



Maritime Provinces Water & Wastewater REPORT

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Charlottetown wins water quality competition

■ BY ANDY WALKER

The City of Charlottetown Water & Sewer Utility won “Best of the Best” in the Tap Water Taste Test Regional Competition for outstanding drinking water at the recent Atlantic Canada Water and Wastewater Association (ACWWA) Annual Conference.

“I have to give credit to our incredible staff at the Charlottetown Water & Sewer Utility for their dedication in providing residents the best tasting water in Atlantic Canada,” said Mayor Philip Brown. “We’re excited to have the opportunity to showcase our world-class product and compete for the best-tasting water in North America in California next summer”.

Each year, attendees at the ACWWA Conference are invited to bring samples of their hometown water for the “Best of the Best” Tap Water Taste Test. Samples are judged on appearance, odour, taste, and overall impression. Charlottetown

won first place in this year’s regional competition and will have the opportunity to compete in the “Best of the Best” Tasting in North America at the American Water Works Association Conference in Anaheim, California next June.

Charlottetown Pollution Control Plant (CPCP) employee Jason McCabe was presented with the Silent Hero Award at

the ACWWA Conference. This award is presented annually and recognizes the outstanding contributions of water and wastewater operators in Atlantic Canada. McCabe has worked at the CPCP since 2006 and has consistently proven himself to be a dedicated and dependable technician who is always up for the task at hand and quietly takes care of challenges as they arrive.

“Many residents never see the level of expertise that goes into ensuring the proper functioning of our critical water and wastewater systems,” said Councillor Bob Doiron, Chair of the Water & Sewer Utility Committee. “Most of this work happens behind the scenes and I want to thank and congratulate Jason on a job very well done on behalf of all Charlottetown residents.”



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Publication No. 40064799

Potable water production up in 2021 according to Statistics Canada survey

Total potable water production in Canada edged up 0.1 per cent in 2021 compared with 2019, according to data compiled by Statistics Canada.

The figures showed households accounted for 55 per cent of the water used in Canada in 2021. Drinking water plants produced 4 869 million cubic metres of potable water in 2021, most of which (88 per cent) was drawn from a river or lake. The number of Canadians who received their drinking water from plants that served communities of 300 people or more rose 3 per cent from 2019 to 33.3 million people in 2021.

The survey, conducted every two years since 2007, shows total per capita water use, averaged 401 litres per person per day in 2021, down 2 per cent from 411 litres per person per day in 2019. That figure includes residential, industrial, commercial and other uses of water provided by public utilities. The decline in per capita water use is attributed to a larger population and stable drinking water production.

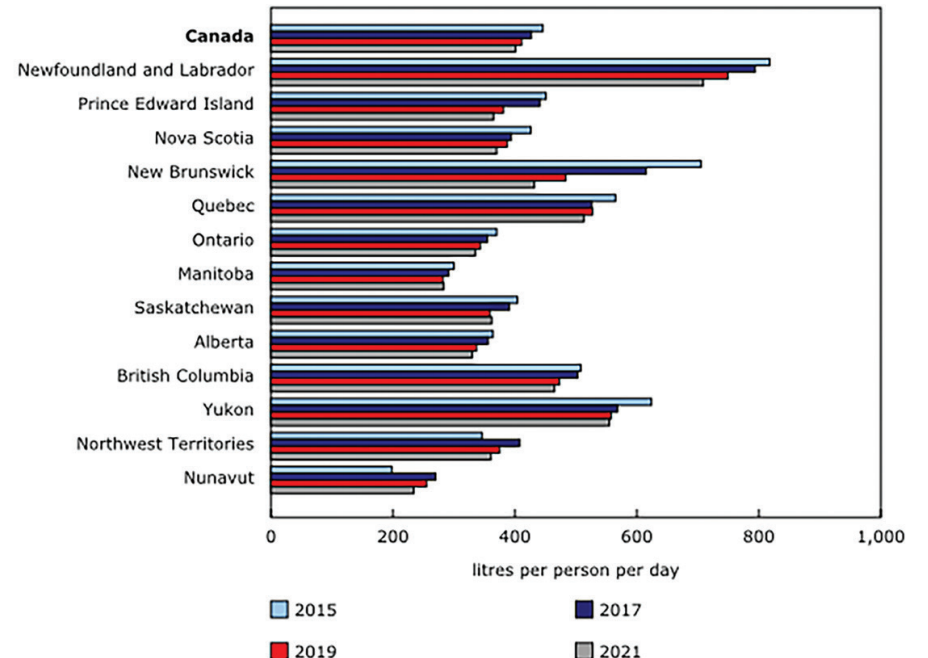
In 2021, the residential sector was the primary water user, with an average of

223 litres being used per person per day, which is equivalent to 2 678 million cubic metres, or 55 per cent of the drinking water produced.

Despite the volume of residential water use rising 8 per cent in 2021, overall, average daily residential water use per capita declined 11 per cent from 10 years earlier. It fell from 251 litres per person per day in 2011 to 223 litres per person per day in 2021. Combined, the industrial, commercial, institutional and other non-residential sectors used 1 247 million cubic metres of water, or 26 per cent of the water produced in 2021, down 7 per cent from 2019. As total potable water production was stable in 2021, the gain in residential water use and decline in non-residential water use may reflect the changing landscape of more people working from home.

The survey notes losses from the distribution system (such as leakage) accounted for 17 per cent of the volume of water produced in 2021. The remaining 3 per cent of the total water volume was wholesale transfers to other jurisdictions.

Nearly all the water produced in 2021



was treated by filtration and disinfection processes, while 1 per cent of Canadians received untreated water, which came primarily from groundwater sources, unchanged since 2011.

The survey showed capital expenditures to upgrade existing infrastructure and commission new components for water treatment plants totalled \$936 million in 2021, up 9 per cent from one year earlier, when expenditures totalled \$855 million.

These upgrades include improvements to buildings, machinery, processing equipment, and other physical assets related to

the acquisition and treatment of water, but they exclude infrastructure for water distribution.

Just under \$1.3 billion was spent on operations and maintenance in 2021, up 4 pwe xwnr from 2019. These costs include expenditures on materials (chemicals and replacement parts) and labour and energy, but they exclude water distribution costs.

Labour costs (\$509 million) represented the largest share of these expenses in 2021, followed by materials (\$309 million) and energy (\$275 million) expenses. Other costs accounted for the remaining \$178 million.

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Contract awarded for second phase of Three Rivers expansion

■ BY ANDY WALKER

The Town of Three Rivers has awarded a \$1.7 million contract to Chapman Construction for the second phase of a planned expansion to its water and sewer system.

The town, created in 2018 through an amalgamation of several communities in the eastern part of PEI, includes Georgetown and Montague, and the five rural municipalities of Brudenell, Cardigan, Lower Montague, Lorne Valley and Valleyfield. Three Rivers is planning to complete the job of connecting the town water and sewer service to the MacDonald Road area in the Brudenell neighbourhood by the end of the year.

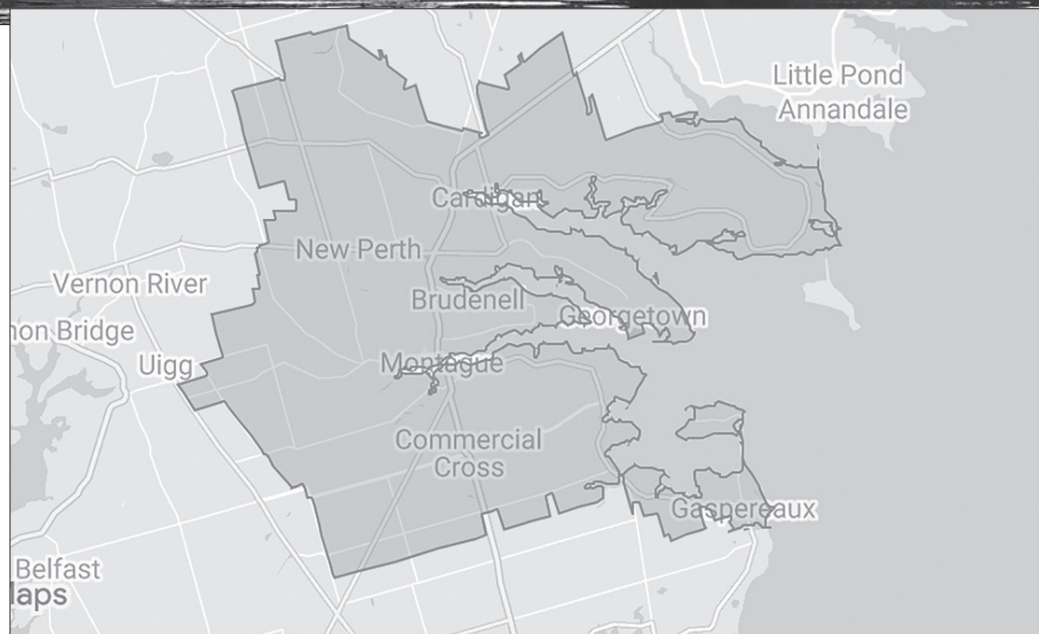
Chapman Construction also was the winning bidder for the first phase of the expansion last year. That work, totaling \$5.8 million, saw water and sewer service extended just past Nicholson Road. The second phase of the expansion is being funded entirely through gas tax money the community receives from the federal government. The town also applied for funding under the Housing Accelerator Fund and its application is still pending.

To help finance the project, councilors agreed to transfer \$475,000 in gas tax money — that had been allocated for active transportation projects — to the expansion. The town is also looking for land to locate a new lift station to deal with the added pressure the expansion will create on its system.

The expansion is in line with a master plan for the water and sewer utility, created as part of the amalgamation process. That plan predicts that would result in additional residential population growth of approximately 120 people and a total equivalent population growth of 882 people. If sanitary servicing were to be extended to the MacDonald Road and the existing developed areas immediately contribute flow to the system, the

master plan indicates that would result in an estimated reduction of 38 years of growth capacity within the existing service boundary resulting in a remaining available infill growth capacity of 300 people.

“New flow rates were generated from the existing developed areas in Brudenell and were assigned to the closest downstream sewer in the existing sanitary system,” the plan notes. “An average domestic wastewater generation flow rate of 340L/person/day was used for the increase in population, and an inflow and infiltration component was estimated using the area method with a flow rate of 0.14L/s/hectare.”



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REPORT

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Managing extreme rainfall events

■ **BY ADAM SKETCHLEY, P.ENG., M.A.SC.**
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Please note: The following story is used with permission from the Fall 2023 issue of *Go with the Flow*, the magazine of the Atlantic Canada Water and Wastewater Association.

In July 2023, a large rainfall event occurred across Nova Scotia, with widespread flooding and infrastructure damage. Rainfall on July 21–22, 2023 exceeded the one in 100-year event in several locations. More than 300 mm of rain is estimated to have fallen in some locations, with much of the rainfall coming over a six-hour period.

When preliminary data was compared to data provided by Environment and Climate Change Canada for Halifax, the depth of rainfall over a six-hour period exceeded the one in 1,000-year return period. Stormwater infrastructure such as storm sewers and culverts are typically designed using a one in 5-year to a one in 100-year rainfall event. Critical infrastructure such as bridges or dams at times use even larger events.

The rain event which occurred in July serves as a reminder that although our built environment is designed to withstand industry standard design conditions, more extreme rainfall amounts are

always possible. This is especially true when discussing natural phenomena such as rainfall. A one in 1,000-year event has a 0.1% probability of occurrence at a given location each year, and even less frequent events can and do occur.

Statistical analyses can be completed on historical data to determine the maximum probable rainfall which can occur at a given location. Based on the approximations presented in the *Rainfall Frequency Atlas of Canada* (Hogg and Carr, 1985), the maximum probable rainfall for Halifax is 288 mm over six hours and 525 mm over 24 hours. It is not practical to build all infrastructure to meet the worst possible conditions; however, it is important to understand that these conditions can occur.

Understanding what happens when design criteria are exceeded can be critical for municipal infrastructure when rare events take place. For instance, identifying major drainage routes and understanding that stormwater infrastructure could be overloaded can help with emergency planning and identifying where maintenance should be focused. Clearing systems ahead of large rain events can limit damage to a system. Preparing emergency plans for flood-susceptible areas improves response time.

The flooding and damage which resulted from the July 2023 storm was devastating in the hardest-hit areas. Enormous



Excessive rainfall in Bridgewater, N.S., in July 2023 resulted in much flooding and damage to infrastructure.

losses occurred, the value of which will not be known for some time. It is important to remember, however, that a much

of the stormwater infrastructure in the affected area withstood this extreme rainfall event.

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New municipal well infrastructure in Fundy Albert

■ BY ANDY WALKER

A combined investment of just over \$12 million from the three levels of government will allow the Village of Fundy-Albert to build new wells and related infrastructure to meet the future needs of the community.

Building two new wells and new water supply infrastructure will help correct high turbidity levels and lack of capacity to meet demands. The project includes the development of new wells, reservoirs, pump house and booster station, water treatment plant, and the construction of a new watermain to connect the new wells to the municipal services.

“Council of the Village of Fundy-Albert is very pleased with this announcement and appreciative of the federal and provincial contributions to this extremely important project for the Community of Alma,” said Mayor Robert Rochon. “Once realized, this new water source and related infrastructure will provide much needed stability and predictability for residents and business owners in this



Mayor Robert Rochon.

Photo courtesy of Friends of Fundy.

important tourist community.”

The mayor thanked the residents and business owners in Alma who have cooperated through numerous requests to conserve water, and repeated boil water advisories. He added, “With this announcement, there is now reason for optimism.”



Members of Fundy Albert Council together with Albert MLA (second from left), Mayor Rochon, and Saint John MP Wayne Long.

Photo courtesy of Friends of Fundy.

The Government of Canada is investing \$7,344,000 in this project through the Rural and Northern Infrastructure Stream of the Investing in Canada Infrastructure Program. The Government of New Brunswick is investing \$4,079,592 and the Village of Fundy Albert is contributing \$816,408.

“Investments in green infrastructure are key to building vibrant and sustainable communities,” noted Saint John-Rothesay MP Wayne Long, who announced the funding on behalf of Honourable Sean Fraser, Minister of Housing, Infrastructure and Communities. “These investments will

provide residents and visitors with high-quality services for years to come.”

Albert MLA Mike Holland, who announced the provincial portion of the funding on behalf of Réjean Savoie, Minister responsible for the Regional Development Corporation, noted the project addresses the boil water advisories the village has experienced over the last number of years.

“Residents will certainly benefit from these upgrades and local businesses can continue to welcome visitors from around the world to this iconic community on the Bay of Fundy,” Holland concluded.

About lead in drinking water

Source: Nova Scotia government

Lead (Pb) is a naturally occurring element. The main source of lead in drinking water is through contact with plumbing materials with lead components such as lead solder and older brass fittings.

The main source of lead in drinking water is through corrosion of plumbing materials. Lead in drinking water has no taste, smell, or colour. The metal can only be detected through chemical testing.

The Canadian drinking water quality guideline for lead is 0.005 mg/L. Exposure to lead in drinking water can cause health effects including: damage to the brain and nervous system, behavioural problems, reductions in IQ, learning disabilities, cardiovascular effects, kidney dysfunction and reproductive issues.

Well water with lead levels greater than 0.005 mg/L should not be used for drinking, cooking, or teeth brushing. It may be used for bathing, handwashing, and dishwashing.

If lead is present above 0.005 mg/L in drinking water, consider water treatment options or alternative sources of water. Sources of lead is naturally found in some types of bedrock. However, naturally occurring lead is rarely found dissolved in drinking water sources. The main source of lead in drinking water is through corrosion of plumbing materials with lead or brass components, such as in some pipes, solder, faucets, fittings, and older galvanized well liners.

The amount of lead dissolved into drinking water depends on factors such as pH, alkalinity, water temperature, water hardness, content of lead in plumbing materials and the amount of time water is left in pipes. Acceptable Concentration In water, dissolved lead has no taste, smell, or colour. It can only be detected through a chemical test.

Children, infants, and unborn children are more strongly affected by exposure to lead because their bodies absorb lead more readily than adults. Children’s brains and nervous systems are also more sensitive to the effects of lead. Children exposed to lead can suffer from damage to the brain and nervous system, behavioural and learning disabilities, reduction in IQ scores, delays in physical and mental development.

If the source of lead is corrosion of lead-containing plumbing materials, consider the following options:

- Remove the source of lead.
- Flush faucets until the water runs as cold as possible before using the water for drinking, cooking, or teeth brushing.
- Avoid using hot tap water for drinking, cooking, or making baby formula. Adjust pH so water is less corrosive.
- Use a treatment system to reduce lead levels.
- Use alternative water sources, such as bottled water or another well that has been tested and found to be safe.

Lead cannot be removed from water through boiling. Boiling water may increase the concentration of lead. If the groundwater is found to have high levels of lead before entering the home, flushing the faucet will not be effective. Consider the following treatment systems to reduce lead levels: adsorption filters using carbon or specific types of resin, distillation, reverse osmosis, and water pitchers.

Buy a treatment system that has been certified to meet the current NSF 53 standards for lead reduction. Reverse osmosis units should be certified to NSF 58 (which includes lead reduction). NSF International is a not-for-profit, nongovernmental organization that sets health and safety standards for manufacturers in 80 countries.

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Water infrastructure part of major expansion in Dieppe

■ BY ANDY WALKER

Construction of a water town and additional water and sewer lines in the city of Dieppe, New Brunswick, will be part of the next phase of the Dieppe Boulevard extension.

The \$42 million project was announced in early January and the extension will be carried out in three phases and take approximately four years. Phase 1, starting in 2024, will include the final design of the project and the completion of ongoing studies.

“The rapid growth of our population continues to generate housing and transportation needs. Extending Dieppe Boulevard will enable us to support this growth. Proceeding with phase 1 is definitely a positive development and corresponds to the vision set out when the project started back in 2004,” says Mayor Yvon Lapierre. “This next step will allow us to make land available for the building of schools, recreational and community facilities, and residential and commercial projects to meet the current and future needs of our growing population.”

Dieppe Boulevard will be extended by roughly two kilometres, from its existing limit east of Belle-Forêt to Amirault Street. The infrastructure component includes the installation of water and sewer lines, a storm sewer component, culverts over wa-

tercourses, curbs, a new water tower and asphalt paving. Multipurpose trails will also be built alongside the road.

Mayor Lapierre noted the expansion will stimulate economic development by enabling the servicing of 500 acres of development-ready land along the Dieppe Boulevard extension, potentially generating more than \$18 million annually in property taxes alone.

“Dieppe continues to be on an impressive growth trajectory, and as it welcomes more people, we need to ensure that we have the infrastructure in place to accommodate that growth,” said Dominic LeBlanc, Minister of Public Safety, Democratic Institutions and Intergovernmental Affairs, who announced the federal funding on behalf of Housing, Infrastructure and Communities Minister Sean Fraser. “This investment will do exactly that by supporting housing construction and shortening commutes for residents.”

The federal government will contribute \$21,000,000, the provincial government, \$13,998,600, and the City of Dieppe, \$7,001,400 (plus the costs associated with acquiring the land, which will be borne by the municipality).

“The extension of Dieppe Boulevard will support the population and economic growth being experienced by the City of Dieppe and the entire region,” added Greg Turner, Provincial Minister responsible



for Opportunities NB, on behalf of the Honourable Réjean Savoie, Provincial Minister responsible for the Regional Development Corporation. “The new infrastructure will service new developments and supports both Dieppe’s housing and transportation needs.”

Marc-André Cormier, who is Director of

Engineering for the city, explained. “The preliminary design of the boulevard, i.e., where it will be located, is 95 per cent complete, and particular attention was paid to avoiding wetlands. Consultations with Indigenous peoples are also slated to take place in 2024, and discussions with land-owners are ongoing.”

Coordinator “took Hampton’s EMO up quite a level”: Mayor

■ **BY ANDREW BATES**
LOCAL JOURNALISM INITIATIVE REPORTER

The head of Hampton, N.B.’s emergency team took the municipality “up quite a level” over five years in the role, according to Mayor Bob Doucet.

Hampton council recently accepted Keith Copeland’s resignation as emergency measures organization coordinator, Doucet said. Copeland, a retired police officer, took the volunteer role in 2018.

“Keith took our EMO up quite a level,” Doucet said. “It’s been wonderful, we’re going to miss him. EMO is a busy committee, he’s got a lot on his plate.”

Copeland worked on updates to Hampton’s flood emergency plan in 2019 after two years of heavy spring flooding, Brunswick News reported, and created a vulnerable persons registry to help responders know who may need extra support in an emergency. He was also credited for leadership during the COVID-19 pandemic, according to communications director Megan O’Brien Harrison.

“He guided local businesses through the ever-changing guidelines, created the

Hampton Community Volunteer Network to keep our community informed and engaged and led EMO’s assistance to the Hampton Food Basket on client pick-up,” she wrote in an email.

O’Brien Harrison said that EMO requirements, and the size of Hampton’s municipal boundaries, have increased since Copeland’s time in the role.

“Keith recommended that Hampton shift the duties of EMO coordinator from a volunteer position to municipal staff,” she said, adding that council accepted. She said Copeland will remain in the role until a staff person is selected to take on the task.

In July, Copeland was awarded the municipality’s James M. Hovey Civic Service Award for his time at the EMO. Copeland declined a request for an interview.

Hampton Mayor Bob Doucet presented Keith Copeland with the James M. Hovey Civic Service Award in June for his work as volunteer Emergency Measures Organization coordinator



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Investment in new Grand Lake wastewater treatment facility

The Chipman (Grand Lake) wastewater treatment facility is to be replaced, thanks to a combined investment of \$13.2 million from the provincial, federal and municipal governments.

“The Chipman wastewater treatment facility has been standing for 45 years and it is time to replace it,” said New Brunswick Public Safety Minister Kris Austin. “This funding will allow for the construction of a new wastewater treatment facility at Grand Lake and will support the growing population in the region.”

Austin spoke on behalf of Réjean Savoie, minister responsible for the Regional Development Corporation.

“The Government of Canada will continue to invest in building safer, healthier, sustainable communities for Canadians,” said Fredericton MP Jenica Atwin. “We support the development of the new wastewater treatment facility and outfall pipe in Grand Lake as it is essential to en-

suring residents have access to safer and greener infrastructure in their growing community.”

Atwin attended for federal Housing, Infrastructure and Communities Minister Sean Fraser.

The provincial government is investing \$4,399,560 in the project, while the federal government is providing \$7,920,000 and the Municipality of Grand Lake is contributing \$880,440.

“Having federal and provincial backing for our wastewater treatment facility is a blessing,” said Grand Lake Mayor Kevin Nicklin. “This project will help facilitate our growing community. Having proper infrastructure will enable continued growth and prosperity for our region.”

Local journalists have observed that this project was announced nearly seven years ago under a previous government, at about one fifth of the cost.



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Rural Stormwater Management

Reprinted from Saint John website

Rural properties in Saint John are especially prone to flooding. In the autumn months, Saint John's location along the Saint John River and Bay of Fundy makes it vulnerable to ice storms, spring freshet flooding, and hurricanes. In the winter, frozen culverts can create problems with the natural flow of water. And in the spring, melting snow can be a major contributor to flooding. Localized flooding is the situation that is most common in Saint John but these are usually short term.

Ditches and culverts in Saint John's rural areas divert runoff and prevent roads and buildings from flooding. There are 21,027 metres of municipal ditches in Saint John's rural areas. The City operates and maintains more than 2,640 culverts (2,100 driveway culverts and 500 cross culverts) and 1,054 culvert headwalls, most of them in the rural areas. Additionally, Saint John's rural communities benefit from 9 stormwater facilities like wet ponds, dry ponds, oil and grit separators, and inlet control structures.

In some rural communities, stormwater ponds collect the runoff and hold it back long enough to allow pollutants to settle and be broken down by bacteria. Cleaner water is then released into nearby waterways.

The City of Saint John monitors water levels and weather conditions due to spring flooding from the Saint John River and runoff. We check roads and direct employees on when and where steaming, road repairs, or barricades and warning signs are required (but note that the city does NOT go onto private property to clean out or steam the culverts). Media releases keep local residents informed of road closures and dangerous areas, and in extreme conditions, daily updates on the city website also keep residents up to date.

SUMMER GRADING OF GRAVEL ROADS

The goal of summer gravel road maintenance is to keep gravel roads in a reasonable safe driving condition relative to recent weather conditions. The order in which roads are graded depends on traffic volumes, the structural conditions of the road, and the amount of gravel on the road. Repair of soft spots in gravel roads will be undertaken if funding is in place and when crews and materials are available.

ROADWAY STRUCTURES

City staff work to maintain roadway structures—including retaining walls, guide rails, municipal fences, medians, and roadway shoulders—that extend the road life and ensures the safety of the public. These efforts provide drivers and pedestrians with safe, functional roads, and maintain accessibility of these roads through all seasons.

YOU CAN HELP

Here's what you can do to help reduce the risk of flooding on your property.



EFFECTIVE DOWNSPOUT DRAINAGE

Downspouts should be disconnected from the weeping tile and extend at least 1.8 metres (six feet) from your basement wall to drain away from the house toward a street or drainage swale. This ensures roof water doesn't enter onto the weeping tile around your foundation.

PROPER LOT GRADING

Land should slope outward from the foundation of the house for a minimum of 1.8 metres (six feet). If the lot slopes toward the house, surface water will enter the weeping tile and overload the drainage system. Use impervious materials such as clay or a plastic drainage mat near the surface to limit the amount of surface water that finds its way to the weeping tile.

RAIN GARDENS

Install a rain garden to limit flows to the storm sewer or neighbouring properties. Rain gardens are planted depressions that are designed to absorb rainwater runoff from impervious areas like roofs, driveways, walkways, and compacted lawn areas. This reduces rain runoff by allowing stormwater to soak into the ground.

SWALES

A swale is a wide shallow channel with gently sloping side slopes. Provide swales along the back and/or side property boundaries to limit flows towards your house. The swales should be as large as possible to slow runoff.



New Glasgow offers free lead monitoring program

The Town of New Glasgow is encouraging homeowners to sign up for a free lead monitoring program.

The program is geared to homes that were built in the 1960s or older. Health Canada guidelines state the maximum acceptable concentration (MAC) for total lead in drinking water is 0.005 mg/L (5 µg/L), based on a sample of water taken at the tap and using the appropriate protocol for the type of building being sampled. As current science cannot identify a level under which lead is no longer associated with adverse health effects, lead concentrations in drinking water should be kept as low as reasonably achievable (ALARA).

Lead is usually found in drinking water as a result of leaching from distribution and plumbing system components, particularly in aggressive (corrosive) waters. Historically, lead has been used extensively in service lines, solders and fittings, making its presence in drinking water more likely in older homes and neighbourhoods.

Lead has historically been used in drinking water distribution and plumbing systems, as well as in paints and as an additive in gasoline. Significant reductions of lead in products such as gasoline and paints mean that food and drinking water have become more important sources of



lead exposure for average adult populations.

Lead levels in drinking water can cause significant health consequences, including increased blood pressure and renal dysfunction in adults, as well as adverse cognitive and behavioural effects in children. The Health Canada guidelines note elevated levels of lead in children can lead to reductions in intelligence quotient (IQ) scores.

Anyone interested in taking part in the program is asked to email Fraser.Burns@newglasgow.ca or phone (902) 755-8351.

Fierce pre-Christmas flood soaks St. Mary's Day-long event could become more common

■ BY ALEC BRUCE

LOCAL JOURNALISM INITIATIVE REPORTER

Heavy rain, fierce winds and widespread flooding threatened to dampen Christmas for area residents, as the St. Mary's River broke its banks, washed over roads and poured into basements in communities from Sherbrooke to Glenelg on Dec. 21.

Environment Canada, which had issued winter storm warnings for much of the province, reported that the weather system dumped 100 to 200 millimetres of rain on the eastern mainland and Cape Breton. Parts of the municipalities of District of St. Mary's and Guysborough also experienced freezing rain, blowing snow and power outages.

"My wife went out into the lake to recover the life jackets that had floated away from inside our boathouse, which is several feet away from the lake shore and was [suddenly] under water," Municipality of the District of St. Mary's deputy warden and Lochiel Lake resident James Fuller told The Journal. "The water level was a good foot or two higher in the morning than it was the night before."

The speed of the flooding also struck Scott Beaver, president of the St. Mary's River Association, who lives on Waternish Road. "I

couldn't get to work; I was stranded. The water was up to the door."

At the peak of the storm – according to Environment Canada's hydrometric station at Stillwater – the St. Mary's River was discharging nearly 700 cubic metres of water per second, pushing its base level from 4.8 to 6.7 metres in less than 24 hours.

"And then," said Beaver, "it went right back down; it was a day event." Added Fuller in an email to The Journal on Dec. 27: "Water receding."

Meanwhile, St. Mary's Municipality – which hasn't reported major storm-related damage or incidents on its website – is urging residents to "join the creation of the Eastern Shore Flood Line and Hazard Map." Residents are invited to post stories and photos of flooding incidents.

Said Beaver: "It was certainly as bad as the storm we had in the summer. I think we can clearly that this [type of] event could be our new normal because of climate change."

On July 22, 2023, Nova Scotia's Emergency Management Office declared a state of emergency after a deep tropical depression dumped as much as 250 millimetres of rain in 24 hours over broad swathes of the province.

Mayor "relieved" Sussex escaped storm without major flooding

■ BY ANDREW BATES

LOCAL JOURNALISM INITIATIVE REPORTER

Sussex's mayor says he's "relieved" things weren't worse after water only briefly breached Trout Creek during a storm in early December.

The town got three times the amount of rain it was expecting Monday, Dec 11 with the rain gauge indicating 156 millimetres. Forecasts had predicted 40 to 70 mm of precipitation except in areas of "heaviest rain," with a rainfall warning for the whole province and a wind warning for southern N.B.

"That was a significant amount of rainfall and I am relieved that we didn't have more issues with flooding than we did," Thorne said, saying some homes and businesses adjacent to Trout Creek experienced groundwater flooding, and there was only a "small amount" of water that breached the banks.

"We did have some water on some of the streets and some of the backyards, but it was fairly contained in the banks and that makes all the difference in the world," he said. He said it's "never good" when anyone receives water, but many residents in problem areas have experience handling it.

At 7:30 a.m. Monday Dec. 11, water levels were in the normal range, but within 90 minutes they had increased by over a metre, Thorne said. The town's emergency centre opened just before 8:30 a.m., according to an emergency update, and staff were dispatched with pumps to the berm site by the Gateway Mall and to tackle pooling areas in clogged storm drains. High Street was closed, with the town saying a tree had come down on a power line.

Around noon, things appeared to level off, Thorne said, but then in the afternoon the rain shifted again and the river went up by another 30 centimetres.

By 11 p.m., the town said all streets but High Street were reopened and that the emergency operations centre shifted to the monitoring stage.

Hatcher said there were no calls for emergency service or calls for assistance in any ward, and thanked the Sussex Emergency Management Organization staff and the regional EMO coordinator, who spent the day with Sussex staff in case help was needed.

"I'm always proud of the effort put out by our staff," Thorne said. "Anyone who watched them work could see how invested they are in their jobs."

He said for the Sussex area, which was hard-hit by flooding during spring freshets in 2018 and 2019, "anxiety is always high" among residents when there is a flood risk. He said the rapid rise during the morning was "very concerning, and frightening."

"We're always prepared for the worst. I wish we could stop this, but climate change is real, it's here," he said, saying in another area this storm may have brought five feet of snow. He said the town's \$28 million proposal to mitigate floods is currently in the federal approvals process.

"We know it's slow, we know people are impatient, I am too. All we can do is keep pushing for the money to find a solution that can hopefully help relieve the water pressure that comes through our community when things like this happen," he said.



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PEI municipalities win wastewater award

The City of Charlottetown and the Town of Stratford have been awarded the 2023 Atlantic Canada Water and Wastewater Association (ACWWA) Project of the Year Award – Large Utility, for their joint Wastewater Treatment Consolidation Project.

“Charlottetown is proud to be recognized along with our neighbours in Stratford for a project that demonstrates our continued commitment to environmental sustainability and to modernizing critical infrastructure as we plan for current and

future growth,” said Charlottetown Mayor Philip Brown. “This project shows the benefits to residents and taxpayers when communities come together to share services and build strong communities”.

The Project of the Year Award – Large Utility is presented annually to a municipality or utility with more than 25,000 customers and recognizes outstanding Atlantic Canadian projects that demonstrate innovative and state-of-the-art technology in water or wastewater systems. The Wastewater Treatment Consolidation

Project has resulted in the improvement of water quality on both sides of the harbour and has had the added benefit of increasing the harbour area available for a relay shellfishery each spring.

“This project was extremely beneficial to the Town of Stratford and demonstrates our commitment to working with partners such as the City of Charlottetown to benefit residents of our communities,” added Stratford Mayor Steve Ogden. “We are equally pleased to be recognized with this award for this project which was the

largest infrastructure project undertaken by Stratford at the time”.

Both Charlottetown and Stratford decommissioned their lagoons to create green spaces and constructed lift stations and forcemains to deliver all wastewater to the Charlottetown Pollution Control Plant (CPCP). The project included several upgrades to the CPCP to increase processing capacity. Projects were completed with funding support from the Government of Canada and Province of P.E.I.



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