



# Maritime Provinces Water & Wastewater REPORT

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## NOTE FROM THE CHAIR

**Rob Hamilton**  
Chairperson of the MPWWA

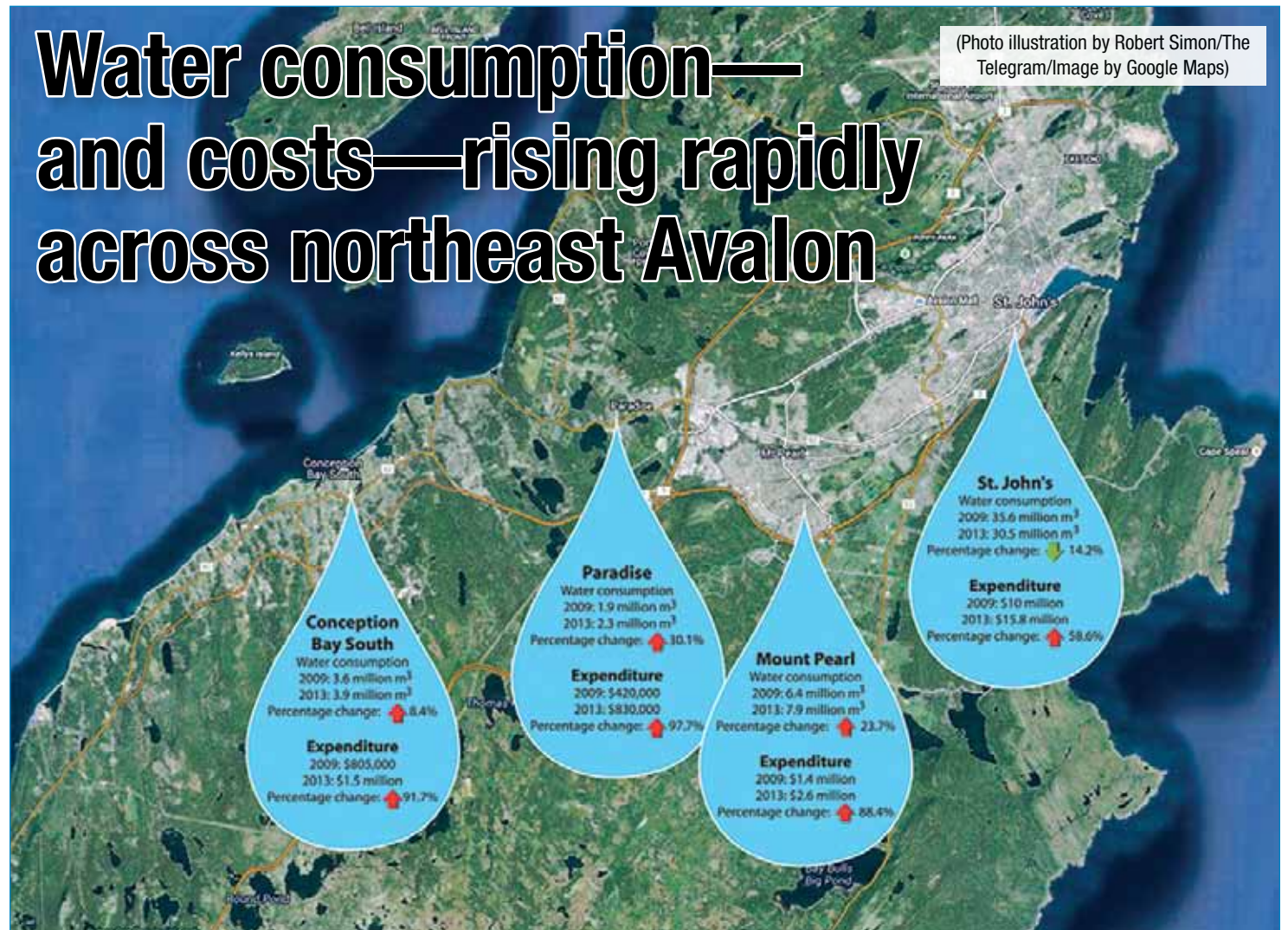
As we look at the year 2014 in our rearview mirror and look ahead, all of the members of the Board of Directors and myself would like to extend our wishes to all of the members of the MPWWA for a healthy and prosperous 2015.

It's hard to believe that in a few short months, the 35th edition of the Annual MPWWA Training Seminar will be held in the beautiful city of Charlottetown, Prince Edward Island. Our conference Chair, Jerry Villard, along with the conference committee, is putting the final touches on this year's event that will be held at the Delta Prince Edward Island from April 19-22, 2015. The newly renovated Convention Center will serve as the venue for all of the conference events and with its increased space could provide room for upwards of 80 booths at our Monday Trade Show. The conference committee has also lined up numerous informative training workshops and information sessions catering to both the water and wastewater sides of our business. The 6th Annual Silent Auction is well in the planning stages and Alan Benninger and the auction committee are in the process of rounding up a great variety of items to bid on with the proceeds going to The Joyriders Therapeutic Riding Association whose mission "is the enhancement of the physical, emotional, and social well-being of children and adults with disabilities through various forms of therapeutic riding." At the 2014 conference in Halifax the membership of the MPWWA presented SHYM with over \$5600 as a result of the auction and we are looking to top that amount in Charlottetown.

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## Water consumption—and costs—rising rapidly across northeast Avalon

(Photo illustration by Robert Simon/The Telegram/Image by Google Maps)



■ BY DANIEL MACEACHERN

Mount Pearl taxes are going down the drain. The (Newfoundland & Labrador) city has seen its water consumption rise nearly 24 per cent in the last five years, leaving city council scratching its heads over the reasons.

Mayor Randy Simms says the city's leak detection

and repair program hasn't identified any major problems, and the usage can't be chalked up to population growth or commercial development.

"The only thing we can attribute to is that in actual fact, consumption, or water use, has gone up, and it's gone up significantly in the last five or six years."

Coupled with regular increases to water costs, that means the amount of money the city spends on water each year is going up. In 2009, the city's water bill was

\$1.41 million.

By 2013, the city's water bill had gone up 88.4 per cent, to \$2.6 million.

That's a concern for the mayor.

"If you're going to use more, then you're going to pay more, and all of that has a significant impact on the bottom line," said Simms.

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# Joint water service agreement expected to be developed under Community Infrastructure Partnership Program

■ BY KATHY JOHNSON

Cape Breton's Waycobah First Nation and the Municipality of Inverness County have been selected by the Federation of Canadian Municipalities (FCM) to develop a joint water service agreement with the direct assistance of FCM's First Nations-Municipal Community Infrastructure Partnership Program (CIPP).

The pairing is one of only six from across the country and the only one east of Ontario to be approved for the program in 2014. "The six pairs were selected by FCM following an application process that drew heavy interest from more than 100 communities across Canada," FCM announced in late November.

"By narrowing the field to a dozen, FCM can work more closely with each pairing and improve the chance of successfully concluding agreements. The strong interest in the application process demonstrates there is a widespread need for technical assistance in forging joint service agreements between

neighbouring communities."

Under the program, the FCM facilitates a process to help municipalities collaborate and partner with neighbouring First Nation communities to develop joint water service agreements and improve community infrastructure. "The award-winning program is a catalyst to empower First Nations and municipalities to work together to reduce costs and improve services," the FCM stated.

The only program of its kind in Canada, the CIPP looks at regional services beyond one jurisdiction or government, builds resources from on-the-ground realities, then works together towards common infrastructure needs.

Since the program was launched in 2010, the FCM has facilitated the participation of more than 60 communities in CIPP workshops, helped to facilitate more than 25 agreements based on CIPP service agreement templates, and facilitated development of Memorandums of Understanding (MOU) as well as

communication and cooperation agreements.

The FCM initiated CIPP in response to interest from municipalities and Aboriginal Affairs and Northern Development Canada to improve commu-

nity infrastructure and build new partnerships with First Nations. The program has been recognized with the Deloitte Public Sector Leadership Award from the Institute of Public Administration.

## MPWWA Bursary Awards

The MPWWA recently handed out two awards in the amount of \$1000 to Daniel Campbell and Tyler Dillman who both attend Dalhousie University. This is the second year that the MPWWA has donated these bursaries to students who have parents, grandparents or guardians who are members of our Association. Andrew Garnett, who sits on the awards committee, says, "It's a great way to give back to the members of our association. We are a training providing association so we are sure this money will help these fine students further their education." The committee of three had a difficult time determining who would be the winners this year. Garnett said, "I know you hear from time to time that a group had a hard choice to determine winners of a contest or award, but this truly was the case here. We were blown away by what these students are doing. Not just with their education but with their extra activities. The amount of volunteering these kids are doing was great. This group does so much and it's great to see these individuals are the leaders of our future."

If you know somebody interested in applying for the MPWWA Educational Bursary go to our web site at [www.mpwwa.ca](http://www.mpwwa.ca) for more information or contact your zone rep.

Daniel Campbell is studying to become a Mechanical Engineer.

Tyler Dillman is taking his Masters of Science Physiotherapy.



Daniel Campbell



Tyler Dillman

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# MPWWR PROFILE: *Danny Lanteigne*

Every issue the MPWWR shines a spotlight on a MPWWA member making a difference in the industry. Danny Lanteigne is the focus of our January issue.

■ BY ANDY WALKER

Life as a "Circuit Rider" is proving to be "the most rewarding career I could have ever imagined" for Danny Lanteigne.

It has been four years since he left a 25-year career with the City of Fredericton to become one of four experienced water and wastewater operators who travel to 23 First Nations communities across the Atlantic Provinces training and mentoring First Nations operators.

The program is presented by the North Shore Micmac District Council under contract with the Department of Aboriginal Affairs and Northern Development.

While headquartered in Fredericton (he works from home) Lanteigne's work takes him to First Nations communities in New Brunswick, Labrador and Prince Edward Island. He has Level Four certification in both water treatment and water distribution and is scheduled to write his Level One certification in wastewater treatment in early 2015.

Lanteigne entered the field while in the military and then moved on to work for the New Brunswick capital, eventually rising to the role of supervisor of water treatment.

"While I was there, I oversaw the commissioning of two plants."

It was also where he became a big believer in the value of a MPWWA membership. He spent a term as chair of the organization and is now a life member. He was also part of a three-member team representing the Atlantic Provinces that took part in a global competition testing the knowledge of participants on water and wastewater issues.

"It was like that quiz show 'Reach for the Top,'" Lanteigne said. "It was a really great experience."

When he became involved with the circuit rider program, one of the first things Lanteigne insisted upon was that First Nations operators should join the MPWWA so they would have access to the networking and developing opportunities it offers.

"We now have a First Nations representative on the executive and the association offers training geared especially to First Nations operators."

He said they face some unique challenges. For starters, First Nations operators are under federal jurisdiction, while other communities operate under provincial

laws. First Nations communities are often not eligible for many of the joint infrastructure programs others use to build or upgrade water and wastewater treatment systems. And some of the communities he works with are remote.

Circuit Riders is a national program and not surprisingly Lanteigne has been active in the national organization. He is scheduled to make a presentation next August at a meeting in Whitehorse. "I am really excited about that—I have always wanted to visit the north."

Lanteigne is a former competitive body-builder, having won provincial and regional titles in his weight class, and was runner-up for the national title. While his competitive career is behind him, the water and wastewater technician continues to be a frequent visitor to the gymnasium. "Health and wellness are an important part of my life."

Lanteigne lives in Fredericton with his wife, Stacey. He has three children and an Australian Labradoodle named Hughie who loves the outdoors. As for his future career prospects, Lanteigne says, "I really love what I do and I hope to be with the Circuit Rider program for a long time."



Danny Lanteigne

## Treating water off the grid

Increased global demand, dwindling supply and climate instability have made water the preeminent commodity of the 21st century.

Its optimal use is a critical challenge for communities around the world, demanding innovation in wastewater treatment, desalination and agriculture.

Currently, (November) three per cent of all North American electricity is devoted to wastewater treatment. New Environment Canada wastewater effluent regulations in 2020 will require additional upgrades and resources, some in remote locations without the capacity for expensive infrastructure.

Island Water Technologies (IWT), in Montague (Prince Edward Island) has launched a revolutionary solution to this dilemma with the world's first self-powered wastewater treatment system designed to operate off the electrical grid. Combining cutting-edge biotechnology, electrical engineering, and precision manufacturing, its modular, energy-in-

dependent REGEN<sup>®</sup> system redefines cost-effective, decentralized wastewater treatment.

Dr. Patrick Kiely, IWT CEO and co-founder, is mindful of its benefits in remote Canadian locations.

"In Nunavut, small, isolated villages of 200 to 1500 people have limited infrastructure budgets," he said. "They ship in diesel once a year at great expense and use it to run everything. A renewable, self-powered wastewater system solves a multitude of problems."

Other target markets include military and humanitarian organizations directing disaster relief and refugee settlements, remote rural communities, golf courses and agricultural and mining operations.

Kiely, a Ph.D. in microbiology from University College Cork with Penn State University post-doctoral studies in environmental engineering, had already developed significant innovations in his field, including water treatment solutions for NASA's international space station.

With a Canadian wife and son, his business and research efforts are now focused in P.E.I. and Ottawa, with thriving research relationships with Carleton and Dalhousie universities, and the University of Illinois.

Prof. Rob Jamieson, Dalhousie's Canada Research Chair in Cold Regions Ecological Engineering, was instrumental in showcasing IWT's REGEN<sup>®</sup> system at the University's Bio-Environmental Engineering Centre in Truro, N.S.

"There are urgent environmental issues in Canada, and even major cities such as St. John's, Halifax, and Victoria have had to redefine their wastewater platforms recently," he says.

"The REGEN<sup>®</sup> installation uses less energy and plastic polymer materials to accelerate bacterial growth and improve wastewater treatment with the potential to be significantly more energy efficient than traditional systems."

Jason Aspin, IWT co-founder and CEO of Aspin Kemp & Associates, which recently secured an \$80 million GE contract to provide electrical components for drilling ships, is equally enthusiastic about the potential of the REGEN<sup>®</sup> system.

Intent on making Montague, P.E.I., a centre of excellence in marine and offshore technologies, he is partnering with IWT to design, manufacture, and assemble the REGEN<sup>®</sup> modules in his Montague and Poole's Corner facilities.

An angel investor in the enterprise, he notes "Not only is REGEN<sup>®</sup> environmentally sustainable and a good engineering solution, it makes economic sense."

Patrick Kiely concurs. "Water scarcity is an increasing global issue. It's time to recognize how this unique technology — designed, developed, and manufactured in P.E.I. — offers a solution for the world."

*The Guardian*



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# Joyriders PEI to benefit from MPWWA auction

■ BY ANDY WALKER

The Silent Auction at the MPWWA's 2015 Training Seminar will benefit Joyriders Therapeutic Riding Association (Joyriders PEI).

"We really appreciate the support of the members of the Maritime Provinces Water and Wastewater Association," said Daphne Davey, who co-founded the organization 35 years ago. "We are a non-profit organization and we rely on the support of individuals and organizations to help us offer our programs."

Since its inception, Joyriders PEI has offered therapeutic riding lessons to hundreds of Islanders with a wide variety of physical and mental disabilities. Davey said the program offers a host of benefits that are different for each rider, depending largely on the nature and severity of their handicap.

"We have had people who are in electric wheelchairs and children with Down's Syndrome and pretty much any disability you could think of."

She said they are doing more and more work with children with autism. "The benefits of working with animals are becoming more and more accepted." The program offers two ten-week programs each year in a stable just outside Charlottetown—one in the spring and the other in the fall. All of the participants ride once a week.

Davey said all of the instructors are volunteers and they are all nationally certified. Depending on the disability, the rider can have up to three people assisting. There is also a physiotherapist who works with the riders and instructors.

She explained anyone wishing to be part of the program must first make an application (usually done by their family or caregiver) and they must have a green light from their physician to participate. However, she noted that since the program can benefit virtually anyone, no matter their disability, there are very few cases where a physician will recommend against participation.

In addition to the riding lessons, there is also a six-



week horsemanship program offered that focuses on making the participants comfortable being around animals. Davey said this program is popular for autistic clients. They use miniature horses and teach the participants to groom the animal and lead it around. If the participant is able and comfortable with the idea, there is also an opportunity to take a riding lesson.

Davey said there is no age or time limit on how long people can be in the program. They have seen many children literally grow up with the program. As they master skills "we can also see their self confidence grow and that is reflected in other parts of their life as well."

Over the years Joyriders has been fortunate to attract more than 600 volunteers. Davey said many of them are high school students who have gone on to careers in physiotherapy, physical education or working with the disabled based on the experience they gained in the program.

# Greenwood still seeking answers about arsenic-tainted well water

■ BY NANCY KELLY

[Greenwood, NS] - Residents of Greenwood's Planesview subdivision who found higher than acceptable levels of arsenic in their drinking water during the summer months are still in the dark about the issue.

Greenwood village commissioner Richard Nickerson was one of the Robie Avenue homeowners to test his well water after learning about elevated arsenic levels from his neighbours.

Kings County (Nova Scotia) and the provincial health department were advised in September about the situation after the issue was raised with the village commission.

Nickerson said he is aware that a few local homeowners were contacted by the regional office of health, but he wasn't one of them. He says nothing has happened at all since he brought the issue to the village commission's attention.

"There has been no public information whatso-

ever about this issue," Nickerson said during the Nov. 19 meeting of the Greenwood village commission.

He said nine of 15 affected homeowners living on Robie Avenue have since installed water treatment systems at their own expense.

"We don't even know how many people have done testing and what their results were," added Nickerson.

Village commission chairman Brian Banks agreed Kings County and the province "haven't been forthcoming" about the investigation.

He has discussed the issue with Warden Diana Brothers and understands "her hands are tied waiting for provincial funding," which is needed to investigate some type of remediation.

Nickerson doesn't accept that as an excuse for not communicating with area residents.

"You don't need funding to notify 117 homes in the affected area about the arsenic," he said.

Register/Advertiser

# NL Excellence in Water Stewardship Award

The Northeast Avalon Atlantic Coastal Action Program in St. John's, Newfoundland & Labrador has received the 2014 Council of the Federation's Excellence in Water Stewardship Award.

"This group is an environmental citizens' organization which works with all sectors of the community, including all three levels of government, to protect and enhance the aquatic environmental quality of watersheds and coastlines," Environment and Conservation Minister Dan Crummell told the House of Assembly Nov. 19.

He explained that the award annually recognizes businesses, institutions and community groups in each Canadian jurisdiction for their commitment, achievement, innovation, practice and leadership in water stewardship in their community. This award is part of a larger strategy to improve stewardship of

our valuable water resources and foster best practices across the country.

"Northeast Avalon Atlantic Coastal Action Program has a long history of environmental stewardship since its inaugural project in 1993 when it focused on the issue of raw sewage in St. John's Harbour," Crummell said.

"Today, this dedicated group plays a major role in water quality monitoring throughout the Northeast Avalon region and is actively involved in public outreach activities and scientific studies, acting as a community advisor and partnering with various organizations to protect aquatic environments. Through these activities they prove their commitment to being stewards of water resources in the province every day."



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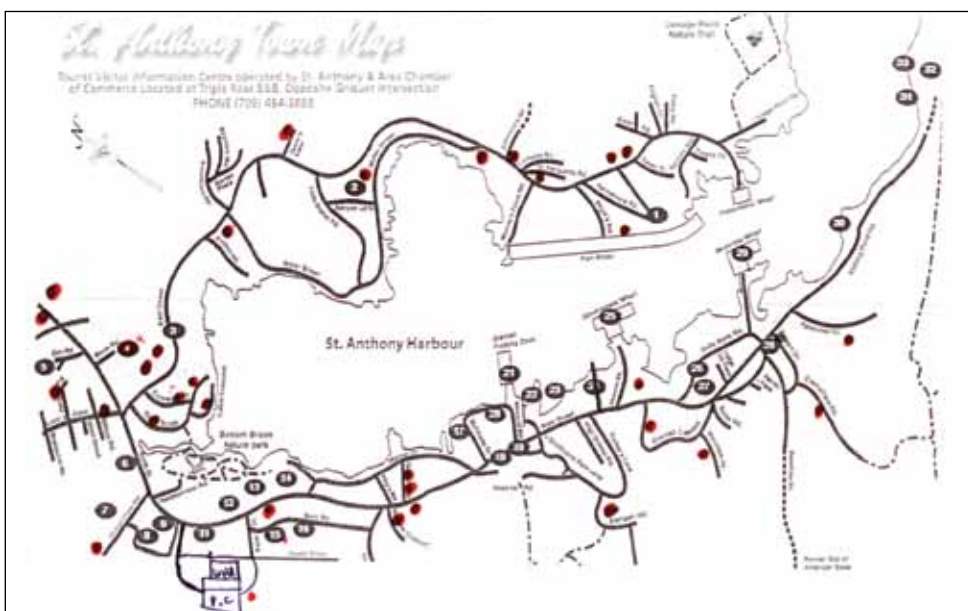
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The dots marked on this map indicate where leaks have taken place in St. Anthony, Newfoundland & Labrador in 2014.

## St. Anthony leaks

■ BY ADAM RANDELL

St. Anthony's (Newfoundland & Labrador) waterlines are starting to show their age.

While some lines along East Street and West Street are only 10 years old, others haven't been replaced since the '70s.

According to acting mayor Darryl Scott, it has made for a busy year for town employees.

A town map dotted with water leak marks, suggests the town has faced more than 30 leaks since January.

Also, seventeen of the town's fire hydrants are in need of repair.

Scott says it is something that has required a significant amount of the town's resources.

"Most of the time we have four or five guys just doing water projects," Scott said (in early December).

It even resulted in brand new pavement being torn up to make a repair on Lockes Cove Road.

"For us to invest substantial dollars into our roads and to turn around and have to do this, is more heart-

breaking than anything else," Scott said. "But it's aging infrastructure that has to be fixed."

He also cited high water consumption as a contributor to the wear and tear on the lines.

Residential use sees 2,300 litres of water used per minute. When shrimp production cuts in, that number rises to 7,000 litres per minute, and additional crab production brings it up to 9,000 litres.

The only solution is a multi-million dollar investment from provincial government, something Scott said the town has been seeking.

The town has applied, through capital works, for a \$3-million dollar waterline upgrade to bring the new line from the supply to Goose Cove Road. Other funding for line upgrades throughout town has also been applied for.

"We'll keep applying for this funding," Scott said. "We can ask for \$20 million up front to do the works and not get it, but if we are able to get year-after-year funding in smaller amounts, slowly but surely we'll get there."

*Northern Pen*

## Halifax Water launches first-of-its-kind energy system

■ BY BRAEDON CLARK

Halifax Mayor Mike Savage flipped the switch Thursday (Nov. 13) on a new system that will turn unused water pressure into enough electricity to power 25 homes.

Known as an in-line turbine project, the system – the first of its kind in Canada – will use a turbine/generator in a water pipe to transform water pressure into power that will then be sold to Nova Scotia Power.

"It's a similar concept to using a turbine at a dam to create power," said James Campbell, spokesperson for the Halifax Regional Water Commission (HRWC.) "This is water that's flowing through the pipes already, so if we can use it in some way that's great."

"It is great to see these innovations taking place in our own backyard," Savage said in a statement. "The cutting-edge thinking and project execution demonstrated here shines a spotlight on our region as a centre

of excellence."

At a cost of nearly \$500,000 – 25 per cent below budget – HRWC, the Water Research Foundation and the Department of the Environment teamed up to create the system, which will produce 225,000 kilowatt hours of energy per year from its Bedford location.

Halifax Water will generate approximately \$30,000 of revenue per year from the sale of the power and is considering several other sites for similar turbines.

"On a grand scale this is a relatively small project," Campbell said. "Still, this is perfectly green energy. It's a perfect kind of energy project."

Residents who are hoping this might result in savings on their water bill will be disappointed, as Campbell said that's more of a long-term proposal.

There is no set schedule for the installation of additional turbines, but HRWC has identified several locations that could work.

*Metro Halifax*

## Plant matter problem

Public Works Supervisor Larry Petersen is working on solutions to a problem about plant matter that clogged a draining point in the Charlo, New Brunswick sewage lagoon.

The *Campbellton Tribune* reported that in October the lagoon was up three feet higher than usual because of the blockage.

Petersen told the Village Council Oct. 28 that flood

water damage to buildings wasn't as severe as anticipated.

He said the plant matter was a problem in other municipalities. It could not be killed because of its beneficial properties.

According to the newspaper, Petersen has provincial permission "to drop the lagoon as low as possible to assess the situation."



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# Charlottetown signs up 1000th customer for metered water

The effort by the Charlottetown Water and Sewer Utility to convince residents of the Prince Edward Island capital to sign up for metered water service recently reached a major milestone, welcoming application number 1000.

That was the goal for the year and Water and Sewer Chair Eddie Rice expressed pleasure the milestone was met in October with two months to spare. The lucky winner, Peter Duffy, receives the equivalent of six months complimentary water and sewer service at his residential property.

The program, that included a complimentary meter and free installation in each home, was to continue until Dec. 31. The city plans to make metered water service mandatory in 2015, phasing in the service over the year.

Rice said the program will still offer free installation and meters.

RIGHT: Charlottetown Water and Sewer Chair Eddie Rice, (center) Utility Projects Officer Betty Pryor (left) and City Sustainability Coordinator Ramona Doyle point to a poster urging residents in the Prince Edward Island capital to switch from a flat rate to a metered water system. The utility reached its goal of signing up 1000 residents in 2014 in late October—two months ahead of schedule. (Submitted Photo)



## Water tower to be painted

The Village of Perth-Andover, New Brunswick plans to clean and paint its water tower this year.

According to the *Victoria Star*, an engineering study about the effects of shutting the water system down for six weeks did not arrive in time for the \$300,000 job to be completed in 2014.

## Maple Grove Trailer Park water supply cut

On Oct. 15 the water supply to the Maple Grove Trailer Park in Miramichi, New Brunswick was cut off.

The move will save the city 26,000 gallons of water a day, according to the *Miramichi Leader*.

The newspaper said the story began 18 years ago with health and safety concerns about water and sewer lines to the park that leaked.

When owner Rita Sargent passed away her sons refused to get involved in managing the park that was home to about 20 families.

The *Miramichi Leader* said in 2009-2010 some of the leaks were repaired and the City's water loss was reduced from 12 million gallons a year to 9 million.

Compassion and government red tape prevented Miramichi from taking action over the years but in June councillors voted to turn the water off. Three notices were served to the few residents in the park before Oct. 15.

On that date Maple Grove Trailer Park owed around \$87,000 in unpaid water bills.



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# Town beginning to plan for two costly infrastructure projects

■ BY KATIE TOWER

[Sackville, NB] – The town is hoping for funds to come through to help finance two major, much-needed infrastructure projects in the community that are both expected to come with hefty price tags.

(Sackville, New Brunswick) Town officials have submitted two applications under the New Building Canada Fund (Small Communities Fund) for upgrades to the municipal sewage lagoon as well as improvements to the infrastructure on Lorne Street.

The budgets for these two projects are still being put together but town engineer Dwayne Acton said neither will come cheap.

“We’re talking in the millions of dollars,” he said (late October).

If awarded funds under the New Building Canada Fund, the projects would be cost-shared with the other levels of government, lessening the financial burden on the community.

Acton said the town will be required to do upgrades to the sewage lagoon over the next couple of years, as

a result of new regulations implemented by the New Brunswick Department of Environment.

He said under the new criteria from the province, there are some months that Sackville’s main sewage lagoon, located on Crescent Street in behind the public works garage, doesn’t meet the standards.

“We have to be within certain guidelines... and we’re sitting just outside of those,” said Acton. “As a result of that, we know we have to do upgrades to our lagoons, to bring it up to compliance.”

But to know exactly what upgrades will need to be done, the lagoon will have to first undergo an Environmental Risk Assessment (ERA) – a year-long study done by an outside contractor involving more extensive and frequent testing. Currently, the wastewater is tested monthly, said Acton, and is reported to the Department of the Environment on a quarterly basis.

The ERA will help the town determine “where we stand” and what needs to be done to the lagoon to bring it up to today’s standards.

The new regulations are ones that have been placed on all municipalities in New Brunswick and the prov-

ince is giving the communities time to do the necessary testing and to budget for any required improvements.

The ERA will need to be completed by Dec. 2016, with a final report going to the Department of Environment with recommendations on what upgrades will be required.

“After that, they will tell us how much time we have to do the upgrades,” said Acton.

He said there are no public safety or environmental concerns related to the sewage lagoon but the town is simply having to keep up with new standards being put in place by the province.

“It’s something that needs to be done.”

As for the Lorne Street improvements, the town is applying for funds to repair the aging infrastructure and to mitigate a longtime stormwater problem in that area of town.

During heavy rainstorms, Lorne Street is subject to heavy flooding as a result of a stormwater system that doesn’t pump the water away fast enough, particularly during times when the tides are high and the water has nowhere to go.

Acton said there has been talk about building a stormwater pumping station to get the floodwaters out over the aboiteau during and following a storm. But the costs to build and to maintain a new pumping station would be high.

Instead, the town is looking at ways to direct the floodwaters to a retention area, where the water would be held until the tide shifts, said Acton, a much more effective and less costly measure to deal with the problem.

The underground storm and sanitary systems are also in “desperate need” of upgrades, said Acton, as they are more than 50 years old and in poor condition. The water main, which is currently a 12-inch iron line that is “fatigued” and being worn away by the saltwater, would be upgraded with a new PVC line.

The road itself would also be reconstructed, with new curb, gutter and sidewalks, as well as repaving.

“So that’s another significant project,” he said.

The town is hoping to be awarded funds for both projects; but if not, council and staff will have to determine which will need to take priority.

*Sackville Tribune Post*

## Parrsboro awards sewer pre-design tender to CBCL

■ BY ANDREW WAGSTAFF

[Parrsboro, NS] – A big step towards sewage treatment in Parrsboro (Nova Scotia) was taken last night (Nov. 25), as council awarded a \$60,000 tender for a pre-design study and environmental risk assessment to CBCL of Halifax.

The bid was one of three submitted, according to Coun. David Harrison, who said the bid from CBCL was the best suited for what they were looking for, and was also the most affordable for the town.

“We scored them all out on things like relevant skills, who they had on staff, reference projects and who was on it, how well they understood our program, timelines, the breakdown and there was even one for gut feeling,” said Harrison. “It turned out on the scoring that CBCL was the best one we scored, and then when we opened up the tenders, CBCL also had the best price.”

The firm was also the only one of the three that could meet the desired timelines for Parrsboro, which would see the environmental risk assessment completed within 30 days and then the pre-design study wrapped up by the end of February, according to Harrison.

“All three proposals were great,” said CAO Ray Hickey. “But from the environmental risk assessment aspect of it, (CBCL) had the staff in house to do it, and I think that helped out a lot with the timeline. The quicker the better.”

Council approved the motion unanimously to award the tender to CBCL.

This project will not see the actual design of the sewage treatment system, but will look at the different treatment options for a system, which Harrison said would be “not as big as Amherst’s but bigger than Maccan’s.”

As for the location of the system, that also has yet to be decided, although all indications continue to point at the former Scott property, a talked-about location for a sewage treatment plant for more than a decade now.

“It doesn’t mean that’s where it’s going to go,” said Harrison. “But we mentioned surveying that off last year, and we probably should get that done.”

The maximum price quoted for the project was \$57,301, with additional charges for meetings bringing the total to about \$60,000, according to Hickey.

*CumberlandNewsNow*

## Chateau Heights will get reliable water supply

By 2018 Chateau Heights will be connected to Fredericton’s water and sewer system.

The subdivision located just outside the capital city-limits was built in the mid-70s. Almost a third of its residents have experienced water problems for several years because much of the community is built on volcanic rock. As a result, the subsurface aquifer often fails to replenish itself.

On Oct. 14 Fredericton city council accepted a \$20 million agreement with the New Brunswick government to provide Chateau Heights with a reliable water supply.

The province will provide around \$15 M to cover upgrades that include the construction of a reservoir in the subdivision.

According to the *Daily Gleaner*, it will be responsible for work outside the city limits including: “water and

sewer lines, road construction and a water reservoir and all water transmission costs, including a transmission line from Northbrook Reservoir to Chateau Heights Reservoir and (construction of) the booster station on McLeod Hill Road.”

The City will be responsible for water and sewer lines along McLeod Hill Road. In December it endorsed the purchase of two plots of land for the new water pipeline. It paid Northrup Holdings Ltd. \$1 apiece for a 20.43-acre and a 5.80-acre section of land between McLeod Hill Road and Brookside Drive.

In a plebiscite conducted last spring 61% of Chateau Heights’ residents voted to amalgamate with the city. The newspaper noted the amalgamation will increase revenue for Fredericton’s tax base and its utilities.

## Hampton water and sewer priorities

The Public Works Advisory & Utilities Commission in Hampton, New Brunswick announced its priorities for Build Canada Fund consideration in October.

According to the *King’s County Record*, three of the priorities are: “Storm water retention above Route 1, the Dutch Point storm sewer. Purchase and installation of generators at the lift stations and pump house and the implementation of a SCADA system for monitoring...”

## Water rates may go up in Miramichi

Water rates in Miramichi, New Brunswick may be going up 6 per cent in 2015.

Public Works Director Jay Shanahan told council Oct. 20 that additional revenue was necessary in order to maintain and enhance the city’s water system.

According to the *Miramichi Leader*, the fees would

go into a reserve fund for water upgrades that include well development and a water treatment plant in Chatham.

Shanahan told councillors that despite the increase—an additional \$39/year—the city rates were almost the lowest in the province.

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## Old Bonavista water tower to be refurbished or replaced

■ BY JONATHAN PARSONS

One of the first things you see when entering Bonavista is the water tower. As you drive over the hill entering the (Newfoundland & Labrador) town the tall, blue, stilted structure sticks out of the landscape and clearly labels the town in large letters, "Bonavista."

The town recently (late September) discovered restoring their water tower was more costly than originally planned.

When it came time to refurbish the old, 250,000-gallon tower, the \$500,000 received from the government was less than half of the \$1,375,000 price tag that came in when tenders were called.

The initial plan was to decommission the old water tower and switch the town's service entirely to its newer 750,000-gallon water tower on White Rock.

The problem with the plan was the water pressure on one side of town, near the Cape, would not be adequate to properly use fire hydrants.

"If we put (all the service) up on White Rock, and we get a fire down (Bailey's) Cove, we've got no water," said Mayor Betty Fitzgerald.

This being a necessary safety requirement, the town investigated upgrades to its pipe system to increase the water pressure. This, however, proved impossible.

The town found out last week they must undergo the costly task of either replacing or refurbishing the old water tower.

Fitzgerald said they currently have \$750,000 from the government they can use to work on the water



The Bonavista water tower will need to be either refurbished or replaced. Council discovered last fall that all areas of the Newfoundland & Labrador town couldn't be serviced by just the water tower on White Rock. (Photo: © Submitted to The Packet)

tower, that won't cover the entire cost.

It looks definite that the large signature of the Bonavista skyline isn't going anywhere, anytime soon.

*The Packet*

## Halifax water rates could soon swell even more as two more hikes proposed

■ BY KRISTEN LIPSCOMBE

Haligonians may start turning their taps off more following a move Monday (Nov. 24) by the municipality to increase water rates.

The average resident will see their rates rise by \$3.90 monthly starting next May, if the rate application filed to the Nova Scotia Utility and Review Board is approved.

"We're a utility that's losing money," Halifax Water spokesman James Campbell said frankly, adding that includes \$4.9-million last year alone.

"We have a lot of aging wastewater infrastructure that's been neglected for decades, and the only way to really turn this around is to start investing in that infrastructure," he said Monday.

Debt servicing costs due to new facilities, declining consumption and stricter federal wastewater regulations are also key factors in the proposed hikes, which includes another average jump of \$4.55 per month in April 2016.

That equates to a 6.5 per cent increase in 2015-16 and 7.1 per cent increase in 2016-17, which according to Halifax Water still represent some of the lowest costs in the country for water, wastewater and storm-water services.

This is on top of other water rate increases in both 2013 and April of this year.

"We've been investing for years in water research," Campbell said, pointing to new and old projects alike, such as the \$64-million Eastern Passage wastewater plant upgrade and the North Preston water reservoir rehabilitation as just a couple of examples.

Halifax Water will have to spend about \$2.6 billion over the next three decades, he said, adding feedback is welcome during the public hearing set for next Feb. 23-27. "It is the rate payers' money, after all."

"Previous generations have gotten a pretty free ride on these services," Campbell said. "We can't keep passing this legacy of failing infrastructure on to our kids and grandkids."

*Metro Halifax*

## Bathurst strategy alters plant classification

In mid-November Bathurst City Council adopted a revised 5-year plan for its Gas Tax Fund.

The money will be spent on street repairs that will alter the classification of the New Brunswick city's wastewater treatment plant. That will eliminate required upgrades that had been estimated at between

\$40-\$60 million.

According to the *Northern Light*, streets with combined sewer and wastewater systems are being repaired.

City Engineer Todd Pettigrew said, "The reasons is we're treating rain water—it also affects our pumping,

our electricity, our operations... All this helps reduce the wear and tear on our plant."

Pettigrew told council that only one of the 5 kms of combined sewer/wastewater systems had not been completed.

The 5-year plan covers 2014-2018.

  
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## Infrastructure woes will plague city for long term: Pender

■ BY CORY HURLEY

The City of Corner Brook was able to accomplish a lot in 2014, according to its mayor, despite a substantial hurdle that is not going anywhere soon.

The small city in western Newfoundland is facing about \$200 million in infrastructure costs, says Charles Pender, and receiving between \$7-8 million annually to deal with it.

Through the Building Canada Fund the city was still able to double its investment in paving in 2014, to more than \$4 million.

"We heard that complaint about roads, and we were able to put as much money into it as we could," Pender said. "Won't be able to do that next year, but we wanted a good head start at it."

The city is struggling to deal with numerous water

breaks, which has included assembling a team specific to searching for ways to reduce those breaks. It's a challenge the city will be facing for an awful long time, the mayor said. Corner Brook has a new water treatment plant, which will be up and running in 2015, but the city is faced with the \$50 million-\$60 million costs of sewage treatment. The onerous task includes digging up roadways to separate about 20 kilometres of combined sewers in areas like West Street, lower Reid Street, and parts of North Street, Armstrong Avenue and East Valley Road, down to the waterfront, according to the mayor.

Meanwhile, residents still expect a certain level of service and programs. Council and staff have been, and will continue, to search for creative funding arrangements and programs to ensure as much can be done as possible, says Pender.

*Western Star*



Corner Brook Mayor Charles Pender. (File photo: Western Star)

## Debert residents facing water rate increases in coming years

■ BY HARRY SULLIVAN

[Truro, NS]- The Debert Water Utility is facing a deficit of more than \$266,000 within the next few years based on current revenues.

As of last March 31, the utility had realized an accumulated deficit of \$185,000.

"We currently have an accumulated deficit. Colchester County's corporate services director Scott Fraser said, during a recent (October) council meeting. "We can't have an accumulated deficit."

Rate reviews are required by the Nova Scotia Utility and Review Board every three years, with the next

review scheduled for next year.

Based on the current rates for the next three years, the Debert utility is facing a deficit of \$82,801 for the 2014/15, fiscal year.

In 2015/16, losses are estimated at \$120,056 and in 2016/17, that number is expected to increase to a deficit of \$266,223.

Area Coun. Doug MacInnes expressed concern at the possibility that Debert water users will be facing hefty rate increases to deal with the financial shortfall.

"My only concern is that there are a lot of low-income families out there," he said. "Their water bills

are higher than the electricity rates."

The only way to avoid increases based on the current scenario is to add more users to the system, a factor that is not plausible without an influx of new residents or industrial users.

"It's hurting them, it really is," MacInnes said.

As countered by Deputy Mayor Bill Masters, however, delaying a rate increase in the short term will only result in higher fees later on.

"It's either pay me now or pay me later," he said, speaking rhetorically.

*Truro Daily News*

## Aerotech plant to upgrade and expand

The Aerotech Wastewater Treatment Plant in Halifax, Nova Scotia will be upgraded and expanded to comply with new federal effluent regulations.

The federal (New Building Canada Fund) and provincial governments and Halifax Water will each contribute up to \$7 million for the \$21 million project.

Central Nova MP/Regional Minister for Nova Scotia Peter MacKay, NS Public Service Commission Minister Labi Kousoulis, HRM Mayor Mike Savage

and Halifax Water Board Chair Ken Meech were in the city Dec. 15 for the announcement.

When the project is completed the Aerotech plant's capacity will be expanded and the level of wastewater effluent treatment significantly improved to enable additional commercial and industrial development. That may include future expansion of the Halifax Stanfield International Airport and the Aerotech Business Park.

## Woodstock looking for new water source

Woodstock is searching for a new water source.

The New Brunswick town lost its water supply last spring when ice and flood waters knocked down poles and power lines and washed out the causeway leading to the well house.

According to the *Bugle-Observer*, the fire department's rescue boat had to take a public works crew to the island to fuel the diesel-powered backup pump.

Woodstock Chief Administrative Officer Ken Harding told council Oct. 13 the price of a new water source was estimated at \$1.97 million. But he stressed that the actual cost would depend on its location.

The town has budgeted \$170,000 for exploration, drilling and testing in 2015.

The three-year project also includes \$1.8 m for well preparation and delivery infrastructure.

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## More improvements in works for Stratford sewage lagoon

■ BY NIGEL ARMSTRONG

[Stratford, PEI]— With its Blue Frog circulating and aeration system now installed, work continues with yet another phase of improvements to Stratford's sewage lagoon aimed at confronting so-called flushable items.

"The plant seems to be running very well," said Coun. Randy Cooper at a recent (October) Stratford (Prince Edward Island) council meeting. "I know the odour issue is down to very minimal."

Cooper presented the infrastructure committee report on behalf of chairman Coun. Emile Gallant, who was absent.

"Every now and again things get out of whack when you get a 25-degree temperature change from 6 o'clock in the morning to 3 o'clock in the afternoon," said Cooper of one smelly day in the community even after the Blue Frog system was up and running.

Fine-tuning the system will take many months, council was told. The provincial government environment department has given Stratford 18 months to fine-tune the system so the water it returns to the Hillsborough River meets modern effluent standards, council was told by Jeremy Crosby, manager of Stratford's infrastructure department.

Now construction is underway to filter the raw sewage as it enters the lagoon.

A concrete channel is being constructed and a building that will house a device to remove insoluble items. Those items are clogging up the Blue Frog im-

pellors.

"It will certainly lessen our maintenance on the (Blue Frog units) because every now and again you see one up in the air being worked on," said Cooper.

Of recent concern is the increasing use of so-called flushable wipes.

The wipes are billed as a fresh, clean alternative to toilet paper but wastewater utilities across Canada say personal wipes are creating putrid sewage clogs.

Sewage experts in Canada, the U.S. and beyond are cringing at new efforts to sell people on the need to freshen their routine.

The wipes clog sewer systems, utilities say.

Manufacturers, meantime, say the wipes are getting the bum's rush from waste-water officials and are perfectly safe to flush. It's people who get confused and flush regular baby wipes down the system that cause problems, say the manufacturers.

Nonetheless, the Municipal Enforcement Sewer Use Group (MESUG), comprised of 25 Canadian communities, wants a federal standard to ensure more honest labelling of the wipes and other products they insist are not safe to send down the toilet. Among them: supposedly flushable toilet cleaning sponges, tampon applicators and even multi-ply toilet paper.

Stratford hopes to confront the problem with a device, a kind of sewage screw-conveyor, to be delivered in November.

*The Guardian*

## Examining options for sewage treatment

■ BY KAREN WELLS

[Lewisporte, NL] — It's been four or five years that the Lewisporte Town Council has been examining options and locations for sewage treatment.

The Federal Government is requiring municipalities like Lewisporte (Newfoundland & Labrador) to make sewage treatment a priority.

Mayor Brian Sceviour recognizes the importance of not sending contaminated water into Lewisporte Harbour. He is hopeful that before the end of the current term in three years, that the project will at least be started.

"We've discussed different methods and we are up around the ninth or tenth spot for a plant," the Mayor told *The Pilot* (in late October).

Whatever option they do go with, it seems that the project will come with a price tag of at least \$5-10 million. Some options have had to be rejected since they could cost upwards of \$20-30 million. Sceviour said that cost is not something the Town could consider absorbing even with funding assistance.

### OPTIONS

One of the systems the Town looked into was one that is being put in place in Bishop's Falls. This system uses a large field of plants to basically filter out the waste and produce treated water.

"The only thing about that system is it takes a large area to do it," the Mayor said. "We have in effect no large areas for land in Lewisporte, unless you go on the outskirts."

"We considered doing it at one point on the road going to Embree. We also considered on back of Woolfrey's Pond, and up behind the mall, but there is one constant problem in doing that - you have to do a lot

of pumping (to get the waste to the treatment area). This is where a lot of the operational costs comes in."

The Town is currently investigating another sewage treatment option that would be more affordable.

The most waste in Lewisporte comes from the area of Station Road to King Street.

"We get approximately 60 per cent of our sewage comes out in this area - all Premier Drive, Bowater Avenue, all up around Pine, Spruce and Birch where the schools area," Sceviour explained. "All this sewage is coming out within this short distance - right next to the marina."

Really, that is our priority."

There are 17 outfalls throughout Lewisporte and council is looking into a system that would see those outfalls run into a small building where the sewage would be treated. The water entering the harbour from this structure would be treated.

Sceviour noted that not every outfall produces the amount of waste that is required by the Federal Government to necessitate the need for treatment. He also said that homes on the South Side of Lewisporte are on septic systems, so their sewage is not at issue here.

While the cost for this system would be somewhere around \$1 million, Sceviour said the total project cost would still be in the multi-millions of dollars. This is due to the fact that the water and sewer in the areas involved would need to be replaced in order to tie into the system.

Currently there are no similar systems in the province, but Sceviour said it seems to fit the needs for sewage treatment in Lewisporte so the Town and council will continue to research this option.

*The Pilot*



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# Water consumption—and costs—rising rapidly across northeast Avalon

Continued from Front Page

Mount Pearl city council and staff will be discussing options to get consumption down, such as an educational campaign.

While the city started requiring new businesses to have meters 20 years ago, households currently pay a

flat rate of \$600 a year per unit. Installing water meters in residences has been discussed, but city council is reluctant.

"It has been debated for some time. We've been hesitant to entertain that because, frankly, it's a costly venture up-front to install water meters everywhere," said Simms, who acknowledged that requiring water meters in homes also might not be a popular move politically, even if might make sense for many.

"A family of six in a 1,400-square-foot bungalow pays \$600. But you know as well as I do that a family of six is using or consuming way more water than, say, a family of two. But yet the family of two next door is paying the same \$600," he said.

"And we're going to continue to investigate the system to find out if there's something in the system that's causing this problem. Barring that, I think we need to start looking at water conservation, better education programs, stricter enforcement of our water conservation, perhaps, particularly when it relates to when you can and cannot use water."

Mount Pearl's not alone, said Simms — other communities on the northeast Avalon are seeing spiraling water costs.

Paradise has had a bigger increase in water usage: just over 30 per cent from 2009 to 2013, and a 98 per cent increase in its water bill, from \$420,000 in 2009 to \$829,000 in 2013. Mayor Dan Bobbett notes Paradise has seen more population growth and commercial development.

"We've had extensive growth in the last six years. Unprecedented growth," he said.

"Mount Pearl's infrastructure's getting a little older, and when you get older infrastructure underground,

you get leaks and cracks ... so you've got a certain amount of leakage or spillage or wastage going right out into the ground."

Leak detection and repair costs money, said Bobbett, but when the cost of treating water is so expensive, municipalities can't afford to let it seep out into the ground.

St. John's — which uses more water and spends more on it than the rest of the communities drawing from the Bay Bulls Big Pond water treatment facility combined — has actually seen its water usage drop 14.2 per cent over the last five years, from 35.5 million cubic metres in 2009 to 30.5 million cubic metres in 2013, and the city credits the decrease to leak repair, including a major leak discovered and repaired under Austin Street in 2012.

Deputy Mayor Ron Ellsworth — chairman of the city's water services committee — said the city undertook an extensive leak detection program several years ago, and is still finding and plugging holes. Around the same time, residents were alerted that reservoir levels at Bay Bulls-Big Pond were low and encouraged to conserve.

"I think that made everybody more aware of water consumption," he said.

"This past summer, water levels were fine, therefore there was less interest by the media, therefore less information out to the general public, and I think some of that resulted in people being maybe less concerned than they were in the previous year."

Ellsworth said the city pushes the idea that water conservation should be practised not because there's a shortage, but because it costs money to deliver all the time.

"If we don't manage that cost, then the cost of water

will continue to increase.

In fact, St. John's — which is releasing its 2015 budget on Monday (Dec. 8) — projects that its 2014 consumption levels will be rising again, up to 32.7 million cubic metres, which would be the city's highest total since 2011.

And the cost has marched upwards as well, from a shade under \$10 million in 2009 to \$15.8 million in 2013 and a projected cost of \$17.1 million this year.

Ellsworth says increased development in St. John's has helped bring in more water revenue, but if consumption continues to rise, the city will have to consider raising water fees — currently \$615 per unit per year — as well.

"Every penny of your water tax goes directly to providing that service. So it doesn't go into general revenue, it's not something that can be used for snow clearing or anything else. It's got to be used for water," he said. "The more we conserve, the less cost — we're not anticipating any major changes this year."

Conception Bay South just raised its household water fee from \$540 to \$590 in the 2015 budget to cover the rising cost of water, and Mayor Ken MacDonald says the flat rate contributes to increasing consumption.

"People, I think, take liberties with it. You turn on the tap, and you've got water," he said.

"They don't see it as a monthly bill like your light bill or your oil bill ... You get one bill in January that bills you for your water and sewer and property tax. I think people look at it as, 'Oh, that's my tax bill.' They really don't relate it to water usage. Down the road sometime, meters are going to have to be installed, I think, in homes and businesses."

The Telegram

## NOTE FROM THE CHAIR

**Rob Hamilton**  
Chairperson of the MPWWA

Continued from page 1

The keynote speaker at this year's event will be Summerside native and two-time gold medalist in bobsleigh Heather Moyses. Heather and teammate Kallie Humphries brought home gold medals at both the 2010 Vancouver and 2014 Sochi Winter Olympic Games and were Canada's flag bearers at the Closing Ceremonies at the Sochi Games. Living her personal motto to "Believe in possibilities", Heather is also a world-class athlete in rugby, representing Canada twice at the Rugby World Cup. She won a silver medal at the 2013 Rugby Sevens World Cup and participated in the 2012 Pan Am Cycling Championships. In the coming weeks you will receive a registration package outlining what the training conference has to offer. Be sure to register early as spots are guaranteed to fill up quickly!

As is stated in our "Mission Statement", the Maritime Provinces Water and Wastewater Association endeavors to provide training to its members and we are reliant on those members for input as to what workshops would provide useful in the performance of operators day-to-day responsibilities. Several of our fall training workshops went off as planned but unfortunately due to low attendance numbers several had to be cancelled. Through our Training Coordinator Tim Henman, we are putting together our spring line up of workshops and are looking for some input from you as to what courses you want to see put on. The plans are to try and re-offer some of the courses that were cancelled in the fall session along with many others. If you have any ideas about workshops that you would like to see in your area, or would be of benefit to you and your co-workers, I encourage you to contact Tim, myself, or any one of the Zone reps whose contact information can be found in the Board of Directors Section of the newsletter. If it is something that we can put together, I promise you that we will get it done.

In closing, I would like to welcome 2 new members to the Board of Directors, Andrew MacDonald, who will serve as the Prince Edward Island government representative on the Board and Ian Thompson, who is assuming the position of Commercial representative. Welcome aboard gentlemen! On the behalf of the Board of Directors of the MPWWA, we look forward to your participation and input in matters concerning our Association.

Rob Hamilton  
Chairperson of the MPWWA

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# \$100m Saint John Harbour cleanup project completed

■ BY KATHY JOHNSON

The City of Saint John, New Brunswick had good reason to celebrate last fall with the completion of the seven-year, \$100 million harbour cleanup project.

“We now have a treatment system that meets and exceeds national guidelines,” Mayor Mel Norton said in a press release. “With the support of both the federal and provincial governments, the Saint John Harbour Clean-Up Program shows that we have the collective environmental leadership required to protect our harbour, the gateway to the Bay of Fundy.”

The Harbour Clean-Up Project comprised a series of projects to redirect sanitary sewer pipes that emptied into the harbour to wastewater treatment facilities. The goal of the project was to collect, divert and treat the discharged sewage.

The project encompasses the completion of the Eastern Wastewater Treatment Facility and a collection and pumping system, including new 24 lift stations and 24.3 km of pipe designed to move all collected municipal wastewater to one of three treatment plants.

Saint John’s primary wastewater treatment system now has three treatment facilities and 68 lift stations. All three treatment plants provide secondary level treatment and exceed demanding Canadian standards (CBOD5: 3.9 mg/l average, SS: 7.5 mg/l average).

The project included installation of 11,263 meters of new gravity sanitary sewer, and installation of 13,068 meters of new sanitary sewer forcemain.

“With the last lift station commissioned in November 2014, 100 per cent of system users are serviced with treatment and 0 m3/day of wastewater is discharged untreated,” said City Engineering Manager Brian Keenan. “When the Harbour Clean-Up project began in 2010, 16,000 m3/day of untreated wastewater was discharged into the harbour.”

The federal government contributed \$31.8 million to the project, including \$26.6 million under the Canada Strategic Infrastructure Fund,



Saint John Mayor Mel Norton (centre) joins members of the Harbour Clean Up team from Saint John Water as they celebrate the completion of the project. (Photo: Contributed)


and \$5.2 million under the federal Gas Tax Fund. New Brunswick invested \$28.3 million, while the City of Saint John contributed \$39.2 million.

With the wastewater system upgrade now complete, the City will now focus on bringing the Safe Clean Drinking Water project to fruition.

“Through a Request for Qualifications process, three bidders qualified to submit a proposal for the \$200M plus project, which includes a new water treatment facility on the City’s East side, improvements to transmission and storage and rehabilitation or replacement of over 40

kms of water pipes,” said Project Manager Dean Price. “The successful proponent is expected to be announced by the City in mid 2015, and the project is scheduled to be completed in 2018.”

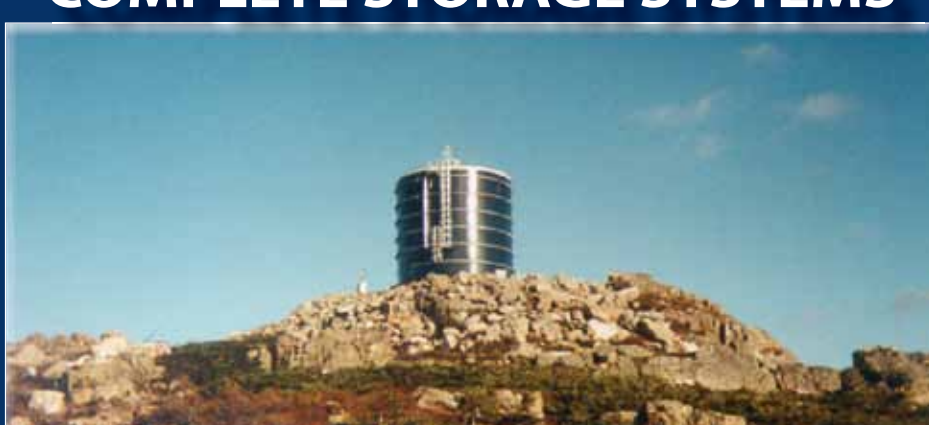
The Safe Clean Drinking Water Project is public-private partnership (P3). In November 2013, the federal and provincial governments and PPP Canada announced a combined investment of up to \$114.6 million to the project. Ottawa will provide up to \$57.3 million as a non-repayable P3 Canada Fund contribution, while the province has committed up to \$57.3 million through the Regional Development Corporation.






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