

Maritime Provinces Water & Wastewater

REPOR

Volume 31 / Number 1

JANUARY 2025

\$3.00



Message from the Chair

I hope everyone had a wonderful holiday season and a great start to 2025. I'm excited about what the months ahead have in store, especially as we prepare for the upcoming Conference in April, which is shaping up nicely.

Registration is now open, so don't forget to secure your spot. The annual conference is always a fantastic opportunity for knowledge sharing—from seasoned members to junior members—and for networking with fellow MPWWA members.

What I value most about the MPWWA is the strong sense of family within our community of suppliers and members. It's this bond that truly makes the MPWWA what it is today.

Wishing everyone a safe and successful 2025. I look forward to seeing you all in April at the Conference in Halifax.

Cheers, Steve Cross Zone 3 Rep / MPWWA Board Chair

Canada Water Agency invites applications to protect freshwater ecosystems nationwide

BY ANDY WALKER

The Canada Water Agency recently announced the launch of applications for three Freshwater Ecosystem Initiatives including the Wolastog/Saint John River.

Funding is open to a wide range of eligible applicants from across Canada, including Indigenous communities, local governments, non-profits, academic institutions, conservation groups, and businesses to drive meaningful change for Canada's freshwater ecosystems. Projects will enhance water quality, drive innovation, support community-based monitoring, and incorporate Indigenous knowledge into critical decisions and actions, ensuring a sustainable future.

The initiative also includes the Great Lakes and Lake Winnipeg.

"Partner-led projects are critical to safeguarding fresh water for future generations. I encourage all eligible groups to apply and advance innovative solutions for the Great Lakes, Lake Winnipeg and the Wolastoq/Saint John River," noted Environment and Climate Change Minister Steven Guilbeault. "We look forward to supporting projects that will have a positive impact on fresh water and on our communities."

The submission deadline is February 13. Further call for applications under the Freshwater Action Plan—including the Fraser River and the Mackenzie River Freshwater Ecosystem Initiatives, as well



Wolastoq River, via New Brunswick government.

as the EcoAction Community Funding Program—will open in the winter of 2025.

The federal government is investing \$650 million over 10 years in the Freshwater Action Plan to strengthen the protection and restoration of nationally significant bodies of fresh water. The Canada Water Agency is Canada's federal agency for fresh water, with a mandate to improve freshwater management by leading, collaborating, and coordinating with provinces, territories, and Indigenous peoples.

The Canada Water Agency leads the delivery of Freshwater Ecosystem Initiatives in eight water bodies of national significance across Canada: the Great Lakes, Lake Winnipeg, Lake of the Woods, the St. Lawrence River, the Wolastoq/Saint John River, the Fraser River, the Mackenzie River, and Lake Simcoe.

"Last year, our government created the Canada Water Agency, headquartered in Winnipeg, Manitoba, as a standalone federal body dedicated to freshwater protection and management,' noted Terry Duguid, Minister of Sport and Minister responsible for Prairies Economic Development Canada. "The Agency's funding launched today will invest in partner-led projects that protect and conserve the environment, strengthen our economy, and safeguard freshwater resources for generations to come."

-	
	-
1	$\mathbf{e}_{\mathbf{x}}$

maex	
Meet your operator	2
Dirt on sewage	3
Fredericton rates rise	5
Funding flood mitigation	7
Wolostoqey Nations	8
Climate change & PEI	9
Water pressure study	. 10

ADDRESS LABEL HERE

Publication No. 40064799

Meet your operators

A REGULAR FEATURE PROFILING A PROFESSIONAL WORKING IN OUR REGIONAL INDUSTRY

Name: Shane White, Wastewater Operator, Municipality of the District of Lunenburg. Number of years of service: five so far.

When did you join MPWWA? Advantages of being member? I joined the MPWWA in 2021, the advantages of being a member is attending the annual MPWWA training seminar and its exposure to operators and vendors across the Maritimes. It provides a great atmosphere that allows operators to get to know one another and keep up with the growing industry.

What's the biggest challenge in your job? Finding enough time in the day to get everything we want done. A lot of time is spent travelling from site to site.

Favourite part of your job? Learning new things every day and improving our wastewater processes.

Less favourite parts? On call obligations.

How did you first become involved in the industry? I learned about the industry during my Environmental Engineering Technology program, and first became involved during my work term at Halifax Water.

What's the least understood part of your job? What else should the public know about what you do? I think the least understood part of my job is the complexity of wastewater treatment in terms of chemical and biological processes that you need

to understand to keep wastewater treatment plants in compliance. I think the public should know that keeping the environment and receiving water safe and healthy is something water and wastewater operators are a big part of.

What's something everyone knows about you? I take my work seriously and am passionate about learning more in the water and wastewater industry.

What's something almost no one knows about you? I love working on vintage motorcycles and hunting and I have two chocolate labs!

Proudest professional accomplishment: Achieving my Wastewater Treatment Level III certification.

Proudest personal accomplishment: Being able to purchase my first home at the age of 21, and the restoration of my 1979 Honda motorcycle.

What's your best advice to a fellow industry member, or someone looking to join the industry? Don't be afraid to ask questions, there is lots of knowledge out there if you're willing to look for it. I would encourage people looking to get into the industry not to rule out smaller municipalities and towns when looking for employment; I have found it valuable to my career development in a smaller municipality where you seem to be doing something different every day.



Shane White, Wastewater Operator, Municipality of the District of Lunenburg.





Inspection of hydrants and valvesPreparation of unidirectional

flushing programs and execution

- Leak detection
- AquaGEO[™] hydraulic modeling software
- Hazen-Williams Coefficient testing
- Flow pressure and fire flow testing
- Aqua Zoom camera diagnosis of wastewater systems
- Manhole inspections with 360 degree camera
- Canalis Wastewater collection software

21669



- Meter Sales, Testing & Repairs
- Meter Installation & Reading
- Hydrant Repairs & Parts
- Training Courses

Distributor for:



www.sensus.com

Dewatering Technology

www.bishopwater.ca

#9-50 Thornhill Drive Dartmouth, NS B3B 1S1 Office: 902.468.2777 Fax: 902.468.2090

scotiatech.tom@ns.sympatico.ca

The dirt on how sewage is treated in Charlottetown

■ BY YUTARO SASAKI

LOCAL JOURNALISM INITIATIVE REPORTER

There was a time when raw sewage from Charlottetown would get pumped into the Hillsborough River.

Those days are over thanks to the city's pollution control plant on the waterfront that treats waste from Charlottetown and Stratford.

Joshua McInnis, manager of the city's water and sewage utility, recently took The Guardian on a tour of the plant to see how it all works.

"It's hugely important, as it removes organics and wastes and prevents pollution of the harbour. It provides for a safe fishery. We do monitoring for that as well," McInnis said about the facility's importance.

50 years of treatment

The plant has been operating for 50 years. Before it was built, city residents' effluent would not have been treated much, if at all, before finding its

way into the Hillsborough River.

"Before 1974, there'd been very minimal treatment. It would have been discharged directly to the harbour for the longest time. So that would have been your raw sewage," he said.

When the initial sewage material gets pumped at Charlottetown's pollution control plant, it goes through a fine screening machine to remove large debris, such as rags and wipes, to proceed with further treatment.

In 2021, neighbouring Stratford, P.E.I., also began delivering its residents' sewage to the plant across the Hillsborough Bridge.

In a statement to The Guardian on Dec. 6, Jeannie Woodard, Stratford's director of infrastructure, said the Charlottetown pollution control plant plays a vital role in the town's sewer collection system and process.

Continued on page 10



Once primary clarifying process is completed, sewage is pumped into an aeration tank in a separate location. With the microorganisms living within the tanks, it removes further solids present. **PHOTOS BY YUTARO SASAKI**



Charlottetown's water and sewer utility manager, Joshua McInnis, poses beside a flare at the city's Pollution Control Plant.



When the initial sewage material gets pumped at Charlottetown's pollution control plant, it goes through a fine screening machine to remove large debris, such as rags and wipes, to proceed with further treatment.





The Maritime Provincial Water & Waste Water Report is published quarterly by Advocate Media Inc. The opinions expressed in the Maritime Provincial Water & Waste Water Report are those of the authors and do not reflect the official views of Advocate Media Inc. The Maritime Provincial Water & Waste Water Report and its contributors can accept no legal responsibility for loss through any error in information contained herein.

Editorial and advertising published in the Maritime Provincial Water & Waste Water Report may not be reproduced in any form without prior approval of the publisher. Advocate Media Inc. is not responsible for the safety and condition of unsolicited manuscripts and photographs.

Return undeliverable addresses to: Advocate Media Inc. 2882 Gottingen St., Halifax, NS, B3K 3E2

Publisher: Crystal Murray Marketing Advisor: Michele White

Editor: Jodi DeLong Designer: Advocate Media Inc

Mailed under Canada Post Publications Mail Agreement No. 40064799

Maritime Provinces Water & Wastewater Report 2882 Gottingen St. Halifax, NS, B3K 3E2 Phone: 902-422-4990 Fax: 902-429-9058

Email:

jdelong@saltscapes.com



MIX
Paper from
responsible sources
FSC® C021322

www.mpwwa.ca

Moncton councillors approve utility budget

■ BY ANDY WALKER

Councillors in the City of Moncton approved 14.6 million in water, sewer, and storm sewer construction and upgrades in the 2025 capital budget.

During the same meeting, councillors passed the utility operating budget for 2025 which calls for expenditures of \$46.2 million. It also includes an increase in utility rates. A typical household, based on the average of 272 cubic metres of usage per year, will pay approximately \$1,128 for water and sewer services in 2025, up \$13 per year or \$3.25 per quarter from 2024.

Commercial customers will see increases of one to two per cent, depending on the usage per year and the service line size.

Councillors also passed an operating budget for the city which calls for the \$223.8 million in spending and a decrease in the tax rate of 6.2 cents to \$1.3614 per \$100 of assessed value. The tax rate has dropped by nearly 29 cents since 2021.

To help finance the \$72.8 million capital budget, the

city will borrow \$26.9 million to fund capital projects in 2025. To control debt, \$17.3 million from the operating budget will be put toward capital budget projects.

"Moncton has experienced strong growth in its assessment base over the past four years due to rising property values in the city and new construction," says Jacques Doucet, general manager, Finance Services. "This growth provides us with some flexibility to enhance and grow our services to residents while mitigating property tax increases for citizens who have seen their assessments go up."

Contract awarded for pumping station upgrades

BY ANDY WALKER

Councillors in the PEI capital have awarded the tender for upgrades to its pumping station on Lower Malpeque Road to Island Coastal Services Limited.

The \$492,489.86 tender was awarded in late 2024 and the work is to begin this spring. Charlottetown council also hired CBCL as engineering consultants for the project at a cost of \$20,918.20. The work includes decommissioning and removal of existing equipment, supply and installation of pumping equipment, process pipe works, miscellaneous metals, valves, precast concrete, forcemain and temporary systems.

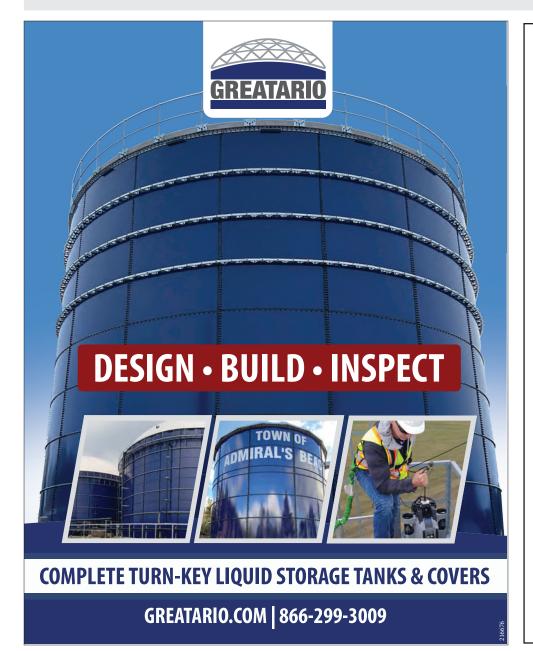
Councillors also awarded a \$121,466.50 bid from Campbell's Concrete for utility inventory materials. Utility Manager Joshua McInnis noted the company was the lone bidder when the city issued a request for quotations adding "the supplier has provided this service in the past and has had acceptable performance."

Meanwhile, replacement of the roof at the historic Malpeque Road Water Station should be completed this year.

Robertson Restoration received a \$271,000 contract for a slate replacement of the roof. McInnis explained if only a small portion of the roof was damaged,

it would not have been an issue to repair the roof with asphalt shingles. However, much of the roof did sustain damage, so a full replacement was recommended.

The manager said the direction from council's Heritage and Planning Committee was to use the historic roofing material of slate. A natural stone known for its durability and minimum maintenance, slate has been used as a roofing material for centuries.





Division of Emco Corporation

Water, Wastewater, Stormwater

Distributor

PVC Pipe & Fittings / Ductile Iron Pipe & Fittings

Geotextiles, HDPE Culverts & Septic Field
Accessories

FIRE HYDRANTS!

Locations in Dartmouth, Saint John & Moncton

Www.EmcoWaterworks.Com

216696

Water and sewer rates to increase in Fredericton

■ BY ANDY WALKER

Water and sewer rates will be going up in the New Brunswick capital April 1 under a budget approved by city council in late 2024.

The budget for the utility for the 2025-2026 fiscal year is \$24,485,517. That breaks down \$13,169,740 for operating costs with \$11,315,777 being spent on capital projects. The Utility is funded separately from the City's general fund, deriving all its revenue from rates charged and funding received from other levels of government.

Effective with the second quarterly billing in 2025, the commodity charge per cubic meter will increase from \$1.00 to \$1.02 for each of water and sewer, and the quarterly flat rate commodity charge will increase from \$74.76 to \$82.25 for each of water and sewer. The bulk water rate per cubic meter will go from \$2.47 to \$2.51

The quarterly meter rental rates will also be increasing to reflect the cost of meters and varies by meter size. For the majority of users (residential) the rate will increase from \$2.00 to

\$2.15 per quarter. The average monthly increase for customers is \$3.90.

"When we invest in water and sewer infrastructure, the city is able to provide a safe and reliable water system for all," said Alicia Keating, treasurer for the City of Fredericton. "A modest revenue increase is needed so the city can continue to replace aging infrastructure and to prevent pipes from breaking."

During 2023 and 2024, the city replaced 3.8 kilometres of water main and 2.9 kilometres of sanitary sewer main, which is the same distance from Fredericton City Hall to the Hugh John Flemming Forestry Centre – and back.

A release from the city notes average water consumption in Fredericton has dropped by 29 per cent over the past 18 years. Residents consumed 6.7 million cubic metres of water in 2005 and consumed around 5.8 cubic metres of water in 2023.

The New Brunswick capital has an aging infrastructure with many of its water and sewer pipes in service for over a century. The city estimates it will cost in the range of \$23.3 million to renew all its infrastructure.



FILE PHOTO

"We have a system that is costly to run. But the goal has always been to provide clean, safe water that includes a dependable wastewater treatment system our residents can count on," said Neil Thomas, a water and sewer engineer for the City of Fredericton.

Drinking water for the city comes from 10 major production wells.

2

Q

The water passes through one of two water treatment plants, before flowing through an extensive water distribution system covering 433 km.

The majority of sewage collected is treated at the Barker Street treatment plant. One smaller treatment facility also exists to treat wastewater in the Garden Creek area of the city.

Maritime Provinces

Zones by County

Association

10

Water and Wastewater

MPWWA Executive 2024-2025

Restigouch

4

Victoria

Executive Secretary, Clara Shea

Phone: 902-434-8874 Fax: 902-434-8859 contact@mpwwa.ca

Treasurer, Rick Larlee

Phone: 506-460-2224 Fax: 506-460-2013 rick.larlee@fredericton.ca

Chair, Steven Cross

Phone: 506-647-2554 Fax: 506-849-5799 Scross@guispamsis.ca

Past Chair, Jerry Villard

Phone: 902-393-6281 Fax: 902-569-5000 jvillard@town.stratford.pe.ca

Webmaster, Rick Larlee

Phone: 506-460-2224 Fax: 506-460-2013 rick.larlee@fredericton.ca

Zone 1, Luc Rossignol Phone: 506-684-7600

luc.rossignol@baiedesherons.ca

Zone 2, Troy Atkinson, Vice Chair

Phone: 506-856-4365 Fax: 506-856-4359 troy.atkinson@moncton.ca

Zone 3. Steven Cross

Cell: 506-647-2554 Fax: 902-427-0212 scross@quispamsis.ca

Zone 4, Rick Larlee

Phone: 506-460-2224 Fax: 506-460-2013 rick.larlee@fredericton.ca

Zone 5, Shane White

Phone: 902-521-2023 shane.white@modl,ca

Zone 6, Kirk Verran

Phone: 902-824-3833 kverran@town.middleton.ns.ca

Zone 7. Kevin Kelloway

Phone: 902-717-2353 Fax: 902-435-8403 kevink@halifaxwater.ca

Zone 8, Ross MacInnis

Phone: 902-227-7243 Fax: N/A rmasinnis@townofph.ca

Zone 9, Jerry Villard

Phone: 902-393-6281 Fax: 902-569-5000 jvillard@town.stratford.pe.ca

Zone 10, Cumberland - Vacant

Zone 11. Corbin Stevens Phone: 902-759-3597

corbin.stevens@afnwa.ca

Zone 12, Tim Henman,

Training Coordinator Director at Large (DND, NS & NL) Phone: 902-802-3595 Fax: 902-427-0212

timothy.henman@forces.gc.ca

Commercial Rep., Melanie MacKinnon

Phone: 902-861-4710 Fax: N/A melanie@nulantic.ca

Commercial Rep., Andre Van Der Velden

Phone: 902-450-1177 Fax: 902-450-1170 andre.van.der.velden@xyleminc.com

Environment Canada, Vacant

New Brunswick, Devin Wells Phone: 506-453-7945

Fax: 506-453-7945 devin.wells@gnb.ca

Nova Scotia, Simon Yap

Phone: 902-225-5037 Fax: N/A simon.yap@novascotia.ca

Prince Edward Island, Ben Lanigan

Phone: 902-368-5043 Fax: 902-368-5830 bpklanigan@gov.pe.ca

Newfoundland, Genny DeCoste

Phone: 709-729-2558 Cell: 709-687-7950

gennydecoste@gov.nl.ca

Lagoons – Lift Stations – Force Mains – Gravity Sewers
ASP's – RBC's – SBR's – SAF's



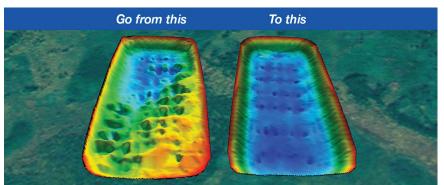
Treat Perform Save

Bioaugmentation for the Professional Operator. Eliminate Grease and Sludge at the source.

Waste Go is a proven on site formulation of bacteria and enzymes. This powdered blend, when activated with water, digests solid waste, sludge, fats, oils and grease. Not an emulsifier! Waste Go solves the problem where there is a problem.

Waste Go is nature's own way of recycling all organic waste back to plant food and it's NSF Certified as safe for use in all food prep and production areas. An industry first!

Rejuvenate your Lagoon



With no operational disruption

Waste Go can rejuvenate lagoons and add 20+ years to their life span. Waste Go has been proven to achieve average reductions of:













Check out our case study @ www.wastego.ca

1-866-286-5931 | www.wastego.ca | info@wastego.ca

Sussex raises tax rate to fund flood mitigation

■ BY ANDY WALKER

A year after dropping its tax rate by two cents, Sussex is raising it again to tackle a "significant investment" in flood mitigation and other capital programs.

Sussex council approved its 2025 general budget at a council meeting Monday, which includes \$11.5 million in revenue and expenditures, a \$1.13 million or 9.8-per-cent increase. The budget increases the residential tax rate to \$1.223 per \$100 of assessment for town residents.

Mayor Marc Thorne said the tax increase is to help finance the town's \$38-million flood mitigation program, for which the town has committed \$10.3 million. That's part of a five-year, \$60.6 million capital plan approved in August.

"We know that we have to begin generating capital now for that program," Thorne said. "That is why we are raising the rate two cents, is to begin to work towards having that money."

Last year, the town cut its tax rate by two cents, citing growth in its tax base from new construction. Thorne said in past years they've looked to cut during high growth rather than tax and spend, noting that the rate in 2007 was as high as \$1.37.

"For the next few years, this is the exception, because of the significant

investment we have to make," Thorne said. "Increasing it a little bit now is going to, in the larger picture, it's going to avoid us having any larger tax increases as we approach the years where we're actually getting shovels in the ground and actually call the tenders for these projects."

The town's flood mitigation proposal includes diversionary channels from Trout Creek to the Kennebecasis River to account for extra flow during high weather events.

Council heard Monday that the town has completed the project registration with Infrastructure Canada.

CAO Scott Hatcher told council at its committee of the whole meeting Monday that the finances are in "a good spot," giving the town the ability to "address a fundamental issue that has caused the most grief in the community."

"If everything works the way we think it's going to work, we'll have that protection provided to the community by late 2028," Hatcher said. He said the strategy of funding part of the project out of its operating budget offers council "some sort of control" of what council will be able to accomplish down the road.

The province also helped fund a berm to protect houses on Meadow Crescent in Sussex Corner. The town announced



Coun. Fred Brenan, right, reads the motions to approve the 2025 Sussex budget into the record at the town's council meeting. **Photo by Andrew Bates, Local Journalism Initiative Reporter**

Friday that lidar scanning is underway to develop a terrain survey of the project area, and on Monday council heard about land acquisition deals to acquire some of the necessary property to carry out the project.

"We've got a lot of work underway to

get us to a point where we're advancing the flood mitigation in real terms, by burning diesel and pushing dirt, and we'll make that happen in 2025," Hatcher said.

Continued on page 9



Atlantic Integrated Water Utility Consultants

901 - 1505 Barrington Street | Halifax | Nova Scotia | B3J 2R7 | (902) 492-6764

Contact Us



info@aiwuc.ca



(902) 492-6764



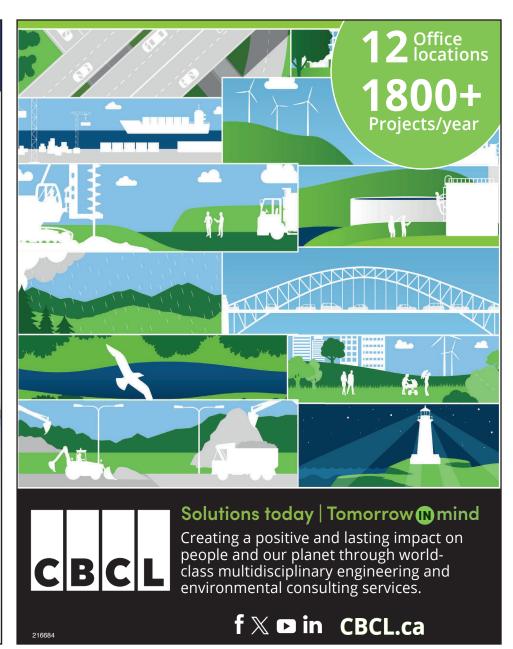
www.aiwuc.ca

Atlantic Integrated Water Utility
Consultants (AIWUC) is committed to
providing all communities the
experience they need to operate
water and wastewater treatment
facilities.

Our dedicated team focuses on water and wastewater management services, technical capacity building, construction management, commissioning oversight, and direct operations to a variety of municipal, private, and Indigenous clients.

Our Services

- Direct and/or supervisory operation of water and wastewater facilities, collection systems, and distribution networks (ORDC).
- Technical training and capacity building.
- Preparing standard operating procedures and contingency plans.
- Filing of annual reports.
- Construction management of utility infrastructure projects.
- Technical troubleshooting and process optimization.
- Well and level monitoring.
- Process/chemical optimization.
- Regulatory guidance and compliance determination.
- Plant assessment and technical assistance.



The Wolastoqey Nations and N.B. government to meet at negotiating table on title claim, tax agreements

■ BY NATHALIE STURGEON

LOCAL JOURNALISM INITIATIVE REPORTER

The New Brunswick government and the Wolastoqey Nations of New Brunswick have met and agreed to reinstate previous existing tax agreements while new ones are negotiated.

It also comes as both sides pause litigation in the Aboriginal title claim in favour of negotiation outside the courts

"The Chiefs reiterated their preferred negotiation is way to respect their Rights and account for other interests," the release from WNNB said. "The first step to rebuilding a trusting and Nation-to-Nation transformative relationship is sitting down at the table in a respectful, equitable, and solutions-oriented way. meeting is a good first step down a long journey of reconciliation."

Tax agreements between the former Progressive Conservative government and Wolastoqey Nations were terminated.

"The agreements had been cancelled by the previous government without consultation or consideration for the needs of First Nations communities," the release said. communities "Wolastoqey rely on this funding for healthcare, including in-home support for Elders, addictions supports, and topping up dentistry benefits. Revenue from tax agreements also supports community infrastructure such as paving roads, garbage collection, fire protection, and water and sewage treatment."

In a release, the Department



Recent meeting between the New Brunswick government and the Wolastoqey Nations of the province.

of Justice said a recent decision issued by the Court of King's Bench "was helpful in reminding us that Aboriginal title is primarily about reconciliation."

"The decision also emphasized that title claims are best discussed at the negotiation table versus a courtroom, which our government agrees with," said Attorney General and Justice Minister Rob McKee in the release.

An Aboriginal title claim is a legal process by which Indigenous peoples assert their land rights to a specific territory.

There are currently two Aboriginal title claims in New Brunswick, one with the WNNB and the other with Mi'gmawe'l Tplu'taqnn Incorporated (MTI).

According to the release, the Office of the Attorney General has asked lawyers representing the provincial government in cases involving questions of Aboriginal title or treaty rights to engage with lawyers on the opposing side to seek consent to pause all litigation between the two sides.

It will pursue the settlement of all claims, it said.

"Our government is committed to rebuilding relationships with First Nations based on a nation-to-nation relationship that establishes trust and a shared understanding of treaty obligations," said Indigenous Affairs Minister Keith Chiasson.

The government also reinstated the ability for province employees to use land acknowledgements at formal meetings, events, publications, and other government venues and settings.

Cornwall may move to utility department

■ BY ANDY WALKER

The Town of Cornwall is examining the possibility changing its utility corporation to a department of the town.

Councillor Elaine Barnes, who chairs the Utility Committee, said the change would be more on the administrative side rather than service to the public. She said the committee plans to discuss the issue at some length over the next several months and will bring a recommendation to council later this year.

The new water tower in the town is behind schedule and is now set to be completed in mid-April. The committee chair said the delay will not mean any additional costs to the town. The second tower, slated to cost \$4.2 million, will allow the town to expand its water capacity and solve water pressure problems many town residents have been experiencing for some time.

The town will be applying for the funding under the Municipal Strategic Component of the gas tax fund to the conduct an inflow and infiltration study at the lift stations located in Warren Grove and on the Ferry Road. The study will involve hiring a consultant and conducting dry weather and wet flow measurements, as well as inspection of the gravity sewer system that feeds each lift station.



FILE PHOTO

How climate change affects P.E.I.'s infrastructure

■ BY YUTARO SASAKI

LOCAL JOURNALISM INITIATIVE REPORTER

During a natural disaster or severe weather, Prince Edward Island's Department of Infrastructure and Transportation is responsible for the repairs.

Stephen Yeo, chief engineer for the province, says the task is a true team effort

"I have a lot of engineers that look after the road work. In a major storm event, if it's associated with tidal flooding or coastal flooding, and a bridge or a road might be affected, the staff go out and inspect it to make sure it's safe to drive on," he said during an interview.

Approximately 14 years ago, Yeo noted the province began factoring



Stephen Yeo is the chief engineer for P.E.I.'s Department of Transportation and Infrastructure. **PHOTO BY YUTARO SASAKI**

climate change when engineering new infrastructure projects.

"We looked at bridge structures, and we know that the rainfall intensities have increased, as far as doing the calculations for runoff goes," he said.

However, Yeo noted that the federal government compiles no rainfall intensity curves for P.E.I. When Yeo and the province began to work on bridges, he noted that they were made to be built three-quarters of a metre higher than they are today.

"With the last couple of major storms, Fiona and Dorian, we had coastal erosion and inland flooding. We've been protecting our coastline where we have roads probably for the last 15 years," he said.

Peter Nishimura, manager of climate adaptation at Environment, Energy and Climate Action, explained how climate change affects the landscape on P.E.I.

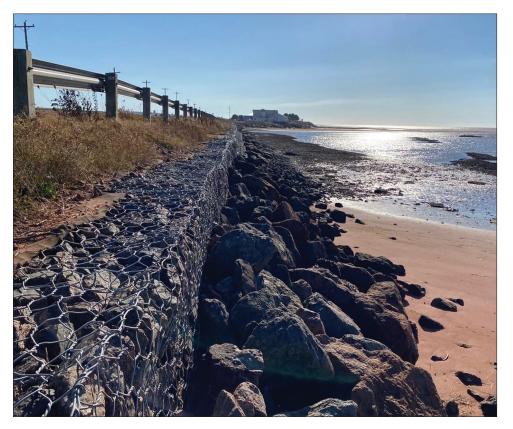
Erosion is a natural process that can gradually wear away coastal features like cliffs and banks, he said.

"During severe weather events, when water levels are higher and waves are more forceful, it's not uncommon for more dramatic erosion to occur within a relatively short amount of time," he stated.

As the province expects further climate changes, Nishimura believes intense weather events in the future will flood and erode areas where these episodes may not have occurred before.

"It's important that our infrastructure, our homes, and our businesses are located out of these hazardous areas in order to reduce our risk," he stated.

Due to coastal erosion, Yeo noted that the south side of Panmure Island



Victoria causeway

was heavily damaged in 2009. "We lost dunes and had erosion right up to the causeway itself. We did a large project with imported armour stone, which protected that side of the causeway for many years," he said.

However, when the hurricane-force winds of Fiona affected the province in 2022, the north side of Panmure Island was left damaged.

"We've done a project two years ago to strengthen that side as well. So that's been ongoing," Yeo said. With Prince Edward Island being

So that's been ongoing," Yeo said. With Prince Edward Island being made up of sandstone there are added challenges for Yeo and his staff. "It's certainly challenging. We have to import a lot of base gravel. We can't use our natural stone, which is sandstone," he said.

Although the province uses larger sandstones boulders for shoreline protection, these stones must have a certain hardness to ensure they don't erode right away.

"Even though it falls apart or disintegrates in 10 years, it provides beach nourishment when it breaks down into sand. But it's certainly challenging to make the roads strong and the rock strong enough to protect our coastlines," Yeo said.

Sussex raises tax rate to fund flood mitigation

Continued from page 7

At the committee of the whole meeting, treasurer Heather Moffett walked council through the increases in expenditures. That includes about \$115,000 for protective services, a 3.9-percent increase, which includes a 3.5-percent increase in RCMP costs, Moffett said. There is about \$188,000 more in transportation, a 7.6-per-cent increase related to salaries and work to offset the end of a snow removal contract, about \$131,000 in environmental development, a 19-per-cent increase, including the town's mural program and facade program, and about \$278,000 in recreation and cultural services, a 15.9-per-cent increase, related to wages, electricity and heating, Moffett said.

Fiscal services also went up \$415,000, or 94.6 per cent, due to how the town is now handling its capital budgeting, Moffett said. She said about \$506,000 has been set aside to reduce future

borrowing for the town's capital plan. That plan also includes asphalt and road work for new subdivisions and improvements to the 8th Hussars Sports Centre, Brunswick News reported in August.

Environmental health services increased by only about \$6,000, or 0.8 per cent, because a decrease in solid waste costs was offset by higher tipping fees, Moffett told council. General services costs went down \$993, or 0.1 per cent, with Moffett saying she'd worked to "keep increases neutral" at the committee of the whole meeting.

Thorne said the administration is keeping to council's direction to be "very focused" on expenditures to make sure that while they save for flood mitigation, they can "still be able to deliver the services and capital projects like street infrastructure to our citizens."

The value of assessments has

increased by \$68.7 million, or 10.8 per cent, to \$707 million for total incoming tax revenue of \$9.42 million, or \$1.04 million more than last year. The town saw a 13.9-per-cent decrease in its provincial grant from the province, which stands at about \$357,000.

Thorne said that they "fully expect" the growth in the community to continue, including existing subdivision work on Buchanan Drive and St. George Street as well as interested parties who have been communicating with the city.

"There's no doubt in my mind that we're going to see aggressive investment in this community," he said.

From 2010 to 2016, the town's tax rate fluctuated around \$1.25 before rising up to \$1.2889 from 2019 to 2021, then coming back down via cuts of two cents in 2022 and 4.59 cents in 2023.

Thorne said that is still on the "low end" for other area municipalities of similar size, rattling off a list of approximate 2024 tax rates ranging from \$1.19 in Rothesay, \$1.31 in Grand-Bay Westfield, \$1.28 in Hampton and Quispamsis and \$1.45 in Shediac during the meeting.

"What we want to make sure we do, what money we do collect we spend wisely so people can see a return on that investment," he said.

Council also approved a water and sewer rate increase of 2.22 per cent for flat rate and metered customers as part of anticipated cost increases for goods, services and materials. Council also voted to maintain an 18-cent levy related to the town's business improvement area.

Non-residential accounts pay 1.5 per cent the residential rate, which would amount to a rate of \$1.8345 per \$100. For residents of the former Sussex local district, the tax rate will also increase by two cents to \$0.717 as the town continues to harmonize the two tax rates.

New Glasgow conducting water pressure study for town's westside

■ BY ANDY WALKER

The Town of New Glasgow is conducting a pressure study aimed at ensuring its water system can handle future growth in the westside of the Pictou County town of 9,471 residents.

A request for proposals for the study was issued in December and the competition closed in early January. The request for proposals document notes the westside of the town is currently supplied water by the Munro Ave. tank, along with the remaining vacant lands on the westside which are primarily located at higher elevation levels. The utility serves water customers in the Town of New Glasgow, Town of Westville and areas of the Municipality of the County of Pictou.

The document notes the town would like to investigate the merits of providing water to areas of the Municipality of the County of Pictou near the Munro Ave. tower as an added benefit in upgrades to the system that maybe needed to supply water to remaining Town of New Glasgow customers.

The request for proposals was open to engineering companies with a proven track record of civil engineering design in water supply, fire flows, water distribution, and water modeling. Eligible bidders were required to have over ten years experience with the design, engineering, and modeling of water distribution systems.

The work will include a review of a Water Hydraulic Model and a status report for the current water distribution



File photo of an announcement by former housing minister Sean Fraser in Pictou County, **NS. photo by Communications Nova Scotia**

system. Water customers supplied by the Munro Ave. tank by gravity feed include all Town of New Glasgow residents on the westside and by pumped system some Municipality of the County customers, along with the Town of Westville customers.

"The consultant will be required to confirm the accuracy of the model for this area in particular the consultant is to confirm the existing pressures and tank volumes are accurate through field/model confirmation at critical locations," the request for proposal document notes.

The winning bidder will also have to review the vacant parcels of land, both within the town and immediately outside its boundaries, that could have water pressures at or near the bottom end of plumbing code requirements and determine the best approach to service these locations with fire flow and potable water requirements.

As well, the consultant will be required to provide a preliminary design review of method(s) to address the deficiencies, such as the construction of a booster station or individual residential booster pumps, as well as a cost estimate for the work. The winning bidder will be required to complete the project by March 30.

The dirt on how sewage is treated in Charlottetown

Continued from page 3

"Until February of 2021, the Town of Stratford operated an aerated lagoon system including rotating biological contactor units and UV disinfection to treat all wastewater generated from the town," she said.

Multi-step process

As the sewage is first pumped into the plant, McInnis noted that it undergoes a screening process to remove any larger debris.

After that, an additional process is performed to remove grit and sand from the screened material.

"Once that's done, it'll go to a primary clarifier. At the primary clarifier, that's the first step where the organics settle out of the water a little bit. The water's moving a little bit slower there," McInnis said.

The pumped material from the primary process will then go into a series of aeration tanks, McInnis added

"In that aeration tank, there are living organisms. They help break down the organics within that. It'll settle out of the process. It goes further to our secondary clarifiers," he said.

As the solids from the secondary clarifying process began to settle again, McInnis explained the final process.

"From that secondary clarifier, it goes through our ultraviolet system. That kills the remaining organisms or bacteria within there. And then the water gets discharged back to harbour from the UV process," he said.

In terms of solids removed from the process, McInnis said it is a good organic product.

"It does end up in agricultural fields. It's for nonhuman consumption. A farmer would land-apply that. They'd immediately put that into the ground per the Department of Environment regulations. That's how we deal with aeration," he said.

Smelly operation

The city's water and sewage utility manager mentioned that there can be a sewage smell from the plant, which correlates to wind direction and exterior temperatures.

"But for the most part, we do have a biofilter. And any gases are filtered down through that. That helps capture a lot of that (smell). And then if we do get into a situation, there are chemical alternatives we can use if it is kind of a smelly time," McInnis noted.

McInnis looks forward to any improvements made by the city to ensure the safety of its plant workers.

"Whether it's adding guardrails or if it's adding attachment points, we're always open to that. I try to address those as quickly as possible. We do want to keep this area secure. That's why we're in a gated facility," he said.

Don't flush it

Anything that is not human waste shouldn't go down the drain, McInnis said. "Fats, oils, greases – that should be kept out of the sewage system," he noted.

When residents flush flushable wipes, it can become a problem for the workers, McInnis added.

"We've seen towels, T-shirts typically come through. And if our fine screens do not catch it, sometimes it'll come in through our septage receiving, clog a pump, so we'll have to remove that," he said.

Cumberland Municipal Council highlights

■ BY JASON MURRAY

LOCAL JOURNALISM INITIATIVE REPORTER

The Municipality of Cumberland held their monthly council meeting on November 20, 2024.

Municipal council approved a bid by Seacrest Electric Ltd. to provide an emergency standby generator for the Parrsboro water system. The water system connects power to the reservoir, the chlorination building at the Public Works Garage and the wellfield.

The wellfield does not have a

generator back up at this time, so the new system will be installed to help in case of prolonged outages, fire or waterline breaks, where the water system might not be able to supply enough water.

The Springhill Wastewater Treatment Plant has been approved for GRID funding to upgrade screening equipment at the Service Centre office entrance. The funding allows for the treatment plant to increase capacity to screen incoming wastewater. The GRID program will fund up to 50 percent of eligible project costs.



Springhill Wastewater Treatment plant. Photo by Acre Architects

St. Mary's council approves upgrades to water treatment facility

■ BY JOANNE JORDAN

LOCAL JOURNALISM INITIATIVE REPORTER

SHERBROOKE — Council for the Municipality of the District of St. Mary's approved upgrades to its water treatment facility during a recent meeting.

The contract – awarded to Suburban Electric Ltd. – includes the installation of automatic switch gear and surge

protection aimed at providing an undisturbed water supply to consumers to protect sensitive equipment in the treatment facility.

A municipal public works staff report explained the new equipment will lower the risk of service problems, while improving the capability of the plant.

Now, the sensitive microchips and smart board in the programmable logic

control and associated equipment has no protection against power surges. With the amount of power outages, bumps and the risk of accompanying surges, the department recommended that surge protection for the water treatment would be an important addition.

The funding for the work, which carries a price tag of \$10,401.73, will come from its \$20,000 capital reserve fund in

the 2024-25 municipal budget.

Staff continues to work with the Clean Nova Scotia Foundation on a threeyear program to support the municipal climate change action plan.

Steps are under way to analyze plan and its gaps, examine funding opportunities and to prepare for a presentation to council on Wednesday, July 31.



THE PANEL SHOP

For further information please contact:

Brad Matchett Operations Manager, The Panel Shop 506-455-1925 Bradley.Matchett@pennecon.com

Mark Whalen
Controls & Automation Manager, Pennecon
mwhalen@pennecon.com

- Control System Maintenance and Upgrades
- Instrumentation Solutions
- PLC Programming
- Lift Station Protection and Control Panels
- Water and Wastewater SCADA Systems
- Alarm Systems Sales, Installation and Programming
- Agriculture Site Service & Support





NETZSCH





• VEOLIA WATER





AdEdge



Serving Atlantic Canada since 1970











10 Ferguson Road, Dartmouth, Nova Scotia B3A 4M1 902-469-2806 Toll Free: 800-265-2300



CON-V-AIR





















506-857-2880 Toll Free: 888-863-7867 e-mail: sales@aps.ns.ca

Qdos H-FLO

Simplify your process design with Qdos H-FLO, a peristaltic pump that ensures accuracy and containment in chemical metering

Suitable for a wide range of chemical applications

- Flowrates from 0.032 USGPH to 158.5 USGPH and pressure capability up to 100 PSI
- One common drive with several pumphead options
- Simple drop-in installation eliminates ancillary equipment





