

# Maritime Provinces Water & Wastewater REPORT

VOLUME 21 / NUMBER 2 \$3 PM# 40064924 APRIL 2014



## NOTE FROM THE CHAIR

**Todd Richard**  
Chairperson of the MPWWA

After the long cold winter it is a pleasure to finally welcome spring. Hats off to all the operators out there who worked through some bitterly cold temperatures and lots of snow and ice to keep water and wastewater systems working.

What better place then to celebrate spring then at our 34th Annual Training Seminar on the Halifax Water Front April 13th-16th! Bring your stories about the "Winter of 2014" and share them with your peers as we talk shop about "Infrastructure Renewal"

As my term for MPWWA Chair comes to a close in April I would like to express my sincere appreciation to all my colleagues on the Board of Directors for giving me the opportunity.

For the past three years my focus and objectives have been to promote our Association and motivate members to become more involved, engaged and knowledgeable about our industry. I have gained an ever-increasing appreciation of our Association and the work it does to promote operator training in the Maritime Provinces. And its work with other stakeholder groups to develop a better understanding of the rules and regulations for improving operations for the safe delivery of water and wastewater services.

Interested in getting more involved in the MPWWA? We are always looking for positive productive individuals to join our team on the Board of Directors. We will hold our annual elections on April 15th, if you or someone you know may be interested, nominations will be made during this time.

Todd Richard  
Chairperson for the MPWWA



The Williston Road water tower in Miramichi, New Brunswick. (Photo: Nancy Carter)

## Miramichi addressing water infrastructure woes

■ BY KATHY JOHNSON

The City of Miramichi will be deciding later this month on a final course of action to address structural issues with one of its two water towers.

An inspection of the Williston Road concrete water tower conducted this past fall revealed major structural issues caused by water leakage. If left unattended water quality might be compromised and the tower could partially collapse.

The findings of a consultants report, along with recommendations from the Public Works Department will be presented to City Council for its consideration. A final decision on what course of action will be taken will be made at the March 28 council session.

"We're looking at a couple of different systems," said Jay Shanahan. "We'd like to look at something more enduring, but there are a number of factors to be considered."

The Miramichi Director of Public Works said the City will not only be looking at the possibility of replacing the tower, but also

making it larger with almost double the existing capacity. The option for a 75' high tower with a capacity of 600,000 gallons is estimated to carry a \$1.2 million price tag.

Shanahan said the City has had discussions with the New Brunswick government in regard to funding, and received positive feedback. "It looks like it could be a go," he said. An application for funding has been submitted to the capital borrowing board.

If that is the direction taken, the Public Works Director said the plan would be to start construction in June, with a completion date in the fall before winter sets in.

"It looks like everything is moving forward fairly smoothly," Shanahan noted the City takes "a lot of pride" in the quality of services provided to residents and the business community.

The 200-foot tall Williston Road tower is one of two water towers that supply the Douglastown area of Miramichi. It is also used for radio communications for police, fire and the public works department.

## INDEX

|                                  |       |
|----------------------------------|-------|
| Water pressure .....             | 3     |
| New treatment plant .....        | 3     |
| Municipal water management ..... | 5     |
| Chaleur Heights .....            | 5     |
| Lagoon treatment .....           | 6     |
| Groundwater research .....       | 9     |
| Sansom Equipment .....           | 10-13 |
| Product news .....               | 21-23 |

ADDRESS LABEL HERE





# Federal money will help keep Charlottetown's water rates from rising

■ BY DAVE STEWART  
THE GUARDIAN

Charlottetown (Prince Edward Island) Mayor Clifford Lee says water and sewer rates will not be going up thanks to the federal government.

The federal government has announced there will be another Build Canada Fund program, meaning that \$440 million will be earmarked for P.E.I. communities to spend on infrastructure programs.

Lee says the City of Charlottetown isn't sure how much its share of the pie is but the priorities will be the final phase of the Spring Park sanitary sewer separation project and continuing with developing a new well field.

The new water source will take some of the pressure off the Winter River-Tracadie Bay Watershed, currently the only source of water for the capital city. The sanitary sewer separation

project, when completed, will mean that none of the city's underground pipes will handle both storm water and sewage. That should eliminate effluent pouring into the historic Hillsborough River.

"We're still trying to figure out the fine points of the new program but, certainly, I've been waiting for this announcement," Lee said Feb. 26. "I hope it all comes together very quickly. The federal minister has indicated that we're not going to miss a construction season."

The provincial government first has to sign agreements with Ottawa and then the federal government will begin accepting applications.

The cost of the new well field alone is estimated at \$18 million. The city does have a reserve fund set up — with approximately \$3 million in the account — specifically designed to make up for any shortfalls the new Build Canada Fund doesn't cover.

Some members of council wanted the city to fast track the new water source, suggesting that

money set aside for things like ditch infilling be used.

However, Lee said the city needed to know the money from the Build Canada Fund was there first before moving ahead.

"The reality is, without a financial plan the citizens of Charlottetown would have seen a tremendous increase on their water and sewer rates. This new infrastructure plan ensures that doesn't happen. Sometimes, patience is a virtue."

Every province will receive base funding of \$250 million, which is topped off on a per capita

basis. Off the \$440 million coming for P.E.I., \$277 million will come from the Build Canada Fund and \$163 million from the federal gas tax fund.

Lee was tight-lipped when asked if the city has a list of other projects it wants to use the Build Canada Fund money on.

He said the city might have to do some bridge financing in the short term before the federal money starts flowing.

Beyond that, Lee isn't saying anything ahead of the city's annual budget in late March.



Charlottetown City Water and Sewer Chair Eddie Rice (left) discusses the third well field with federal Fisheries and Oceans Minister Gail Shea and Prince Edward Island Transportation and Infrastructure Minister Robert Vesey. (Photo: PEI Government Photographer Brian Simpson)

## CHARITY AUCTION

The MPWWA's 34th Annual Training Seminar will feature a Charity Silent Auction to benefit the YMCA's Supportive Housing for Young Mothers (SHYM). The auction will be held April 14-15 at the Halifax Marriott Harbourfront Hotel in Halifax.

## MPWWA BOARD OF DIRECTORS 2013-2014



Zone 1: Nicolas Legere  
Phone: 506-726-2727  
Fax: 506-726-2687  
nicolas.legere@caraquet.ca

Zone 2: Trevor Douthwright  
Phone: 506-372-3243  
Fax: 506-372-3225  
salisburyworks@nb.aibn.com

Zone 3: Rob Hamilton  
Vice Chairman  
Phone: 506-649-7928  
Fax: 506-658-2813  
rob.hamilton@saintjohn.ca

Zone 4: Rick Larlee  
Webmaster  
Phone: 506-460-2224  
Fax: 506-460-2013  
rick.larlee@fredericton.ca

Zone 5: Nancy Llewellyn  
Bridgewater PSC  
Phone: 902-543-4254  
Fax: 902-543-0976  
nancy.l@bridgewater.ca

Zone 6: Todd Richard  
Chairman  
Phone: 902-798-8000  
Fax: 902-798-5679  
todd.richard@town.windsor.ns.ca

Zone 7: Kevin Kelloway  
Phone: 902-435-9300  
Fax: 902-435-8403  
kevink@halifaxwater.ca

Zone 8: Nicola Anderson  
CBRM  
Phone: 902-563-5774  
Fax: 902-563-5775  
nsanderson@cbrm.ns.ca

Zone 9: Jerry Villard  
Secretary  
Phone: 902-393-6281  
Fax: 902-569-5000  
jvillard@townofstratford.ca

Zone 10: Tim Henman  
\*DND WFE  
Phone: 902-802-3595  
Fax: 902-427-0212  
timothy.henman@forces.gc.ca

Zone 11: Stephen Knockwood  
\*Director at Large (NB & PEI)  
Phone: 902-758-3341  
Fax: 902-758-2017  
sknockwood@shubenacadieband.ca

Zone 12: Craig Gerrior  
\*Director at Large (NS & NL)  
2014 Conference Chair  
Phone: 902-755-2237  
Fax: 902-755-3065  
cgerrior@newglasgow.ca

Clara Shea  
Executive Secretary  
Phone: 902-434-8874  
Fax: 902-434-8859  
contact@mpwwa.ca

Andrew Garnett  
Treasurer & Past Chairman  
Phone: 506-325-4644  
Fax: 506-325-4308  
andrew.garnett@town.woodstock.nb.ca

Leo Hynes  
Past Treasurer  
Phone: 506-357-4409  
Fax: 506-357-6038  
lhynes@oromocto.ca

Ian Paton  
Commercial Representative  
Phone: 902-468-7890  
Fax: 902-468-3011  
ian.paton@natpro.com

Jeff Jensen  
Commercial Representative  
Phone: 902-462-3807  
Fax: 902-462-3407  
jjmuller@ns.sympatico.ca

Paul Klaamas  
Environment Canada  
Phone: 902-426-4378  
Fax: 902-426-6434  
paul.klaamas@ec.gc.ca

Denis Chenard  
NB Government  
Phone: 506-453-2200  
Fax: 506-453-2390  
denis.chenard@gnb.ca

Alan Benninger  
NS Government  
Phone: 902-625-4285  
Fax: 902-625-3722  
benningaj@gov.ns.ca

Deneen Spracklin  
NL Government  
Phone: 709-729-1158  
Fax: 709-729-0320  
dspracklin@gov.nl.ca

Janeen McGuigan  
PEI Government  
Phone: 902-368-5043  
Fax: 902-368-5830  
jcmguigan@gov.pe.ca





## Amherst water fix has 'hefty' price tag

■ BY DARRELL COLE  
CUMBERLANDNEWSNOW

[Amherst, NS]— Fixing water pressure issues in several parts of Amherst (Nova Scotia) is going to come with a hefty price tag.

A study by CBCL has indicated the water pressure issues can be fixed for between \$1.9 million and \$6.6 million.

“All three options are quite costly and will have to be considered as part of the town’s long-term capital upgrade plans,” Coun. Robert Bird told council during its February session on Monday (Feb. 24).

CBCL was tasked with investigating low pressure at the top of Church and Willow streets. The consultant was also asked to investigate fire flows in the downtown area, following the August 2012 fire that destroyed the Windsor and Black Block buildings.

During that fire, firefighters found themselves battling issues with water pressure, while many parts of town found they had little or no water pressure the day of the fire.

The options CBCL are recommending include constructing a booster station at

\$1.9 million, constructing a high pressure stand pipe near the existing reservoir at a cost of \$2.3 million and building a new, higher reservoir at \$6.6 million.

Bird said the existing reservoir is 35 years old.

“Although it has been kept in good condition, it may be nearing the end of its expected life span and constructing a new one may be the best option,” Bird said.

Town staff are now conducting a thorough inspection of the reservoir with the goal of identifying an expected replacement year.

As for fire flows, CBCL found the town meets the minimum recommended fire flows within the downtown. The consultant’s report suggested flows could be improved by replacing aged water mains on Church and Willow Street as those streets come up for reconstruction.

Coun. George Baker said it’s nice to get some concrete information on what’s required since the public has been complaining about water pressure for several years.

Mayor Robert Small said the information should help the town prepare its case for infrastructure funding and access funding from the gas tax fun.

## Water treatment plant on target for fall completion

■ BY CORY HURLEY  
WESTERN STAR

A year after (February) approving the contract for the design-build of Corner Brook’s new water treatment system, Steve May is confident in saying the project is still \$15 million under the original tenders.

The (Newfoundland & Labrador) city’s director of operational services says the agreement with Pomerleau of Montreal is filled with guarantees, and maintaining the estimated price tag of about \$49 million-\$50 million is just one of them.

That is still much lower than the \$60 million-\$65 million the tenders came in at in 2010. That was for a project which was originally estimated and approved through federal and provincial funding

at \$36 million.

Trials and tribulations of the project have been well publicized, right up until the time the project was eventually approved through the unique design-build concept. The plant alone had come in at \$41 million through the original tender process, but is now estimated at about \$28 million.

Pomerleau provided the smallest and simplest plant design, said May. Like some of the other bidders its design featured the dissolve air floatation (DAF) system that has been chosen. That company also submitted the lowest estimate for annual operating cost to the city.

Last summer, Pomerleau conducted a pilot trial at the site, using a mini version of the proposed plant.

“They processed our water, the exact water we

will be running through our water treatment plant for a 30-day process,” May said. “They tried all kinds of different chemical combinations, and it proved to be very successful.”

He said it confirmed the design and that there are other operational savings which can be realized.

The construction phase is underway, beginning with site preparation in fall 2012. The creation of the plant, which is three levels below ground, began in spring 2013, while the construction of the steel building began last fall.

Following the commissioning phase — which is expected to be late 2014 — there will be three performance trials of 10 days each. The trials are based on capacity and quality, from multiple sample points and must be achieved to reach the substantial completion — and ultimately receive

payment for the project.

“We felt like we had enhanced our protection with the project... a lot of unknowns, given up the control of this, but they have to prove this system works,” May said.

Of Pomerleau’s \$25-million bid, the city is holding back \$500,000 for these trials. “If they want all of that \$500,000, they have to be in the plant, run it, and prove it can work under all the varying water conditions,” he said.

There is also another \$500,000 for an operational guarantee.

“We didn’t want them low-balling their estimated operating cost and having no repercussions if they are wrong,” May said.

There is no payment if the operational cost is more than 20 per cent of the original estimate.

Also see story on Page 8



The Maritime Provinces Water & Wastewater Report is published quarterly by TC • Media Inc. The opinions expressed in the Maritime Provinces Water & Wastewater Report are those of the authors and do not represent the official views of TC•Media Inc. or its management. The Maritime Provinces Water & Wastewater Report and its contributors can accept no legal responsibility for loss through any error in information contained herein. Contents of the Maritime Provinces Water & Wastewater Report may not be reproduced without written consent of the publisher, who accepts no responsibility for unsolicited manuscripts, transparencies and other material.

Publications Mail Reg # 7145  
Return undeliverable addresses to:  
211 Horseshoe Lake Drive  
Halifax, NS B3S 0B9

Editor: Heather Jones  
Designer: David Schaffner  
Sales Executive: Scott Higgins  
Circulation: Margaret Wallace  
Traffic: Jodie Purchase

Mailed under Canada Post Publications Mail  
Agreement No. 40064924

Maritime Provinces Water & Wastewater Report  
211 Horseshoe Lake Drive Halifax, NS B3S 0B9  
(902) 421-5888 Fax: 421-5400  
tctranscontinental.com

E-mail: jonesh@tc.tc





## MPWWA PROFILE: *Tony Rose*

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

■ BY ANDY WALKER

### Tony Rose knows his system from the ground up

There are very few operators in Atlantic Canada who can claim the same level of familiarity with their system as Anthony (Tony) Rose.

Not only is Rose the manager for the water treatment system that serves the 850 plus residents of the Miawpukek First Nation, he supervised the construction of the community's water and sewer services from 1991 to 1993.

Miawpukek is the Mi'kmaw name for Conne River—located on the south coast of Newfoundland—a 225-kilometre drive from

Gander. The French islands of St. Pierre and Miquelon lie just off the coast.

Back in 1991, Rose had just returned home from Toronto, where he worked for 12 years with Canadian National in the railway's supply department. "I just got tired of city life and I wanted to get back home," he explained.

He secured the job with the band council helping to build the system—a job that took almost three years. Rose noted, "Our area is pretty rocky and it was pretty slow going by times." That experience opened up a new career for him. He attended the Nova Scotia Community College and obtained his Level 2 certification in water and wastewater treatment.

Then, he went back home and went to work with the Miawpukek Band Council.

Rose is now the manager of the water treatment plant and supervises a staff of five. One of the things he is most proud of is the fact the

community installed the automated "membrane" system to remove dissolved solids, color, and hardness in drinking water back in 2004.

"We are a pretty small system to have that kind of technology."

Rose said the system is completely automated and can be operated virtually from home when a problem arises outside his shift. "Since we have a small system, as manager I am pretty much on call all the time."

Rose has been a member of the Maritime Provinces Water & Wastewater Association since his induction into the industry and views its networking opportunities as invaluable.

"As an operator of a small system in a community that is somewhat isolated, it is a tremendous help to know that if I encounter a problem, all I have to do is pick up the phone and I can call another MPWWA member for help and advice."

Rose said one of the major challenges facing his utility right now is leakage as the copper in the lines begins to erode—in part due to Newfoundland's climate and soil make-up.

Last year, he explained, the leaks meant the system was working close to its capacity of 1.5 million litres per day. With the repairs, he said the flow is now down to approximately 300,000 litres per day.

As for the future, Rose has a five year plan—retirement. He jokes, "I am 60 now so I guess I've got to start thinking about it." He said the band is now looking at hiring a back-up operator who can work with him and be ready to take over when retirement looms.

While the plant keeps him busy, Rose does try to find some time during the summer for boating. Electronics has always been a passion for him and he is now working on developing a remote controlled lawnmower. "I just about have it perfected now."

## Water and sewer rates rise in Summerside 2014 budget

■ BY MIKE CARSON

### JOURNAL PIONEER

[Summerside, PEI]- City (Summerside, Prince Edward Island) residents will see property tax rates remain unchanged and will be paying more for water and sewer services in 2014.

Deputy Mayor Bruce MacDougall, chairman of the city's finance committee, delivered the 2014 budget Monday (March 24) at the city's annual general meeting.

Two important aspects of the document were the projections of reducing the municipal long-term debt to about \$65 million, down \$1.2 million from a year ago, and a drop in the accumulated

deficit to \$262,000.

The city will be involved in several capital improvement projects totalling more than \$12 million, the largest of which is \$4.4 million for street and storm sewer upgrades.

MacDougall said the main focus of this expenditure will be a ditch infilling program.

He said the entire situation will be reviewed and a plan set out that will let homeowners know when their ditches will be infilled and the storm sewers installed. He said it will be a long-term project.

"Council has to look at a lot of these projects and to ignore them is the wrong thing to do," MacDougall said. "We came together as a council and said even if we have to go out and borrow more money this year it's something that has to be done.

If we allow these things to wait until you can afford them, they're never going to be done.

The deputy mayor was satisfied with the numbers.

"I think it's a fair budget," MacDougall said. "We took a lot of things under consideration as we did in other years, but we just had a little different look at it this year. We tried to put the money where we're going to get the best benefit from it. We need to see if we can leverage more money through infrastructure programs. We need to see if we can stretch those dollars as far as we can."

Two areas of the budget that will see increases are the monthly rates paid for water and sewer services in the city, but MacDougall said these hikes are justified.

"Our water rates have to go up, but that's something that has to happen. We have to have dependable water and sewer systems," he said. "The deficit has been growing on those and to ignore it is the wrong thing."

Debt reduction has been a priority for council for several years and inroads are being made, the deputy mayor said.

"Lowering the deficit and the debt, it's where we need to go," he said. "We've been tackling that for the last number of years, we have a new CAO this year and a new director of finance, but even under (former finance director) Malcolm Millar, it was a priority to reduce our debt. We've stayed on track and it's coming along very good right now."

**NATECH ENVIRONMENTAL SERVICES INC.**  
"SERVING MUNICIPALITIES AND INDUSTRY SINCE 1993"

- CCME Municipal Strategy Assessment
- Water Quality Testing and Modeling
- Effluent Treatment Studies
- Lagoon Depth & Sludge Surveys
- Design of Treatment Plants & Outfalls
- Tracer Studies
- Mixing Zone Studies
- Assimilative Capacity Assessments
- Design of Commercial Septic Systems and Engineered Wetlands

2492 ROUTE 640 HANWELL, NB E3E 2C2 • PHONE: (506) 455-1085  
FAX: (506) 455-1088 • WEBSITE: WWW.NATECHENV.COM • EMAIL: NATECH@NBNET.NB.CA

**WATER IS OUR SPECIALITY**

**Scotia Tech**  
#9 - 50 Thornhill Drive  
Dartmouth, NS B3B 1S1  
ph: (902) 468-2777  
fax: (902) 468-2090  
Cell: (902) 499-1965  
email: scotiotech.tom@ns.sympatico.ca

• Meter testing and repairs (all types) in shop or on-site  
• Meter reading and installation services  
• Hydrant repairs and parts sales  
• Training courses for meter testing, repairs and reading

**DISTRIBUTOR AND REPRESENTATIVES FOR:**

**SENSUS**  
The Measure of the Future  
**Sensus iPERL Meter**  
(20 years) Call for details.  
www.na.sensus.com/water

**Geotube Dewatering**  
• BioCord/BioFilm Reactors for Advanced Wastewater Treatment and Lagoon Upgrades for Capacity  
www.bishopsquatic.com/home.htm

**FILTER MEDIA**

**ANTHRACITE • QUALITY FILTER SAND & GRAVEL • CARBON**  
**• GARNET • GREENSAND • MEDIA REMOVAL & INSTALLATION •**

**Anthrafilter**  
Media & Coal Ltd.

20 SHARP ROAD, BRANTFORD, ONTARIO N3T 5L8  
TEL: (519) 751-1080 FAX: (519) 751-0617  
Website: www.anthrafilter.net Email: dloney@anthrafilter.net

**ATLANTIC INDUSTRIAL CLEANERS**

A DIVISION OF ENVROSYSTEMS INC.  
Atlantic Canada's Leader in Industrial and Municipal Cleaning  
www.envirossystemsglobal.com

- Sewer and Catch Basin Cleaning
- Video Inspection
- High Pressure Water Blasting
- Industrial Vacuum Units
- Hydro Excavation & Mobile Wash Units
- Chemical Cleaning & Tank Cleaning
- Waste Oil Collection
- 24 Hr. Emergency Response Service
- Sewer Mains & Lateral Relining

**Dartmouth, NS** Tel: (902) 468-9011 Fax: (902) 468-5977  
**Saint John, NB** Tel: (506) 652-9178 Fax: (506) 652-7951  
**Moncton, NB** Tel: (506) 854-8014 Fax: (506) 382-7448  
**Charlottetown, PE** Tel: (902) 892-8014 Fax: (902) 892-1973

# Canadian leadership group to strengthen municipal water management

From submerged cars in Toronto to submerged homes in Calgary, water was seen as a major threat to Canadians in 2013. Now, a group of national water leaders is lending their expertise to manage the new normal of extreme and more frequent weather events and to look at water with opportunity.

On Feb. 26 the Canadian Water Network (CWN) introduced its Consortium Leadership Group (CLG) that brings together leading cross-country municipal water managers.

“Connecting municipal water managers with leading research will ensure that we are tackling key issues head on,” says CWN Executive Director Bernadette Conant. “The immediate participation of municipalities and utilities across the country, speaks to the need for this type of initiative. The Consortium Leadership Group’s goal is to address priority water management needs and help Canadians realize the importance of water management to our quality of living.”

Halifax Water is one of the 12 CLG organizations involved in municipal water management. The others are: Toronto Water, York Region, Peel Region, Durham Region, Union Water Supply, Region of Waterloo, the City of Regina, EPCOR, Alberta Innovates Energy and Environment Solutions, the City of Calgary, and the Capital Region District (Victoria). Together, they will work to address national water management priorities for Canadian municipalities, utilities, regulators and corporations.

This year the CLG will focus on the following priorities:

- **Financing and full cost recovery for integrated water systems** - Developing strategies to meet growing financial need and better support the true costs of ensuring safe water and healthy environments.

- **Dealing with Extreme Events: Public Expectations and Future Planning** – Managing for the new normal of increased frequency of extreme weather events, such as droughts and floods.
- **Wastewater and Biosolids** – Improving options for Canada to seize the opportunity to benefit from what we flush and rinse away.
- **Integrated Risk Management** – Helping water managers identify, prioritize and manage water management issues and risks

to prepare for future challenges. The CLG will release its first National Priorities Report in June. “Canadian municipalities have been given a tremendous responsibility for drinking water, wastewater and stormwater management and while we’re optimistic, it has felt like a road less travelled,” says Halifax Water General Manager Carl Yates, a CLG member. “With the strength of our Group, we will blaze a trail together to address priority municipal water improvements and

innovations.” (Headquartered at the University of Waterloo in Ontario, the Canadian Water Network ([www.cwn-rce.ca](http://www.cwn-rce.ca)) was created in 2001 by the Networks of Centres of Excellence Program to connect international water researchers with decision-makers engaged in priority water management issues. CWN works to unite the expertise of researchers, practitioners and implementers to respond to water challenges.)

## New report highlights innovative water solutions for municipalities

Canada faces an estimated cost of \$88 billion water and wastewater infrastructure deficit and this estimate is expected to grow under a “business as usual” approach.

The Blue Economy Initiative (BEI) has released a new report, *Blue City: The Water-Sustainable City of the Near Future*, authored by Econics. The visionary report that features Halifax Water’s internationally recognized Water Loss Control Program, is built on the interviews of 17 water-related professionals in Canada who share their views on what a water-sustainable city might look like and the success stories of existing projects.

Grounded in research, design, and innovation, the report will help policy-makers, government officials, businesses and community

leaders create tangible solutions for sustainable water management on a national and global scale.

“We were fortunate to speak with a diverse, distinguished and multi-disciplinary cast. It was remarkable to note similar themes in our discussions with them,” said lead author Kirk Stinchcombe the co-founder of Econics. “The report focuses on real measures and solutions of urban water issues that exist today. This is a very tangible report on a common vision and shared innovations.”

As record infrastructure costs grow the need for innovative solutions alongside innovative funding mechanisms, are increasingly in demand. Canadians are feeling, first-hand the changes that need to be made within their own

communities. For regions and municipalities in Canada, this report is a strategic tool for creating a business case and framework for their own water-sustainable city.

The link to download *Blue City: The Water Sustainable City of the Near Future* is: [www.blue-economy.ca](http://www.blue-economy.ca).

(The Blue Economy Initiative is a national project founded by Canadian Water Network, the Royal Bank of Canada, and the Walter and Duncan Gordon Foundation. The project seeks to inspire dialogue among Canadian decision-makers and key influencers around the opportunities and benefits of preserving water, and the economic risks of not making sustainable decisions.)

# A water solution for Chateau Heights?

BY ANDY WALKER

The future of the Chateau Heights subdivision may be decided by a plebiscite this spring.

The subdivision located just outside the Fredericton 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.

Various solutions have been tried. Area residents formed a water committee back in 2006 to explore their options and essentially came up with two choices – and both of them carried a hefty price tag. They could either build their own water system or amalgamate with Fredericton.

Last year the New Brunswick government proposed a \$15 million multi-phase

project to construct a water and sewer system from the city border to the subdivision. But the proposal has stipulations. In order for the work to proceed, the 150 homes in Chateau Heights would have to agree to become part of Fredericton. The water and sewer lines would then become part of the city’s system. Homeowners would also be required to pay a one-time fee of around \$15,500 to hook up the lines and decommission wells and septic tanks.

The government mailed out a survey to subdivision residents late last year. As of March 19 it had declined to release the survey results as only 56 per cent of homeowners responded. The Department of Environment and Local Government has set up a section on its website to keep residents up to date on the issue. A public meeting is tentatively scheduled for April 15. A formal plebiscite would be conducted in May.

If the plan is approved, the 150 house-

holds would begin paying city taxes at a rate of \$1.0658 (per \$100 of evaluation) next January. That rate would jump to \$1.4211 per \$100 when the water and sewer services were installed.

The website indicates it could take up to ten years for the lines to be connected to all of the houses depending on funding. The first phase of the project (that would cost \$4.4 million) would be to construct the water distribution line from the North Brook Reservoir (in the Killarney Lake area) to the edge of the affected area. A water booster station would be built on McLeod Hill Drive to increase the water pressure to service the area. Sewer lines would also be installed at that time, but would remain unconnected to the Fredericton system.

Fredericton has already done some work within the city-limits of the McLeod Hill area, but progress has been slow. The website notes things could move along more


quickly if large amounts of funding were available. “For each funding phase, a construction team would extend the service by multiple kilometers during a one or two-year period.”

Editor’s Note:

In March Fredericton Mayor Brad Woodside told the Daily Gleaner that while the city is not “looking to expand its borders,” it will want an iron-clad written contract with the province if Chateau Heights accepts the government’s proposal.

Woodside noted in 1973 Fredericton had been promised millions of dollars by the New Brunswick government if water systems in Devon, Marysville, Douglas and Nashwaaksis were upgraded.

He said after the communities amalgamated with the City, the province reneged on the funding.



#9-50 Thornhill Dr.  
Dartmouth, Nova Scotia  
B3B 1S1  
Tel: (902) 468-9447  
Fax: (902) 468-2090  
Cell: (902) 499-1965  
[aquadata.tom@ns.aliantzinc.ca](mailto:aquadata.tom@ns.aliantzinc.ca)  
[www.aquadata.com](http://www.aquadata.com)

**LIST OF PROFESSIONAL SERVICES**

**Water Distribution System**

- Water distribution system diagnosis.
- Inspection, operation and analysis of watermain valves.
- Leak detection
- Aqua Cad® software: field data collection; data priority analysis; hydraulic modeling; unidirectional flushing; flow-through times/influence zones; fire protection; system management.
- Unidirectional flushing program preparation and execution.
- Hydraulic assessment of the water distribution system
- Hazen-Williams coefficient measurements.
- Flow-pressure tests.
- Project management on existing systems.

**Wastewater Collection System**

- Initial diagnosis of wastewater systems using the Aqua Zoom tele-objective camera.
- Underground pipes and manhole localization.
- Project management on existing system.

0000000



## ATLANTIC WATER INVESTIGATIONS

LIMITED Est. 1993

- Well Water & Septic Inspection
- Pipeline Video Inspection

# 902.829.2922

DEAN WALKER M.A.Sc., P. Geo.

Drilled Well Video Inspections to 1000 feet  
In-Situ Geothermal Conductivity Earth Energy Testing  
CCTV Pan & Tilt Robot Crawler 6 inch to 24 inch Lines  
CCTV Push Camera Pipeline Transmitter Receiver Depth Locator Services  
Interior Smoke Blower Leak Detection Test of Sewer Gas Odour Sewer Lines  
Exterior Smoke Blower Leak Detection Test of Sanitary Municipal Sewer Lines





# Stratford votes for Blue Frog to deal with sewage lagoon

■ BY NIGEL ARMSTRONG  
THE GUARDIAN

[Stratford, PEI]— The Town of Stratford (Prince Edward Island) is paying \$1.5 million to bring in Blue Frog to help its stinky sewage treatment lagoon. These are not live frogs, but a brand name for a colourful floating device, part of a complete system to eliminate bad odours and increase the capacity of the current lagoon system.

The Blue Frog system will see a variety of floating units combined with floating curtains to form virtual tanks, or cells, that act together to create a system that is practically identical to a modern waste treatment plant.

It is designed to work in cold winters with ice cover, requires no special training for staff and does not have a high demand for electricity.

Stratford council passed a resolution approving funding for the system, most of which comes from money already set aside from the gas-tax federal funding program.

It is expected that the system will eliminate odour, expand the lagoon capacity and work effectively to serve the town as it grows over the next five to 10 years.

There will be no fee increase or extensive borrowing money for the project, said Councillor Emile Gallant, chairman of Stratford's infrastructure committee.

"Originally constructed in 1980, the lagoon system was built for a population of 1,750 people," said Stratford Mayor David Dunphy.

"To account for the rapid growth within Stratford, a number of carefully considered upgrades have been performed over the past 15 years. Unfortunately we are not getting the desired perfor-



Councillor Emile Gallant, chair of Stratford's infrastructure committee told the chamber the Prince Edward Island town will spend \$1.5 million to install a waste treatment system called Blue Frog in its current treatment lagoon. (Photo: © Nigel Armstrong/The Guardian)

mance from the plant.

"The Blue Frog system promises to improve performance to a level that ensures the town can continue to grow and demonstrates our commitment to respecting the natural environment while we continue to work towards a long-term solution," said Dunphy.

Studies have suggested some of those long-term solutions would be a choice of building a new treatment plant, building a new lagoon or getting the waste over to Charlottetown's plant

somehow, by truck or pipe.

"These are very high-priced projects," said Gallant.

About \$10 million back in 2009 when prices were calculated. Those options are still being considered, with ongoing consultations and negotiations, said Gallant.

"Hopefully in the near future some long-term decisions will be made," he said.

The trouble is, environment officials are getting agitated about the situation of waste treat-

ment right now in Stratford, he said.

"In consultation with the provincial Department of Environment, Labour and Justice, it was determined that the Blue Frog System or similar upgrade would be required to ensure that the effluent quality requirements are met and the continued growth of the town is not hampered," said Gallant.

Work is expected to begin on the project in May but will take many months to fine tune, council was told.

## MARITIME BLOWER REPAIR INCORPORATED



- ✓ Rotating Equipment Repair
- ✓ Centrifuge Repairs
- ✓ Liquid Ring Pump Repairs
- ✓ PD Blower Repairs
- ✓ Machine Shop Service
- ✓ Multistage centrifugal Repairs
- ✓ Rotary Vane Vacuum pump Repairs
- ✓ Dynamic Balancing & Vibration Analysis
- ✓ Parts & Accessories
- ✓ 12 Month warranty



Atlantic Canada's service and repair facility for both truck Mounted and industrial service vacuum blowers

**Petitcodiac New Brunswick**

Ph: 506-756-2930 • Fax: 506-756-2838 • dflanders@maritimeblower.ca

### Terra Firma

- QP1-QP2 Services
- Watercourse Alteration
- Buffer Zone Assessment

**The FLOW SPLITTER Tee**

WOTED BEST IN THE WORLD

Delivers an even split every time!

*This easy-to-use Nova Scotia invention can be used in any septic system that utilizes a tee and an even split is desired, as well as in existing centered systems in early septic bed failure. Installers should use the Flow Splitters to improve their installation and avoid unnecessary issues with callback failures and potential liability issues. To learn more about the Flow Splitter, check out: [www.flowsplitter.com](http://www.flowsplitter.com) or call Terra Firma Consultants at (902) 221-2135.*

**CONSULTING & ASSESSMENTS -QP2 Lot Approval Services -Wetland Delineations**

1 Pine n' Oak Drive Wellington, NS, B2T 1J4 • [terrafirma@eastlink.ca](mailto:terrafirma@eastlink.ca) • 902-576-3551

**M** Your local partner for water treatment chemicals and services

|  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li>• Flocculants</li> <li>• Polymers</li> <li>• Commodity Chemicals</li> </ul> | <ul style="list-style-type: none"> <li>• Foam &amp; Odour Control</li> <li>• Coagulants</li> <li>• Stern PAC</li> </ul> | <ul style="list-style-type: none"> <li>• Feed &amp; Control Equipment</li> <li>• Laboratory Supplies/Training</li> </ul> |
|--|---|--|

Government required NSF ANSI 60 Certified Products

**Millennium Water Management Limited**  
 POTABLE, INDUSTRIAL & WASTE WATER TREATMENT  
 65 Coventry Ln., Dartmouth, NS B2V 2K5 • (902) 462-3868  
 E-mail: [millennium.water@ns.sympatico.ca](mailto:millennium.water@ns.sympatico.ca)

## THE PANEL SHOP

CUSTOM CONTROL PANELS

Automation Solutions for Water and Wastewater Applications

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Lift Station Protection and Control Panels</li> <li>• Water and Wastewater SCADA Systems</li> <li>• VTS SCADA System Integration</li> </ul> | <ul style="list-style-type: none"> <li>• Control System Maintenance and Upgrades</li> <li>• Instrumentation Solutions</li> <li>• PLC Programming</li> </ul> |
|--|---|

•OmniSite™ Monitoring and Alarm Systems Sales, Installation & Programming

Ph: 506.455.1925 • Fax: 506.459.3400 • [www.thepanelshop.com](http://www.thepanelshop.com)  
 CSA Certified • ISO9001 Registered • Member MPWWA • APWWA • ABEA

# Sewage upgrades planned for Village of Baddeck

[Baddeck, NS]— A tender call has been issued (March 7) to modify the existing sewage pumping system in the (Nova Scotia) Village of Baddeck.

“It’s part of a series of repairs and upgrades that the village has been doing over the years to try to improve the flow patterns of the sewage in the system,” said Darren MacLean of EXP Services, the engineering company overseeing the project.

“They do have an issue with the parts of the collection system that discharges to a sewage pumping station on Water Street. That one is sometimes overloaded when they have heavy rainfall events.”

MacLean said the new pumping station and piping to be installed is meant to divert flow away from the Water Street pumping station for a portion of the collection system.

According to the tender, the work generally includes the installation of a new submersible sewage pumping station and approximately 120 metres of associated pressure sewer piping on Victoria Street.

The successful bidder will also be required to install about 290 meters of gravity sewer mains and associated features on Queen Street and Victoria Street.

MacLean said the new infrastructure to be installed is not a replacement for current equipment and all the existing piping and pumping stations will stay in place.

“I wouldn’t say it would be a really big project in the grand scheme of things, but basically it involves putting in a new sewage pumping station in the village as well as some piping to affectively divert sewage flow from one part of the

collection system to that pumping station which will pump to another side of the collection system that has more capacity to handle that flow.”

The tender closes March 25 and a successful bidder will be chosen about a week after that.

MacLean expects a contractor will begin the work sometime in April.

“It is not really a big piece of work in terms of

the length of piping and everything, so I would think they could nip that up within 6-8 weeks at the most,” he said. “We are calling for the work to be finished by the July 1 weekend before the tourist season ramps up.”

The design drawing and specifications preparation were completed by EXP. The company also helped the village get approval from the Depart-

ment of Environment to build the pumping station and will now help the village work through the tender process.

Once construction begins they will also help to manage the contractor and the construction contract.

*Cape Breton Post*

## New tests show much improved water quality in Shelburne

■ BY GREG BENNETT

COAST GUARD

Recent water tests in the Town of Shelburne show much improved water quality from six months ago.

Water problems had been causing the (Nova Scotia) Town grief over the summer as operators struggled with a bout of brown water and then higher than permitted levels of THMs.

Tests conducted on Dec. 13 and certified by AGAT Laboratories in Dartmouth, show THM levels have dropped significantly at two testing sites; the Town Hall and at the Shelburne Regional High School.

At SRHS, water tests found trihalomethane levels of 32 micrograms per litre. At the

town hall, levels were even lower at 20 mg/ per litre, both measures well within Health Canada limits.

Those are far better tests than those taken six months ago when brown water, partly caused by a surge of storm water was present in the system

High levels of trihalomethanes, more than double permissible under Environment Canada guidelines, were also a big problem and the issue involved the help of CBCL Engineers, the company responsible for the town’s water plant installation.

With improvements, tests at the end of September found THM levels had fallen to acceptable levels, but just barely. More repairs to the town’s water system were completed a short time later as well as new monitoring processes enacted.

Town officials stressed that the water continued to be potable throughout the problems and it did not pose any immediate health risk.

THMs occur when chlorine reacts to organic matter (such as leaves) in water. While there is no immediate concern, high THM levels over long periods of time have been linked to a slight increase in risk for the development of bladder cancer as well as stillbirths in pregnant women.

Several years ago Environment Canada dropped the permissible THM levels in public drinking water from 300 to 100 micrograms of THMs per litre of water. The town water readings were nearly 250 micrograms/ litre in August. Readings in September averaged just under 100 micrograms/litre.





**KAESER COMPRESSORS**

**Efficient blower solutions ...**

**... at the leading edge of technology and performance.**

**KAESER COMPRESSORS** is one of the largest and most successful suppliers of air systems, with about 4000 employees world-wide.

Our primary goal is providing exceptional customer service coupled with innovative products and progressive system solutions. With over 90 years of experience, KAESER is the specialist.

**KAESER's extensive range of premium products includes:**

- Rotary screw compressors
- Reciprocating compressors
- Portable compressors
- Compressor controllers
- Rotary blowers
- Vacuum pumps
- Compressed air dryers and filters
- Air Audits & Turnkey Installations

**www.kaeser.com**



## Town worried about lead in water supply

Hundreds of shotgun shells found this winter near the water supply reservoir for Marystown, Newfoundland & Labrador was cause for concern for the town council.

The Jan. 17 discovery of shotgun shells in the Fox Hill Reservoir-Clam Pond area prompted the Town to contact the Burin Peninsula RCMP and request an investigation into the matter.

It is believed the shells were used for target practice and not actual hunting. While hunters are required to use steel shot when hunting, lead shot is still permitted for practice shooting. Council was especially concerned about the possibility of lead getting into the town's drinking water supply.

Lead shot shells are dotted through the snow on the beach at Clam Pond, Newfoundland & Labrador, in Marystown's watershed area. (Photo: © Submitted to the Southern Gazette)

**Canada's Power House in Generator Systems**

Large inventory for immediate sale, lease or rent.

- Prime Power & Automatic Standby Generator systems to 2000 kW
- Service and parts throughout Atlantic Canada
- Turnkey installation and maintenance contracts available
- Dual voltage systems
- Natural gas or diesel
- Mobile or stationary

707 Malenfant Blvd., Dieppe, NB  
**(506) 387-2396**  
 www.sommersgen.com

**Sommers Motor Generator Sales Ltd.**

**McLENNAN SALES**

**EMCO CORPORATION**  
 www.mclennansales.com

**MUNICIPAL**

- PVC Water & Sewer Pipe
- Ductile Iron Pipe
- HDPE Pipe & Fittings
- Fire Hydrants, Gate Valves
- Septic and Drainage Products
- Geotextile
- HDPE Culverts
- Electrofuse Fittings for HDPE
- Water Sampling Stations
- Blow-Off Hydrants

**INDUSTRIAL**

- Waterworks Tools
- Other Associated Products
- Glass Lined Pipe
- PVC SCH 40/80, SDR 26 Pipe & Fittings
- PVC Valves for Industrial and Process Applications
- Storm water management solutions

**Atlantic Canada's Underground Water & Sewer Piping Specialists**

|   |  |  |
|---|--|--|
| <p>McLENNAN SALES<br/>                 303 Golden Grove Rd.,<br/>                 Saint John, N.B.<br/>                 E2H 2V5<br/>                 Phone: (506) 634-3112<br/>                 Fax: (506) 634-0480</p> | <p>McLENNAN SALES<br/>                 40 Loftus St.<br/>                 Moncton, N.B.<br/>                 E1E 1E2<br/>                 Phone: (506) 857-1082<br/>                 Fax: (506) 857-9006</p> | <p>McLENNAN SALES<br/>                 111 Wright Ave.<br/>                 Dartmouth, N.S.<br/>                 B3B 1K6<br/>                 Phone: (902) 468-1500<br/>                 Fax: (902) 468-2721</p> |
|---|--|--|

## Massey Drive included in water treatment plan

**BY TC MEDIA**

The City of Corner Brook (Newfoundland & Labrador) is accommodating the anticipated increased sewer flows from future development in Massey Drive within its new water treatment system, at the neighbouring town's expense.

At Monday evening's (March 17) public meeting, council approved a change order for the prime consultant agreement with BAE Newplan Inc. for the additional engineering work associated with the water treatment plant residual sludge line. The change has a cost of \$12,389.38 plus HST.

One of the projects under the water treatment project has been to design and install a pipeline to carry the water treatment residuals from the plant to the city's sanitary sewer system.

The city consulted with the Town of Massey Drive, which uses the city's water system, on the change, which was not included in the initial design work.

Massey Drive will be billed for the work as per the agreement reached.

*Western Star*



# NB Energy Institute makes significant investment in groundwater research

The New Brunswick Energy Institute (NBEI) will invest over \$500,000 in an important groundwater study as its first research initiative. The study will provide the necessary baseline data needed to assess the impacts, if any, of shale gas development on domestic water quality.

"We're extremely pleased that the NBEI's first research project will examine potential impacts to water over time to gain a true perspective of our province's groundwater quality," Interim NBEI Chair Dr. David Besner said March 17.

"It's clear that people have concerns about their groundwater supply as it relates to resource development, and we're here to provide scientific data that will be useful for New Brunswickers and provide a better understanding about water quality and conditions."

The project will be the first large-scale examination of natural methane gas occurrences in private wells in the province with the objective to collect and report baseline domestic water quality data.

In NB, groundwater used for human consumption is extracted from 55 municipal well fields and over 100,000 private wells. An important groundwater information requirement that has been identified in areas of shale gas development is the need for characterization of baseline groundwater quality. Baseline data should be collected prior to activities such as gas well drilling and hydraulic fracturing. This information can provide the public, regulators, and industry with a better understanding of groundwater quality conditions.

"Having a comprehensive data set for groundwater quality prior to resource development will be extremely valuable because it can be used as a basis for comparison," said project lead Dr. Kerry MacQuarrie.

The University of New Brunswick Civil En-

gineering professor explained, "Without it, you can't confidently say how variable groundwater conditions were pre-development."

The two-year study will be based on collecting groundwater samples from over 500 domestic water wells distributed over four regions of the province that covers a total area of approximately 5200 km<sup>2</sup>.

The four potential study regions are: Sussex-Petitcodiac, St. Antoine-Shediac, Harcourt-Richibucto and Boisetown-Upper Blackville.

NBEI said to date natural gas is only being produced from the most southern area in the McCully gas field. The other three locations are being proposed because they encompass relatively large land areas currently subject to exploration.

Key water quality parameters will be determined immediately at the time of sample collection, while subsequent laboratory analyses will include:

- 1: inorganic ions
- 2: dissolved gases such as methane
- 3: stable isotopes of methane and water

Because of the potential for seasonal variations in dissolved methane concentration in domestic well water, a subset of wells will be chosen for repeated sampling over a period of one year.

The UNB-based two-year project, that will run from April 2014 to April 2016, will involve two research support staff and up to eight summer undergraduate students and intends to include First Nations involvement.

The NBEI's overall investment for the project is \$532,000. It will receive an interim progress report that will be posted on its website. In order to respect privacy concerns, the summary data statistics will not identify the results from individual domestic wells.



Gary Craswell welcomes Charlottetown Mayor Clifford Lee to the Hillsborough Rotary Club luncheon. (Photo: © Heather Taweel/The Guardian)

# Charlottetown mayor defends ditch infilling

BY DAVE STEWART  
THE GUARDIAN

The City of Charlottetown will be retiring \$280,000 from the water and sewer utility's debt this year.

That piece of news came from Mayor Clifford Lee in his luncheon address to the Hillsborough Rotary Club in Charlottetown (Prince Edward Island) on Thursday (March 20).

It was the one peek Lee gave Rotarians into the capital city's budget which will be delivered by administrative services chairman Cecil Villard in a week's time.

To put that figure in context, Lee said the city is short \$900,000 on its share of a new water source for the city. Retiring \$280,000 worth of debt from the utility will allow the city to borrow up to \$3 million without impacting the bottom line. The city only needs \$1 million to complete its share of the project.

Combine that with money from the federal and provincial governments and another \$3 million

the city has set up in a reserve account and the financial plan for the project in Miltonvale starts to come together.

Lee said the remaining cost of the project will come in around \$12 million.

The mayor also fired back at his critics who argue the city should be taking the \$2 million or so it spends on ditch infilling each year and use it to pay for projects like the new water source and completing the sanitary and storm water separation project.

The city has spent roughly \$16 million on ditch infilling. Lee said people need to realize what the city is doing is actually creating a storm management system in the amalgamated areas of the city, neighbourhoods like Sherwood, Parkdale, East and West Royalty and Winsloe.

"There's no storm management system in (those areas)," Lee said, referring to the pre-amalgamation days before 1995. "I told people they were going to have pay the same tax rate (as those in old Charlottetown) and that's because we're going to give you the same level of service." ...

The staff and management of the MPWWR and the executive of the MPWWA wish to recognize these companies for their ongoing support and participation:





# SANSOM EQUIPMENT



## 50 Years of Sales, Service and Family

Sansom Equipment Limited “started as a small family” in Fredericton, New Brunswick in 1964. “It grew into a much larger family, but we never lost our values,” Grant Sansom states proudly.

The company founder had no set plans or dreams to start his own business 50 years ago. “It was more of an opportunity. I got my start selling office equipment for Paul Burden before moving on to construction equipment with Danny Cameron at Rosser Sales and Equipment.” Eventually, Nova Scotia-based Wilson Equipment asked Sansom to open a New Brunswick office. “I was then presented with the opportunity to purchase the branch office that I had helped establish and the rest (as they say) is history.”

In 1964 Sansom Equipment Limited concentrated on supplying products to the construction market. But it soon diversified.

“Business in Atlantic Canada does not see the peaks that other provinces experience. We see more slight dips or slight increases in business activity. More like the tortoise than the hare. Companies need more than construction equipment to grow,” remarks Jim Wilson, past President of Sansom Equipment.


“Our industrial focus started around 1970 mainly with generator sales and sewage pumps,” Wilson says. “Back then manufacturers did not have full line of equipment. They specialized so we had to acquire other industrial product lines to complement our existing inventory. This led to selling industrial pumps. We have added many more complimentary products over the years to be a ‘one stop shop.’ We want to be able to supply all our customer’s needs.”

*Continued on page 11*

Sansom Equipment Limited employees celebrating Mike Boyne’s retirement include: Back Row are from left: David Lake (President); Danny Powers (Parts); Jim Wilson (Sales); Eric Larsen (Service Manager); Dylan Takacs (Sales and Parts); Diane Gavet (Project Management and Service Co-ordinator); Jasmine Keizer (Administration); Stella Sansom (Spouse of Founder Grant Sansom) and Dale Mallais (Branch Manager, Fredericton). In the front row are: Mike Boyne (Parts Retiree January 2013) and Henry Daigle (Parts).



Grant Sansom



**ENVIRONMENTAL DYNAMICS INTERNATIONAL**  
P: 1.573.474.9456 • www.wastewater.com

*EDI congratulates Sansom Equipment Ltd on 50 years!*

**“A clogged pump isn’t efficient at all!”**



**Barnes Solids Handling Pumps**

2 - 60HP  
3", 4", 6", or 8"  
Discharge Sizes  
Plug-n-Play Power Cord  
Made in U.S.A.

- Barnes SH innovative clog-resistant impeller designs handle long, stringy solids and other challenges found in the waste stream.
- In rigorous clog testing, Barnes SH Clog-resistant pumps outperform popular, competitive designs.





Common vortex, monovane and high-efficiency pumps readily clog on today's "disposable" household items. Barnes SH series pumps deliver reliable, clog-free operation.

**Barnes SH Pumps churn through today's wastewater stream.**

Calculate your savings, visit [www.sansompumps.com/SHCalculator.php](http://www.sansompumps.com/SHCalculator.php)  
83 West Drive, Brampton, ON L6T 2J6  
Phone: (905) 457-6223 Fax: (905) 457-2650

**BARNES** CRANE PUMPS & SYSTEMS



# SANSOM EQUIPMENT



Fredericton, New Brunswick

Continued from page 10

Sansom Equipment Limited's rock solid foundation allowed the company to mature and grow.

"I like to think of our company as a Band of Brothers (and Sisters) who all worked together for a common goal. We suffered through sickness, death and divorce but became closer and stronger because of it," Grant Sansom states. "When your family name is on the sign, your reputation is on the line. We always went the extra mile for our customers and each other. When I look back over the past fifty years, I am filled with pride for the privilege of having worked with such a loyal extended family."

In 1976 the company opened its first branch office in Truro, Nova Scotia.

"Many factors contributed to our decision to open branch offices. We recognized early on that the population of New Brunswick was not growing at any appreciable degree and we had a desire to grow and prosper. Many of the manufacturers we represented were encouraging us to establish parts, sales and service coverage for them in those areas," the company founder says.

"Most products in our lineup have been with us for years the oldest being from 1964. We are fortunate that our major lines stay with us as it provides confidence in our product, great sup-

port to our customers, as well as a solid reputation that we are proud to stand behind."

Mr. Sansom points out another reason for the change. "Many of our employees were encouraging and anxious to grow their careers within our firm. In the end, we believed that expansion into those provinces would bring us the same level of success that we were enjoying in New Brunswick."

Another major evolution took place in 1984. Sansom Equipment Limited had an opportunity to acquire a marine engine distribution business. And over the years diesel engines and generators became a significant piece of its sales volume. It also meant supplemental training for employees.

"Sales employees for the most part are engineers or CET's graduates, or have had industry experience prior to joining the company," President David Lake says. "Service technicians receive factory training with our suppliers as well as in house training from veteran service managers."

Job requirements at Sansom Equipment Limited include: "Sizing, selecting and rotating equipment for industry and municipalities. They also involve working with engineering consultants, commissioning and servicing equipment, and supporting equipment with unit and parts inventory."

Continued on page 12

## Attention Treatment Plant Operators:

### Let us pump your sludge. Then be the judge.

We are so confident in our pumps' ability to reduce your overall maintenance and labor costs that we will let you take one for a test drive... for FREE. You provide the application and we'll provide the unit. It's that simple! PVP Double Disc® Positive Displacement pumps feature:

- Seal-less gland-less oil-less design for zero routine maintenance.
- Will run dry indefinitely without damaging the pump.
- Passes solids up to 2 inches in diameter and full-line semi-solids.
- Fewer moving parts means less need for repairs or maintenance.
- Patented Maintain-in-Place design reduces downtime and lowers maintenance costs.

Suction Cycle

Discharge Cycle

**The PVP Difference**  
The repair of progressive cavity or rotary lobe-style pumps can be complex and costly. Our Double Disc® Pump system will operate up to 10 times longer in the same application and cost up to 70% less to repair when the need occurs.

**Put our pump to the test. There's no cost to you. Take the PVP Challenge and prove it to yourself.**

Swap  
YOUR  
Pump

Try Ours For  
FREE

Proud to congratulate  
**SANSOM  
EQUIPMENT**  
on their  
**50th**  
ANNIVERSARY

PVP

Penn Valley Pump

TOLL FREE: 800.311.3311 • PennValleyPump.com

For all your water and wastewater needs.

Sansom.ca | [sansom@sansom.ca](mailto:sansom@sansom.ca)  
Offices: NS, NB & NL

Dissolved Air Flotation

## Gold In The Water.

Congratulations on your 50th Golden Anniversary of 1st Class Service & Support to the water industry in Atlantic Canada; and for supporting the success of Corix's 12 DAF, 5 ST, and 2 UF & NF / RO treatment plants.





# SANSOM EQUIPMENT



Truro, Nova Scotia (white building)



St. John's, Newfoundland & Labrador



The staff of Sansom Equipment Limited in Fredericton, New Brunswick include: Back Row from left: Ben Gillespie (Service Tech); Dylan Takacs (Sales and Parts); Derek Patterson (Sales) and Matt Post (Service Tech). Middle Row: Henry Daigle (Parts); Diane Gavet (Project Management, Service Co-ordinator); Duane Webber (Sales Manager); Eric Larsen (Service Manager) and Danny Powers (Parts). Front Row: Jeff Johnston (Service Tech) and Dale Mallais (Branch Manager). Missing are Jasmine Keizer (Administration) and Daniel Bujold (Sales).

*Continued from page 11*

“When end users have problematic equipment, our people have been able to perform a system analysis on site and recommend a more suitable choice for the application. This is a common occurrence,” Lake says.

“Because of our ability to determine issues, analyze applications and provide different options; many clients have commented on improved overall efficiency on Sansom supplied product over previous products they have owned.”

The company expanded again in 1991 opening a branch in St. John's, Newfoundland & Labrador. In the future it plans to enlarge the NL facilities “and create new positions and jobs to meet the increase in business.”

Sansom Equipment Limited joined Facebook and Twitter in 2012 and updated its website in 2013.

The company is very proud of its products, service and its employees. “Sansom prides itself on employee retention. We have had and do have several people who attained 40 years of service within our organization, including a few who have surpassed the 40 year mark. We try to foster an environment that is pleasant

and fulfilling for our employees and provide training and the skills needed to make a successful employee thrive in the market place,” Lake explains.

In closing Grant Sansom remarks, “I like to think we created an atmosphere where our employees enjoy going to work and interacting with their co-workers as friends. Our love and respect for one another sometimes runs deeper than brotherhood or sisterhood because of our decades of supporting one another. During recessionary times the company always strived to keep everyone employed. During peak periods our staff always responded by stretching themselves to meet the demand.

“For all we have accomplished over the past 50 years I salute the staff, past and present, for their support and dedication.”

Our company also wants to take the time to send a sincere and proud thank you to our suppliers, clients, friends and “extended” families for their dedication and support now and in the future! Without all of them, we wouldn't have made it this far.

*~Sansom Equipment Limited Management and Staff*

## AFFORDABLE WATER AND WASTEWATER INSTRUMENTS

**edge**

- New pH/T°, EC or D.O. Tablet
- USB ports
- Capacitive keys
- Wall or bench cradle & electrode holder

**HI 9829 KIT**

- Measures up to 12 parameters including ISE and Turbidity
- New convenient kit in rugged carrying case
- Autonomous logging capability

**1-800-842-6629**  
[www.hannacan.com](http://www.hannacan.com)

**CONGRATULATIONS**  
TO SANSOM EQUIPMENT  
on their 50<sup>th</sup> anniversary !  
Our loyal partner since 2001 !

C A N A D A



# Deer Lake council awaiting water line thawing machine

■ BY PAUL HUTCHINGS  
WESTERN STAR

Council will not be responsible for thawing out Deer Lake's water lines, but it will help re-route lines that have frozen up this winter.

That's one of the messages out of Monday's (March 24) public meeting as (the Newfoundland & Labrador) council discussed an invoice the town received from a homeowner hoping to be paid back for getting his waterline thawed.

"We don't know where the line is actually frozen, whether it's on town property or (on personal property)," said Coun. Elmo Bingle. "It's something we cannot determine."

The town has placed an order for a machine that uses steam to thaw out waterlines but, due to the frigid winter, other towns and cities across North America need them as well. Because of the backlog, Deer Lake has been told that it won't receive its unit until May.

"Hopefully we won't need it by then," said Bingle, who then quipped, "We might even need it in July, who knows?"

As of Monday afternoon, the town had about 38 homes with frozen waterlines. Mayor Dean Ball said figures prior to this year show there were only four homes in eight years that had frozen waterlines, which is the reason the town never needed the machine in the past.

Deer Lake is also seeing an increased road salt consumption, having to order an extra 500 tonnes of salt recently, which council hopes will get the town through this winter.

In January, a warming shelter had to be established in the local high school during sudden power outages, and the town is even considering a diesel storage for its generators.



Councillor Elmo Bingle discusses the Newfoundland & Labrador town's winter efforts during Deer Lake's public council meeting on March 24. (Photo: Paul Hutchings/Western Star)

## Fracking wastewater in Debert deemed safe for disposal

[Truro, NS]— A study of treated hydraulic fracturing wastewater in Debert (Nova Scotia) states it is safe for disposal.

A provincial study into the wastewater at Atlantic Industrial Services was released at a public meeting in Truro on Thursday night (Jan. 30). About 80 people gathered to hear the results, which stated the wastewater meets Health Canada and the Canadian Council of Ministers of the Environment guidelines to be released into water.

"The tests ... show that the wastewater poses a minimal risk to the health of Nova Scotians and our environment," said Environment Minister Randy Delorey, adding the tested material was flowback wastewater from 2007 and 2008.

The minister said while the wastewater is safe for disposal, no action will be taken until the department gives final approval. No date was indicated.

Tests were carried out at Becquerel and Saskatchewan Research Council labs for naturally occurring radioactive materials. The waste was also tested for sodium chloride and general chemistry at Maxxam Analytics in Halifax and for proprietary chemicals at Precision Petroleum Labs Inc. in Houston. Precision is the only lab in North America that conducts such tests, said Delorey.

Despite what Delorey said, the response from the crowd was frustration, disbelief and distrust.

Alex McDonald of Shubenacadie said there

should be no compromise.

"We do not want any fracking. We do not want your dirty water and we will do everything in our power to stop it," McDonald said.

Five Islands resident Robert Lattie requested a guarantee in writing that wastewater in the area would not corrupt the water supply.

"Why even consider an experiment with our water? We make our living off that water," Lattie said.

Debert's BJ Tan was one of a many people who was not pleased some of the testing was done through a lab in the United States.

"I do not trust anything tested in the U.S ... the health of our children (is) far more valuable. If we have ethics and dignity we should never let U.S. standards" impact Canadian results, Tan said.

Delorey reiterated the American testing site was "the best science we had available to us."

Shortts Lake resident Lydia Sorflaten said more extensive testing is required.

"Your testing is totally incomplete. We have a problem with cancer in the world, endocrine ... and reproductive problems. We will not be happy until we know more," said Sorflaten.

Other community members wanted to know if Lafarge cement plant in Brookfield will be allowed to accept the wastewater.

"Lafarge is not approved to accept wastewater," said Kathleen Johnson, an environmental engineer from Pictou County.

*Continued on page 20*

# MBR

## MECHANICAL CONTRACTORS INC



**CENTRIFUGE AND PLANETARY GEAR BOX NOT WORKING?**  
*At MBR Mechanical Contractors we can help.*

### HERE IS SOME OF WHAT WE DO:

- ✓ Scope of work detail
- ✓ Restore all parts to original manufacturer specifications
- ✓ Replace all bearings, seals, bolts and unusable parts
- ✓ Rebuild and hard surface conveyor
- ✓ Replace tungsten carbide tiles as needed
- ✓ Rebuild gear box and drive assemblies
- ✓ Dynamically balance the bowl, conveyor and gear box assembly
- ✓ Welding and fabrication
- ✓ Provide a 12-month written warranty

**Petitcodiac New Brunswick**

Ph: 506-756-2930 • Fax: 506-756-2838 • [dflanders@maritimeblower.ca](mailto:dflanders@maritimeblower.ca)





Construction is now underway on a major upgrade to Charlottetown's sewer system. (Photo: © The Guardian)

**WE UNDERSTAND  
INORGANIC REMOVAL SOLUTIONS**

At Severn Trent Services we understand the importance of protecting public health and reducing inorganic contaminants in drinking water supplies. That's why we've designed a range of inorganics removal technologies to treat arsenic, fluoride, iron, manganese, nitrate and pH.

For most applications, the SORB systems are the simplest and most cost-effective solution on the market.

For more information on the SORB inorganic removal solutions, visit [www.severntrentservices.com](http://www.severntrentservices.com) or contact **Melanie (Oakes) MacKinnon** at:

**Resource Systems Inc.**  
51 Ballathie Crescent  
Fall River, Nova Scotia  
B2T 1P6

T: +1 902 861 4710  
F: +1 902 861 1366  
E: [moakes@resourcesystemsinc.ca](mailto:moakes@resourcesystemsinc.ca)



## Charlottetown sewage still seeping into Hillsborough River

■ BY DAVE STEWART  
THE GUARDIAN

The percentage of sewage seeping into the Hillsborough River is decreasing, says the chairman of Charlottetown's Water and Sewer Utility.

Coun. Eddie Rice says sewage is still flowing into the harbour but the city is making progress. Sewage flows into the harbour when water from the combined water and sewer pipes under the (Prince Edward Island) capital city overwhelm the lift station, located near the Queen Charlotte Armouries. It usually occurs during weather events such as heavy rainfalls.

There were seven cases where the system overflowed into the river since November 2013, and that matches the number of overflows that occurred during the winter of 2012-13.

"You have to understand, too, the number of overflows were no different in the two years but since progress has been made in the separation (project) less sanitary waste water has gone into the harbour so, to a degree, the percentage is lower but there's still seven times a year," Rice said Tuesday (March 18).

The project he refers to is the multimillion-dollar Spring Park sanitary storm water separation project. The second phase was completed last year at a cost of \$4.1 million, which includes \$2.4 million from the provincial and federal governments.

Tenders will be closing on the third phase with construction expected to begin in May.

"We've made fantastic progress as far as I'm concerned. This is done by council. It isn't done by Eddie Rice and it's done by (the water and sewer) department which has come by leaps and bounds. I'm really happy with it."

Mayor Clifford Lee said the project really didn't get rolling until he appointed Rice as chairman of the department four years ago.

"I give Coun. Rice full credit for his leadership and commitment in what he's been able to do with it," Lee said.

Once the project wraps up, all of the city's underground piping will be separated — one set of pipes for sanitary water and a completely different set for storm water. That will eliminate overflows into the river.

Rice said the project could wrap up this year but activities around the 2014 celebrations might delay the end date. That's because crews will need to tear up University Avenue in Charlottetown. The city has been asked to hold off on that part of the project until after the summer is over.

"We could be done in 2014 to early 2015. We've been asked to stay off University Avenue and some (other) streets for the 2014 celebrations so that can't be between June and September."

Rice said not only is the city in the process of cleaning up the environment but this multi-year project has created jobs.

"It's creating employment over a period of time, we're hurting less and less people in the fishing industry and our impacts (on the environment) is less and less."



# Parrsboro residents awaiting solution to water problems

■ BY ANDREW WAGSTAFF  
CUMBERLANDNEWSNOW

[Pictou, NS] – A little more than 300 homes in [Parrsboro, NS] – Town staff hope to have the issue of discoloured water in one part of town resolved in the coming weeks (April), although fed-up residents who have been dealing with the matter for several years are a tad skeptical.

Several King Street residents have been pleading with (Parrsboro, Nova Scotia) town hall for years to fix their problem of brown water, which has ruined clothing, led them to buy bottled drinking water, and caused much frustration.

“I’d just like to have clean water,” said Marylynn Goguen. “It’s one of those things. I’m diabetic, and I drink a lot of water. I have to think maybe I’m, not doing myself any favours by drinking this.”

The Goguen family has experienced the problem of discoloured water off and on since they moved into their King Street home 14 years ago.

Their neighbour, Keith Taylor, said he has been noticing it for the past six years, both at his home, and at the schools, where he works as a custodian. He said the problem comes and goes, and you can only guess whether the water will be brown or not.

“When you turn on the tap on some mornings, it’s brown,” he said. “If it sits too long in the toilet, the toilet turns brown. Right now, it’s good. You just never know.”

His neighbor, Anne Trotter, has ruined various towels and pieces of white clothing due to the discoloured water.

When these residents then have to pay their

water bill of more than \$80 per quarter, their frustration grows.

The residents can only hypothesize as to what the cause of the problem is. Taylor thinks the town’s water lines in that area are old and need replaced. Goguen said the water seems to get worse depending on usage level, such as if there is increased activity at the nearby arena. Trotter said it seems to be weather-related.

“If there is a storm, you don’t dare wash your clothes for a week,” she said.

The problem seems to be spreading to nearby Smith Avenue, where residents of the seniors complex there have presented a letter of complaint to deputy mayor Lisa Ward, along with samples of laundry ruined by the water. Taylor, Trotter and Goguen have been doing the same thing for years.

“The last time I went in, they told me it would be fixed in two weeks,” said Taylor. “That was two years ago.”

Council discussed the issue at its Feb. 25 monthly session, and agreed to proceed immediately to obtain requests for proposals to install a stop-valve in the King Street water line, which has been recommended by engineers as a possible solution to the problem.

“It is hoped that the installation of this device will also help to improve the quality of water at the seniors’ complex, however, if it fails to do so the council will look at other options,” said Ward.

The stop valve was recommended, as it will prevent the two-way flow of water in the area’s water line, according to CAO Ray Hickey.

“From everything we could tell, by consulting our engineers and other communities, it really



King Street residents Derek Trotter (left) and Keith Taylor are among several in Parrsboro, Nova Scotia who have been experiencing problems with discoloured water for several years. Here they show filters Trotter has on his water tank – the white one is brand new, and the brown one has been used for only two months. (Photo: © Andrew Wagstaff/Cumberland-NewsNow)

seems to be the qualities of that water line and the circulation of it,” he said. “There are two water lines feeding one line, creating a situation. Generally you want circular flow, but having the two lines means you can get water switching direction. “If we can stop the water and make sure it only

goes in one direction, it should hopefully clear up the issue,” he added.

Taylor has his doubts about the stop valve solution, but just wants anything to be tried.

“I’d just like to see them fix it, whatever it takes,” he said.

## Wet weather cited as cause of Hants County fracking wastewater leak

■ BY ASHLEY THOMPSON  
HANTS COUNTY JOURNAL

The latest bout of wet weather (mid-January) has caused fracking wastewater to spill out of holding ponds in the Kennetcook area.

Lori Errington, a spokesperson for Nova Scotia Environment, says the department is working with Triangle Petroleum, the American company responsible for the production of the wastewater, to reduce the likelihood of brine water pouring out of the holding ponds again.

“Recent heavy weather events led to the weight of the flexible covers pushing down and causing some of the top level of water to spill out of the ponds,” said Errington.

“The risk to the environment is minimal, as the top levels are largely rainwater and salt water. That said, we don’t want the water spilling into the environment.”

Errington says the covers on the holding ponds will be checked more often from now on, especially in the event of a storm.

The ponds contained about 11.5 million litres of brine water following the fracking Triangle Petroleum conducted in the area in 2009, she added.

“The water in the ponds is largely salt water and rainwater with some residual

chemicals and NORMs (naturally occurring radioactive materials) in the water, but concentrated mostly in the sludge closer to the bottom of the ponds.”

She says a substantial amount of melting snow and rainwater have topped the ponds off, and that is likely what leaked into the ground following the spill.

“There is no cleanup as the water ran out of the ponds and into the soil around the ponds. Soil tests were taken as a precaution, but it is not believed there was a negative impact on the environment,” she wrote in an email.

The ponds, which are nearing capacity, can hold about 10 million litres of water.

Nova Scotia Environment maintains that draining the ponds remains a priority.

Minasville resident Ken Summers, a member of a fracking opposition coalition in East Hants, is concerned that the waste spilled out of the pond could have flowed into a nearby brook that passes several houses.

He says the residents of the community’s neighbouring the holding ponds are ready for a long-term solution.

“This is another Band-Aid because there’s no agreed process for dealing with the wastes that are here so they’re still basically making it up as they go.”

## Important Safety Message

Call Before You Dig  
**1-866-313-3030**

Planning any construction or excavation activity in Nova Scotia? Then plan to call Heritage Gas.

With 48 hours notice, we’ll locate any natural gas lines on or around your worksite.

This is a **free service** provided for your safety.

With natural gas pipe buried underground, it’s easy to forget gas is flowing 24 hours a day, 7 days a week. So don’t take any chances.

One phone call can save you a lot of inconvenience and cost.



**Heritage Gas**  
Putting Our Energy Here. Naturally.





# Cornwall residents to pay more for sewer, water service

■ BY NIGEL ARMSTRONG

THE GUARDIAN

Residents of Cornwall (Prince Edward Island) will be paying more for sewer and water service in the new year.

The announcement came at a special public meeting of council Wednesday (March 12) to present the town's 2014 operating and utility budgets.

"We are still maintaining the same commercial and non-commercial tax rates that were established in 2013, so no increase there," said Councilor Minerva McCourt, chair of Cornwall's finance committee.

"Our utility customers will see a modest in-

crease of \$18 per year in the water and sewer bill for a single family," she said.

The increase of the utility rate is only the second since amalgamation in 1995 and covers the rising cost of operations which includes increased staffing levels, she said.

Cornwall's capital budget includes several projects for the coming year.

"They include sidewalk installation on MacArthur Drive and James Street, as well as sewer upgrades in the James Street area," said McCourt.

The 2014 budget includes using grants from the Gas Tax program to help fund planning studies for the town, looking at the future of transportation, storm water management, trail development and water service to create long term strategies for each.

There is also money in the budget to upgrade the town's skateboard park and add play equipment to a park on Penzie Lynn Drive.

The budget does not include a system to boost low water pressure on Appleby Lane and Sobey Drive behind the Tim Hortons. The town has found that its water tower was not designed to cope with all areas of the town, especially those that were not set to be hooked up the year it was commissioned.

The town, however, has already budgeted out of past and pending federal grant money for a lift station to address water pressure issues at Elliot Park subdivision, and while work on that project is underway, completion is delayed.

"Due to unforeseen delays with the manufacturer, the Elliott Park Booster Station project

schedule has been delayed," says Cornwall's web site.

Water pressure issues have brought irate citizens to town council meetings over the past few years.

"Pipe work and building construction has been completed," says the town. "We are now waiting for delivery of the booster pump. Delivery date is now anticipated the week of March 31st, and the station activated the week of April 7th.

"The Town regrets this delay and appreciates the patience and understanding of residents waiting for improvement in service," said the town web site notice.



## Penstocks holding up over winter: Marks

■ BY PAUL HUTCHINGS

WESTERN STAR

[Deer Lake, NL] — In spite of a severe winter, Deer Lake Power manager Larry Marks said the iconic penstocks are holding up well.

(On Feb. 10) Marks said, the structures that bring water down from the upper Grand River to the powerhouse on Deer Lake (Newfoundland & Labrador) have only an average amount of maintenance.

Some of the penstocks have been in place since the station was built in the 1920s, but Marks said

so far they haven't given the company any problems during the average sub-zero temperatures that have hit the area since the end of November.

"They've been there for over 80 years, nothing has happened yet," said Marks. "But we're not finding anything wrong, we keep an eye on them and maintain them when we need to, no problems so far."

He said the penstocks are scheduled for bi-yearly maintenance in the spring. That involves divers inspecting the underwater areas and clearing debris, among other duties.

Despite the extreme winter weather experienced throughout the region, Deer Lake Power said Feb. 10 that the penstocks at the power station in Deer Lake, Newfoundland & Labrador were running well and had only required an average amount of maintenance. (Photo: © Paul Hutchings/Western Star)



OPTAER™  
Lagoon Based Wastewater  
Treatment Systems

### Cold Climate Effluent Quality

|                   |           |
|-------------------|-----------|
| BOD/TSS           | <5 mg/L   |
| Total Phosphorous | <0.5 mg/L |
| Total Ammonia     | <1 mg/L   |

Meets CCME Toxicity Requirements



www.nelsonenvironmental.com  
Ph: (888) 426-8180



SAGR™

Represented in Atlantic Canada by Thomas Industrial Sales

Warehouse – 37 Killarney Road  
PO Box 7017  
RPO Brookside Mall  
Fredericton, NB E3A 0Y7

Howie R. Bird & Sons

Water & Sewerage Supplies Ltd.

"The Pipe People"

- Toll - Free  
1-866-472-6401
- Tel: (506) 472-6401
- Fax: (506) 472-1087



**SPECIALIZING IN:** • Soleno Solflo - Solflo Max HDPE Culvert & Storm Sewer  
• PVC Pipe & Fittings • Hydrants/Gate Valves • DI Pipe & Fittings • Waterworks Brass  
• Pipe Conx Couplings • Restrainers • Manhole Frames & Covers  
**Geotextiles • Gabion Baskets Erosion Control Blankets • Silt Fences • Drainage Pipe**

Servicing Contractors and Municipalities



# Kingston to install new sewer lift station

BY JOHN DECOSTE  
THE SPECTATOR

Kingston village commissioners will soon be asking for proposals for installing a new sewer lift station to service residents in the eastern end of the village.

Village clerk/treasurer Mike McCleave said Kingston (Nova Scotia) has been trying for some time now to extend the existing sewer line eastward along East Main Street from Kingswood Lane to Greenwood Road.

There has been a lot of residential development

in the area, with a couple of developers having already voiced their intention to undertake more development.

“Getting all the properties in East Kingston onto the village sewer was intended to be a multi-phase project,” McCleave said (Feb. 13).

The village commission had budgeted \$600,000 for the project, and had entered into an agreement to extend the line to Greenwood Road and hook it into a lift station that had been installed as part of the new Kalley Lane subdivision.

The project was tendered, and the low bid of approximately \$320,000 accepted.

Since that time, given the expected new devel-

opment, it has been determined the existing lift stations are likely inadequate to handle the increased flow.

During the digging process, workers ran into problems that would have required the installation and de-watering of several manholes, at a cost of some \$100,000 each.

Village commissioners agreed by motion to cancel the existing contract and instead put out a request for proposals for installing an additional new lift station on the east end of Main Street.

“We would have been looking at doing probably \$200,000 worth of work that would, in time, have been of no use to us,” McCleave said.

The new station will be designed to handle both the existing and potential new development in the area, and is expected to still come in within the village’s budget.

“We were hoping to be able to get away with not installing another lift station, but knowing what’s under the ground and the added costs involved, it was beneficial to put another lift station in now, as we likely would have had to do it later anyway.”

McCleave added the company that held the existing contract is OK with the decision.

“They are aware it would have meant extra cost both to them and to us.”

## \$524,000 going toward water main project in Whitbourne

The (Newfoundland & Labrador) provincial government says it has given funding of \$524,000 toward a water project cost-shared with the Town of Whitbourne — the replacement of a cast iron water main.

The provincial government is providing 90 per cent of funding and the town 10 per cent.

The announcement was made today (Jan. 20) by Steve Kent, Minister of Municipal and Intergovernmental Affairs.

Felix Collins, MHA for Placentia-St. Mary’s, said the announcement is welcomed as Whitbourne is experiencing significant development.

A news release notes that since 2008, Municipal and Intergovernmental Affairs has committed over \$50 million for 72 drinking water projects in Newfoundland and Labrador. The total, including municipal and federal funding, is over \$114 million.

*The Telegram*



Tappy, the Cape Breton Regional Municipality water utility mascot, took part in a parade of youth attending the Atlantic Coastal Action Program’s eco-camp in Glace Bay last summer. Earlier this year students in the CBRM were asked to participate in a poster contest for the water utility. (Photo: © Cape Breton Post)

**YOUR PARTNER FOR ALL YOUR WATER & WASTEWATER NEEDS**

PROUD PARTNER OF:

- Automatic Samplers
- Flowmeters
- Water Quality
- Pump Station Monitoring
- Flumes
- Gas Detection
- Level Measurement

ISCO  
Water is life. Protect it.

Maid Labs TECHNOLOGIES

SENSITRE  
Industrial Health & Safety Instrumentation

PLASTI-FAB  
PLASTIC FABRIC

AMETEK DREXELBROOK

**Avensys Solutions**  
SALES • SERVICE • CALIBRATION  
Montreal • Toronto • Samia • Dartmouth • Calgary • Vancouver  
Toll Free: 1.888.965.4700  
info@avensys.com / www.AvensysSolutions.com

**ECOfluid**  
USBF®-Advanced Biological Wastewater Treatment

USBF® BIOREACTOR  
| Compact Design | Gravity Flow |  
| Self-regulating Hydraulics |

OUR SERVICES  
Equipment Supply  
Design-Build  
Operations & Training

BENEFITS  
Modular/Expandable | Small Footprint | No odour |  
Reduce capital & operating costs | BNR capability |  
Suitable for all climates

(604) 662-4544  
info@ecofluid.com  
www.ecofluid.com

**Alpha Chemical Limited**  
ATLANTIC CANADA’S PRIMARY PROVIDER OF WATER AND WASTE WATER CHEMICAL TREATMENT SOLUTIONS

“NSF/ANSI 60 STANDARD APPROVED PRODUCTS”

Phone: 902.481.2532 • Toll Free: 1.800.981.2532  
Email: sales@alphachemical.ca • www.alphachemical.ca

ISO 9001:2008 REGISTERED MANAGEMENT SYSTEM

CACD RESPONSIBILITY MATTERS

SAI GLOBAL



# The slow return of Goose Cove's water supply

■ BY JEFF ELLIOTT  
NORTHERN PEN

Gathered around a temporary pump system w "Everything is going good," said Goose Cove Mayor Marie Reardon of the (Newfoundland & Labrador) community's water situation.

For a string of days in February, passersby could observe area residents on Jack's Pond, which acts as the dam's primary supplier, working continuously to transport water from the nearby lagoon.

The town lost its supply of the commodity on the eve of Feb. 15, amidst a hasty storm that plummeted the peninsula with heavy snowfalls.

For 24-hours around the clock, dedicated townsfolk worked tirelessly to keep the town's water supply at a manageable level.

"We never fully ran out of water, but the pressure went a little low," said Reardon. "[Residents] knew it was coming, so they started pumping again to keep the pressure up."

She said they spent an additional four to six days pumping last week (March 10), but as of now the effort has stopped and she is crossing her fingers that it'll be the end of the exhaustive routine.

"Hopefully this won't be an ongoing problem, but I guess you have to do what you have to do," she said.

When the Northern Pen last reported on the situation, there were talks of getting an underwater camera to determine if anything was blocking off the intake, but Reardon isn't convinced it's necessary anymore.

"I don't know if we'll have to look into it later on, but as of right now we don't need to bother," she said.



A group of men gathered around a temporary water pump system on Feb. 18, three days after the town of Goose Cove, Newfoundland & Labrador lost its supply of the commodity. Townsfolk worked in shifts transporting water from nearby Jack's Pond to the dam. The gentlemen set up a schedule and swapped places every two hours. Mayor Marie Reardon said this was the second time the water level in the dam had fallen low enough to require manual pumping. The last incident took place approximately 12 years ago. (Photo: © Jeff Elliott/Northern Pen)

## Stellarton will replace rest of membranes in water treatment plant

The town of Stellarton (Nova Scotia) is going to spend another \$60,000 to replace the rest of the membranes in its water treatment plant.

Earlier this year the town had to replace \$120,000 worth of the membranes. This will com-

plete the replacement.

While the money had not been budgeted for this year, it was in the town's three-year capital plan and there was money in the capital reserve for the membranes, Town Clerk Joyce Eaton said.

Council voted unanimously to purchase the membranes during Monday night's (Feb. 3) council meeting.

*The News*



**CBCL LIMITED**

Consulting Engineers

solving today's problems with tomorrow in mind.



## Engineering and Environmental Design and Consulting



info@CBCL.ca • www.CBCL.ca

Halifax • Sydney • Charlottetown • Saint John • Fredericton  
Moncton • St. John's • Happy Valley-Goose Bay



The Exhibition for Technology Innovators

# MEET 2014

MECHANICAL • ELECTRICAL • ELECTRONIC • TECHNOLOGY

COLISÉE DE MONCTON COLISEUM  
The Maritimes' Centre Stage  
Point de mire des Maritimes

## CANADA'S PREMIER EVENT FOR THE MECHANICAL, ELECTRICAL AND ELECTRONIC INDUSTRIES!

**PRE-REGISTER ONLINE TO SAVE 50% OFF ADMISSION!**

- Over 400 booths of plumbing, electrical, automation, lighting, HVAC, and hardware products & services
- Cutting Edge Seminar Program
- Industry Dinner
- Innovation Awards
- Skills Canada NB Competition

**SHOW HOURS**  
Wednesday, May 7 9:00am - 5:00pm  
Thursday, May 8 9:00am - 5:00pm

[WWW.MEETSHOW.CA](http://WWW.MEETSHOW.CA)

**MAY 7-8, 2014**

Sponsored by:

ASHRAE NB PD CHAPTER

ES

CIPH  
Canadian Institute of Plumbing & Heating

ELECTRO-FEDERATION C.A.N.A.D.A.

Produced by:

Master Promotions Ltd.



# Water issues discussed at MNL meeting



Researcher Alice Will of the Environmental Policy Institute at Grenfell Campus delivers the results of a survey on drinking water resources to the Municipalities Newfoundland & Labrador's western sessions. (Photo: © Paul Hutchings/Western Star)

## ■ BY PAUL HUTCHINGS WESTERN STAR

The opening of Municipalities Newfoundland and Labrador's western sessions started rather fluidly with a discussion on the province's water facilities.

Representatives of the Environmental Policy Institute at Grenfell Campus delivered the results of an ongoing survey of water operators from across the province. The survey shows that there aren't as many complaints as there could be, but some did come to light during discussion periods.

Municipal representatives who gathered at the Deer Lake Motel (in late February) for the western sessions complained of boil orders and long wait times from the province to clear the towns' individual water sources after issues had been addressed.

Institute researcher and presenter Alice Will said the survey is ongoing, with a final deadline of March 7.

Research shows that about 15 per cent of west coast towns have had 10 or more boil orders in the last four years.

Steady Brook Mayor Peter Rowsell said those frustrations lead to residents taking their frustrations out on the wrong people.

"When there's a problem with the water and there's a boil order, it goes into effect and it might be fixed two days later," Rowsell said to the crowd.

"But then it takes three and a half weeks for the province to clear it and people don't get angry with the province, they get angry with us, the people they can see."

Leona Gillette, also a Steady Brook representative, agreed.

"I believe we have two water testers for the whole west coast, and that's just not enough," she said. "We need more here."

So far, the survey only has about a 19 per cent response. It covers items like source quality, training, infrastructure and funding applications

Others in attendance discussed water reservoirs going dry, being dependent upon other water facilities and unwanted structures polluting water supplies. Gillette said, for example, that cabins near her town have the potential to pollute Steady Brook's water supply.

## Water rates going up in St. Andrews

St. Andrews, New Brunswick has a large seasonal population.

That's one of the reasons the town's water usage rates have not covered the utility's operational costs.

And it's one of the reasons that water rates will increase annually by \$50 beginning in 2014.

The operational cost shortfall was explained at the Feb. 3 council

meeting, the Telegraph Journal reported.


Doug Naish noted that successful water conservation campaigns, efficient toilets and the closure of the Algonquin Hotel for renovations in 2013 also contributed to the deficit.

The councillor said in the past the financial shortage had been covered by revenue transferred from the general municipal opera-

tion budget. In the future it should not be a problem.

St. Andrews' 2014 budget includes \$340,761 for water and sewer.

This year the town plans to spend \$295,000 of its utility capital budget for the replacement of a sanitary sewer line that runs from the Salt March Road to Kathy's Cove. It has also allocated \$150,000 for a storm water management detention pond.







# GREATARIO

Engineered Storage Systems

A tank is not  
a tank .....until  
it is built.

## COMPLETE STORAGE SYSTEMS




• WATER • WASTEWATER • BIOENERGY

www.greatario.com 519-469-8169 sales@greatario.com


# PARDY'S



**SERVICES PROVIDED**

- › Gas Detection
- › General Industrial Cleaning
- › Hazardous Waste Disposal
- › Hydro-blasting
- › Industrial Sludge Removal
- › Marine / Land Oil Spill Containment and Clean Up
- › Sand Blast removal
- › Septic Tank Cleaning

- › Tank & Sump Cleaning
- › Underground Storage Tank Removal & Disposal
- › Used Oil Collection
- › Used Oil Recycling
- › Hydro Excavation
- › Water Treatment
- › Wet Dry Vacuum Truck Service
- › Portable Toilets
- › Lift Station Cleaning
- › Tank Cleaning
- › Automated Tank Cleaning Systems
- › Sewer/Storm Line Cleaning and Flushing
- › Video Inspection



Phone: 902.481.6393 or 902.499.2450 • troycanning@pardyswaste.com  
Troy Canning, 32 Topple Drive, Dartmouth, NS B3B 1L6 • www.pardyswaste.com





## Pictou seeing progress in installing water meters

■ BY SUEANN MUSICK  
THE NEWS

[Pictou, NS]— A little more than 300 homes have yet to be hooked to water meters in the Town of Pictou (Nova Scotia).

Town CAO Scott Conrod said (March 4) the company installing the new water meters has about 318 homes to connect before everyone is on board.

"It's about 70 per cent complete," he said. "We need some better weather so the guys can get under these homes."

Conrod said some people have refused to let Neptune Technology Group carry out the installation and letters have been sent out informing homeowners that the meters are mandatory and must be installed before the company finishes the project.

"If the meters aren't installed on homes by the time Neptune is done then the work will be done at the homeowner's expense," he said, adding if

the meter is installed by Neptune while it is still working in the area, the town covers the cost.

Homeowners not hooked up have been given both registered and hand-delivered letters to ensure they are aware that they could be facing extra costs if they don't agree to water meter hookup by Neptune, he said.

A total of 1,400 water meters are being installed on homes in the town. The meters are being installed on an area-by-area basis.

The town believes the meters will help the Pictou Water Utility reduce water production from its 13 wells by 15 to 20 per cent. The meters will also help the utility identify leaks in the system at a much faster rate and promote more responsible and sustainable use of water by its customers.

Currently, the town is billing residents for water on a quarterly flat-rate basis. Once the town constructs a new water treatment plant, residential customers will be billed based on their water consumption and commercial customers will continue to be billed on metered rates.

## Saint John will discontinue fluoridation program

Fluoride will no longer be added to the water supply in Saint John, New Brunswick.

On March 10, city council voted 6-5 to discontinue the fluoridation program. Councillors had learned the treatment cost about \$177,000 annually but was used by less than one per cent of the population.

New Brunswick Dental Society President Dr.

Jeff Clark and others have asked the council to re-evaluate its decision.

According to the media reports, at Saint John's March 17 meeting Ward 2 Councillor John MacKenzie asked his colleagues to approve a request to the health department that the province cover the costs to provide fluoridation for municipalities. His motion was defeated.

## Dieppe eyes its own water supply

■ BY KATHY JOHNSON

A decision is expected this spring on an application by the City of Dieppe to rezone a 4,400-acre parcel of land on Millview Drive in Lakeville as a watershed area.

"We expect a decision in May," said Lisa Harrity, spokesperson for the New Brunswick Department of Environment and Local Government.

A public hearing on the rezoning application to "develop and operate municipal wells" and use the property as a "passive park," was held in December, Harrity explained. She noted the Minister has up to six months to make a decision.

The rezoning application, if approved, will change the area from an Agricultural A Zone and Single-Unit Residential R1 Zone to a Watershed W Zone. The property has an underground water resource.

According to media reports, the application has created concern for the neighbouring cities of Riverview and Moncton, if Dieppe were to go it alone. As it is now, Moncton's Turtle Creek Dam and water treatment plant services all three communities. That water contract expires in 2017.

Without the support of Dieppe, the Turtle Creek water system, that underwent a \$43 million expansion project in 2012, would be supported by two municipalities.

From Dieppe's standpoint, it would be irresponsible not to protect a water resource by securing the water supply. Dieppe has indicated that the City is open to the idea of establishing a water commission with its municipal neighbours to service the region.

Dieppe has budgeted \$1 million this year for exploration and drilling costs.

## Fracking wastewater in Debert

*Continued from page 13*

"But if the wastewater meets standards for fresh water, Lafarge wouldn't need industrial approval to receive wastewater," confirmed Delorey.

Delorey was also asked if he was prepared to ask the government to place a ban on fracking.

"No. The commitment is to let (an) independent committee complete its work without interfering," he said.

Delorey said he understood people's frustration but encouraged them to look ahead.

"What is done is done. It's not about experimenting but looking at the issue and step-

by-step trying to find a solution."

There are about five million litres of wastewater from hydraulic fracturing in Debert, and nearly 20 million litres of wastewater, mixed with rain and melted snow, in two ponds in Kennetcook.

Most of the wastewater in Debert has been treated to remove naturally occurring radioactive materials, salt and chemicals.

Test results, which were taken during a period of time and at different water levels, will be posted at

[www.novascotia.ca/nse/pollutionprevention/pubs.asp](http://www.novascotia.ca/nse/pollutionprevention/pubs.asp)

Truro Daily News

# ProSeries-M<sup>®</sup>

Engineered for Performance



- Three Models Available with Feed Rates Ranging from 0.1 GPH/.03 LPH to 158 GPH/600 LPH
- Brushless Variable Speed Motor
- Smooth, Quiet and Efficient Pumping Action
- Patented Tube Failure Detection, Patented Safety Switch, Patented Method for Extended Tube Life
- Excellent 5 Year Warranty

NSF Standard 61

TFD system Tube Failure Detection

IP66

NEMA 4X WASH DOWN

CE

## Blue-White

5300 Business Drive, Huntington Beach, CA 92649 USA  
714-893-8529 • sales@blue-white.com  
www.blue-white.com • www.proseries-m.com

# Roth

## MULTITANK

Septic Tanks • Water Cisterns  
Pump Tanks • Holding Tanks  
Rain Water Harvesting

Setting the standards for all other tanks. The Roth MultiTank<sup>®</sup> offers undisputed best-in-class status and the highest brand recognition of any tank in the market. The only tank you will ever need.

**Multi Coverage**

- Lifetime\* Corrosion Protection and 5 years of Labor Insurance Coverage.

**Multi Layer**

- Inner layer of FDA approved virgin HDPE, two inside layers of PE for improved stability, plus one outer layer of black and UV-stabilized PE
- 100% watertight
- Strongest & heaviest poly tank on the market

**Multi Usage**

- For water cistern, pump, hold-rainwater or septic tank
- Low profile
- No water for backfilling required



NSF  
ICC



Virgin Material

Our multi-layered tank construction, consisting of virgin material surrounded by 3 layers of protection.

BEST TANK. BEST WARRANTY. BEST SYSTEM.

Roth Global Plastics    www.roth-america.com    866-943-7256



# C1 SERIES CLEAN WATER CISTERN PUMPS

In January, Franklin Electric Co. Inc. of Fort Wayne, Indiana introduced the C1 Series stainless steel submersible cistern pumps designed for use in gray water/filtered effluent service applications. They have the ability to pass solids up to 1/8" in diameter during normal operation without impacting the life of the pump. The C1 Series is constructed of a 304 stainless steel motor and outer shell with engineered polymer hydraulics providing superior corrosion resistance and abrasive handling.

**Additional pump features:**

- Robust thermoplastic discharge head to avoid breakage during installation and operation
- Removable 5-inch wide base for secure and reliable mounting
- Motor lead connection is protected with a rubber boot and secured with a stainless steel strain relief
- Unique bottom suction design allows for maximum fluid drawdown without compromising durability or overall pump life

The C1 Series is available in flow ratings of 10, 20, and 30 gpm, with a maximum shut-off pressure of over 100 psi and is available with a high quality 115 V or 230 V, 1/2 hp motor.

"We designed the C1 Series pumps to offer high performance and long life in less than ideal water conditions, such as pumping filtered effluent and pumping from rain catchment basins or aerating ponds," said Kyle Lanier, Portfolio Manager, Submersible Pumps, at Franklin Electric. "But the pumps work equally well in pumping from clean water cisterns in agricultural, residential, and commercial installations.

The C1 Series is available in the US, Canada and Mexico. This pump is part of Franklin Electric's submersible pumping solutions family of products.

For more information visit: [www.franklin-electric.com](http://www.franklin-electric.com)



# CHEM-FEED® DUAL ENGINEERED SKID SYSTEMS



CHEM-FEED® Dual Pump Engineered Skid Systems are tough and efficient. They are well suited for use in municipal water and wastewater treatment applications, when paired with Blue-White's ProSeries-M® line of Peristaltic Metering Pumps.

CHEM-FEED Skid Systems were designed and engineered using solid modeling tools for superior piping installation and easy component maintenance. Custom engineered universal mounting blocks, and pre-machined mounting slots, provide for easy component servicing and replacement. Units are lightweight for wall or floor mounting.

CHEM-FEED Skids are constructed of 6061-T6 powder coated welded aluminum. Additional features include: An exclusive flow indicator which visually indicates pump is delivering solution; Self-filling calibration cylinder (flooded suction not required); proven components, Plast-O-Matic® ball valves; Pressure Relief Valve protects the system from over-pressurization; gauge guards; Metal-free check valve protects operator from back-flow during maintenance; and a drip containment tray, removable for easy cleaning.

Each unit is factory built and rigorously tested.

## Mueller Canada

A Preferred Source for  
**WATER DISTRIBUTION PRODUCTS**  
for more than

# 150 YEARS



Since 1857, the Mueller name has been known for innovative Water Distribution Products of superior quality. We are North America's largest and only full-line supplier of potable Water Distribution Products. Our products are used throughout the water system from source to customer.

VISIT BOOTH  
**24**  
@ MPWWA  
TRADESHOW  
FOR INFO



**ADJUSTABLE  
FRAME C.W.  
R10 COVER  
FROM MUELLER  
CANADA**

- GATE VALVES 2.5"-54"
- BUTTERFLY VALVES 3"-48"
- CHECK VALVES 2"-36"
- PLUG VALVES 2"-36"
- CV CENTURY HYDRANTS
- MUELLER CENTURION HYDRANTS
- NO LEAD SERVICE BRASS
- DRILLING TAPPING MACHINES
- AUTOMATED FLUSHING DEVICES
- LEAK DETECTION EQUIPMENT & SERVICE

Canada is blessed with the world's largest supply of fresh water; let's work together to keep it clean, and Canadian.

Arlat Technology designs and fabricates our entire product line within our production facility; producing quality products and providing quality jobs for our staff and local suppliers.

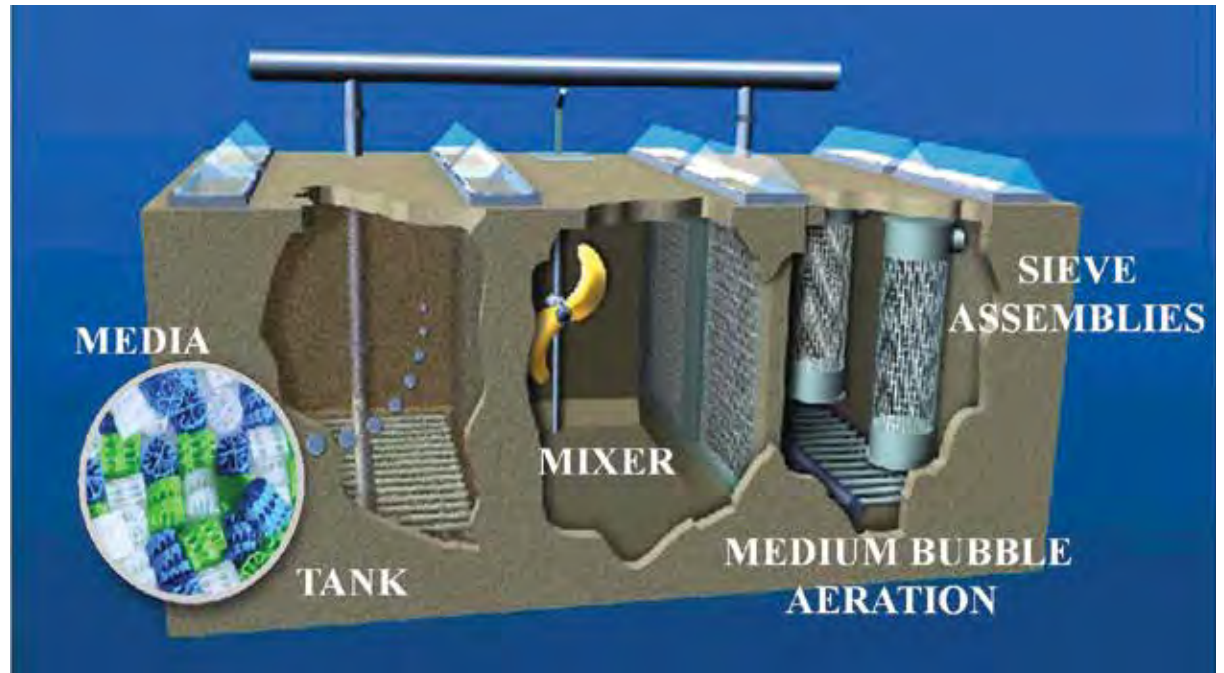


- OUR PRODUCT LINE INCLUDES;**
- INFLUENT SCREENS**
    - COMBINED SEWERS
    - COARSE SCREENING
    - FINE SCREENING
  - WASHER / COMPACTORS**
    - TWO WASHER OPTIONS AVAILABLE
  - SCREW CONVEYORS**
    - HORIZONTAL / INCLINED / VERTICAL
  - GRIT REMOVAL**
    - VORTEX TANKS
    - GRIT CLASSIFIERS
  - SLUDGE REMOVAL**
    - CHAIN AND FLIGHT MECHANISMS
    - SKIMMING TROUGHS
  - SEPTAGE RECEIVING**
    - ACCESS CONTROL
    - SCREENING
    - ANALYZING / MONITORING

**32** YEARS  
OF OPERATION  
IN CANADA

ARLAT TECHNOLOGY - div of Price-Schonstrom Inc  
35 ELM STREET  
WALKERTON, ONTARIO, CANADA  
519-881-0262 / 800-485-7101 / [www.arlat.com](http://www.arlat.com)





# World Water Works announces IDEAL MBBR™ retrofit systems

World Water Works, Inc. of Oklahoma City recently announced their IDEAL MBBR™ - Moving Bed Biofilm Reactors (MBBRs) for upgrading existing industrial wastewater treatment facilities for overloaded, non-performing, and/or under-sized systems.

The IDEAL MBBR™ can enhance existing performance and increase capacity of existing treatment plants by being installed in a small footprint reactor(s) upstream of the existing biological system. The IDEAL MBBR™ acts as a roughing reactor, unloading the existing system by 60-80%.

Sloughing bacteria from the IDEAL MBBR™ pass onto serve to bioaugment and stabilize the existing system.

So, in effect the IDEAL MBBR™ unloads the organic load on the existing biological process and continuously seeds it with new bacteria. The performance of the existing system accelerates yielding much more consistent and lower impurity concentrations. More advanced bacterial cultures thrive which digest the solids further resulting in far better performance of the clarifier and an overall reduction of solids generated.

In the IDEAL MBBR™, a thin film of bacteria grows on the free-floating proprietary plastic media. This thin, 50-300 micron, highly active "biofilm" is much more tolerant of toxic events and other variables as it consumes the organic material in the wastewater. The IDEAL MBBR™ media is 100% recycled providing a model of sustainability.

The plant upgrade can be achieved with no disruption in facility manufacturing or wastewater system performance. World Water Works offers a special PAYS™ program that allows this upgrade to

be paid overtime. The program also includes the company's extended service program and industry leading warranties.

This combination of benefits makes an IDEAL MBBR™ system low maintenance and nearly worry-free.

IDEAL MBBR™ systems have been used with great success in the following industries: food and beverage plants, steel mills, oil refineries, petrochemicals, chemical plants, paper mills, and more. Site visits can be arranged.

**APS**  
Atlantic Purification Systems Ltd.  
*Serving Atlantic Canada Since 1970*

"Visit all our Manufacturers at the 2014 MPWWA Tradeshow"

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**ATLANTIC PURIFICATION SYSTEMS LTD.**

NS Office: Dartmouth, NS; Toll Free: 1-800-265-2300; Fax: 902-463-3529; Email: sales@aps.ns.ca  
 NB Office: Dieppe, NB; Toll Free: 1-888-863-7867; Fax: 506-853-9173; Email: luke@aps.ns.ca  
 Web: www.aps.ns.ca

TOTALCARE SERVICES.

SECURE, OPTIMAL OPERATIONS.

Xylem TotalCare is a comprehensive, integrated portfolio of services that ensures your business keeps running at its best. Our portfolio is backed by deep systems knowledge and expertise in water and wastewater applications, giving you operational security and time to focus on your core business.

What can Xylem do for you?

xylemwatersolutions.com/ca 1.800.588.7867 (PUMP)

Let's Solve Water.



# Polymer coating of pumps boosts efficiency performance

BY WILLIAM XIA

In a typical surface water treatment and distribution system, approximately

70 to 90 per cent of the energy used is for pumping. With the rising cost of electricity, more municipalities are searching for technologies to improve operational efficiency.

One method for improving the efficiency of pumps is to line the pumps with a polymeric coating system.

Polymeric systems have been shown to provide increased flow at the desired pressure, increased pressure at the designed flow, increased efficiency over a wide range of flow rates and reduced power consumption. In many cases, new water pumps can also benefit from an efficiency coating for performance and protective purposes, even though pumps are normally not expected to outperform the original efficiency status certified by pump OEMs.

During the lifetime of a centrifugal pump, the cost of the energy it consumes is far in excess of the capital cost of the equipment itself. Therefore, efficient operation of the pump is essential to optimize operational costs since any increase in fluid efficiency gives immediate savings in power consumption.

According to case studies, the typical payback period for a polymeric coating, based on reduced power consumption, can range from a few months to two years depending on the size of pump.

## HOW POLYMERIC COATINGS WORK

Most of the energy used in moving water is actually expended in battling frictional drag in the

water lines. Water flow in a pump is subject to resistance caused by volute and impeller surface friction and viscosity.

In fluid dynamics, water molecules on the pump surfaces are stationary.

Discrete water molecules in the flow behave as separate entities creating vortices and cross-currents which result in energy losses in addition to those arising from skin friction, which still continues to be exerted next to the boundary layer, in a thin film known as the laminar sub-layer. On relatively smooth surfaces, the thickness of this layer can be sufficient to cover surface projections, and the surface is said to be hydraulically smooth.

Where the surface is rough, however, the sub-layer can be so broken up by projections that they act as bluff obstacles, giving rise to form drag. Surface roughness, therefore, either by the effect it has on skin friction or form drag, is the most important factor in accounting for energy losses in a pump. Even polished metal pump surfaces are found to be relatively rough when examined under high magnification. Further surface roughening can result from erosion-corrosion or cavitation effects, thus causing a reduction in efficiency of the system.

Polymer efficiency enhancement coatings are specifically designed as hydrophobic, slick surface coatings with low surface energy and abrasion resistant fillers. They produce an ultra smooth surface that reduces the boundary layer of the pumped fluid and reduces internal turbulence, thus increasing hydraulic efficiency.

The smoothness on the surface of this type of coating is 20 times greater than polished stainless

steel. The coating's hydrophobic nature makes the water simply roll off the surface and wear by abrasion is minimized by its encapsulated blend of lubricating agents and abrasion resistant fillers.

When applied to fluid flow equipment, this type of coating has been proven to improve hydrodynamic performance by increasing overall efficiency through reducing power consumption, increasing fluid flow rates or pressure.

Some polymeric coatings have been deemed safe for potable water contact. This type of coating possesses worldwide approvals for drinking water contact, including those from NSF, AWWA, and authorities in European countries.

Today's polymers can produce compositions that can tackle virtually any pump problem. Besides the repair and protection from the damaging effects caused by abrasion, cavitation, corrosion and chemical attack, hydraulic efficiency improvement by reducing frictional energy losses has become a more and more acknowledged purpose of using polymers in pumps.

## SELECTION, APPLICATION AND OPERATION

Due to large number of protective polymers and epoxy-based coatings in the market, selecting the right polymer coating for pump efficiency improvement can be confusing. However, there are only a few polymer coatings particularly engineered for pump efficiency improvement and effective in new pumps. Using coating products specifically for efficiency improvement and energy savings can attain the ultimate performance potential; while common protective polymer and epoxy coatings can always help old pumps improve performance.

Polymeric coatings can be brush or spray ap-

plied in-situ to give a perfectly smooth high gloss finish. Coatings can be cured at ambient temperatures, and post cured to allow minimal downtime and fast return to service. Being able to carry out polymer coating in-house has led to faster contract turnaround, more competitive pricing, and better quality control.

Belzona Systems have shown performance gains of up to 7% on new pumps, and up to 40% on those already in service. Reductions in power consumption result in typical returns on investment of three months to two years depending on the size of the pumps.

Belzona's high performance polymeric compounds are used for the repair and maintenance of pumps in the form of rebuilding compounds and protective coatings to repair damage from corrosion, abrasion, and chemical attack.

With Belzona's Performance Improvement Program: •Increased flow at the desired pressure •Increase in efficiency over a wide range of flow rates •Increased pressure at the design flow •Reduction in power consumption •Minimum downtime •High performance polymers that are user friendly and have outstanding physical, mechanical, and chemical properties.

For more information contact Belzona Systems at [www.belzona.com](http://www.belzona.com)

(Author William Xia is a chief engineer of water and wastewater industry for Belzona Inc., Miami, FL.)

(This article originally appeared in WATER-WORLD. Copyright by PennWell Corporation)

## Monsters Work Here



- Headworks screens
- MBR screens
- Storm and CSO screens
- Finescreen Monster®
- Bandscreen Monster®
- Chain & Rake Monster®
- Auger Monster® screen
- Screenings Washer Monster®
- **NEW** Drumscreen Monster®



**EEP Technical Solutions Inc.**  
(902) 798-0300  
[www.eep.ca](http://www.eep.ca)



Authorized Distributor  
**IJC Environmental**



**BELZONA®**  
Repair • Protect • Improve



**Repair** what would be replaced  
**Protect** against erosion-corrosion  
**Improve** efficiency by up to 20%

*Our trained Technical Consultants are available to assist you on-site.*

**Belzona Atlantic Corporate Office**  
 70 Wright Ave  
 Dartmouth, Nova Scotia, B3B-1H3  
 Office: 902-468-6689 • Facsimile: 902-468-6546  
 Email: [dhopkins@belzonaatlantic.com](mailto:dhopkins@belzonaatlantic.com)

[www.belzonaatlantic.com](http://www.belzonaatlantic.com)





***The future  
of water transmission  
is here.***

**NOW STRENGTH, TOUGHNESS & FLEXIBILITY  
COMES IN THREE LARGER SIZES.**

When IPEX first introduced Bionax® PVC0 pressure pipe in North America in 2008, it set a new standard for municipal water distribution making everything else seem antiquated.

Now, with new 14", 16" & 18" pressure pipe sizes, municipal water transmission can benefit from the same properties that put Bionax water distribution lines and sewage force mains in a class by themselves. Call IPEX today.



- REDUCE** OPERATING COSTS
- REDUCE** INSTALLATION COSTS
-  **PROTECT** THE ENVIRONMENT

To learn more, call us today or visit [www.ipexinc.com/bionax](http://www.ipexinc.com/bionax)



1-866-473-9462 | [www.ipexinc.com/bionax](http://www.ipexinc.com/bionax)

Products are manufactured by IPEX Inc. Bionax® is a trademark of IPEX Branding Inc.