.

The project in the Town of Annapolis Royal in-

cludes the replacement of aging water and wastewater mains along St. Patrick's Lane as well as Ritchie and Grange streets. Approximately 24 households will benefit from improvements in their drinking water as well as fire protection. The total cost of the project, \$1,023,000, will be funded equally by the federal and provincial governments and the town.

The Village of Kingston project includes the extension of a wastewater main along Pine Ridge Avenue. This extension will connect four households, which currently have aging and malfunctioning sewage systems, to the municipal wastewater system. The total cost of the project is \$138,300 and will be funded equally by the federal and provincial governments and the Municipality of Kings.

Yarmouth area receives funding for upgrade

Residents of the town of Yarmouth and surrounding areas will soon have a more efficient wastewater treatment plant. This extensive sewer project could potentially stretch from the Crossroads Country Market to the highway and might also include the MacLellans Brook area.

The province is investing \$340,000 to upgrade the town's wastewater treatment system. The project includes supplying and installing equipment to remove residual chlorine from wastewater effluent as required by the Canadian Environmental Protection Act. The project will also involve installing a computerized monitoring and notification system and a back-up power generation unit.

"The town of Yarmouth has invested considerably

in this system already," says Richard Hurlburt, Minister of Service Nova Scotia and Municipal Relations. "This package of enhancements will further improve their wastewater treatment system and help preserve our environment."

The investment is part of the Provincial Capital Assistance Program which helps municipalities reduce the burden of funding infrastructure projects that will improve quality of life.

"This is a great example of the government's willingness to work with municipalities," said Phil Mooney, mayor of the Town of Yarmouth. "It demonstrates the kind of partnership we want from different levels of government and what that can achieve for the development of a community and its residents."

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Investment made in Alma water infrastructure

Joint federal and provincial investments to improve the reliability of local water services are in store for Alma, New Brunswick.

Combined federal and provincial funding of more than \$176,000 was announced on March 13 by Local Government Minister Bernard LeBlanc and Fundy Royal MP Rob Moore. Federal, provincial and municipal governments will each invest up to \$88,422 in the project.

The project involves the installation of a back-up generator, additional storage capacity, and completion of a second well for extra pumping capacity to ensure continued water supply during power outages and periods of system maintenance. Another pressure tank will also be installed at a booster station to reduce pump-running time, equipment wear and energy consumption.

"Our community appreciates the funding for an improved and more reliable water supply system," says Alma mayor Hilyard Rossiter. "We will be able to upgrade our current water system in order to meet our steadily increasing demand for a larger reservoir and continuous water service which will serve the village's needs much more efficiently."



Photo courtesy of the New Brunswick Regional Development Corporation
Funding of more than \$176,000 was announced in March by Local Government Minister Bernard LeBlanc and Fundy Royal MP Rob Moore. From left: Bernard LeBlanc, Alma mayor Hilyard Rossiter, and Rob Moore.

Funding delays infrastructure services in Brooklyn

BY MARK ROBERTS

THE ADVANCE/TRANSCONTINENTAL

The ongoing expansion of sewage and water infrastructure services into Brooklyn is expected to continue this year, in part, with promised federal funding.

Region of Queens Municipality councillor Randi Dickie says some residents in her district believe last year's interruption in construction was related to work at the Queens Place Recreation and Community Centre development area.

However, at a January 13 committee of the whole meeting, engineering and works director Brad Rowter said it was caused by a funding delay at the federal level that "was beyond our control." The original federal funding was announced last September.

Rowter says the region has been advised the announced funds will soon be released and work will continue from the current end-spot, Alimento's to at least Hillcrest Avenue. It will take three or four years to reach the Brooklyn community core.

The region would prefer to reach the entrance to Bowater Mersey's Woodland's building. At that point, Rowter says work will slow significantly because of in-ground Bowater pipes.

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Federal-provincial investments benefit Sussex infrastructure

Joint federal and provincial investments to improve local wastewater treatment services are in store for Sussex.

Combined federal and provincial funding of more than \$500,000 under the communities component of the Building Canada Fund was announced on March 13 by Tourism and Parks Minister Stuart Jamieson and Fundy Royal MP Rob Moore.

Federal, provincial and municipal governments will each invest up to \$259,463 in the Sussex wastewater treatment plant.

The plant is a two-cell aerated lagoon system that uses biological and physical (sedimentation) treatment processes. A new disinfection unit will remove bacteria from wastewater effluent, thus improving the quality of treated water released from the plant into the Kennebecasis River. This will mean environmental improvements for various species of fish, including salmon, and provide a higher quality of river water for municipalities downstream of Sussex.

Bear River to ask feds for funding

■ BY JEANNE WHITEHEAD

DIGBY COURIER
TRANSCONTINENTAL MEDIA

Citizens of Bear River, Nova Scotia, will meet with West Nova MP Greg Kerr to acquaint him with infrastructure needs and ask for a portion of the federal funds designated for “shovel-ready projects”.

Representatives of the community say they have had problems for years with water, sewage, road restrictions, and sidewalk snow removal.

Bear River straddles the boundaries of Annapolis and Digby counties and its residents say the community is traditionally shortchanged in terms of municipal services because of its geography.

“Bear River is not incorporated and having no town council must rely on its neighbours for some form of local governance,” village businessman Rob Buckland-Nicks said in a letter to the community. “In short, we are sometimes reduced to searching for crumbs from two well-set tables.”

Buckland-Nicks says the Bear River group will provide Kerr with information about the community’s needs and the benefits they will derive from improved infrastructure.

Ottawa’s recent budget designated funds for infrastructure, including \$1 billion over two years to expedite new “ready-to-go” provincial, territorial and municipal projects.

Bear River is a tourism destination, but unfortunately has no consistent fresh water, says Buckland-Nicks. The situation is challenging for businesses, particularly restaurateurs.

At least 12 homes direct their wastewater either towards or directly into local waterways because sewer lines from the municipalities of Digby and Annapo-



Photography by Jeanne Whitehead

Rob Buckland-Nicks says Bear River has been “reduced to searching for crumbs from two well-set tables.”

lis stop short of their homes.

Although Bear River’s roads are cleared, salted and sanded by the transportation department, road shoulders that should function as walkways are left to receive the snow plowed from the roads.

Residents say this means people walk on the roads rather than the sidewalks in winter, and this is a safety concern.

Buckland-Nicks says Kerr really needs to be made aware of the challenges that Bear River people face, since the community of more than 800 voters is in his riding.

The municipalities of Digby and Annapolis would still need to be involved since federal funds are for municipal projects and Bear River is not an incorporated municipal unit.

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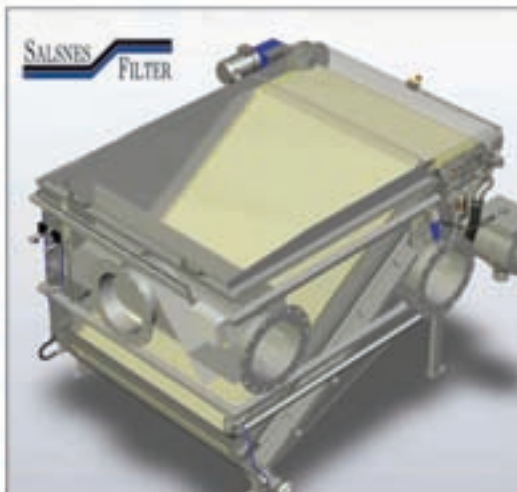
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Photo courtesy of the New Brunswick Regional Development Corporation

Funding of close to \$6.3 million was announced on March 7. Attending the announcement were: Mike Allen, Tobique-Mactaquac MP; Marcel Deschenes, mayor of Grand Falls; Ronald Ouellette, Minister of Agriculture and Aquaculture; Lionel Poitras, mayor of Saint-André.

Funds flow in for Saint-André and Grand Falls water and wastewater projects

Joint federal and provincial investments will help enhance local water and wastewater services for Grand Falls and Saint-André in New Brunswick. The combined funding of close to \$6.3 million was announced on March 7 by Ronald Ouellette, Minister of Agriculture and Aquaculture, and Mike Allen, MP for Tobique-Mactaquac.

“The Government of Canada is working with provincial and municipal governments to help the people of New Brunswick through important water-system upgrades in Grand Falls and Saint-André,” says Allen. “The federal investment of more than \$3.14 million will make a difference in these two communities by improving the quality of life for the people who live and work there.”

Federal, provincial and municipal governments will each invest up to \$1,250,924 in the Grand Falls project, which involves the construction of a new steel water reservoir and tri-pump booster station. It

will also involve the construction of a transmission main, as well as the installation of a new standby generator for backup during power interruptions. The project will improve service reliability for water treatment and distribution, increase fire-protection capabilities, and improve local water quality.

In Saint-André, each of the three governments will invest up to \$1,893,678 in a project to replace the municipality’s wastewater treatment plant. This project will redirect about 50 per cent of the community’s wastewater — which is currently being processed by Grand Falls — to the new plant. Wastewater treatment will be provided by an aeration system and deflection walls which will divide the pond into three cells with a watertight membrane.

Funding for both projects is contingent upon the completion of all contractual agreements, including pending environmental impact assessments with the municipalities.

More money for PEI projects

On March 11, Gail Shea, Minister of Fisheries and Oceans, along with Carolyn Bertram, Minister of Communities, Cultural Affairs and Labour, were pleased to announce that Prince Edward Island communities can now access more funding for infrastructure projects thanks to a second intake of project applications.

“The communities component of the Building Canada Fund is making a real difference in the every day lives of islanders. To date, we have already announced over \$14.7 million in projects for PEI communities,” says Bertram. “By helping local governments plan and enhance infrastructure, communities become

more vibrant, sustainable and active places to live and work.”

This partnership between the Government of Canada and the Province of Prince Edward Island provides funding towards several categories of infrastructure projects including: water, wastewater, local roads and bridges, public transit, green energy, disaster mitigation, sports, culture and tourism. Projects will be selected by a federal-provincial committee through a competitive process.

Municipalities can submit online applications at <https://bcfcc-fccvc.infrastructure.gc.ca>. The deadline for this second intake of applications is April 14.

What is eligible?

Water and wastewater projects which are eligible include those that construct or materially rehabilitate public infrastructure contributing to:

- Improved safety, management, reliability and efficiency of Canada’s drinking water treatment and distribution systems.
- Increased number of households with access to safe drinking water that meets or exceeds the Guidelines for Canadian Drinking Water Quality.

- Improved protection and/or management of drinking water sources.
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Wastewater effluent strategy focuses on unified approach

On February 17, the Canada-wide Strategy for the Management of Municipal Wastewater Effluent was endorsed by the Canadian Council of Ministers of the Environment at a CCME meeting in the Yukon.

Municipal wastewater effluent is one of the largest sources of pollution, by volume, discharged to surface water bodies in Canada. Reducing the discharge of pollution through wastewater effluents requires a number of interventions ranging from source control to end-of-pipe measures.

Wastewater effluents are currently managed through a variety of policies, by-laws and legislation at the federal, provincial, territorial and municipal levels. The Canada-wide Strategy for the Management of Municipal Wastewater Effluent will institute a harmonized approach to managing discharges from more than 3,500 wastewater facilities in Canada, as well as establish a one-window approach to governance so operators and facility owners deal with a single regulatory agency.

The strategy focuses on two main outcomes: Improved human health and environmental protection and improved clarity on the management and regulation of wastewater effluents. The plan includes minimum national performance standards to be achieved by all facilities and a process to develop and manage site-specific effluent discharge objectives. The minimum standards are equivalent to secondary treatment. The strategy also outlines risk management activities to reduce the risks associated with combined and sanitary sewer overflows. High-risk facilities must meet national performance standards within 10 years; low risk facilities will have up to 30 years to comply.

It is expected that jurisdictions will incorporate the key elements of the strategy into their respective regulatory frameworks and create the aforementioned one-window approach for regulatory clarity. Agree-



File Photo

Municipal wastewater effluent is one of the largest sources of pollution, by volume, discharged to surface water bodies in Canada. Reducing the discharge of pollution through wastewater effluents requires a number of interventions ranging from source control to end-of-pipe measures.

ments will be negotiated between the federal government and provincial governments, and between the Government of Canada and the Yukon government. The federal government will also negotiate agreements with the Northwest Territories and Nunavut, taking into account the respective roles of all governments as well as the regulatory bodies.

The cost of implementing the strategy over 30 years is at least \$10 to \$13 billion, including capital and non-capital costs. About half of the costs will be expended in the first 10 years of implementation, primarily to address high-risk facilities. The initial cost estimates do not include all costs associated with implementing

the strategy, in particular those costs associated with managing combined sewer overflows and meeting site-specific effluent discharge objectives.

The strategy's economic plan includes a number of funding principles intended to assist jurisdictions in improving the way wastewater effluents are managed. It also spells out several funding options, including:

- Full-cost recovery
- Federal infrastructure funding in partnership with provinces and municipalities
- Public private partnerships
- Strategic budget allocations
- Debt financing

It may be challenging for many small communities to implement the strategy. Due to their limited fiscal capacity, they may have to look at flexible implementation options.

The Canadian Council of Ministers of the Environment will regularly assess progress on implementation of the strategy. A coordinating committee under CCME will monitor implementation with a focus on continuous improvement. Progress towards meeting requirements will be reported to CCME ministers and Canadians every five years.

The full strategy is available at: www.ccme.ca/assets/pdf/cda_wide_strategy_mwwe_final_e.pdf



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More funding for New Brunswick communities

New Brunswick communities may obtain more funding for infrastructure projects as the result of a second round of investments by the provincial and federal governments under the communities component of the Building Canada Fund.

The announcement was made on March 10 by Environment Minister Roland Haché and Greg Thompson, Veterans Affairs Minister and MP for New Brunswick Southeast.

"This investment will help facilitate infrastructure projects that are required for New Brunswick to achieve the goal of self-sufficiency and be a stronger contributor to the national economy," says Haché.

Through the communities component, the provincial and federal governments will invest \$27.8 million in this second intake, which will help meet the local infrastructure needs and priorities of New Brunswick villages, towns and rural communities. The two governments invested \$38.2 million in the first intake.

"The announcement is an important next step in helping communities in New Brunswick," says Thompson. "This additional funding will be used for construction projects such as bridges, roads, and wastewater infrastructure. It will boost local economies, create jobs and, most importantly, build stronger communities."

The deadline for the second intake is April 30. All categories under the communities component of the Building Canada Plan will be open for this intake, with a focus on: water, wastewater infrastructure, solid waste management, brownfield redevelopment, green energy, disaster mitigation, sports infrastructure, culture and collaborative projects.

Projects will be selected by a federal-provincial committee through a competitive process. Municipalities may submit their applications online (<https://bcfcc-fccvc.infrastructure.gc.ca>).

Companies in United States choose ADI-MBR technology for major wastewater projects

ADI Systems Inc., headquartered in New Brunswick, was recently awarded two major U.S. contracts — one with Golden Flake Snack Foods Inc., the other with MillerCoors.

The deal signed with MillerCoors involves a full design-build contract for a new ADI-MBR (membrane bioreactor) facility for its brewery near Elkton, VA. The new ADI-MBR facility is designed to treat effluent from two existing anaerobic reactors to meet new nitrogen and phosphorus discharge limits. These new, stricter discharge limits are being imposed as part of the five-state effort to reduce nutrient loadings to Chesapeake Bay. The ADI-MBR will replace an existing conventional activated sludge system at the site. The new facility will be operational later this year.

The ADI-MBR process is based on the world's leading MBR technology and is well-proven in similar applications. It offers the optimum blend of high performance, the ability to meet the very stringent nitrogen and phosphorus discharge limits, ease of operation, minimal membrane cleaning, and small footprint that MillerCoors requires. The MBR system is a five-stage biological nutrient removal process, with both biological and chemical phosphorus removal. The project also includes the installation of a new sludge dewatering system featuring two belt filter presses.

The Golden Flake deal involves a multi-million dollar contract for a complete design-build ADI-MBR system to treat wastewater from its Birmingham, AL, production facility.

Golden Flake produces a variety of snack foods — from potato, tortilla and corn chips to pretzels and pork rinds. A major regional snack food producer with a 12-state market, Golden Flake has been in business since 1923 and has grown from a small, two-man company to one that employs over 1,200. The Birmingham plant, a 350,000 square foot facility, is the largest of three Golden Flake production plants in the southeastern U.S.



Photo courtesy of ADI Systems Inc. Some of the benefits of ADI's MBR technology include the ability to meet stringent effluent limits, ease of operation, and minimal membrane cleaning.

The new 400,000 gpd ADI-MBR facility will allow Golden Flake to direct-discharge its treated effluent to a small stream located adjacent to the plant, eliminating significant POTW surcharges. The treated effluent will also serve to enhance the downstream

environment by increasing the water flow within the small watercourse, beneficially impacting the local ecosystem. Design of the new ADI-MBR facility is already underway and the plant is scheduled to be operational later this year.



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Editorial from The Guardian/Transcontinental Media

Senior U.N. adviser offers “water for thought”

Ever since the drinking water tragedy in Walkerton, Ontario, nine years ago, Canadians have been mindful of the need to protect the water they drink. But it never hurts when someone reminds us to keep this matter at the top of the political agenda.

Maude Barlow, senior water adviser to the United Nations and chair of the Council of Canadians, did just that during her visit to Charlottetown, PEI, in early March. According to Barlow, who was in the province to give a lecture at the University of Prince Edward Island, the world is running out of clean water, and that this shortage is perhaps “the greatest ecological and human threat of our time”. The worst culprit, she says, is climate change, but the way water is managed in many nations is a big factor too.

Barlow offered some advice on this to the Premier of PEI Robert Ghiz when she met with him on March 5. She suggests banning the sale and purchase of bottled water in provincial public spaces and doing more to promote and support the island's water supply. In her view, producing and transporting bottled water not only requires large amounts of fossil fuels and often leads to cluttered landfill sites, but it reinforces a culture in which people have become more accustomed to paying for the water they drink — something Barlow insists is a basic human resource. Here's how she put it: “We're really suggesting that Prince Edward Island and other provinces name their water a public trust and then set a priority for use that is really strongly managed — from watershed management and conservation to strict pollution control — and stating that people have a right to clean water.”

This isn't a new idea. Barlow and other like-minded activists, such as Leo Broderick of Charlottetown, also a member of the Council of Canadians, have been warning Canadians of the need to protect their drinking water for years. Broderick challenged Charlottetown city council two years ago to stop the practice of providing bottled water at their meetings. Bottled water isn't cleaner or safer than tap water, he said at the time, so why is council “promoting the privatization and commodification of our drinking water?” Broderick's warning drew scoffs from critics at the time, but the city, since then, has stopped buying bottled water.

It'll be interesting to see if Barlow's message gets the same result after her conversation with Premier Ghiz. At this point, the premier is saying the province will discuss a ban on bottled water within government facilities. That's a start of some much-needed dialogue. The appeal of bottled water is obvious. It's portable and convenient, and for many health-conscious Canadians who believe in the benefits of keeping hydrated, these two things are advantages.

But the warning offered by Barlow deserves some serious thought. Are we unintentionally creating a perception that bottled water is better, that our public water — the maintenance of which we already pay for through our taxes — is not safe? With more consumers being prepared to buy bottled water, are we becoming less vigilant of our elected officials and less interested in whether they're caring for the public water system? As senior water adviser to the United Nations, Maude Barlow speaks with a certain authority on this issue. We should consider her advice seriously.

Global outlook:

New report highlights crucial role of water in development

Demand for water has never been as great as it is today, and it will only increase due to population growth and mobility, rising living standards, changes in food consumption, and increased energy production, especially biofuels.

These are among the conclusions of the United Nations World Water Development Report 3. This report is produced every three years by the World Water Assessment Programme (WWAP), whose secretariat is hosted by UNESCO. It offers a comprehensive assessment of the planet's freshwater resources. This latest edition, *Water in a Changing World*, emphasizes the role of water in development and economic growth.

“With increasing shortages, good governance is more than ever essential for water management. Combating poverty also depends on our ability to invest in this resource,” says the director-general of UNESCO, Koïchiro Matsuura.

Demand is increasing and some countries are already reaching the limits of their water resources. The effects of climate change are likely to aggravate this situation even further. Competition for water is intensifying — whether between countries, urban and rural areas, or different sectors of activity. This may make water an increasingly politicized issue.

Policies already exist to reduce water demand and loss, and improve water management. Furthermore, many countries have already passed legislation for the protection and sound management of their water resources. But, says the report, these reforms have yet to have any noticeable effect, because action is too often confined to the water sector alone while the key decisions about water are taken outside the water sector. For decisions to be effective, they need to involve decision makers from all sectors, including agriculture, energy, trade and finance, as they all have a decisive impact on water management. The report also emphasizes the importance of partnerships between governments, the private sector and civil society.

Why should we value our water resources in Canada?

A major issue observed by the report's authors is that access to basic water-related services (safe drinking water, sanitation and food production) remains inadequate in much of the developing world. The “business as usual” scenario means an estimated five billion people (67 per cent of the world population) may still be without improved sanitation in 2030.

In this context, the prospect of achieving, by 2015, the Millennium Development Goals for water and sanitation — to reduce, by half, the percentage of the population not having sustainable access to an improved supply of safe drinking water and basic sanitation — is both promising and alarming. While current trends suggest that over 90 per cent of the world population will have access to improved sources of drinking water by then, progress in basic sanitation remains inadequate.

The world is on track to meet the drinking water target of the Millennium Development Goals, apart from Sub-Saharan Africa which is seriously lagging behind with about 340 million people lacking ac-

cess to safe drinking water. However, it is far from achieving the sanitation target. Half a billion people lack access to adequate sanitation in Africa alone and many other regions are also trailing behind. Current efforts will need to be doubled if we are to achieve the goals set by the United Nations.

The link between poverty and water resources is obvious: the number of people living on less than US\$1.25 a day coincides approximately with the number of those without access to safe drinking water.

This situation has a major impact on health. Almost 80 per cent of diseases in developing countries are associated with water, causing some three million early deaths. For example, 5,000 children die every day from diarrhea, or one every 17 seconds. In all, about one tenth of all illnesses worldwide could be avoided by improving water supply, sanitation, hygiene and management of water resources.

Why is it a global issue?

While part of the population still lacks adequate access to water, demand has never been greater. Freshwater withdrawals have tripled over the last 50 years, while the area under irrigation doubled during the same period. This phenomenon is particularly linked to population growth. The world's population, currently estimated at 6.6 billion, is growing by about 80 million people each year. This means demand for freshwater is increasing by 64 billion cubic metres a year. Yet 90 per cent of the population growth of three billion expected by 2050 will be in developing countries, many in regions which already are water scarce.

Population growth implies increased demand for agricultural products, and so increased demand for water. Agriculture is by far the greatest consumer of water, accounting for 70 per cent of all water consumption (compared to 20 per cent for industry and 10 per cent for domestic use). Unless agricultural water use is optimized, water demand for agriculture worldwide would increase by 70 to 90 per cent by 2050, even though a number of countries are already reaching the limits of their water resources.

The production of biofuels has also increased sharply in recent years, with significant impact on water demand. Between 1,000 and 4,000 litres of water are needed to produce a single litre of biofuel. The production of ethanol, 77 billion litres in 2008, tripled between 2000 and 2007 and should reach 127 billion litres by 2017. In 2007, 23 per cent of maize production in the U.S. and 54 per cent of Brazil's sugar cane crop were used for ethanol production. In 2008, 47 per cent of vegetable oils produced in the European Union were used for biodiesel fuel.

Meanwhile, energy demand is accelerating, with corresponding implications for water demand. Global energy demands are expected to grow by as much as 55 per cent through 2030. China and India alone would account for about 45 per cent of this increase. Electricity generation from hydropower is projected to increase at an average annual rate of 1.7 per cent from 2004 to 2030 — an overall increase of 60 per cent.

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New Cape Sable Island sewer system to start on Stoney Island

BY CARLA ALLEN

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There's more movement on the Cape Sable Island sewer project. At the Municipality of Barrington council meeting on February 23, a motion was approved to go with option five, one of two options presented by CBCL Limited in December as a result of its pre-design investigation for the CSI wastewater collection and treatment project.

The treatment plant will be located on Stoney Island with the project proceeding either through Stoney Island towards South Side and The Hawk, or towards Clam Point and Northeast Point.

Long roads with few houses on them posed an expensive problem in choosing the best system for the project. There are 32.5 kilometres of road with 713 residential commercial units (excluding the Town of Clark's Harbour which has its own system) on the island. That averages out to one unit per 90 metres, which is low density compared to typical service lots of 30 metres.

The option five decision, involving the small diameter collection system, requires a grinder pump located at each of the 226 residences in the area. The pumps will be hooked up to the power supply at each residence. The cost for the Stoney Island (Northeast Point direction) system is \$6.25 million.

Up to \$866,218 of the gas tax funds will be des-

ignated for the project over five years as part of the Municipality of Barrington's \$2.1-million contribution, and \$2.1 million each will be provided from the provincial and federal governments.

The annual capital cost of \$106,000 plus \$50,000 in operating and maintenance costs results in a total annual cost of \$156,000. This works out to an annual cost per unit of \$691.

The amount of \$.0189 per \$100 of assessment will be included in the general tax rate across the municipality to raise the \$391 per residence to be paid by the municipality. The sewer tax or charge per residence will thus be \$300 per year. Residents will also be required to pay a hook-up cost and pay to pump out their existing system. Each residence will need to have a grinder pump installed and pay electrical fees for its operation as well.

Municipality of Barrington councillor Shaun Hatfield says by late spring or early summer the design consultant should have the preliminary report completed on the project. He hopes, at this time, council will be holding an open house where residents can raise concerns of any nature, including financial, environmental or technical concerns.

"We want this process to be completely open and transparent, with free information-sharing between residents, consultants and council," says Hatfield.

Water demand reduction focus of new partnership

The Canadian Institute of Plumbing & Heating (CIPH) and the Canadian Water and Wastewater Association (CWWA) have joined forces to promote water demand reduction programs among Canadian municipalities.

The board of directors of both associations have supported a joint position statement to encourage the promotion and use of fixtures and supply fittings that have been certified by an accredited certification organization to both Canadian standards and the U.S. EPA-sponsored WaterSense program. Specifically, municipalities are encouraged to reference such products in all educational and awareness materials on water conservation and efficiency. The position statement also encourages the future formal adoption of WaterSense-like provisions in the applicable CSA national consensus standards for fixtures and fittings.

WaterSense product tests are based on a toilet-testing protocol developed by CWWA's Water Efficiency Committee and its utility partners in the U.S. Products that meet the intent of the joint position statement will hold both a WaterSense Label and the mark by the associated certification organization that has tested it to meet Canadian standards.



Building Canada Fund: Second call for Nova Scotia applications

More Nova Scotia municipalities are now able to apply for a share of \$32 million in funding for environmental, economic or community infrastructure projects under the communities component of the Building Canada Fund.

The second round call for proposals under the fund was announced on March 13 by Peter MacKay, Minister of National Defence, and Carolyn Bolivar-Getson, Minister of Natural Resources (on behalf of Richard Hurlburt, Minister of Service Nova Scotia and Municipal Relations).

"This announcement is another important step that is helping communities in Nova Scotia," says MacKay. "Canada and Nova Scotia are committed to creating jobs, boosting regional

economies, supporting local infrastructure, and building stronger communities."

The call for proposals comes after the province announced its \$1.9-billion infrastructure program, Building for Growth.

"This investment will not only improve the quality of life for many, but will also create jobs," says Bolivar-Getson.

On-line applications are now available at www.nsinfrastucture.ca/pages/Application-Forms.aspx. The deadline for the second round of applications is April 16. Eligible categories for this round include: water, wastewater, solid waste infrastructure, local roads, green energy, disaster mitigation, culture, tourism, sport and collaborative projects. Projects will be selected through a competitive process.

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PENOBISQUIS WATER SUPPLY

Water supply system marks new era for Penobscis

■ BY STEPHEN CLARE

Residents of the New Brunswick community of Penobscis will soon have access to safe and clean drinking water thanks to a new water supply system for the area.

More than 50 homes in the small town of 1,400 have been without water for several years, mostly a result of the area's wells having gone dry. Residents have been relying primarily upon donations of fresh water from both the provincial government and local companies to do their cooking and washing.

"I am sure that it hasn't been easy for anybody who lives in the area," says project engineer Jeff Russell of the New Brunswick Department of Local Government. "Some folks have been without fresh water for as long as five years."

Funding for the project was announced in 2006, with the design completed by early 2008. Construction began in the summer of that year and has been relatively problem free.

"One of the big delays was in trying to locate a reliable water source that was large enough to handle all the homes and a few larger commercial users," says Russell. "Thankfully, we were able to find one in the Springdale area about half-a-dozen kilometres from the town."

The new water supply system has involved the installation of close to 12 kilometres of pipe, which was divided into two contracts. One contract follows route 114 west to the

Potash Corporation mine area. The other begins at the Penobscis Loop Road and works east along Route 114 toward Springdale.

The system also includes a well house that has chlorination capacity and will be operated remotely using a supervisory control and data acquisition (SCADA) system. There is an above-ground, 1.2 million litre reservoir for water storage being installed as well.

Along with Russell's organization, ADI and Gemtech of Fredericton have both participated in the project. ADI did much of the design work, while Gemtech took on the role of water consultant and led all of the hydrogeological studies. The province's Department of Environment has also been heavily involved. "These types of projects need to be monitored for health and safety concerns every step of the way," says Russell. Five tendered contracts were awarded to local businesses as part of the construction process as well.

A total of 115 homes have voluntarily signed up for the service. Yearly usage fees of \$350 to \$400 will be charged to each participating household to cover the new system's \$90,000 annual operating costs. Commercial users will also pay their share.

Interestingly, residents might get a break on the cost of their home insurance premiums, as 78 new fire hydrants have been installed in the area as a result of the project.

Continued on page 20



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PENOBSQUIS WATER SUPPLY



Photo courtesy of Communications New Brunswick
 A sod-turning ceremony was held on August 19 to mark the beginning of the construction of the new water supply system for Penobscis. (From left to right) Minister of Local Government Carmel Robichaud, Premier of New Brunswick Shawn Graham, Fundy Royal MP Rob Moore, and Kings East MLA Bruce Northrup.

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PENOBISQUIS WATER SUPPLY

Local residents eager to turn on taps **A new era**

Continued from page 18

■ BY STEPHEN CLARE

Residents of Penobscis are breathing a sigh of relief at hearing the news that their long battle to bring fresh water back to the area is coming to a close.

David Steeves, who has lived in the village for close to two decades, says "It is still hard to believe that we are almost there."

Project engineer Jeff Russell of the New Brunswick Department of Local Government says they are very close to finally having everything up and running.

"There are only a few small steps remaining before the taps can be turned on permanently," he says. "We need to hook up a handful of homes directly to the system and do some minor fine-tuning with the new well house."

As well, the new water reservoir will take a few weeks to install. The tank must undergo mandatory disinfection and testing to ensure that it meets provincial and federal health standards before it is allowed to go on-line. Similar procedures were recently undertaken with the lines.

The municipality must also hire an operator to test and monitor the system, and perform office tasks like billing and collections.

Sussex Corner Mayor Eric Cunningham is still conferring with the town's council on the matter and says that a decision will be made within a few weeks.

"We are still looking over the numbers at this time, but we are confident that we can make this work sooner than later."

The community is also requesting that the area sur-



Photo courtesy of ADI

The new water reservoir will take a few weeks to install. The tank must undergo mandatory disinfection and testing to ensure that it meets provincial and federal health standards before it is allowed to go online.

rounding the new well be protected. However, the province's Department of Environment is still in the process of preparing terms of reference and Local Government says that it must hire a consultant to oversee several smaller studies before a well field protection area can be declared.

"These are vital steps in the process," notes Russell.

"That being said, once they are actually underway they won't take long."

He believes that the end result will be worth the wait.

"There is a lot at stake here — the health and safety of local residents being first and foremost. I think that people in the community recognize and understand how important it is to get this done properly."

Russell points out that the project has been a success so far but still has a few loose ends that need tidying.

"The landscaping needs to be done, we have to de-commission the old wells and we will be looking for back up wells in the coming months."

The Penobscis Regional Water Supply Project is part of a five-year capital investment plan developed for unincorporated areas by the Department of Local Government through the gas tax revenue agreement.

The total cost for the project was estimated at \$9.3 million, with the bulk of the funding coming from the Canada - New Brunswick Agreement on the Transfer of Federal Gas Tax Revenues and the Provincial Gas Tax Transfer Top-up Fund. The Government of Canada and the Government of New Brunswick teamed up to contribute \$8 million of that total, with the remaining \$1.3 million coming from Penobscis' biggest corporate citizen, the Potash Corporation of Saskatchewan.

New Brunswick municipalities will receive \$116.1 million from the Gas Tax Fund from 2005 to 2010, to which the Government of New Brunswick will add \$30 million. Another \$178.5 million in gas tax funding will flow to New Brunswick communities from 2010 to 2014, for a total of \$294.6 million in federal funding over nine years.

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