

# Maritime Provinces Water & Wastewater REPORT

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## NOTE FROM THE CHAIR

**Todd Richard**  
Chairperson of the MPWWA

Working in the field of water and wastewater on a daily basis we know the importance and priority we give to protecting the environment, public and our infrastructure. That is why we have prepared our seminar to highlight the theme “The Earth is our Island – How we protect it”.

Final preparations have been made for a jam-packed informative training session to be held in the beautiful City of Charlottetown, PEI. From April 22nd to 25th we will be holding our 32nd Annual Training Seminar so if you haven't yet, please register, as you won't want to miss out on what the MPWWA has to offer. The four days will be chock-full of training workshops and networking opportunities for everyone. Sit in on the wide selection of presentations and receive 1.5 CEU's towards operator certification.

Ever wonder “Why do people volunteer?” - The MPWWA is a growing association trying to provide the best for its members through training workshops, annual seminars, website, newsletters and the new operator forum. To do this successfully for 32 years you need a group of dedicated volunteers willing to contribute to a cause they believe in. There have been many members of this association who have volunteered their time for just that reason. This year, as in the past, we will be losing board members who have given countless hours to this association without ever receiving or looking for recognition. On behalf of the MPWWA I thank them for their dedication and their contribution to our association.

At the Annual General Meeting during this year's seminar we will be conducting elections for MPWWA board members. We are always looking for energetic members willing to participate and help the MPWWA as we continue to train and educate members, giving them the opportunity to network with operators, regulators, consultants, and suppliers throughout the Maritimes. A great way to do this is by becoming a zone representative. Please give this some consideration and feel free to contact me or any other board member for more information related to joining the board. A great time to step forward will be at our conference. I will gladly sit down with anyone wishing to become involved and give a little of their time to support the organization.

In closing please check out our new “Operator Forum” on the website – [www.mpwwa.ca](http://www.mpwwa.ca) and hope to see you in April.

*Todd Richard*  
Chairperson for the MPWWA



*Natalie Munn, heritage researcher for the City of Charlottetown, says before the Prince Edward Island city developed its own system the water was so bad at times that not even the horses would drink it. There were issues with bacteria in the water that not even local physicians understood. (See the story on page 12.) (Photo: The Guardian)*

## PEI capital set to begin job of solving sewage problem

■ BY ANDY WALKER

Tenders for the first phase of a three-year program that will see the Prince Edward Island capital separate the last of its combined storm and sewer pipes should be advertised by this summer.

“We are now in the process of selecting a consulting engineer and we hope that process will be complete sometime in April,” Charlottetown Water and Sewer Utility Manager Craig Walker said in mid-

March. “We hope to put the first tender out in June and start work shortly after that.”

The work will involve separating approximately 14.5 kilometres of combined storm/sewer pipe in the Spring Park area the city. “We will be installing a new sewer main and new laterals to our customers,” Walker added.

Combining storm and sewer pipes was a common practice for a period in the 1960's but it was eventually abandoned, he explained. The capital city's case

points to the reasons why— during periods of heavy rain the sewage is carried into Charlottetown Harbour. Over the past several years, that has brought about a number of closures for the shellfish industry.

Earlier this year Environment Canada ordered the city to develop a plan for solving the problem. Walker said the capital has been replacing areas with a combined system and that the Spring Park project marked the last step in that effort.

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ADDRESS LABEL HERE



Firefighters and paramedics work on a man who fell down a hole in January at the Town of Amherst's sewage lift station in Fort Lawrence, Nova Scotia. (Photo: Darrell Cole/Amherst Daily News)

## Town employee injured at workplace accident

■ BY DARRELL COLE  
AMHERST DAILY NEWS

[Fort Lawrence, NS]— An employee of Amherst's Transportation and Public Works Department is at home following a work-place accident Thursday (Jan. 19).

"The employee was performing routine maintenance at the lift station and there was an accident and he fell into the lift station," Amherst chief administrative officer Greg Herrett said following the mishap. "We have initiated an internal investigation being led by fire chief Bill Crossman and we understand the Department of Labour is also sending a representative to the site."

Herrett said the employee, identified as Paul Hawkes, is going to be OK.

"We're very thankful he's going to be OK. Our Number 1 concern here is for Paul and his wellbeing. Secondly, we'll have a look at the circumstances and determine what happened and take whatever appropriate action is required."

The man was working around a hole at a sewage lift station just outside town when he slipped on ice and fell backwards down a hole, estimated to be about 25 feet deep.

"The guy he was working with saw him go down the hole," John Matthews of the Amherst Fire Department said. "It was a long drop and he is pretty banged up, but it could've been a lot worse."

Firefighter John Michels was rigged to a harness and lowered into the hole. At the bottom, he checked on the condition of the injured man, who was breathing and conscious, and used the harness to bring him to the surface.

Once at the surface, he was loaded onto a backboard by EHS paramedics and taken by ambulance to the Cumberland Regional Health Care Centre.

Michels said it was not a pleasant experience.

"We have training for it, but it's not something we're used to," Michels said, adding the smell was pretty strong. "It's something I had to do because that was one of our town employees down there and he needed help."

## Doaktown protecting its water supply

Doaktown council has taken steps to protect its water supply.

On Feb. 9 the New Brunswick village voted unanimously to ban exploration or extraction of shale gas near its water sources.

The council requested that the province undertake a hydro-geological survey to determine the parameters of its aquifers and provide benchmark tests of its water supply.

A resolution adopted at the meeting said once the aquifers had been mapped "the village asks the

province to ban any and all exploration for natural gas, or extraction within or near those well field areas."

The resolution said: "The Village of Doaktown has assumed a large and onerous tax burden to provide this essential water service and cannot responsibly permit the province to threaten its purity through its issuing leases to gas drilling companies. Since the province has made the decision on this issue, it must be accountable to any and all persons suffering damages."

## New Brunswick water update

The New Brunswick Department of Environment has partnered with Post-Education, Training and Labour in terms of operator certification.

For all inquiries pertaining to certification of water and wastewater can be directed to Michelle St-Coeur at Michelle.St-Coeur@gnb.ca or 506-444-2525.

## Halifax Water agreement ratified

On March 29, CUPE Local 227 ratified a new, five-year agreement with the Halifax Regional Water Commission (HRWC).

Last November 94% of HRWC's 225 workers voted to support a strike.

CUPE National Representative Marianne Welsh said members have voted 76% in favour of the new deal that runs from Nov. 01, 2008 to Oct. 31, 2013.

The wage increases over the five-year period are 2%, 2%, 2%, 2% and 1.5%.

"It is the first agreement since the merger of water and wastewater services in HRM. HRM transferred wastewater services to HRWC on August 01, 2007," Welsh said. "The parties met more than 30 times over the past two years. It was a challenging round of bargaining for the Local."

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# Judge orders water restored to Dover Estates

BY KATHY JOHNSON

The City of Dieppe apparently had no comment to make after a New Brunswick judge ordered that it restore water to residents of a mini-home subdivision.

Domaine Dover Estates was cut off from the city's water supply on Dec. 7 because the subdivision park owner allegedly hasn't paid the water bill for four years.

According to media reports, at a press conference Dieppe claimed that while owner Norman Berube of Noron Inc., had collected money for water and sewage services from residents he hadn't paid any bills since 2007. The City claims it is owed more than \$500,000.

The move to cut off the water supply came in the midst of a lawsuit between Dieppe and the park owner, who is suing the City over a number of issues, the water bills being one of them. The lawsuit is still pending, although now the Dover Estates Residents Association is also in the mix.

The order to restore the municipal water supply was pronounced at a Feb. 25 court appearance, originally scheduled to set a trial date in the three-way legal tangle between the City, the residents and the owner.

Between December and March, residents of Dover Estates were connected to the six private wells on the subdivision property. This prompted a boil water order from the Department of Health because the water supply was not certified.

City water began flowing to Dover Estates on March 1, and the boil order was lifted nine days later. Further media reports indicate an agreement may have been reached between Dieppe and the park owners on at least some of the issues, although the law suit is still pending.

The matter was expected to be dealt with to some degree by Dieppe City Council when they met on March 12.

Although questions were posed and repeated requests were made to the City of Dieppe's director of communications for comment on this story, none were received.



In January, ACOA Minister Bernard Valcourt and New Brunswick's Deputy Premier Paul Robichaud announced a combined federal/provincial investment of close to \$1.5 million for upgrades to the drinking water system and wastewater collection facilities in Shippagan. Pictured here, from left to right: Shippagan Mayor Jonathan Roch Noel, Valcourt, Robichaud, and Bernard Paulin, president of Les Amis de l'Aquarium. (Photo: Communication New Brunswick)

# Shippagan wastewater and water infrastructure will be upgraded

The drinking water system and wastewater collection facilities in Shippagan, New Brunswick will be upgraded.

Currently wastewater spills into the storm sewers and Shippagan Bay threatening the local shellfish industry and causing backup problems for local businesses.

Town engineer Valmond Doiron said a project to improve drinking water, funded by the federal, provincial and municipal governments, will replace a 6-inch cast iron watermain pipe—"that is too small"—with 315 metres of 8-inch PVC pipe.

Doiron told the Maritime Provinces Water & Wastewater Report that the sanitary sewer renewal part of the project will involve at least 760 m of pipe and a few meters of storm sewers.

The engineer explained that a lift station will

be replaced and a second one upgraded. He said two new forced mains will be added to increase the flow of wastewater collection: one 920 m in length and another at least 500 m.

The project should be completed in late November. Doiron said the piping and the construction of the lift station will be done this summer. Pipe connection and other indoor work will be "done later when it's cold."

The federal and provincial governments announced Jan. 17 they would each invest \$718,820 in the project through the Building Canada Fund. The town will also invest \$718,820.

Funding for the project is contingent on completion of all contractual agreements, including a pending environmental impact assessment with the municipality.

# CBRM buys land for sewer project

[Sydney, NS] — The Cape Breton Regional Municipality has purchased three parcels of land from Joneljim Construction along Sydney harbour as it prepares to begin a major sewer infrastructure project.

Joneljim sold the property for the appraised value of \$200,000, and will use that money toward its \$500,000 purchase of the Cossitt Heights land assembly from the CBRM.

The land, which rests along Kings Road across the street from Wentworth Park, was the site of a former Irving gas station.

The municipality needed access through the property for construction of an interceptor sewer system that's expected to intercept sewage from Tim Hortons in Sydney River along the shoreline to a connection near downtown Sydney.

It's part of \$7.5-million to be spent on the greater Sydney wastewater collector system this year.

As part of the CBRM's active transportation plan, a trail has been designed and will be built over top of the sewer line once construction has been completed. Both the sewer line and trail will link through Wentworth Park.

CBRM director of planning Doug Foster said the trail has been designed to eventually link to the Sydney boardwalk. However, he said no money has been designated for the trail at this point.

Foster said an analysis of the Joneljim property two weeks ago (early March) indicated polycyclic aromatic hydrocarbons, or PAHs, on site fell within federal environmental guidelines.

With the purchase of the lots, Foster said the municipality will have greater flexibility in the design of the sewer line and trail due to the excavation of contaminated soil.

Cape Breton Post

## SILENT AUCTION FOR CHARITY

The MPWWA's 32nd annual Training Seminar will include a Silent Auction for the 'PEI Family Violence Prevention Services Inc.' The auction will be held April 23rd and 24th at the Delta PEI.

# Miscouche caring for its sewer system

The population in Miscouche, Prince Edward Island has increased 13% in the last five years.

Like other Island communities it has seen provincial funding cut by 3%. But according to the Journal Pioneer, Miscouche has not raised its property taxes.

The newspaper reported that during its annual meeting in late March, Wayne Poirier spoke to residents about building permits, recreation upgrades and improvements, and about the sewer system.

The Community Council Chair said, "Upgrades and improvements, when needed, are also carried out on the sewer system. Regular cleaning of our sewer mains is another essential element in keeping our sewer system operating properly. As in previous years, we have continued with the cleaning of several sections of our sewer mains each year, and last year we cleaned another approximately 3.5 kilometers of sewer lines and we plan to do another 3.5 kilometers again this year."



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# MPWWA PROFILE: *Peter Jones*

Every issue, the MPWWR shines a spotlight on a MPWWA member making a difference in the industry. Peter Jones is the focus of our April Issue.

## *The go to guy in Grand Bay-Westfield*

■ BY HEATHER JONES

When it comes to wastewater management in Grand Bay-Westfield, Peter Jones is the go to guy for the southern New Brunswick town.

“Basically I’m responsible for almost anything that relates to the wastewater system,” Jones said in an interview. From record keeping and filing annual reports, inspecting new lateral installations, to maintaining pumps and lift stations, he is kept busy on a daily basis.

“It’s definitely a busy job, just the nature of it,” he said. “Where we are a small Works Department (of three full-time employees), basically I’m on call seven days a week, 24-hours a day. A lot of times I just get home and I get called back in.”

Jones began working as the wastewater operator for the Town of Grand Bay-Westfield in 2003 and it is a job he enjoys.

“I enjoy working outside and being outside.”

With 22 municipal sewer lift stations to maintain, Jones estimates he has about 44 pumps to look after, including residential pumps that are on the municipal wastewater system, as well as a lagoon and a trickling filter plant.

One aspect of the job he didn’t enjoy was cleaning the floats in the lift stations. “Out of everything I do, even rebuilding a pump, nothing compares to cleaning floats. Floats are just gross. There’s no way around it,” he said.

So Jones came up with a solution, rigging up “a kind of scraper” using a rubber gland out of a mechanical joint coupling, a piece of rubber from an inner tube and a plastic scraper that allows him to



Peter Jones

grip the floats with his hands and scrape the gunk off without his hands touching the debris.

Jones brushed off suggestions that his float cleaning device is an invention. “Invention is such a glorious word. Basically I was trying to make things as easy as possible when it comes to cleaning the floats,” he explained.

The wastewater operator, 38, has a construction background in the environmental sector, where was employed by a company that remediated petroleum contaminated soil. He earned his wastewater certi-

fication while working for a private company that de-watered septic waste.

Jones also had a job on a farm as a teenager so has “always worked with the environment,” he said upon reflection.

“I think we have to be responsible as people for what we do with our time on earth for future generations.”

When Jones isn’t working, he and his wife are busy with their three children, ages 4, 7 and 9.

“We stay pretty busy,” he said.



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# Delay in federal regulations holding up sewage treatment progress

■ BY CORY HURLEY  
THE WESTERN STAR

[Corner Brook, NL]—The federal government has held up the progress being made towards sewage treatment, says Sheldon Peddle, by delaying the release of the regulations they will be enforcing upon municipalities.

The executive director of ACAP Humber Arm (Newfoundland & Labrador) and co-chair of Corner Brook's sewage treatment committee is calling the situation ironic, but not in any kind of funny way.

He said the delay of the final draft of the federal regulations against disposing of untreated waste effluent into coastal waters has caused municipalities to stop working on their sewage treatment plans.

"We totally understand that," he said. "The city of Corner Brook, or any other municipality, does not want to go ahead and build a sewage treatment plant only to have federal regulations introduced a few months later and find they are not in compliance with the new regulations."

The draft regulations were released more than a year ago, but the final measures have not followed. Peddle said there is no word on when it will occur, just that it was anticipated to have been done by now.

Locally, the environmentalist said the city has decided to maintain the sewage committee, but not to hold any meetings until they are deemed required.

He said the committee was never given a mandate by council, and only met a few times under former councillor Mr. Charlie Renouf. They have not met in more than a year.

Peddle recently met with new co-chair Coun. Gary Kelly and Steve May, director of operational

services, and discussed how to proceed.

He is hoping the federal budget March 29 will include something on the federal regulations.

There are a number of things Peddle feels the committee or city should do in the meantime. He said council should develop a mandate for the committee or have the members do so and present it to council for approval. He also believes there is a need for a technical briefing for council, staff and the committee on the 2006 sewage treatment plan created by BAE Newplan.

The city has set aside funds for a study pertain-

ing to the outfalls, determining the volume and composition of the effluent.

He said the committee should also oversee that initiative.

Meanwhile, Kelly said there is uncertainty as to exactly what the role of the committee should be while waiting for the federal regulations to be unveiled.

He said there will be a meeting of the committee to inform the members they will be kept in a "holding pattern" until that time.

"We don't even know what we need to monitor,"

he said. "We are hearing conflicting reports based upon when the regulations are coming out, what the regulations may or may not look like. It just seems pointless right now to have any active role with that, but we are still interested in maintaining it."

Kelly said the only way municipalities will be able to afford to implement the regulations is if they were accompanied by a funding program.

"This is all speculation, but, based on the fact the federal government is talking about cuts and public service cuts, one can't imagine rolling out a multi-billion dollar program," he said.

## PEI town first to power treatment plant with wind

■ BY ANDY WALKER

A Prince Edward Island town is harnessing the power of the wind to run its waste treatment plant.

The rising cost of electricity (Canada's smallest province has the rather dubious distinction of having some of the highest power rates in the country) convinced council in Kensington to look for cheaper options to run the waste water system for the town of approximately 1,500 people. The community is located approximately 45 minutes west of Charlottetown in the heart of one of the Island's major potato growing areas.

"It was costing us close to \$50,000 a month to run the plant so we started looking to see if there were other possibilities," said Ralph Wadman, su-

pervisor of the sewage treatment plant.

The answer turned out to be a wind turbine capable of producing a maximum of 100 kilowatts. The \$521,000 Northwind 100 turbine was purchased from Gorman Controls Limited (a Bonshaw, PEI company) in 2009. While there were some growing pains, Wadman said wind power is proving to be a success. The turbine has the capacity to generate over 280,000 kilowatt hours of power a year.

"I would say it produces about 75-80 per cent of the power for the plant," the supervisor said. "There are very few days when the turbines don't move."

The treatment system consists of a controls/treatment building which houses mechani-

cal and treatment equipment and two lagoons providing secondary sewage treatment. He said the system has received a number of upgrades over the last several years including ultraviolet disinfection equipment and a self-priming lift station. The town's sewage collection consists of approximately 10 km of subsurface piping.

"As far as I know, we are the only community in the Maritimes to use wind power to help run our wastewater facilities," Wadman said.

However, he expects other towns will look at the option as electrical costs continue to rise. "Power costs, especially here on PEI are closely tied to fuel prices and they are on the way up again."



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# Goulds upgrade will need \$62 million, city says

■ BY DAVE BARTLETT

## THE TELEGRAM

Bringing water and sewer in Goulds (Newfoundland & Labrador) up to an urban standard will cost the City of St. John's an estimated \$62 million dollars.

At a city public works committee last week (Feb. 16), director of engineering Walt Mills gave an update on the 2009 Goulds servicing study.

Because of persistent problems with "excessive infiltration inflow" into the area's sanitary sewer system, the report recommended before the city starts upgrading the water and wastewater infrastructure in Goulds, that it first identify and fix problems in three neighbourhoods — the Meadowbrook Drive area, Keith Drive area and Main Road area — where excessive storm water is getting into sewer lines and, in some cases, eroding the pipes.

Mills presented a report Thursday (Feb. 16), which pegged the cost of fixing issues in those areas at more than \$9.5 million.

While it was recommended these projects be put on next year's capital works budget list, there's no money to start that work this year.

But that \$9.5 million is on top of the \$3.2 million council has approved this year to upgrade all infrastructure in front of St. Kevin's Junior High on Main Road — from pipes to sidewalks and the road.

And that's on top of the \$51.7 million price tag put on service upgrades in Goulds in the 2009 report.

Those costs could be higher today, and much higher before the city gets around to doing all the work.

City manager Bob Smart said at the meeting this is a perfect example of why the city needs a better financial arrangement with the province, as the longer the city waits to do the work, the more expensive it will be.

Current Coun. Bruce Tilley was also a member of council when Goulds amalgamated with St. John's in 1991. He told The Telegram the small pot of money the province gave to the city at the time wasn't close to what was needed to do the work in the former town.

"All the citizens of St. John's, all these years, are paying their taxes and yet there's not enough money to do the job because it's extra money that the government should have provided ... to do the work," said Tilley.

He also questioned the quality of work, or standards used, before amalgamation when Goulds was governed by Metroboard — an arms-length office of the provincial government.

Tilley said the city was aware the problem would be a major one even at the time of amalgamation.

"But there was no choice," he said.

"I fully sympathize with the residents of the Goulds, I understand exactly where they're coming from," added Tilley. "We can't go on any longer with the funds we've been given by government, it's impossible."

Tilley asked staff to draw up a graphic which shows where the problems are in Goulds, what work has to be done and the costs of each project so council and the public can have a better idea of the extent of the work.

## Wells come under scrutiny

[Bible Hill, NS] — What's in some village wells? The (Nova Scotia) Village of Bible Hill wants to know.

At issue is a report that the village has received from Dillon Consulting from Halifax indicating there were some elevated levels of nitrate and chloride in wells along College Road.

(In February) Village clerk Bob Christianson told commissioners the report is part of an annual monitoring program of the former landfill site in Bible Hill, which used to be located where the Bible Hill Recreation Park is now.

The nitrate and chloride levels have been ele-

vated "for years" but are not dangerous.

"It hasn't changed drastically," said Christianson.

Village chairman Tom Burke said there is "no deterioration" to the wells and there is "nothing glaring in the report" to be concerned.

"It could be runoff from agricultural fields or salt from roads," Burke said.

Despite those reassurances, commissioner Sharon McLean wants more information to be presented to the village, especially since the report also recommends the village consult with the Department of Environment to ensure it is

aware of the situation.

"If they are concerned shouldn't we be concerned?" said McLean.

Commissioner Dale McLeod agreed more information is necessary.

"A lot of people may have questions and we could find answers," McLeod said.

The commission intends to request Dillon Consulting send more specific information to it through a letter. If that does not answer its questions a request for an official presentation will be made.

Truro Daily News

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# Berwick's wastewater treatment plant to receive \$2-million upgrade

BY JENNIFER HOEGG

KINGS COUNTY ADVERTISER/REGISTER

*EDITOR'S NOTE: According to Sandy Dewar P.Eng of Hiltz and Seamone, an 'Ozonation' disinfection system will be a key component of the upgrades.*

A new chicken plant coming to Berwick (Nova Scotia) bumped wastewater upgrades up the town's to-do list last summer and the funds are now coming home to roost.

West Nova MP Greg Kerr and Kings North MLA Jim Morton were in Berwick Jan. 19 to announce investment from their respective governments in the town's infrastructure.

Work on the town's wastewater treatment plant will increase its efficiency, Mayor John Prall said, by increasing filtering and pre-treatment and enhancement to the settling ponds. There will be two additional buildings added to the Main Street treatment site as part of the project.

"We're really excited here in the town for our future," Prall said.

"This endeavour lets us take advantage of further commercial development, residential development and industrial development," he added, "and we will be ready to meet new standards from the environment department."

While the upgrade was in the town's five-year plan, the Larsen's sale pushed up the timeline, Prall said, but Berwick couldn't afford the \$2-million price tag and approached other governments for help.

The federal and provincial governments will each invest \$500,000 in the project with an additional \$522,105 coming from the town. Eden Val-

ley Poultry Inc. is also investing \$500,000 in the project.

However, Eden Valley Poultry spokesman Ian Blenkarn said the chicken processor does not need the sewer upgrade. The poultry farmer, who is also a director with ACA Co-operative and the United Poultry Producers, stood up at the end of the announcement to clarify "this investment is not to accommodate Eden Valley farms coming town. It's about the future of the town."

After the announcement he reiterated the upgrade "is not a requirement at this time" for the company, because technology has reduced the amount of wastewater generated. "We're trying our best to be good corporate citizens."

While it is unusual for private businesses to invest in public infrastructure, Prall insisted, "there are no strings at all" to the contribution.

It took extensive negotiations between the levels of government to find a way to fund the investment, Coun. Mike Trinacity said.

Kerr joked Prall called him twice a day until the deal was done.

"Berwick is the little town that's growing," he said, congratulating the community and company for their respective investments in critical, "not sexy" infrastructure. "It's the region that is going to benefit."

Morton praised the investment for "making Berwick and surrounding area more attractive to business."

"We have turned a major corner in this community," Trinacity said.

Prall added work is ready to start next week, as soon as necessary permits are complete.



Federal, provincial and municipal governments have committed a combined \$1.2 million to upgrade the drinking water system in Doaktown, New Brunswick. In the photo are from left: Doaktown Mayor Charles Stewart; Southwest Miramichi MLA Jake Stewart; Miramichi MP Tilley O'Neill Gordon and NB Economic Development Minister Paul Robichaud. (Photo: Communication New Brunswick)

## Doaktown drinking water system funded

The drinking water system in Doaktown, New Brunswick will be upgraded.

The federal and provincial governments will each invest \$408,017 in the project through the Building Canada Fund. The village will also invest \$408,017.

The \$1.2 million project includes the construction of a water treatment plant and water reservoir on the north side of Doaktown. This will improve the security of the north side's water supply and serve as a back-up supply for the south side water system.

## Vandals cause \$2,500 in damage to wastewater treatment plant

[Slemon Park, PEI] - Vandals not only put others at risk, they put themselves at risk after breaking into the Wastewater Treatment Plant located in Slemon Park (Prince Edward Island), police say.

The wastewater treatment plant is located in an isolated part of Slemon Park, near Summerside.

RCMP Const. Elizabeth Rice says somebody broke into the plant between late afternoon Friday, Jan. 20 and the early morning hours of Monday, Jan. 23.

Rice said various mechanical parts inside the tanks were damaged.

The tanks had to be drained in order to make the repairs.

The estimate of damage in this case is approximately \$2,500.

Anyone who may have information in relation to this incident is asked to contact East Prince RCMP at (902) 436-9300 or Crime Stoppers at 1-800-222-TIPS (8477).

Rice said the plant is located in a remote area of Slemon Park and for obvious reasons is not a safe location for any one but trained employees.

*The Guardian*

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## May feeling better about expected cost of plant

■ BY CORY HURLEY

### THE WESTERN STAR

[Corner Brook, NL]— Steve May says the City of Corner Brook (Newfoundland & Labrador) is still hoping to see construction of its new water treatment plant start early this summer.

The director of operational services said the request for proposals is out to the four design-build teams who pre-qualified for submissions. He said there have been several meetings with the four Canadian companies AECOM, Bird Construction, Maple Reinders, and Pomerleau vying for the contract.

Submissions are due in early April, and May said city officials are anxiously waiting.

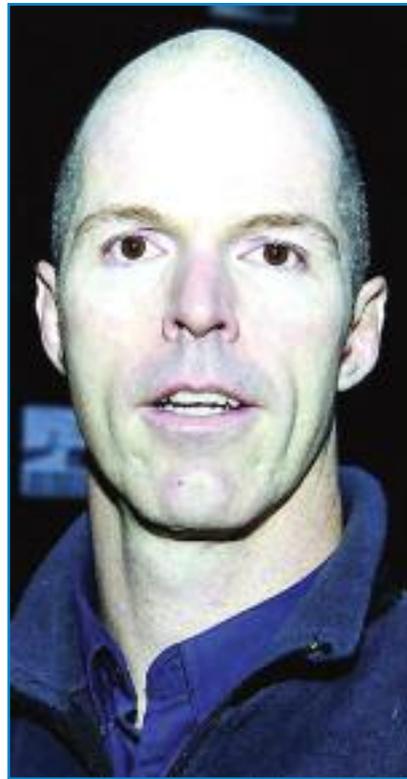
"We are certainly getting a good vibe ... they are talking about an affordable plant," he said. "That was certainly one of the driving factors that pushed us to go this route (design-build), and we have been making every effort to ensure this project comes in such that it is affordable to the city."

The regular tender process was halted in 2010, when the project cost, budgeted for more than \$43 million, ballooned to more than \$60 million when tenders were received.

"We do have a fairly positive feeling in the feedback we are getting from the four companies, that they do think this is a good process in that we have put a fair bit of the decision making in their hands to get the cost of the plant under control," May said. "We haven't given away the farm in terms of quality or quantity, but the constructability of the plant and all the equipment in it can be influenced by the companies themselves."

He said these companies have experience building water treatment plants across Canada, and in some cases around the world.

Once the bids are received, they will be evaluated. May said this process allows for evaluation of the technology proposed and the format of the plant, rather than just awarding the tender to the lowest bid-



Steve May. (File Photo: The Western Star)

der. That evaluation process is expected to take between 30 and 60 days following submissions.

May said there also is an ability to negotiate with the eventual proponent beyond the proposal submission.

Meanwhile, the overall water system master plan development is ongoing. CBCL Ltd. was awarded that contract, for \$85,055 plus HST, in November. May said that process is approximately half-way through.

"We are actually quite excited about it because we see it as a template for the decisions to be made over the next 10-20 years," he said. "How do we streamline the system to provide better service to the residents, including more efficient distribution of water, reduction of breaks, better coverage of water in terms of storage and chlorination and other issues related to quality."

## Cornwall working with residents to solve water pressure problems

■ BY ANDY WALKER

While the Town of Cornwall is prepared to work with homeowners in the Elliot Park neighbourhood to solve water pressure problems, the chair of the Water and Sewer Utility is far from convinced the Prince Edward Island municipality is responsible for all of the problems.

Several neighbourhood residents have appeared before council a number of times asking that money to solve the problem to be included in the 2012-2013 budget.

Councillor Irene Dawson said testing of all fire hydrants in the subdivision revealed water pressure of 32 pounds per square inch—exactly what the system installed in 2001 is supposed to deliver.

The veteran councillor said there have been numerous cases where the water pressure of all the surrounding houses was fine, or the pressure on the outside tap was reading correctly but some inside taps were low.

Dawson said both of those instances suggest the problem lies with the homeowner rather than the

town system. She said there was also a case where one homeowner who complained about low pressure was not hooked up to the town system.

That being said, Dawson added there are some houses in the subdivision experiencing problems because they are at the same elevation as the water tower. She said town officials are now determining in each individual case whether the source of the problem lies with the town or the homeowner.

The councillor said the solution to the dilemma would be to purchase a booster pump that would allow the homeowner to set his own water pressure without interfering with his neighbour's plumbing. She said the cost of the units is in the range of \$400-\$500 plus installation.

Bill Prowse is one of the residents with pressure problems. He told a council pre-budget meeting in February he has heard of at least 12 people in the subdivision in the same situation. The homeowner said he has had problems with his water pressure since he hooked on to the town system in 2005.

## Lunenburg to get odour control system

Lunenburg, Nova Scotia may ask the province for \$608,625 (plus tax) to cover the cost of an odour control system for its \$7.3 million wastewater treatment plant.

According to the Chronicle-Herald, odour has been a problem on occasion since the facility was constructed nine years ago.

In 2006 the town invested close to \$100,000 to increase the height of the plant's exhaust stacks and improve its air ventilation system.

When that was unsuccessful, the newspaper said Lunenburg hired CBCL Ltd. to evaluate odour control systems. The company recommended a photo-ionization or a bio-filter system.

In a report to council in late February Town Engineer Marc Belliveau said the odour problem em-

anated from the sludge holding tank after a power outage and lasted up to a week.

He recommended that Lunenburg purchase a bio-filter and a generator that would cost approximately \$363,000 and \$250,000 respectively.

The bio-filter would oxidize and remove compounds in the air and the generator would ensure that power flowed continuously to the holding tank.

According to the Chronicle-Herald, Belliveau suggested the town ask Municipal Relations Minister John MacDonell and Service Nova Scotia to pay for the upgrades.

Mayor Laurence Mawhinney said if the province declined the town should not be forced to raise water rates to purchase the odour control system.

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# Pictou considering adding meters as part of water system upgrades

The (Nova Scotia) Town of Pictou is considering adding water meters as part of its ongoing upgrades to the water system.

During a committee of the whole meeting Monday night (Feb. 13), town CAO Scott Conrod described at length upgrades to the system that the town wants to do, including a look at installing meters. They also talked about treating the water for manganese to avoid discoloration.

Pictou is the only municipality in the county and one of a handful in the province that doesn't currently use meters to measure individual residential and commercial water use.

Adding water meters has many benefits, Conrod said, ranging from a more equitable billing system to the ability to locate leaks. Studies have also shown that people are more cautious with their water consumption when meters are installed

and water rates go up.

While the town has yet to put the project out to tender they did send out a request for proposal and had three companies respond. Their estimates ranged from approximately \$417,526 to \$587,091 with one of the biggest variables being what type of meter is used. Two types were shown at the committee meeting.

Also the town has plans to build a central water treatment plant and tank where water from wells will be taken and treated for manganese before it is put out in the distribution system.

Conrod said that they would like to have the water treatment problem fixed before they start charging for usage for the simple fact that when the water is discoloured, residents have to run large amounts of water to get rid of the problem.

*The News*

# Water main break creates large hole

BY MIKE CARSON

JOURNAL PIONEER

[Summerside, PEI] – A water main break on Park Street (Summerside, Prince Edward Island) led to an unusual situation for crews from the city's municipal works department.

(On Feb. 7) A sinkhole over a foot deep developed near the driveway of a Park Street home. However, the hole was filled with water so its depth was indiscernible.

Municipal Works director for the city, Greg Gaudet, said once crews evaluated the scene they decided to call in a flatbed tow truck and remove a nearby vehicle before excavating the street. The tow truck lowered its flatbed over the hole making a bridge for the vehicle to use to get out of harm's way.

"It was a water main break and then when the

guys went to respond, the backhoe was traveling along on the roadway and the asphalt gave way," Gaudet said. "It was next to a driveway and they were worried about the excavation and possibly affecting the vehicle that was in the driveway. They decided to get the vehicle out of there before they started excavating and make sure it didn't fall into the sinkhole."

Gaudet said it was the free running water beneath the road surface that created the problem.

"When there's a water break sometimes what happens is the water flows around the pipes and finds a way into a manhole or somewhere else and it creates a void underneath the pavement if it goes on for a while," he said. "A lot of times everything looks fine then everything gives way. Normally we find them pretty fast but this one must have been happening for a little bit."

# ABEA scholarship available

The Atlantic Branch Equipment Association will award its inaugural scholarships in 2012 to first year entrants in a college or university program.

The ABEA is a body made up of over 40 members including manufacturers, manufacturer representatives and service providers.

The scholarships were established in keeping with the ABEA's objective—"to encourage and stimulate the exchange of ideas concerning water supply systems between members of the association and between members of the

ACWWA and other bodies/persons having similar interest."

The ABEA will award up to four (one-year) \$1000 scholarships annually. The scholarships are open to sons and daughters of an ACWWA and/or ABEA member who is a Canadian citizen (or permanent resident of Canada) who resides in the Atlantic provinces.

The ABEA says, "Preference will be given to those intending to pursue a career related to the water/wastewater industry, and those choosing to study in Atlantic Canada."

The scholarships will be awarded on an equal opportunity basis with the assessment of the following weighted criteria:

- 1: Academic record (30%)
- 2: Statement/Essay (50%)
- 3: Work experience/Community involvement/Service projects (20%)

The deadline for applications is April 30, 2012.

Applicants should submit:

- A resume that includes: name, mailing and email addresses, phone number as well as a list/description of all places of employment including volunteer work;
- Name and relationship to Association member (along with membership number if ap-

plicable) member must be in good standing;

- Proof of Canadian citizenship or permanent residence status;
- Intended institution and program of study;
- A 500-word statement describing goals, interests and relevance to a career in the industry;
- And an official high school or equivalency transcript.

Send the application to: ABEA Scholarship, c/o #9-50 Thornhill Drive, Dartmouth, Nova Scotia B3B 1S1. The email address is: scotiat-ech.main@ns.sympatico.ca

The deadline again is April 30, 2012.



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# Federal-Provincial-Territorial Committee on Drinking Water

The main responsibility of the Federal-Provincial-Territorial Committee on Drinking Water (CDW) is to establish the Guidelines for Canadian Drinking Water Quality. Provinces and territories use the guidelines as necessary to manage their drinking water quality programs; some jurisdictions have adopted the guidelines as regulated standards. The Committee aims to establish five to seven guidelines per year based on a priority list that is reviewed on a regular basis.

The CDW also sponsors the Canadian National Drinking Water Conference, which has to date been organized by the Canadian Water and Wastewater Association. This biennial conference is a well-established and anticipated event that attracts hundreds of water professionals and researchers from across the country and around the world. The Conference provides a unique opportunity for all stakeholders to meet and present or exchange views on current or emerging issues related to the provision of safe drinking water.

The CDW is made up of voting and non-voting members. There are 14 voting members, one for each jurisdiction in Canada (ten provinces, three territories, and the federal government). Voting members represent the authority responsible for drinking water quality in their jurisdiction, usually either the department of health or environment.

The CDW meets twice per year; the spring meeting is held in Ottawa and the fall meeting hosted by a provincial-territorial member. Last fall the meeting was held in Halifax, Nova Scotia.

For each guideline being considered, Health Canada prepares a draft guideline technical document that outlines current information on:

- health effects associated with the contaminant;
- Canadian exposure to the contaminant;
- treatment and analytical considerations.

Draft documents generally include a proposed guideline value and are peer-reviewed by external experts; following peer-review, documents are reviewed by the CDW and approved for public consultation. Documents are posted on the Health Canada website for the duration of the public consultation period. Revisions are made based on comments received during public consultation. Once comments are addressed, the guideline technical document is approved through Federal-Provincial-Territorial processes and published on Health Canada's website.

## 2011 HIGHLIGHTS

1. The following guideline technical documents were posted on Health Canada's website:
  - Fluoride (posted June 2011)
  - Carbon Tetrachloride (posted July 2011)
  - N-Nitrosodimethylamine (NDMA) (posted August 2011)
2. The following guideline technical documents were approved for posting on Health Canada's website (posting date to be determined):
  - Protozoa (approved November 2011)
  - Bacteriological – HPC (approved November 2011)

3. The following guideline technical documents were released for public consultation:
  - Escherichia coli (from September 7 to November 18, 2011)
  - Total Coliforms (from September 7 to November 18, 2011)
  - Turbidity (from November 16, 2011 to January 27, 2012)
4. The following guidelines and supporting documents were approved to be released for public consultation (consultation period to be determined):
  - Bacterial Waterborne Pathogens
  - Ammonia
  - Vinyl Chloride
5. The Standards Council of Canada (SCC) reported on the accreditation status of organizations that certify products that are used to produce safe drinking water. Currently nine certification bodies are accredited by the SCC: BNQ, CSA, IAPMO, Intertek NA Ltd., NSF, QAI, ULI and WQA. Over 10,000 drinking water treatment units are approved to meet NSF Standards 42, 44, 53, 55, 58 and 62; over 100,000 products are certified to meet NSF Standards 60 and 61.

## A LOOK AHEAD

1. **CDW will host the 15th Canadian National Conference and 6th Policy Forum on Drinking Water in Kelowna, British Columbia from October 21 to 24, 2012. The conference theme is assessing and managing risk. Plan to attend!**
2. The following updated guideline technical documents are scheduled to be posted on Health Canada's website in 2012:
  - Enteric viruses
  - Dichloromethane (DCM)
3. The following guideline technical documents are under review:

- Aluminum
- Atrazine

- Dichlorophenoxyacetic acid (2, 4-D)

- pH
- Selenium

- Bromate

- Lead

- Tetrachloroethylene

- Chromium
- Copper

- Manganese
- Microcystins

- Toluene, Ethylbenzene, Xylenes – (B)TEX

- Dichloroethane, 1,2-

- Nitrate and Nitrite

- Uranium

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# PEI capital set to begin job of solving sewage problem

Continued from page 1

The city was hoping to access funds under the Infrastructure program to cost share the program with the federal and provincial government. However, Ottawa has yet to come on board, so the province and the city have decided to proceed with the \$18.8 million project on their own.

Phase I will address and prepare the new sanitary sewer system for the subsequent stages, and will divert sanitary sewer to the Wastewater Treatment Plant. When the sewer is removed from the combined system it will greatly reduce the impact on the harbour. The completion of this phase of the planned work combined with the completed work at the University of PEI undertaken in 2011 will address approximately 57% of combined flow and divert it directly to the Wastewater Treatment Plant. The total estimated cost for Phase I is \$5.6 million

The second phase will address separation work in the North West

section of the combined system which will mostly impact the west side of Spring Park Road. The completion of this phase, in addition to the previously completed separation work, will address approximately 70% of the combined flow and redirect it to the treatment plant. The total estimated cost for Phase II is \$3.3m.

The final \$9.8m phase, will address the necessary separation work in the northeast section of the combined system that will mostly impact the eastern side of Spring Park Road to Mount Edward Road. The completion of this phase will have addressed 100% of the combined flow.

The province is providing one third of the cost of the project. The city will be funding its share from a \$30/year increase in sewer rates and a transfer of \$1m in Federal Gas Tax money for each year of the project.

Charlottetown Mayor Clifford Lee said there are strong indications a federal infrastructure program will be in place and the final

phase can be a cost shared three ways.

"I am pleased the Utility Department will now manage this important project to completion with the assistance of an engineering consultant," Councillor/City Water and Sewer Committee Chair Edward Rice said. "The benefits to the environment, to our resident community, and to shell fish operators using the Charlottetown Harbour are immeasurable."

Mayor Lee said the city has been working with the PEI Shellfish Association, the PEI Aquaculture Alliance and the PEI Fisherman's Association to ensure their interests are being considered as the project works forward.

"The potential negative impacts to our environment and the many stakeholders that have the potential to be affected by this problem are widespread. Support and cooperation between different levels of government to address this problem is essential," Ann Worth of the Aquaculture Alliance noted.

## Nova Scotia making progress on Water for Life strategy

Nova Scotia is making progress in its efforts to ensure water is valued and protected.

A progress report released on March 23 highlights achievements of the first year of the province's resource management strategy, called Water for Life. The strategy was released in December 2010.

The Water for Life strategy outlined 29 actions to be completed over 10 years. The progress report groups the actions into three categories focusing on understanding the quality and quantity of our water, protecting our water, and engaging others in caring for our water resources.

**The progress report highlights successes to date, including:**

- the launch of the Nova Scotia Water Portal website
- enhancing water quality and quantity monitoring networks
- updating drinking water treatment standards
- developing the Nova Scotia Watershed Assessment Program, in partnership with Dalhousie University
- developing a water monitoring field kit and certification program at Saint Mary's University as part of the Community-Based Environmental Monitoring Network
- engaging youth in water stewardship activities around the province

"Water plays a vital role in the lives of Nova Scotians, but not just for our health: it is critically important for our environment and our economy, and contributes in many ways to the quality of life in the province," said Graham Daborn, emeritus professor, Acadia Centre for Estuarine Research, and chair, Nova Scotia Water Advisory Group. "We have made progress since the water strategy was released over a year ago, and we look forward to even greater steps forward in the coming years."

Nova Scotia is home to more than 13,000 kilometres of coastline, thousands of lakes, numerous river systems, wetlands and groundwater resources.

Developing a comprehensive water resources management strategy was a commitment of the Environmental Goals and Sustainable Prosperity Act.

For more information on the water strategy progress report or Water for Life, visit [www.gov.ns.ca/nse/water](http://www.gov.ns.ca/nse/water)



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# City water system celebrates 125 years

■ BY DAVE STEWART

## THE GUARDIAN

An exhibition featuring the past 125 years of water supply in Charlottetown (Prince Edward Island) will be on display at City Hall beginning Tuesday, Feb. 21. That will mark Heritage Day in the capital city.

Celebrations will include the annual awards ceremony along with the exhibition, which will remain in place for the remainder of the week.

The exhibition is open to the public during regular business hours.

Natalie Munn, heritage researcher for the City of Charlottetown, spent nearly two months looking into the city's water system over the years.

"My favourite part was just learning why we have a water system," Munn said. "It's something you don't think about very often."

Efforts to create a water system in the city began once Charlottetown was incorporated in 1855 but the money to pay for it wasn't there at the time.

But the city soon discovered, regardless of cost, it desperately needed water. The risk of fire and public health were two of the bigger incentives.

City council began researching ways in 1869 of obtaining water. One method was to compare the height of springs at Holland Grove, the block bordered by Euston, Prince, Fitzroy and University streets. It led nowhere though.

In 1870, the city hired Charles Fairbanks, who designed Halifax's system. He chose the Winter River as a source of water but the cost amounted to \$100,000.

In 1871, the city asked the Colonial legislature for permission to raise funds through the sale of debentures. The issue was defeated at the polls.

Advocates then created the Water Works Promoters Association in 1875, resolving to work for the election of any candidate that would "support a feasible

plan proposed and drawn up by a thoroughly qualified civil engineer". The group was successful.

The city was still struggling with the cost of establishing such a system five years later.

It all changed in 1884 with the creation of the Charlottetown Water Works Company, a private firm formed in the wake a devastating fire which destroyed Victoria Row. Fire insurance rates skyrocketed.

Each time fire would destroy a section of the city, The Guardian always noted the lack of water.

Originally, a bucket brigade was used to fight fires but technology soon enabled fire companies to use pumpers that could hook up to wells, cisterns or the

harbour.

The city was forced to establish a water system following the Victoria Row fire, which also destroyed the post office across the street on Queen Square.

The Charlottetown Water Works Act was passed in the legislature on May 7, 1887 and a commission was elected a month later.

The Guardian

## DATES IN CITY WATER HISTORY

1887 - Charlottetown Water Works Act passed in the legislature.

1888 - Water system designed by engineer from Mas-

sachusetts.

1898 - Sewer constructed. 1903 - Lower Malpeque Pumping Station constructed.

1930 - Brackley Pumping Station was built.

1949 - Union Pumping Station developed.

1964 - Mount Edward Road reservoir replaced with a new reservoir. 1994 - Suffolk Pumping Station established.

1997 - Brookdale Pumping Station developed (decommissioned).

2000 - Hunter Green Pumping Station built (decommissioned).

## PEI water meter customers saving money

■ BY ANDY WALKER

Most Prince Edward Island municipalities either bill their residents a flat rate for the water they use or have what is essentially a "user pay" system billing customers for water.

For the past two years, Charlottetown has used what might be termed a hybrid system. Customers can voluntarily decide to have a meter placed at their residence or they can stick with the flat rate structure. Councillor Eddie Rice, who chairs the Water and Sewer Utility Committee of City Council, said only a handful of people have chosen the meter-

ing option so far—147 in fact.

However, the veteran councillor said he is far from discouraged, noting the feedback from residents has been extremely positive. Virtually everybody who has made the switch has saved money—in most cases in excess of \$100 a year.

Mayor Clifford Lee agreed, calling the meters an "effective conservation tool." He added, "By encouraging customers to switch to a metered-bill it really allows them to have more control over their bill and makes them more conscious of their water use at the same time."

Councillor Rice said the customers that see the most savings are those that are either water-conscious, live in smaller households (three people or less), or live away from their home part of the year.

The meters are provided by the utility at no cost to the homeowner, although the user is responsible for the installation cost.

The Water and Sewer chairman noted that as of 2010, all newly constructed homes must have a meter installed and be billed on the metered rate. All commercial, industrial and institution accounts are metered.



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# Lifespan of water mains unpredictable

BY DAVE BARTLETT

## THE TELEGRAM

It may seem like the water mains in St. John's (Newfoundland & Labrador) are bursting at an alarming rate.

But according to the city, breaks at this time of year (Jan. 23) — when the temperature is fluctuating from mild to freezing and back again — are fairly common.

There have been 18 water main breaks of various levels of severity in the city between Dec. 22, 2011 and last week, when The Telegram sat down with Mayor Dennis O'Keefe, public works director Paul Mackey and engineering director Walt Mills.

"There's usually a bit of a cluster of breaks in the December, January, February period," Mackey said.

"It's got to do with temperature. The ground movement, because of frost, and also the water temperature (which) cools, and that has an effect on the pipes too. It causes shrinking and contraction."

But weather is only partly to blame. Age is a factor in many parts of the city, where pipes can be a century old.

Sometimes contractors or city crews accidentally rupture mains when they're working near them, which was the case near Bowring Park in late August when a large part of the city's west end was without water for a few of days.

"But the majority are just random breaks," said Mackey.

Based on the statistics the city collects, the number of breaks has gone down in recent years.

"What it shows, is from 1995 up to ... 2011, we had a total of 847," Mackey said.

In an average year, there are between 40 and 60 breaks. However, in 2008 there were only 26, the lowest during the time period. On the other end of the scale, in 2002 there were 92 breaks.

Some are major and cause flooding to nearby homes. Many more are minor and are fixed within hours.

But every time a water main valve has to be shut off to deal with a leak, there is a potential that it can cause other leaks nearby, depending on the condition of the pipes.

"Every time you turn a valve you're creating potential for something to happen," Mackey said.

That's because of the stress the change in pressure can have on the water system. And because some valves are as old as the pipes, some become seized or corroded over time.

That means larger areas of the city have to be shut down and drained before repairs can begin.

"I was really surprised when we had that ... Bowring Park break ... how (far) back from the actual break we had to go to shut off the flow," said O'Keefe.

"Sometimes these leaks have been going on for a period of time, and we might not notice them," added Mackey.

"They might be small leaks and then suddenly let go."

To combat the unpredictability, the city started a leak detection program in 2003 or 2004.

"That actually found a significant number of leaks when they are at the initial stage, before they became full-blown ... water main breaks," Mackey said.

City crews use acoustic equipment to listen for leaks from above ground.

The city has also started what's called zone metering to monitor water flow in areas around the city. When flow rates become abnormal, the city goes in and inspects to see if a break has happened.

"At nighttime, flows generally decrease," said Mills.

He said zone meters have been installed in about 75 per cent of the city, with more added each year.

Another thing the city started to do five or six years ago is what's called valve exercising.

Valves are inspected and turned to make sure they are working properly, and if not they are repaired.

"We're a lot more proactive than (we used to be) and part of that was stimulated by studies (on water) conservation," said O'Keefe.

But Mackey said leaks are part of every water system. The goal is to keep them to a minimum.

Mills pointed out the city has changed the material used in water mains over time.

Before the 1970s, most pipes were cast iron. Then the city switched to less brittle, more flexible ductile iron.

Over the past few years, the city moved to plastic PVC for distribution mains, with pre-stressed concrete pipe for the larger transmission lines.

But no matter the material, the life expectancy of

water mains is hard to predict.

"There are so many variables that affect the life of a pipe," said Mills.

"We've got lots of pipes in the ground that are a hundred years old that are functioning fine and we've had other places where we've had breaks at 20 years or less," he added.

As an example, there are two 16-inch cast iron pipes in the Merrymeeting Road/Mayor Avenue area that were installed at the same time. While one has had a number of breaks, the other remains in good condition.

As for a strategic plan for replacing older sections of pipe, all three officials agree that's not feasible in most cases.

Mills said there are some capital works projects to replace transmission mains on the city's to-do list. And if the city has to tear up a road for other work, crews take the opportunity to replace older distribution lines.

"(But) it's a huge tear-up and expense," said Mackey.

So how does the city budget for repairing water main breaks?

The public works department has a maintenance budget that usually covers the average cost.

But if the repairs go over budget, there's not much the city can do but find the money.

As O'Keefe pointed out, the city can't leave people without water.

"It's got to be done and that's it," he said.

"One of the most important things the city does is provide water to its citizens, obviously for potable water purposes but also for fire suppression, so it's important that water supply be there and (be) reliable," Mills added.

The cost of replacing aging infrastructure in the city — and water mains are only one example — is one of the reasons why O'Keefe has been speaking out lately about a new fiscal arrangement between municipalities and the province.

He went so far as to suggest at last week's council meeting that without more money coming from the government, city residents could be looking at a property tax increases of between 200 and 300 per cent in coming years.

O'Keefe said other towns and cities in the

province may have to do the same as they struggle to balance budgets while maintaining current services, let alone adding new ones.

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# Storm drain system upgrades this summer

[Bible Hill, NS] - Upgrades to Bible Hill's (Nova Scotia) storm drainage system will take place this summer.

Mark Evans, an engineer with CBCL Limited, based out of Halifax, gave a presentation to the village commission on Tuesday night (Jan. 10) about the project.

The realignment project focuses on underground work in the Bible Hill Recreation Park close to the old sewer pumping station near the ball field. Work will be done on water pipes from the east side of Guest Drive and from the north side of College Road, including culverts adjacent to College Court, off of Wright Avenue and Guest Drive.

Stabilizing nearby embankments will also be required and work is not expected to greatly affect the park's ball field. Making the project more delicate is the fact that the land was previously a wetland and then a landfill site before being transformed into the recreation park.

"There's restricted (water) flow ... and many

homes close to the ditches in the area. There's a lot of backup in that area and quite a risk of flooding," said Evans.

Upgrading the system, which is expected to cost about \$750,000, should allow it to function properly "for the next 30 to 40 years," said Evans. "It doesn't mean we won't get any flooding ... there's always the possibility of extreme storms."

The village's clerk, Bob Christianson, told the Truro Daily News the upgrade "had to happen" because it's been "under capacity" for awhile and it "may fail in a major storm."

"It's for public safety and to protect properties," added Christianson.

The project is expected to go to a pre-qualified tender process next month and work is anticipated to begin this summer, said Christianson.

The village will be responsible for one-third of the cost and is making an application to Colchester County to cost share the project. There is also funding from the federal government.

*Truro Daily News*



On Jan. 18, Campbellton Mayor Bruce MacIntosh, ACOA Minister Bernard Valcourt and Campbellton-Restigouche-Centre MLA Greg Davis announced a major investment in water and wastewater for Campbellton, New Brunswick. (Photo: Communication New Brunswick)

## SILENT AUCTION FOR CHARITY

*The MPWWA's 32nd annual Training Seminar will include a Silent Auction for the 'PEI Family Violence Prevention Services Inc.' The auction will be held April 23rd and 24th at the Delta PEI.*

## Old, brittle water system being replaced

An old, brittle water system in Campbellton, New Brunswick's downtown core will be replaced this summer.

The federal and provincial governments are both investing \$462,786 in the project through the Building Canada Fund and the municipality of Campbellton will contribute \$462,787 in the project.

The project consists of replacing the water system and the wastewater collection system along

Roseberry Street, between Subway and Andrew streets.

"The water lines and water services in this district are over 99 years old. They no longer meet modern needs and requirements," Bernard Valcourt said.

The ACOA minister along with Campbellton-Restigouche-Centre MLA Greg Davis and Campbellton Mayor Bruce MacIntosh announced the funding Jan. 18.



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# Local privatization of water distribution not feasible: professor

■ BY CORY HURLEY  
THE WESTERN STAR

[Corner Brook, NL] — The escalating costs of the water and sewage treatment projects in Corner Brook (Newfoundland & Labrador) is the most concerning aspect of what Gabriela Sabau learned Thursday (Feb. 23).

The economics and business professor was in attendance for a session by Frank Ohemeng of the School of Political Studies, University of Ottawa in Corner Brook. His talk, "The Politics of Privatization and its Implications for Service Delivery," delved into the controversial concept of privatizing public services.

She was struck by the amount the water treatment project being estimated to cost Corner Brook has risen in just five years. During the introduction, Sheldon Peddle informed the audience the water and sewage treatment project could cost the city more than \$100 million. Late last year, when the city decided to take a new approach to the design and construction of the proposed water treatment plant to hopefully save money, it alone had ballooned to more than \$60 million.

Sabau said she does not think the privatization of water distribution is a feasible issue in Corner Brook, but she says it is time these major infrastructure projects get done.

"It is just atrocious," she said. "The more we wait, the higher the cost is going to be and the higher the price is going to be. We shouldn't be waiting, and I don't know why we are waiting so long to do this."

The professor said the entire cost of these major projects cannot just fall to provincial and federal governments, that people have to be willing to incur increased taxes or levies to pay for these higher-quality mandatory services.

Where she thinks privatization has the biggest impact is the contracting out of infrastructure work and maintenance, just not in the delivery of the service. She said there is no, and cannot be, a competition here for the delivery of water.

However, she does say there must be a change in mentality of people toward water. A survey of Corner Brook, conducted by her and some students, approximately five years ago, showed 75 per cent of the people buy bottled water or pay for filtered water.

"They were not happy with the quality of water, and were willing to pay more for having a system

of purification in place and having really clean water from the tap," she said.

Sabau said people have a supply approach to the distribution of water, leading to the wastage of the resource. She proposes a demand approach, where people are aware of their water usage and the cost to them.

## NO ONE SIZE FITS ALL

Meanwhile, Ohemeng said there is no one size fits all answer to whether privatization will be effective and efficient for public assets.

"What may be good in one sector or one policy area, may not necessarily be good in another policy area," he said. "What may be bad in one policy area, may not necessarily be bad in another policy area."

He said it is important for politicians and bureaucrats to examine each case on its own merit, and make their own decisions on whether to privatize a public asset or not.

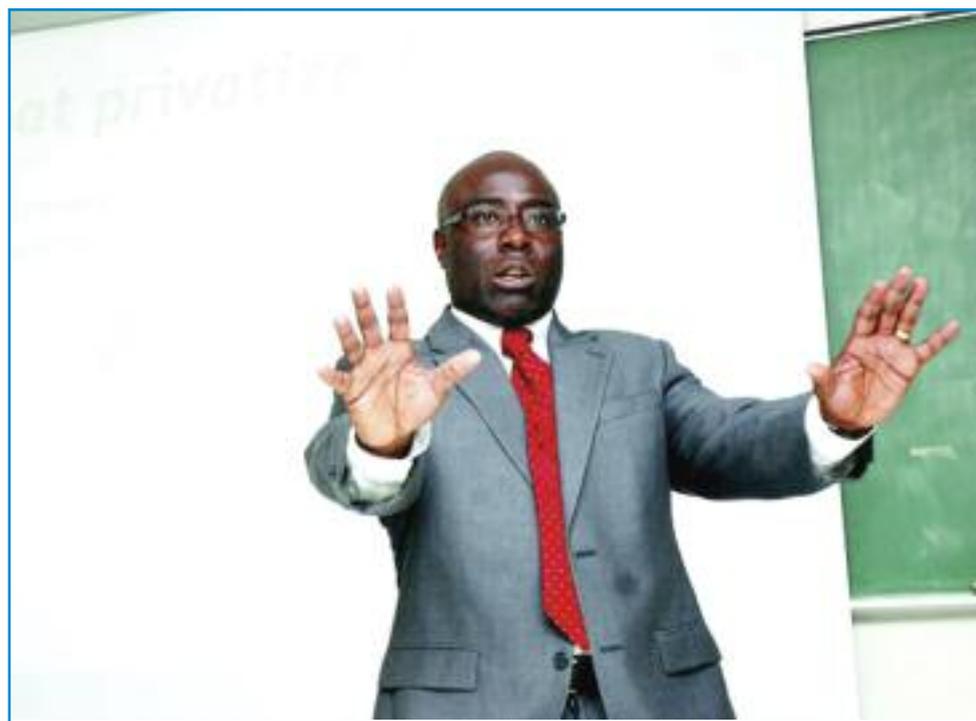
"I am not going to argue that privatization is simply bad because I found one case or two or three cases that makes it bad," he said. "Neither am I going to say privatization is good because in some cases it worked that way."

Ohemeng said there is a different understanding of what privatization is in some parts of the world as opposed to North America. Here, it is not just the sale of public assets, but also includes the broader spectrum of private/public partnerships, divestitures and contracting out.

Among other things, he said privatization is sometimes portrayed as a way to eliminate the perception of an ineffective or inefficient bureaucratic workforce and possibly the idea of loose money spending. It can also help eliminate potential corruption that exists within the political system, he said.

However, he also warned that is not always the case. He said there are still examples of corruption within the private sector, and he cautioned against perceived savings or hidden costs associated with the selling of public assets.

"All that glitters is not gold," he said.



Frank Ohemeng speaks about the privatization and its implications for service delivery at a Coastal Matters presentation in Corner Brook, Newfoundland & Labrador on Feb. 23. (Photo: Cory Hurley/Western Star)

# Howley's water problems continue

■ BY PAUL HUTCHINGS  
THE WESTERN STAR

[Howley, NL] — Council members here hope to hear some good news this year about replacing the town's water system.

(In mid-January) Howley (Newfoundland & Labrador) residents have had to stock up on bottled water for months now because their water system produces drinking water that councillors say does not meet with provincial standards. Councillor Don McLean said the process of replacing Howley's water pumps with a more modern gravity-based system has stalled somewhat, as they have been turned down for two applications for government funding.

McLean said they had hoped to be able to use the grant program that allows them to split the cost with the provincial government, letting How-

ley pay only 10 per cent, but last year they were told they did not qualify, being that they wanted to use their portion of the provincial gas tax credit, which was not permitted.

"We've been at this for about four or five years now," said McLean. "I don't think our water system is any better or worse than anywhere else but the government has that many stringent regulations on it now that it's almost impossible if you're a smaller municipality to keep up the quality of water."

He said the new system would help them save about \$8,000 per year on the town's electricity consumption.

Unfortunately it would cost about \$2 million to install, meaning the town would still have to contribute \$200,000, money officials say they do not have.

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## Stratford hiring psychologist so residents conserve water

The town of Stratford (Prince Edward Island) wants to get serious about the environment so it is hiring a psychologist to help.

The announcement came at a recent (mid-February) council meeting from Coun. Steve Ogden, chair of the Stratford Utility Corporation.

He said that town staff is working on a water conservation plan. The goal is not just tell why it is important, or just advertise how to do it, but to actually get some action among residents on water conservation.

That final step to action is the focus of Doug McKenzie-Mohr, Ph.D of McKenzie-Mohr & Associates, Inc. in New Brunswick. He is an environmental psychologist and advocate of what is called community-based social marketing.

That term does not encompass Facebook or Twitter, though they may be used, but the term does extol the benefits of direct personal contact with residents.

Ogden said Stratford is hiring McKenzie-Mohr as a consultant.

"We are trying to take advantage of some of the latest thinking out there," said Ogden.

In his online book titled *Fostering Sustainable Behavior*, McKenzie-Mohr said that many programs try to reach their goals with advertising, leaflets, posters, signs or newsletters.

"Numerous studies document that education

alone often has little or no effect upon sustainable behavior," writes McKenzie-Mohr.

Changing living patterns to benefit the environment is a complex thing, he said.

"Community-based social marketing is an attractive alternative to information-intensive campaigns," he writes.

"...too often behavioral change programs are based on hunches rather than solid information regarding the barriers and benefits to a behavior," writes McKenzie-Mohr. "Furthermore, the methods that are utilized in these programs are frequently not based on best knowledge from the social sciences regarding how to facilitate changes in behavior."

"We want to reduce barriers and increase benefits for the behavior to be encouraged, while doing the reverse for the opposing behavior," writes McKenzie-Mohr. "Too frequently, environmental program planners focus solely on the behavior they wish to encourage without giving adequate thought to the opposing behavior."

If you want to encourage bicycling to work, install bike lanes and places to lock a bicycle, but also try reducing parking spaces, suggested McKenzie-Mohr in his online book.

*The Guardian*



Doug McKenzie-Mohr, Ph.D



ACOA Minister Bernard Valcourt, Mayor Francine Caron and Madawaska-les-Lacs MLA Yvon Bonenfant announced federal-provincial funding to resolve the drinking water issues in Baker-Brook, New Brunswick on Jan. 16. (Photo: Communication New Brunswick)

## Safe drinking water for Baker-Brook

"The constant boil orders, and using water from the river, will soon be problems of the past," ACOA Minister Bernard Valcourt promised residents of Baker-Brook, New Brunswick on Jan. 16.

The village had been under a boil order for almost two weeks when over \$1.5 million in funding was announced for a project to address the safety of its drinking water.

The project includes reconstructing two existing wells, which will be equipped with submersible pumps and connected to the current system. A third well and a new controls building for water disinfection will also be built. The upgrade will allow the village to fix recurring prob-

lems with its drinking water supply.

Baker-Brook Mayor Francine Caron said, "This will allow the village to provide enough safe water to meet its current and future needs. We can now undertake the development and construction of a new well this spring. We anticipate that the work will be complete by September 2013."

The federal and provincial governments will each contribute \$510,135 in the project. Baker-Brook will invest \$510,137. Funding for the project is contingent upon completion of all contractual agreements, including a pending environmental impact assessment with the municipality.

## Hantsport's water rate hearing set for April

■ BY ASHLEY THOMPSON

### HANTS JOURNAL

Customers of the Hantsport Water Utility will have an opportunity to share their thoughts on looming rate hikes at a public hearing in April.

If accepted, the rate increases recommended to the Nova Scotia Utility and Review Board would reflect an eight per cent hike for unmetered customers by 2013-14, and a 28.2 per cent boost for residential users by 2013-14.

Other metered services may be subjected to a 2012-13 increase ranging from 20.9 per cent to 22.6 per cent, followed by an eight per cent hike in 2013-14.

The application estimates the average quarterly water bill will go up by about \$35, from \$117.27 to \$152.27, by the 2013-14 fiscal year if the proposed rate amendments are accepted by the review board.

The Town of Hantsport, Municipality of the County of Kings and Glooscap First Nation would see a 10 per cent spike in the annual fire protection charge of \$102,880, which would inflate to \$113,219 in 2012-13. The application suggests this fee could be raised to \$143,431 if the UARB approves an additional 26.7 per cent increase for 2013-14.

The board has the authority to flat out deny a rate change application, or impose changes that

differ from the requested figures.

Hantsport's CAO Jeff Lawrence says a rate hike is necessary for the water utility to remain operational.

"The utility has undertaken a number of upgrades over the last few years that we required either because the plant required them, or the Department of Environment required them. These weren't anticipated," he explained.

A water rate study completed by G.A. Isenor Limited and W.H. Gates Utility Consultants Limited determined what changes needed to be made for the utility to be in a position to manage projected capital and operating costs.

Lawrence listed the rising cost of electricity, as

well as plant and waterline upgrades as unforeseen realities that have put a strain on the utility's budget.

Even if the new rate structure is accepted by the UARB, Lawrence said Hantsport's rates would still be lower than many of the small utilities in Nova Scotia that use surface water.

A public hearing will be held in the Hantsport Fire Hall Thursday, April 12, at 10:30 a.m., to give interested individuals an opportunity to comment on the application.

"We would welcome people to come and listen at the hearing and ask their questions, or come in the town office and ask any questions they may have," Lawrence said.



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# Award winning scalable water solution

Victoria, Prince Edward Island is a popular tourist destination and draws thousands of visitors every summer. But its antiquated septic system failed repeatedly requiring expensive and often temporary repairs.

When officials searched for a cost effective solution they had specific constraints. The residential lots in the community were not large enough to accommodate traditional onsite wastewater systems.

There were also major concerns that treated effluent would affect the nearby harbour and estuary. And it was mandatory that the system integrate with PEI's watershed-based drinking water system.

In 2003, Victoria retained Engineering Technologies Canada (ETC) to identify and evaluate various options and to recommend a wastewater management system to suit the community's needs.

After a detailed life-cycle analysis of both conventional and alternative systems, ETC recommended the Orenco Effluent Sewer and AdvanTex Treatment System. Installation of the system, which services 57 residential locations and 6 commercial sites, was completed in 2008. The system is comprised of both septic tank effluent gravity (STEG) and septic tank effluent pumping (STEP) equipment. The septic tank pumps use less than \$2 per month in electricity.

The overall system is scalable; currently it is capable of treating flows of up to 95,000 Lpd (25,000 gpd) during the tourist season, with peaks of over 180,000 Lpd (50,000 gpd).

Project engineer Kelly Galloway, P.Eng. won the 2009 Engineers PEI Award for Engineering Achievement for the system's design and Victoria was honored with the 2010 "Municipal Achievement Award" from the Federation of PEI Municipalities and the 2011 "Sustainable Community Award" from the Federation of Canadian Municipalities.

Last October Orenco received the Water Environment Federation's Innovative Technology Award for the nutrient-removal configuration of its AdvanTex Treatment Systems. The award was presented at WEFTEC® 2011, the largest annual water quality conference and exhibition in the world.

According to a company case study, "Following primary treatment in collection tanks at each site, treated effluent is pumped to the AdvanTex Treatment System. AdvanTex is a packed bed textile filter that treats effluent effectively, with low power requirements and low operation and maintenance costs. Because effluent is dosed at a specific rate to 10 AdvanTex AX100 pods, the system can accommodate widely varying daily flows. After AdvanTex treatment, the effluent is diffused to two land-based dispersal systems. The pressure-dose sand dispersal bed (mantle) operates year-round, while a subsurface drip irrigation system



This photo shows the installation of a new onsite (on-lot) tank on one of the properties connected to Victoria, Prince Edward Island's new effluent sewer system. (Photo: Courtesy of Orenco Systems®, Inc.)

comes on line during the busy summer season to provide the total required effluent dispersal capacity."

According to Orenco, the water efficiency program in Victoria also involved the installation of low-flow model toilets and water meters. The scalable system utilizes all the AdvanTex pods during the peak summer flows but in the winter only three pods and two pumps are used. If the community expands, additional pods can be added.

The system only requires a part-time operator.

"Operation and maintenance associated with traditional, 'big city' sewage treatment solutions can be onerous and time-consuming, requiring advanced, high-level operators," project engineer Kelly Galloway explained. "If these technologies are misapplied they can be a huge burden on small rural communities, often making up the biggest portion of their utility costs."

The operator monitors the system remotely and is notified if any maintenance is needed via an Orenco TCOM™ remote telemetry panel. The ETC Environmental Results Report said, "Effluent quality is excellent; actual levels of BOD and TSS are at least 60% less

than anticipated. The system also exceeded the desired treatment requirement for Total Nitrogen."

"ETC was successful in solving Victoria's challenging sanitation problems, which had eluded resolution via traditional engineering solutions for over 20 years," said Garry MacDonald, P. Eng. in his nomination of Galloway for the Engineers PEI Award.

While more than 2,500 AdvanTex AX100 filters have been installed elsewhere, MacDonald noted that "[This was the] first municipal-scale STEG/STEP effluent sewer collection system in PEI ... [and the] first major municipal scale, synthetic packed-bed filter treatment system in Atlantic Canada."



Ten modular AdvanTex AX-100 Textile Filters are installed in-ground and treat Victoria, Prince Edward Island's wastewater to better than secondary standards: below 10/10 BOD and TSS. (Photo: Courtesy of Orenco Systems®, Inc.)

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\*Based on a 2011 Canadian survey by an independent research firm.



# Global river accord, curbing waste can help solve water crisis, avert conflicts: Gorbachev

The world must urgently respond to the global water crisis to prevent conflicts, ensure fair access to this life-giving resource, and reduce unsustainable use of water and other natural resources to protect the planet, Mikhail Gorbachev told the 6th World Water Forum.

The Nobel Peace Prize laureate who founded Green Cross International, said there must be a political, economic and social shift in the way we deal with water, otherwise the world will encounter devastating political and humanitarian consequences.

"Water is at the heart of our economies, our societies, our futures. Water is the basis for all development and its strategic importance has demonstrated it can serve as a vehicle for peace and also tension. The risk of competition between regions and countries may only increase if we do not find a way to protect and share water.

"On our planet Earth we do have water, but accessible resources of fresh water are limited, and water use for human needs keeps rising. Continuation of water consumption at 20th century rates is no longer possible," Gorbachev told the World Water Forum in Marseille, France in March.

"At the same time, millions of people die in poorer countries as a result of using untreated water. At Green Cross, we deploy our efforts in the prevention of conflicts related to access to water resources or resulting from their use as an instrument of pressure or diktat."

Some 800 million people have no access to safe drinking water, and 2.5 billion lack basic sanitation services.



Mikhail Gorbachev

Water shortages and pollution cause major public health problems, curb development and harm ecosystems. More children die from diarrhoea caused by dirty water and lack of sanitation than malaria, measles, and HIV/AIDS combined.

In North America and Japan, people use an average of 350 litres of water a day, and Europeans consume 200 litres daily, compared to people in Sub-Saharan Africa, who on average use 10-20 litres.

If well used and managed, enough water exists on the planet for everyone, Gorbachev said. Yet this finite resource is not equally distributed nor adequately conserved. Poor governance to manage water gives rise to potential conflicts over its

control. And despite access to water and sanitation being declared a human right by the United Nations in 2010, many governments are not doing enough to ensure their people are able to realize these fundamental needs.

"Major water projects, both national and international, could become one of the engines in a qualitatively new stage of the development of global economy," Gorbachev said.

He also said governments must ratify the 1997 United Nations Watercourses Convention, the only global legal framework to govern and manage the world's 276 cross-border watercourses. Thirty-five countries must ratify it for it to come into force. So far, 24 countries have done so, including most recently Burkina Faso, Morocco and France.

"A global legal instrument would help ensure equitable and sustainable management of international watercourses," Gorbachev said.

Some 145 countries share these rivers and groundwaters linked to them. Their basins are home to 40% of the planet's population. But only 40% of international watercourses are covered by official agreements on how to share and manage them, many of which are unsatisfactory. These weaknesses must be addressed to tackle global challenges like climate change and growing water demands.

(Green Cross focuses on the nexus between environment, development and security. Its Water for Life and Peace Programme actively promotes ratification of the UN Watercourses Convention and implementation of the UN-recognized Right to Water and Sanitation. Green Cross also installs systems to provide sustainable water supplies and hygiene services in communities in Africa and Latin America. GCI is an independent non-profit and nongovernmental organization headquartered

## Ministerial declaration fails to respond to water, sanitation crises

The Ministerial Declaration issued March 13 at the ongoing World Water Forum has failed to rise up to the challenges posed by the global water crisis, says Green Cross International President Alexander Likhotal.

"Contrary to the slogan of the conference, Time for Solutions, the Ministerial Declaration fell short exactly on solutions and is devoid of any serious, concrete plan to cope with the global water crisis," Dr. Likhotal told forum delegates in Marseille, France. "It demonstrates that the international community needs a more effective system to manage the water challenge, not triennial talkfests that achieve very little, if anything at all."

French Prime Minister François Fillon's opening address on the need to change the economic system in order to resolve the water crisis raised the expectations of all participants.

"However, this declaration, being an exercise of consensus, resulted in a weak and watered down document," Dr. Likhotal said. "This declaration should have been much more ambitious and offer concrete, already recognized solutions to address the global water crisis, which includes almost 800 million people living without access to safe drink-

ing water and 2.5 billion lacking appropriate sanitation.

"This declaration only serves to state the problems and challenges, but provides no roadmap or tools to help people living in water scarcity to attain their most basic of human rights, that being access to water," Dr. Likhotal stated. "It offers only a weak call to 'accelerate and intensify'."

"The outcome of this event, which has attracted thousands of people to Marseille at great financial and environmental costs, confirms what Mikhail Gorbachev said at the opening session that the 'World Water Forum has so far failed to become a driving force for breakthrough solutions'."

"With such a declaration, there are good chances that World Water Forum 6 goes down in history – along with its predecessors – as proving to be inadequate and unable to respond to the global water and sanitation crises," Dr. Likhotal said.

"I hope the upcoming UN Conference on Sustainable Development (Rio+20) in Brazil in June will provide stronger outcomes for water that will compensate for the lack of substance in the Ministerial Declaration that has been adopted in Marseille."



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# SINKHOLE TIMELINE

**1914:** A storm sewer system, called the tunnels, is installed in Stellarton. The system runs along an old stream bed deep underground, running from the East River, across what's now the parking lot of Sobeys and towards the roundabout.

**1963:** The province installs Highway 104. As part of the work, to deal with water run-off from the embankment, a box culvert is installed on Foord Street, near the base of the Exit 24 on-ramp, about 18 metres underground.

**Nov. 2, 2009:** A sinkhole forms on Foord Street, near Sobeys head office. The street is closed temporarily as Stellarton's engineering department begins filling in the circular hole that stretches about 2.5 metres in diameter and six metres deep with rock. It's initially believed that the sinkhole is caused by sub-surface mining. The next day, the sinkhole becomes worse, eating away half the road, exposing a nearby sewer line and prompting the closure of the Exit 24 on-ramp. The town begins filling the hole with water to see how far it would sink.

**Nov. 6, 2009:** Heavy rains pound the county, and by the end of the day, flooding begins near the Highway 104 off-ramp at Exit 24. The town now believes a blockage in an old storm sewer has caused the sinkhole. The town begins pumping out the tunnels to test the hypothesis. When they enter the tunnel system on Nov. 13, they discover a crack in a box culvert has filled the tunnels with dirt and debris, eventually blocking the system entirely.

**Nov. 19, 2009:** Paving, curbing and landscaping to repair the sinkhole

are underway. The section of North Foord Street closed due to the sinkhole is reopened.

**December 2009:** Stellarton sends a bill to the province for the work on the sinkhole, which was caused by the failure of provincial infrastructure. So far, the project has cost \$300,000 and costs are mounting to pump the tunnel system dry. A walking trail in the area has been shut down due to safety concerns.

**January 2009:** The town is paying \$23,000 per month to keep the tunnels pumped dry. Stellarton has appealed to Pictou Centre MLA Ross Landry to find out if the government will pay for these costs.

**January 2010:** The town approves a motion to contact the government and request repayment of the expenses to pump the sinkhole dry. Discussions continued for months.

**April 2010:** The province announces close to \$1.2 million will be provided to deal with the sinkhole through the provincial budget. A study is launched by the province to look into the problem and determine the best way of fixing the issue.

**January 2012:** Costs of pumping the Stellarton sinkhole dry are being paid from a fund established by the province, now at approximately \$5,000 per month. It's believed that tenders will go out soon for repair work, which is expected to take the entire construction season to complete.

*The News*

## Final solution to Stellarton sinkhole expected soon

[Stellarton, NS] – It's hoped the ongoing saga of a sinkhole in Stellarton (Nova Scotia) that formed more than two years ago may finally end later this year.

Stellarton town engineer Tony Addis says the provincial government has agreed to foot the bill to replace the cracked concrete box culvert, which caused the sinkhole on Foord Street in November 2009 near the base of the on-ramp at Exit 24.

Initially, it was believed the sinkhole was caused by a mineshaft collapsing deep underground, but after flooding appeared a few metres away, near the off-ramp, it was determined that the issue was actually the old culvert, which had been installed in 1963 by the province when the highway was built. It had become so filled with dirt it became completely clogged and impassable.

Temporary fixes have been in place since late 2009 – pumps that clear the water away, running now at a cost of \$5,000 per month, paid for by the province – but that hasn't solved the initial problem.

"That's a lot of money, yes, and a lot of water comes down that culvert," he said. "About two-thirds of the town drains into it."

Now, however, the provincial transportation department is gearing up to put out a tender for the job to put a replacement culvert in place.

Sue McKeage, a spokesperson for the Depart-

ment of Transportation, confirmed that a tender will be issued by the province this winter or early spring. It's estimated the entire project will cost about \$3 million.

"This is a complex project which is taking longer to do than we would have hoped. We appreciate the residents' patience," McKeage said.

The work will take a significant amount of time, Addis said.

"It will start in the next construction season, when the weather turns, likely in May. And it's expected to take the whole season," he said. "The design work is done, I understand the tender documents are ready to go out. The government is supposed to be calling for tenders over the winter."

The replacement culvert will start underneath the highway overpass opposite Jungle Jims and then cross below Foord Street parallel to Highway 104. The culvert will run between both Jungle Jims and Eastern Sign Print and the highway.

From there, the culvert will connect to a ditch by the old railway tracks that will be enlarged to carry the water north to a culvert under the railway, where an existing culvert there will take the water into the East River.

There are no plans, however, to remove the old culvert.

"That will be sealed up and made safe," Addis

said.

A portion of the walking trail behind the Sobeys office has been closed since the sinkhole formed due to safety concerns and will remain closed until the work is complete.

"We'll be very glad to see it done, for so very many different aspects it will be good to see it done," Addis said. "Operating and maintaining the pump is a chore we'd prefer not to do, but it obviously needs to be done. And the people who walk the trail have been really missing it, it's hard to avoid that area."

Work, however, may create some significant disruptions to traffic flow in the area. Plans haven't been finalized yet how it will be handled, Addis said, so it's not certain if Foord Street will be partially or completely closed for a short time during work.

"Until it goes to tender, we won't know," he said. "This project has involved a lot of design work and obtaining easements hasn't been easy."

*The News*

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