



Royal George to close its doors in 2025

Julia Sacco
Local Journalism Initiative
The Lake Report

After 110 years, one of Old Town's most recognizable features will be closing its doors to the public—for now.

The Shaw Festival announced the Royal George Theatre's imminent closure in a press release on Friday, alongside details of its 2025 season lineup.

The release states the building has needed a rebuild for decades, but due

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Three days of comedy coming to Exchange

Paige Seburn
The Lake Report

The laughter at the Exchange Brewery is about to reach new heights as the summer wraps up in Niagara-on-the-Lake.

And it's no wonder — Canadian comedy icons Seán Cullen and Chris Locke are headlining the Summer Send-Off Spectacular, fresh off their five-star performances at the Edinburgh Fringe Festival.

For over six years, this cozy and intimate brewery has been a cornerstone of comedy in the Niagara region, hosting shows that draw in everyone from local regulars to comedy connoisseurs from out of town.

Throughout his time at

Continued on Page 12

SUMMER OF THE FLOOD

Torrential rains leads to flooding, concerns about infrastructure and questions about overdevelopment



Nina Wojciechowska's home on Line 6 was surrounded by a lake of water on the morning of June 18. She is one of dozens of NOTL residents who submitted flooding photos and stories to The Lake Report depicting what they experienced. SUPPLIED

Richard Wright | Local Journalism Initiative | The Lake Report

Niagara-on-the-Lake's summer of 2024 will go down as one of the wettest and wildest in memory.

A pair of extreme storms in June and July created flash floods in areas of greater NOTL, overwhelming sewers, drains, culverts, ditches, storm ponds and streams, causing tremendous damage to homes and properties.

At the worst end of the spectrum, many residents suffered through backed-up sewage in their homes, creating messy cleanups and dangerous biohazards.

This has prompted serious questions from residents about the effectiveness of NOTL's municipal drainage infrastructure, heightened concerns over how residential development is contributing to the watershed problem, and curiosity around just how accurate claims that these types of storms are once-in-a-couple-generation events.

The terms 100-year and 500-year storms have been bandied about by experts, politicians and water management officials.

But with the frequency — and intensity — of these storms over the summer and, indeed, the past few years, it raises questions of how responsible and relevant such characterizations are when examining how effective local infrastructure is now and will be into the future.

The story of NOTL's summer of soak and sewage begins on June 18 with a torrential downpour that dropped up to 45-millimetres of rain in the north central/eastern regions of the community in less than an hour.

Some areas reported even higher levels of rain over the same period.

The rain was so intense that the Niagara Peninsula Conservation Authority's flood warning was directed at all of NOTL.

Then, less than a month later, on July

10, another flash storm ripped through the community.

Again the conservation authority issued a flood warning, although this one came out proactively, on July 9, one day before the deluge hit.

Residents have shared their experiences with The Lake Report in one-on-one interviews and online via email with pictures of overwhelmed drain line openings spewing water and debris, flooded intersections, yards, driveways and backed-up toilets.

While much of NOTL was exposed to the repeated heavy rains, concerns are particularly acute in St. Davids and Queenston, located just below the heights of the Niagara Escarpment.

In this first instalment in a series of in-depth, feature-length reports, we look at the experiences of some of those residents.

Read Part 1 on Pages 6 and 7.



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Residents blame **development**, say town should have taken action

**Kal and Win Laar
8 Sheppard Cres.
Queenston**

The Laars have lived at 8 Sheppard Cres. in Queenston at the immediate base of the Niagara Escarpment since 1975 and have experienced floods in the past but have never seen one like they had had on June 18.

On that date, with a small bucket situated just off their back porch, the couple measured 101 millimetres of rainfall in under an hour.

A retired civil engineer, Kal designed the family home to protect against exterior water flows, including a downward-sloping ditch at the side of the home.

Later, in 2006, he dug a small storm pond in the backyard for added protection from gravitational water flows that come off the escarpment and fruit farms that surround the property.

“Since we are at the base of the escarpment there is massive amounts of water coming down the hill, and the farm next door drains across our back and across our front. So we are a little island here,” said Win Laar.

“Kal knows how to deal with water,” she added.

Their past flooding problems happened mainly around the time they moved into their home, but there have been a few more over the years as well.

During this summer’s massive rainfall, the water was no match for Kal’s expertise. He has begun to doubt the generational storm mantra.

“The first year we were here in ‘75 the earth was bare and overflowed,” he said.

“The developer told us it was a 100-year storm, which sounded plausible the first time,” he added.

“After the sixth time it didn’t sound very plausible any more.”

In a written statement to The Lake Report prior to an in-person interview, Win explained what they went through on June 18 of this year.

“A single culvert at the front of our property drains water from the hill of the escarpment itself, plus our two acres of land, plus the neighbouring 10-acre farm,” she said.

“Water goes from behind our home and in front of our home but it all goes, or is supposed to go, through a single inadequate culvert,”



Above: Win and Kal Laar’s Queenston property shows a massive amount of water rushing over the drainage ditch at the side of their house. The ditch is eight feet deep but water still came over the top. In the inset photo, the water is up to the top of Win’s rain boots.

Right: The side yard of Jim Cole’s property. The portion of land is roughly 400 metres long by 150 metres wide and was more than 12 inches deep.

SUPPLIED



she continued, adding later that the culvert pipe is only 15 inches in diameter.

“On June 18, the culvert was completely overwhelmed. I stood on Sheppard Crescent filming water as it poured over our lawn and down the road, carrying various vegetative debris,” she said.

“My boots are 13 inches high and the water on the road was just one to three inches short of the top of my boots. Some of that flood crossed York Road and went into the garage of the home just below.”

The Laars want municipal officials to recognize that this summer’s storms, separated by just a few weeks, are not happening only once in every 100 to 500 years and add that they need to do something about

the in-ground infrastructure, which they believe, has obviously outgrown its life expectancy.

“The 100-year storm is overused as an excuse,” said Kal. “The idea that it is prohibitive to design for something that only happens once in 100 years lets them off the hook, but is that justified? I think not.”

His wife is calling for a complete examination and replacement of infrastructure in their neighbourhood.

“A lot of this infrastructure is not designed for that (kind of storm and frequency),” she said.

“Look at that flow,” she added as she again viewed the video of her standing amid the floodwaters.

“There is no way a 15-inch pipe is adequate to take that.”

**Jim Cole
1157 Line 7 Rd.
St. Davids**

On June 18, Jim Cole’s property at the eastern end of Line 7 “flooded like an Olympic pool” and he believes the Town of Niagara-on-the-Lake should be responsible to prevent it from happening again because of poor maintenance and planning of the drainage system on the road.

His reasoning is simple: the ditches in front of his house cannot accommodate the massive amount of water they received on that day nor have they been designed properly to distribute water to the nearby drainage points.

“If you look west, you can see the road terrain rises up,” he said as he walked the length of his

driveway toward the road to view the ditch.

“Well, the water can’t climb the hill,” he added.

Without that ability, the water that is trying to escape his yard is unable to do so because the ditch is full.

Compounding the issue is the collection of debris that ends up clogging the culvert at the end of his driveway.

What was seen in the aftermath of the storm was a knee-deep pool of water to the side of his property. The piece of land is almost 150 metres wide by 400 metres long.

In the back of his property, his wife’s garden has been destroyed and while he feels lucky that he didn’t get a lot of water in the house, he “did have some water get in,” he said.

Cole would like to see

maintenance crews from the town clean out the ditches in the area and dig them deeper so they slope downward to the municipal drainage lines that lie to the west and east of his home.

Contributing to his frustration, he said, is a scary response from town officials that a nearby neighbour received.

His own calls to the town, he added, have not been returned.

“They told my friends on Line 6 the reason they are not (clearing the ditches) is because it costs them money to get rid of the toxic soil,” he said.

“Now, that begs the question, what toxic soil? Is it just an excuse for them not to do it, or are we living in a chemical dump? It makes you wonder.”

However, when contacted by The Lake Report, NOTL communications co-ordinator Marah Minor stated in a written response that she spoke to town staff and “there are no known toxins in the soil on Line 7 Road” that prevent staff from cleaning the ditch.

Hearing that, Cole is left to wonder why no town crews have shown up to take care of the problem.

“If there is nothing there, then let’s get the Gradall (excavator) out and get to work,” he said. “The town should, in good faith, get the machine going and clear out the ditches.”

But it’s not just ditches that Cole believes are causing his water problems. He thinks it could also be attributed to a new vineyard planted five years ago by his next-door neighbour.

“Most of the land is being used for vineyards and I think water is running off the vineyards so fast because they want to get the water away from the vineyards with the under drainage,” he said.

“And I think it is running into the lowest points it can find — and now we have an issue with this. I never had a flood here until the neighbours put in a vineyard,” he said, adding he has been living in the home for 25 years.

Despite all this, Cole said the town is still responsible for drainage on land it owns.

“I’m thinking land-use has contributed to the problem but if they can’t get rid of the water, now it is a town problem because if you look at the ditches, the water is not going anywhere.”

Removal of trees and new construction along culprits, residents say

**Mike Allen
York Road and Sheppard
Crescent, Queenston**

Mike Allen believes his flooding issues are directly related to the construction of three massive homes near his house at 2006 York Rd. in Queenston.

He's resided there since 1982 and had some water problems in the past, "but not like this," he said.

"Since January of this year we have been experiencing lots of flooding, mostly caused by the construction at 2001, 2003 and 2005 York Rd.," he said.

Prior to the new construction, the lot had one dwelling on it.

"The new owners cut down dozens of old-growth trees and have levelled the entire property and are building three extremely large houses and there is no green space," he said.

"The problem is that water is pouring off these properties onto the road and into the ditch. This water then travels to the other side of the road where it fills our drain up with dirt and gravel from the construction site."

"I've had to have our ditch cleaned out three times now and at much personal expense," he said.

"To add to the problem, these houses are built right on top of and beside a water table below the escarpment."

Allen questions whether

the approved plans were followed and whether the stockpiled dirt on-site is placed there with inadequate silt fencing and drains.

In an Aug. 20 interview, Allen said he has begun discussions with the town, region and the Niagara Escarpment Commission about the situation.

"Conversations are happening," he said. "So, there is a little bit of hope there on the horizon. Thank god."

**Art Powis
963 Line 9 Rd.
St. Davids**

The damage done to Art Powis' house on a residential street in St. Davids represents a homeowner's worst fears.

Rising from bed at around 9 a.m. on June 18, he started the day with the ominous sound of running water in the finished basement of the five-year-old home he purchased in 2020.

"And it wasn't just a trickle," he said. "It was rushing water. I thought, 'Geez, what is going on down there? Is there a pipe burst or what the hell?'"

Dismayed and not wanting to face a bad situation first thing in the morning, he decided to make a coffee and prepare himself before heading down to see what was happening.

"On second thought, I said to myself: 'Ah well, I had better go down there and see what is going on.'"

Heading to the basement, he didn't get much farther than to the bottom of the stairs before he was stopped in his tracks.

"There is a bathroom down there and the sewage was backing up furiously through the toilet. A column of crap and whatever else is in there was so high from the toilet seat and over the sides of the toilet."

With the incredible rainfall that St. Davids had experienced that morning, Powis said it was easy to guess what had caused his sewage back up.

"It is on record how much fell and what time it stopped and when it started," he said.

"And it was a beauty. One of the bigger ones for sure. So, that would kind of lead people to wonder if they weren't related because crazy rainfall stops and sewage backup starts."

He tried to stop the flow himself with a broom handle and stuffing towels down the toilet while walking around barefoot amid in the sewage.

"Which wasn't a very smart thing to do, but I got the toilet to stop but then the drain in the shower overflowed and the bathtub. Finally, I decided I am not going to be able to stop this."

That's when he got on the phone trying to reach someone with the Town of



Water flows down the side of Queenston resident Mike Allen's home on June 18.

Niagara-on-the-Lake and the Niagara Region to give him some answers about how this could happen.

He said he first called the town and was forwarded to an answering service.

He then reached out to the regional wastewater plant and spoke to a person who told him the

region's responsibility is the pumping stations and the sewage disposal plant, not the infrastructure.

"I said, 'Well I phoned the (town) and left a message but nobody has called me back.'"

"Ah, you gotta call another guy," he said. He was helpful but he still wouldn't admit that there

was a problem."

To date, Powis said he has not heard back from town officials.

"I think the (problem) is in the lazy no-good SOBs that work for the (town)," he said.

Next: In Part 2 for the Sept. 5 edition, more flooding victims from across NOTL share more stories.



Art Powis spent hours cleaning in the aftermath of the June 18 storm, after the sewage line backed up in his basement, destroying everything from furniture to the walls and even furnace. He estimates the cost of the damage to be around \$45,000. He's in the process of dealing with insurance. SUPPLIED





Kekoo Gatta.

NOTL
home builder
Kekoo Gatta
drowns in
Niagara River

Staff
The Lake Report

A prominent NOTL custom home builder is dead after he went swimming in the Niagara River on Tuesday night.

Kekoo Gatta, 60, didn't return home after going for a swim in the river off his docked boat near the mouth of the river.

Gatta was the founder and owner of Gatta Homes, a luxury development company based mainly in Niagara-on-the-Lake for more than 30 years.

"Officers arrived on scene to learn that a resident of the home, a 60-year-old man, had gone swimming in the Niagara River off his docked boat," Const. Phil Gavin with Niagara Regional Police said in response to questions from The Lake Report.

"When his family did not hear from him for an extended time, they became concerned for his welfare," Gavin said.

Police refused to identify

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SUMMER OF THE FLOOD

Wet basements, lost valuables and overwhelmed sump pumps



The Apricot Glen storm pond has been level with Nathan Sacevich's backyard several times this summer after rainfalls. SUBMITTED

Richard Wright | Local Journalism Initiative | The Lake Report

Two extreme rainstorms in June and July created flash floods in several areas around Niagara-on-the-Lake, overwhelming sewers, drains, culverts, ditches, storm ponds and streams. They caused tremendous damage to homes and properties.

In last week's first instalment of our Summer of the Flood series, we offered an overview of the situation and told the horrific stories of several residents. In this second part of the series, in their own words, we share the stories of more residents who fell victim to the rushing water and sewage. In an accompanying story, we also hear from an expert who explains what exactly the terms 100-year and 500-year storm mean. Often used by public officials to explain the type of storms NOTL has endured this summer, some question whether they have any relevance in today's world of rapidly changing weather patterns.

Joyce Furlane: St. Davids

We were affected by the heavy rain of June 18 and our entire basement was completely flooded. We lost most of our furniture and other belongings.

With the repair and replacement of goods, the damage amounted to the \$100,000 range.

The drain at the front of our house completely overflowed, causing the sidewalk and bottom of our driveway to flood.

The sump pump could not keep up with the overflow of water from the town drain. In the aftermath we have replaced our sump pump, which, like

our basement, was only two years old.

We also added a secondary pump with a water line connected to the town water in case of a power outage or for extra help if there is an overabundance of water.

There is a second pipe com-

ing out with the original pipe to flow in a different direction. The town was also able to come out and clear the drain as well as the neighbour's drain as they were flooded as well.

I think with the new subdivi-

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Migrant workers have unequal access to resources, volunteer group says

Julia Sacco
Local Journalism Initiative
The Lake Report

Justicia for Migrant Workers began its open letter to the Ford government by stating that 2024 is en route

to becoming one of the hottest years on record.

The group is a volunteer-run political collective that strives to promote the rights of migrant farm workers.

This letter the collective submitted was addressed

to Doug Ford and Minister of Labour David Piccini: it includes a list of emergency measures the group demands the government implement for the safety of farm workers.

This includes measures

that would allow workers to take adequate breaks during hot days and have access to first aid, plus the closure of farms during extreme weather.

The Lake Report attended a press conference

last month with Minister of Agriculture Rob Flack and MPP Sam Oosterhoff and questioned the politicians on how they plan to address the concerns of farm workers and advocates.

When questioned on what

will be done about workers who may experience heat stroke on the job, Flack said the government is still exploring the issue.

"We're looking into the

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SUMMER OF THE FLOOD



Fatima Cunha’s life turned upside down when sewage entered her home, rendering living space and furniture useless and destroying her bathroom. SUBMITTED

Basements, bathrooms destroyed by sewage

Continued from Front Page

sion, all the debris had gone into the drains and they hadn’t been cleared in three years.

Yes, there is a drainage issue here in St. Davids and I hope this is addressed because in my 60 years I have never encountered flooding like this in a new house.

I am happy that the drains have been addressed, however, this needs to be maintained on a regular basis to prevent this kind of damage from happening again.

UPDATE: Fortunately, the insurance company, Intact, is covering everything minus the extra sump pump work. They only reimburse \$1,000 for that. I am still waiting for my cheque for the loss of all our items.

Cecilia Bennett: Ricardo Street, Old Town

I live in an area built on the slopes of Fort George. Because of the location, rain water flows from the higher areas of the hill and town and goes down in some areas of our private road all the way toward the Niagara River and occasionally floods Ricardo Street.

The recent flooding did not block the residents on our side of Ricardo Street, but the Kingspoint condominium was affected, as the street was underwater all the way to the only B&B at the foot of Fort George. At one time Ricardo Street would have severe floods that did not recede for days.

We also have a problem with Japanese knotweed in some areas and I think we, as a community, can kill two birds with one stone.

This highly invasive weed, which I can see around Fort George and nearby areas, needs to be dug out.

If we dig it out we can plant rain gardens on the slopes, which my research shows will absorb water and filter the debris that can pollute our rivers.

It is a matter of finding people who have experience with rain gardens and can determine where they should be planted.

Denise Curry: 698 Concession 6 Rd.

I have photos of the water on my property and the water up to the side of my home which went into my recreation room.

I have lived on this property since 1985 with no issues. The ditches not being cleaned out had a lot to do with the problems on my property.

I called the town several times and after the second rainfall I asked them to come right away so they could see the overflow from the ditch on my property. The ditches still have not been cleaned out.

Fatima Cunha: St. Davids

Our house was one of those badly affected on June 18. It was not just water, there was sewage with the rain water.

I understand, the sewage pumps in St. Davids failed that day and we had a massive sewage backup.

I had about 10 inches of sewage in my basement when I got home from work. I’m still trying to deal with this problem. Sewage came out of the bathtub, toilet, shower, floor drains like a tsunami.

Many neighbours also had the same problem. All of us called the town many times and didn’t get a response from our messages. It’s been over six weeks and no answers. My whole basement was destroyed.

I had to replace my furnace, washer, dryer, freezer and fridge. All my furniture is gone, including a lot of irreplaceable sentimental items.

It appears St. Davids sewage pumps are working way above capacity because of all the new developments and they continue to build more subdivisions.

Marie Giles: St. Davids

We were flooded out in the early hours of June 18 during the powerful monsoon that blew in and flooded our St. Davids home.

Apparently, the local infrastructure could not handle the amount of water, had nowhere to go, but back up into our home. Our basement is gutted. Everything is stored in our garage.

Is there any help out there for us? Toronto is getting all the media attention, as its disaster supersedes ours. Seems like we are left behind.

Janice Barker: Old Town

My property is on Simcoe Street between Mary and William streets. I’ve owned it since 2001 and all was well until 2017 when we had heavy rain in April.

I was informed that water from William, Gate, and Mary streets runs onto my property and ends up in the middle of the backyard on the south side.



Several photos across town depict major flooding events over the summer and previous years. While residents struggle to deal with issues, these events have become more and more common. Some people say it’s because of a lack of infrastructure capable of handling an increase in housing development over the last several years.

Continued on Page 7

SUMMER OF THE FLOOD



Left: This view, taken of Maryellen Barker’s property, is one that might be seen from the window of a boat not from a truck on a municipal street. Top right: The water on Yannick Wertsch’s property took about a week to recede after the June 18 storm. Bottom right: The flooding at Bill Nagy’s house in St. Davids consumed his property. SUBMITTED

Continued from Page 6

A backyard sump pump was installed at my expense in 2017 and all was well until 2024 when the pump failed. I’ve since installed a powerful pump, but was told it should be down four feet to avoid freezing.

In the meantime, I may get some bales of straw to keep the pump warm in the coming winter in case the job can’t be done until next year.

Maryellen Holmes: St. Davids

My husband has lived here more than 40 years. Before the new homes were built, sewers were installed, new power grid to supply and support all these new homes, we had floods as the power would be out for extended periods of time, affecting our sump pump.

After that, we changed our set up and had no issues until this summer when we have had two floods in our basement.

The sump pump couldn’t keep up with all the rain falling and then the ground was so saturated it was a vicious cycle of pumping out and coming right back in our basement from a spot we still aren’t sure of.

We have to now dig up all around the back wall of our home to see if there is an issue with the tile bedding, crack in foundation or sump pump drain pipe issue.

Our sump pump runs fairly regularly compared to neighbours on both sides of our house as we are the low spot on Tanbark Road.

I don’t believe the town has done enough to support all of these new homes. I believe this will continue as the water has nowhere to go now.

Grinder pumps are also an issue. We should never have been forced to remove our fully working septic tanks for these stupid pumps.

Nathan Sacevich: St. Davids

After the Apricot Glen storm pond failure in July 2023, the town responded with long-overdue routine maintenance in spring 2024, which was a massive and likely expensive undertaking.

I have taken video of the July 2024 post-clean out of the same storm pond. The pond has been in continuity with my backyard three times this summer.

Our infrastructure is inadequate to meet our community’s existing needs.

Suzanne Jong: St. Davids

I submitted a work order in early spring requesting our back drainage ditch be cleared. The town did not respond, I have called numerous times and have gone in person. All requests are ignored.

The back ditch runs through many properties on Line 7 and our under-drainage from the farm also empties into it. The ditch is full of tall grass and they refuse to do anything with it.

This ditch drains into a creek on Line 7 which constantly overflows and the water floods our property along with many others.

The town refuses to do anything. The last heavy rain was within an inch of our basement windows.

Yannick Wertsch: Line 5 Road

After the major rainfall in June the Harrison ditch on Concession 3 could not keep up with the volume of water and started pushing water toward our property.

The drains going under the road of Line 5 are partially clogged and wouldn’t split the water to both sides of the road. This caused the water to reach up to our house.

The only reason it didn’t go further is that Line 5 Road started flooding over toward our neighbour’s farm. The water took about a week to recede completely.

Next: In Part 3, The Lake Report takes a look at NOTL’s stormwater and drainage infrastructure. Is it adequate? And we will delve into beliefs that over-development in NOTL has played a big role in helping to create the wet, wild and destructive summer of 2024.

‘Once-in-couple-generation storms’ — Is that accurate?

Richard Wright
Local Journalism Initiative
The Lake Report

With two torrential summer rainfalls happening in less than a month in Niagara-on-the-Lake, and similar weather patterns happening on a consistent basis in the Greater Toronto Area since June, the 100-year and 500-year rainfall events have become curious distinctions.

As a result, many are questioning the validity of these statements.

Using rainfall data and climate patterns from the Niagara Region, infrastructure engineer Steve Miller, from the Niagara Peninsula Conservation Authority, explains how to understand the 100-year rainfall phenomenon.

“You can think of it as a probability,” he said.

“The 100-year rainfall has a one per cent chance of happening every year. And much the same with a 500-year storm, which has a 0.2 per cent chance of occurring every year.”

So, using his explanation, these types of storms can happen more often than described, albeit the chances are slim.

In Niagara-on-the-Lake, the June 18 storm that flooded homes and property and washed out ditches and roadways, “brought up to 45 (millimetres) (1.75 inches) of rain in the eastern regions of the Niagara Peninsula watershed,” the conservation authority stated in a news release at the time.

However, during the same storm, Queenston residents Win and Kal Laar recorded 101 mm in just an hour at their

Sheppard Crescent home.

For a storm to be classified as a 100-year storm in Niagara, Miller said four inches (101.6 mm) of rain must fall in 12 hours, while a 500-year storm is 11 inches (279.4 mm) over the same period of time, which would put the June 18 storm somewhere in the middle of the 100-year and 500-year classifications.

Geographical location is also important to determining the type of storm.

“But in other locations, like the west coast of B.C., that is a rainforest — their 100-year storm looks different,” he added.

In an interview with The Lake Report in July, Lord Mayor Gary Zalepa — incorrectly, based on the Laars’ calculations — used the 500-year rainfall calculation to defend the community’s drainage infrastructure.

“In the St. Davids area on that day, they experienced three-and-a-half inches of rain in less than an hour and that’s almost a 500-year rain event,” he said in noting the infrastructure is not built to manage that volume of water in that short period of time.

In Niagara, average rainfall amounts vary depending on where you are.

“For instance, our southern coast, the coast along Lake Erie or Port Colborne and Fort Erie. They get about 1,000 (millimetres) of rain a year,” said Miller.

“The north part, you know, St. Catharines, Niagara-on-the-Lake, gets a little bit less, about 890 mm. So the magnitude of the storm generally depends on where you are.”

wright@niagaranow.com

Town infrastucture **can't keep up** with heavy rainfall levels: Report

Resident consensus in the wake of this summer's flooding in Niagara-on-the-Lake is that current and planned in-ground stormwater infrastructure is inadequate.

Homeowners from Old Town to St. Davids and elsewhere contend the town's sewer systems simply can't handle the amount of water major storms have unleashed. They think more development will just exacerbate the problem. The mayor has a different viewpoint.

This week in part 3 of Summer of the Flood, we take a look at the town's storm infrastructure.

Richard Wright
Local Journalism Initiative
The Lake Report

Lord Mayor Gary Zalepa concedes that the major storms that hit Niagara-on-the-Lake this summer were overwhelming but he says the town's sewer infrastructure meets all the necessary standards.

Areas of the community's of St. Davids and Queenston were particularly hard hit. "(The) storm sewer



Sandalwood stormwater pond filled to the brim following the June 18 storm. NOTL Lord Mayor Gary Zalepa says such ponds are built to government standards and overflow occurrences may be result of improper seepage from surrounding properties. SUPPLIED

has been designed as per guidelines set by the province and the region and municipality, and each particular part of St. Davids has been built out properly to those standards," said Zalepa told The Lake Report in an interview.

He agreed, however, that this summer's major downpours — which were well above the design capabilities of current underground piping and stormwater ponds — are challenging those standards.

"What we're having is natural rain events which

are putting strain on the system because those rain events are in excess of the capacity of the system."

The storms that tore through NOTL in June and July, backing up storm sewers, flooding streets and properties in rural and urban areas, caused incredible damage.

One area particularly hard hit is the west end of St. Davids, where new development in recent years has overtaken a part of town that was once open fields susceptible to natural seepage and flow.

And now, with two major storms happening within the span of a month, delivering huge amounts of rain in a short time, a movement has arisen to question the current criteria for establishing anticipated rainfall standards.

That criteria is paramount in the approval process for new development in NOTL.

For instance, at Win and Kal Laar's home in Queenston on June 18, more than 100 millimetres of rain was measured in just one hour, well above the capacity standards for all of NOTL's stormwater infrastructure.

"I don't have an answer for you as to what the capacity is," said Zalepa. "I would have to get that from (town) staff."

Director of operations Darren McKenzie was not available for an interview prior to deadline to confirm the town's rainfall capacity.

However, town staff are reviewing and updating what constitutes a 100-year storm rainfall level.

Staff has been directed to "consult with the relevant appropriate agencies" to consider a pair of recommendations.

The first recommendation is to look into "increasing the criteria used in the modelling for the 100-year average of Lake Ontario from 76.15 metres as identified in the (Niagara Peninsula Conservation Authority) Lake Ontario Shoreline Management Plan (2009) to account for our changing climate."

The second recommendation is to look into "increasing the engineering design criteria" from the one in 100-year storm event, "which has been used for decades and doesn't address (the) increase in intensity, duration and frequency of extreme rainfall events."

Once the information is submitted, council will decide on the action needed, said Coun. Sandra O'Connor, who is pushing for changes.

O'Connor hopes town staff will be able to propose a solid definition on how much the storm management criteria needs to change.

"The engineering societies and the conservation authorities and the governments are all recognizing that it's a new norm now but nobody has come out and

said, 'We need to increase it to this,' " said O'Connor.

Currently, to be considered a 100-year storm in Niagara, four inches (101.6 mm) of rain must fall in 12 hours, while a 500-year storm is equal to 11 inches (279.4 mm) over the same period of time.

Staff is expected to present its report answering by the end of September.

When it comes to development that has yet to happen, but is in front of council for consideration — such as Tawny Ridge Estates in St. Davids — Zalepa said the town has approved the development, but with a "holding zone."

"The holding is to permit the development agreements to be created, which will detail out all the infrastructure and the servicing requirements for the properties," he said.

"So, we're going to have to get data from proper sources to determine if indeed there needs to be a change in the infrastructure, kind of an allotment to decide to manage higher flows."

Continued on Page 7



YOKA
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CHÂTEAU DES CHARMES

Former senior manager warned of continued flood damage

Continued from Page 6

Four Mile Creek
Drain Report

The Lake Report has learned that a recommendation to request an engineering report for the Four Mile Creek Municipal Drain has been in town records for years.

The April 19, 2021, staff report suggests that more development in St. Davids will put the area at risk of increased flooding.

It was authored by Brett Ruck, who was irrigation and drainage superintendent for the town at the time, and included a number of his own observations and recommendations.

He pointed out that larger scale developments, such as subdivisions with more land and denser housing and road allowances, contribute to a more extensive change in land use.

“The increase in more impermeable surfaces and landscaping features, such as lawns, also significantly intensify the rate and volume of run-off in comparison to the original property,” he said.

“Without a new engi-

neer’s report to improve or extend the Four Mile Creek Municipal Drain upstream, the watercourse cannot be improved to deal with the increased flows and sediment problems it is currently subject to, and flooding and property damage may continue.”

In other words, information has been available for years indicating that, as a result of new development, infrastructure isn’t capable of handling stormwater levels, and that damage to properties could continue.

Zalepa said he is unaware of the 2021 report, but nonetheless does not agree with Ruck’s conclusion.

Rushing water over impermeable surfaces such as streets and sidewalks is part of residential drainage plans that need to be submitted by developers before approval, he said.

“In theory, each application or development is supposed to manage its water,” he said.

“So what that means is the functional service report that they will have to submit is going to have to show, from an engineering per-

spective, that they can manage their water on-site and not create an overflow issue with areas around them.”

That doesn’t appear to be the case when looking back at flooding in St. Davids and Queenston during the two major storms, which included rushing water flows that were in some cases more than ankle deep and enveloping residential streets, yards and ditches.

For now, Zalepa is happy with the way things are progressing.

“And I am confident that each of those applications that are in front of us are going through the proper process to adequately design a system that will manage their stormwater for their site,” he said.

Council has also requested a staff report regarding storm pond capacities, he added, once again making a concession, this time admitting some ponds were not large enough to contain the stormwater.

The problem, he said, is some stormwater ponds paid for and built by a developer could be receiving water due to seepage from other nearby properties.

“If (water) is coming from areas that shouldn’t be contributing to those storm ponds, then we have a bit of an issue.”

Zalepa said council has asked staff to conduct an audit to see if any properties are incorrectly actually contributing water to these storm ponds.

“Sometimes these other properties that are adjacent, they have had site plans done on them where they’ve had buildings added or farm buildings added or houses added, and their site plan dictates where their water is supposed to be going, and if their water is not going where it’s supposed to be, then they’ve got to deal with that,” he said.

More money sought
for infrastructure

Zalepa’s confidence in the state of current and proposed infrastructure isn’t shared by O’Connor.

“I think that the whole council realizes that the current infrastructure needs to be updated and maintained, not only for the amount of rain water we are getting but also for its age,” she told The Lake Report.

A big problem, she said,

is a lack of investment in municipalities from the two highest levels of government when it comes to essential services.

“Over the last couple of decades, the federal and provincial governments have really reduced their funding for infrastructure for municipalities,” she said.

For her part, O’Connor will be asking NOTL council to back a Federation of Canadian Municipalities’ initiative to push the federal government to increase infrastructure funding.

She will be asking council this month to support the federation’s call for more infrastructure money from senior levels of government.

In July, the federation published a written submission to the federal government as part of consultations ahead of next year’s budget.

Signed by federation president Geoff Stewart, it details the organization’s recommendations on a number of issues — infrastructure, with specific references to water, wastewater, climate change and disaster mitigation, was number three on his list.

Stewart recommends “that the federal government partner with local governments to address the urgent water and wastewater infrastructure gap and fully implement the national adaptation strategy to address growing risks from climate change and extreme weather.”

“Additionally,” the statement continued, “municipalities need long-term funding for disaster mitigation, adaptation and natural infrastructure, while supporting resilient, low-carbon housing and communities.”

O’Connor believes that there will be some political motivation to provide municipalities with the money needed to maintain safe and healthy communities.

“With elections looming, I think this would be something that they would be interested in supporting, and that’s what we’re hoping for,” she said.

The next fixed federal election date is Oct. 20, 2025.

Next: In Part 4 of Summer of the Flood we look wastewater infrastructure and talk to town staff about a planned study for the Four Mile Creek Watershed. wright@niagaranow.com.

MR

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Sewage in basements was result of **overloaded pumping station**

Two major storms tore through NOTL in June and July of this year, causing floods on rural and urban streets and, in some cases, resulting in sewage backing up into residential basements in the bedroom community of St. Davids.

The June 18 storm was the heavier of the two. Immediately following that storm, residents questioned whether the wastewater infrastructure was failing.

In this installment of our flooding series, The Lake Report investigated and found the “generational storms” that occurred were simply never planned for and infrastructure in place for wastewater management, while operating as designed, couldn’t keep up with a storm that is supposed to happen only once every 100 years.

Richard Wright
Local Journalism Initiative
The Lake Report

On June 18, St. Davids resident Art Powis awoke to the sound of water in his basement.

What he saw upon descending the stairs of his home, located, on Line 9 in the community’s northeast, would have dropped the heart of any homeowner.

The bathroom was spewing sewage out of every drain.

His toilet, he described, was spitting out effluent like a fountain, his bathtub was filling up with black water and the sewage on the shower floor was a thick, disgusting syrup.

The deluge that flowed out of the drains destroyed his fully finished and furnished basement.

“When I got to the basement and saw a turd floating out of the bathroom door down the slope to the toward the drain in the basement, I’m thinking, ‘What the f*** is going on?’” he told The Lake Report.

His wasn’t the only home to experience a backup of sewage on that day.

“We were flooded out in the early hours of June



Art Powis had to completely redo his basement after sewage started flowing into it on June 18. The cause of the backup was an overwhelmed pumping station owned by the Niagara Region and operated by the Town of NOTL. RICHARD WRIGHT

18 during the powerful monsoon that blew in and flooded our St. Davids home,” said Marie Giles in a written statement to The Lake Report.

Giles’ photos and a submitted video show the same disgusting mess Powis experienced: soaked and blackened floors, encrusted shower beds and damaged furniture, storage boxes and collectibles.

“Apparently, the local infrastructure could not handle the amount and (the wastewater) had nowhere to go, but back up into our home,” she said, adding to a chorus of opinions coming from throughout the community that local infrastructure is not up to standards.

The Lake Report investigated and found the basement floodings can be attributed to two things: first, the pumping station that sends wastewater from the community to the Niagara Falls wastewater plant wasn’t designed for that much rain in such a short period of time, and second, a process called infiltration.

Phil Lambert, director of water and wastewater services for the region, said the St. Davids pumping station and Niagara Falls

wastewater plant, to which the pumping station in St. Davids sends it waste, were both operating to normal standards.

The pumping station is owned by the Niagara Region but maintained by the town of Niagara-on-the-Lake.

“The St. Davids pumping station No. 1 and our Niagara Falls wastewater treatment plant, I can verify that both of those were functioning as designed and appropriately on the day of the storm,” he said.

That being said, Darrin Wills, the town of Niagara-on-the-Lake’s supervisor of environmental services and acting manager of public works, said the normal operating standard wasn’t sufficient.

In one area of Queenston just east of St. Davids on June 18, residents Win and Kal Laar measured an incredible 100 millimetres of rain in an hour on their property.

“Our (flooding) situation was caused basically by the pumping station in St. Davids,” said Wills.

He explained that when the Niagara Falls wastewater plant gets over its capacity the normal process

is to bypass partially treated effluent into the nearby Niagara River.

The Lake Report learned earlier this summer partially treated effluent at the plant still gets descreened, removing debris such as sticks and household sanitary products.

That effluent is also disinfected with chlorine to kill all bacteria before being released into the river. It doesn’t, however, get the full treatment to remove things such as phosphorus or organic material.

In the case of June 18, the pumping station in St. Davids was pumping to its capacity but the rainfall amount was too much for it to handle, causing it to create an uncontrolled local bypass situation in St. Davids.

“So with that public basin in St. Davids, obviously there’s no water body nearby, so nowhere for that to overflow,” said Wills, adding the waste then backs up and can re-enter homes.

The backups could have continued for much longer, Wills said, had it not been for town staff quickly responding to the station to manually remove the excess wastewater.

“When the region called the town and said that the level in their holding tank was getting high and needed attention, we called in vacuum sewage trucks to suck it out to lower the level and truck it away to the plants,” he said.

Infiltration or inflow
There is another possible contributor to the basement backups, The Lake Report has learned.

It is a process called infiltration, also known as inflow.

The Niagara Region’s web page describes inflow and infiltration as “water other than sanitary wastewater that enters a sewer system from sources such as roof leaders, cellar (or) foundation drains, yard drains, area drains, drains from springs and swampy areas, maintenance hole covers, cross connections between storm sewers and sanitary sewers and catch basins.”

Darren Mackenzie, the town’s director of operations, said there are other ways infiltration can happen.

He points to cracks in the piping, improperly connected access ports during the construction phase, or by property owners who

want to get off an existing septic system and mistakenly connect to the storm-water system.

Upon inspection by town staff with CCTV cameras, cracks in the piping have been counted out, he said.

“There doesn’t seem to be any problems with the main infrastructure.”

In addition, the town has begun putting filters on roadway access points to prevent overland flooding water from entering the sewer system.

“There are 22 different ones in St. Davids that we’ve put those measures in,” he said.

The next step, he added, is for staff to investigate any improper connections homeowners have done.

“People buy houses and maybe (the previous homeowners) have made those connections, or it may have been done by accident, where they think they’re connecting into the storm and they’ve accidentally connected into the sanitary,” he said. “It happens.”

Those inspections won’t begin until next spring.

In the meantime, Wills is reminding homeowners to take preventative measures to ensure their properties and belongings are safe from future massive rainfall events.

He notes, for example, that most homes nowadays have a backflow valve on their sewer line.

“When you buy a home and you call your insurance company for home insurance, one of the very first questions that they ask you is, ‘How far to the nearest fire hydrant?’ And the second question is, ‘Do you have a backflow valve on your sewer line?’”

For Powis, he admits he did not have a backup valve on his line, but “I am in the process now to install one. After that clean up, it went to the top of the list.”

Next: In Part 5 of *Summer of Flood* we look into a planned rural ditch and culvert clean-up by Town of Niagara-on-the-Lake.



Water can be seen soaking carpets and puddling in the hallways of Art Powis’ basement after a June 18 deluge that overwhelmed NOTL’s pumping stations. SUPPLIED