



**TOWN OF LOCKPORT
COUNCIL MEETING
FRIDAY MAY 22, 2026, AT 1:00 P.M.
AGENDA**

1. Call to order

2. Silence Electronic Devices

3. Approval of Agenda, including additions or deletions

Staff Suggested Motion – That Council approve the agenda for the May 22, 2026, meeting with the following additions/deletions.

4. Conflict of Interest

5. Approval of Minutes

- Amended Regular Council Meeting Minutes from April 24, 2026 (Page 1-6)

Staff Suggested Motion – That Council approve the Amended Minutes from the Regular Council Meeting of April 24, 2026.

- Regular Council Meeting Minutes May 8, 2026

Staff Suggested Motion – That Council approve the Regular Council Minutes from the Regular Council Meeting of May 8, 2026.

- Strategic Planning Meeting Minutes

Staff Suggested Motion – That Council approve the Strategic Planning Meeting Minutes of May 8, 2026.

6. Business arising from Previous Minutes

Reply to letter from resident Ryan Chetwynd. (Page 7)

Reply to letter from resident John Scott and Lorenda Williams. (Page 8-9)

Response to Emily Swim's concern regarding the Peace Hut (Page 10)

7. Community Forum (Open Mic)

- 20 Minutes Maximum
- Each resident is allowed a maximum of five minutes
- The resident is to speak directly to Council
- There will be no interaction by Council at this time
- If questions are posed by residents the question will be recorded to be researched

8. Presentations

There are no presentations scheduled for this meeting

9. Finance

- List of invoices already paid for the month of March in the amount of \$ 37.50 (Page 11)
- List of invoices already paid for the month of April in the amount of \$ 57,718.46 (Page 12-13)
- Approval of 2026/2027 Capitol Budget (Page 14)

10. Department Reports

- Administration Report (Page 15 - 19)
- Public Works Report (Page 19A)

11. Other Business

- Request from Lockeport Legion (Page 20)
- Play Park Phase 2 installation

Staff suggested motion: That Council make a motion that if Turf Master cannot proceed with the swing installation by June 15, 2026, that the installation be delayed so as not to interfere with Canada Day events.

- PIEVC Report (Page 21 – 84)

12. Correspondence

- Letter in response to Mayor Amalfa’s request for information regarding the Mandatory Education Tax (Page 85 - 86)
- Letter in response to David Mitchell, President of NSFM, regarding Municipal responsibilities for Fire Departments from the Honourable Kim Masland, Minister of the Department of Emergency Management (Page 87 - 88)
- Letter in Response to Mayor Amalfa’s request for information regarding Policing Services (Page 89 - 90)
- Invitation to the African Nova Scotian Seafaring Project on Saturday, May 30, 2026, in Shelburne (Page 91)
- Invitation to the Shelburne Chamber of Commerce AGM on June 10, 2026, at the Osprey (Page 92 – 93)

13. Information Only

- Recreation Facilities Assessment (Page 94)

14. Date of next meeting

- June 12, 2026, at 1:00 p.m.

15. “In Camera”

- “Contract Negotiations”
- “Personnel”

16. Adjournment



**TOWN OF LOCKPORT
COUNCIL MEETING
FRIDAY APRIL 24, 2026
MINUTES**

PRESENT: Mayor Derek Amalfa, Deputy Mayor Craig Hillen, Councillor Anna Chetwynd, Councillor Candace Malik, Councillor Kevin Chetwynd, Town Clerk/Treasurer June Harding, Public Works Supervisor Kevin Snow, and Recording Secretary Jill Cassibo.

1. Call to order

The meeting was called to order by Mayor Amalfa at 1:00 pm

2. Silence Electronic Devices

All electronic devices were silenced at this time.

3. Approval of Agenda, including additions or deletions

04-24-26-01

It was duly moved and seconded that Council approve the agenda for the April 24, 2026, meeting with the following additions, under Correspondence, a letter written from a town resident and deletions, under Other Business, Webhosting (this will be added to the next Council agenda). Motion Passed

4. Conflict of Interest

There were no Conflicts of Interest declared for this meeting.

5. Approval of Minutes

- Regular Council Meeting Minutes April 10, 2026

04-24-26-02

It was duly moved and seconded that Council approve the Minutes from the Regular Council Meeting of April 10, 2026. Motion Passed

6. Business arising from Previous Minutes

Response to correspondence from Cory Nickerson regarding the proposed Mermaid Project

Response to correspondence from Sue Crosby regarding Amalgamation

7. Community Forum (Open Mic)

- 20 Minutes Maximum
- Each resident is allowed a maximum of five minutes
- The resident is to speak directly to Council
- There will be no interaction by Council at this time
- If questions are posed by residents the question will be recorded to be researched

A resident from the Town of Lockeport, Jane Jerrett, spoke about the high taxes in Lockeport. Ms. Jerrett became visibly upset when speaking about her recent tax bill that she has received and now she is being taxed out of her home. Ms. Jerrett expressed concern that she will now be forced to put her house for sale. Ms. Jerrett stated that the tax system is so imbalanced in Nova Scotia since her neighbours pay so much less than her and that Lockeport has the highest tax rate in Nova Scotia and one of the highest in Canada.

8. Presentations

There are no presentations scheduled for this meeting.

9. Finance

- List of invoices already paid for the month of March in the amount of \$19,935.89.
- List of invoices already paid for the month of April in the amount of \$49,514.52.

Councillor Malik asked what Townsuite was and was explained by Ms. Harding that it is our Municipal Tax accounting system we use in the office.

Mayor Amalfa explained the PIEVC report evaluates climate change risk to infrastructure. This report was funded through the Clean Foundation, and the results will be presented to Council.

Councillor A. Chetwynd mentioned that the Playpark Fundraising group paid for the rubber mats.

- Conclusion to request from citizen regarding vehicle damage.

The citizen with the damaged tire has provided a picture of the tire that was plugged after another incident with the grate, just as Council requested. Councillor K. Chetwynd stated that moving forward a photo of the damaged item needs to be provided.

04-24-26-03

It was duly moved and seconded that Council approve, with the evidence provided, paying \$225.15 for the cost of one replacement tire. Motion Passed

10. Department Reports

- Administration Report

Ms. Harding reported that the Legion picture has now been ordered. The Town of Lockeport has received two grants from the Municipality of the District of Shelburne. One for \$3500.00 for the Visitor Information Centre and one for \$5000.00 for the Canada Day Celebrations.

Deputy Mayor Hillen questioned about the gear sheds that belong to someone who is deceased and asked if the Town can put a lien on his estate. Ms. Harding replied that the estate has been transferred to his wife who at present is unable to handle his affairs. The tax bills have been sent to both his bookkeeper and his son. Mayor Amalfa asked about the "2022 and before" in dealing with the sublease. Ms. Harding explained that she can start the Tax Sale process and issue letters after the end of May, which is the due date for taxes.

Mayor Amalfa asked that Ms. Harding provide Council information on how to move forward with this process for the next Council meeting.

Ms. Harding stated that she has a contact that she has been dealing with about the sublease and that she did have an inquiry this morning asking if someone were to pay all the back taxes, would they own the building? It is the Town Clerk's understanding that the Harbour Authority owns one group of gear sheds, and the Town of Lockeport owns the other group.

Regarding Canada Summer Jobs, the Town Clerk/Treasurer has devised job descriptions and department heads and Committee Chairpersons will meet to discuss any changes that need to be implemented.

- Public Works Report

Mr. Snow, Public Works Supervisor reported the potholes are deeper than they look and therefore require a lot of coldpatch. Mr. Snow stated that the area in front of White Gull may need to be cutout and replaced, and he feels that the trucks coming and going to Clearwater are hard on the streets. Deputy Mayor Hillen asked if Mr. Snow knew when the roads were resurfaced and he was not sure, but that they are fixed in sections, a little bit at a time due to the cost. Mr. Snow also stated that he has spoken to Rob Harlow and was told that Lindsay Construction will begin to correct the discharge from the sewer plant in June. At this time, they will investigate fixing the washroom at the sewer plant.

11. Other Business

- Request from "Friends of the Library"

Councillor Malik stated that with the with the Provincial cuts to funding this year, she would recommend the money be used for other things in the library. For now, the Western County Regional Library board has no plans to close any locations, however, with cuts to funding the future of such services is uncertain and new signage may not be the best way to spend their money. Mrs. Meagher stated that every time they ask to do something in the library it takes so long for a decision to be made. Councillor Malik has no issue with how the Friends of the Library choose to spend their own money, rather wanted to remind them of the Provinces current lack of support.

04-24-26-04

It was duly moved and seconded that Council approve should the Friends of the Library, choose to proceed to replace the sign at the front of the library. Council will need to view the design before it goes to print. There will be no cost to the taxpayers or the library for this project. Motion Passed

12. Council Reports

13. Correspondence

- Letter from Ryan Chetwynd re: Amalgamation

Deputy Mayor Hillen stated that Mr. Chetwynd had some good points in his letter Deputy Mayor Hillen will bring up one specific point at the next Amalgamation Steering Committee, to hold some meetings in the Town of Lockeport to make it more accessible for our residents to attend. The Steering Committee is still in the exploratory stage. Deputy Mayor Hillen also pointed out that the residents need to be educated on the

difference between amalgamation and dissolution. Councillor Malik suggested that language is important and that the Committee should maybe have been called the Amalgamation Exploratory Committee, as the word Steering implies decision making. Councillor Malik also stated that during campaigning Consolidation appeared to be a more viable option vs Amalgamation as it would offer the TOL more autonomy. However, the Province has since done away with Condolidation as an option. She stated that community input is important and the purpose of the Steering Committee is to bring back accurate information to it's residents.

Councillor A. Chetwynd stated that the reason the government got rid of consolidation is because it is costly and time consuming as they must have special legislation for the process. Mayor Amalfa reminded Council that the Department of Municipal Affairs representatives are coming to speak with the Amalgamation Steering Committee regarding funding of the requested reports. The information provided in these reports aim to answer many of the specific questions requested.

- Letter from Emily Swim re: Peace Hut

Councillor A. Chetwynd explained why the Peace Hut was boarded up. Kids were climbing on it, so for liability reasons, the Peace Hut was boarded up. The Recreation Committee does not want to discard the Peace Hut. One suggestion was a lending library for the Beach Centre with sand toys, surf boards etc. The Recreation committee will bring recommendations to Council for review.

Councillor Malik liked the idea of a lending library but has a concern with the planning of moving the Peace Hut from the current location to the Beach Centre.

- Letter from Nicole Stephens

Deputy Mayor Hillen read the letter that Nicole Stephens wrote about what it means to be a Lockeporter. Mrs. Stephens is a resident of the Town of Lockeport, has been here all her life and is also a member of the Heritage and Tourism Committee.

14. Information Only

- Policing Service recipient Update

Mayor Amalfa suggested that the Council still write the letter to the Department of Justice, asking clarification for money we pay for RCMP services, but also ask for the RCMP contact, Danielle Desjardins, to do a presentation to Council.

Deputy Mayor Hillen stated that there are no Human Resource elements to the update. The report does not specify how many RCMP staff are off on Worker's Compensation, sick leave, extended sick leave. This could be a huge cost.



- Letter from Shaun Hatfield, Warden of the Municipality of Barrington, to Tim Houston re: NSP rates

04-24-26-05

It was duly moved and seconded that Council agreed to send a letter to Premier Tim Houston reiterating the same concerns that Warden Shaun Hatfield wrote about the Nova Scotia Power rates. Motion Passed.

- Notice from NSFM re: Spring 2026 Legislative Sitting Summary
- Notice from NSFM re: 2026 Provincial Budget Update

15. Date of next meeting

- May 8, 2026, at 1:00 p.m.

16. "In Camera"

17. Adjournment

04-24-26-06

There being no further business, it was duly moved and seconded that the meeting be adjourned. Time 2:01 pm. Motion Passed

Mayor Derek Amalfa

Town Clerk/Treasurer June Harding



Town Of Lockeport

www.lockeport.ns.ca

26 North Street
P.O. Box 189
Lockeport, NS
B0T 1L0

Phone:
(902) 656-2216

Fax:
(902) 656-2935

My Town . . .

Lockeport – where
we partner to build a
prosperous future with services
that provide value and a
quality of life in which we take
pride.

May 11, 2026

Dear Mr. Chetwynd,

Thank you for taking the time to share your thoughtful letter and concerns regarding the ongoing discussions around amalgamation. We appreciate the time and care you put into outlining your perspective, particularly surrounding transparency, public engagement, and the importance of informed decision-making.

It is important to clarify the role of the Amalgamation Steering Committee. Its purpose is not to make decisions, but to explore the potential impacts of amalgamation and bring forward the same information to each respective Council for consideration. Any future decisions regarding Lockeport's governance would be made by Lockeport Council, which remains accountable to the residents and ratepayers of Lockeport.

Council has heard residents clearly requesting more information, and we agree that meaningful public engagement is essential to this process. At this stage, the Steering Committee is focused on gathering information and learning from other communities so that both Council and residents can better understand benefits, challenges, costs, and governance considerations.

At this time the discussions remain exploratory, as the detailed information and analysis required to properly evaluate these questions is not yet available. As a result, independent studies and factual analysis have been identified as necessary before any decisions are considered. As more concrete information becomes available, the Town of Lockeport Council agrees that broader communication and public engagement, including opportunities such as a public forum or town hall discussion, will be important.

This is an important conversation for our community, and it is essential that it is approached with openness, respect, and a shared commitment to Lockeport's future. Amalgamation is not a simple decision, and it has the potential to affect many important areas, including taxes, services, governance, infrastructure, and community identity. We remain in the early stages of this process, and remain committed to ensuring residents are informed and engaged as more information becomes available.

Thank you again for your letter and for being engaged in this important conversation.

Sincerely,

Derek Amalfa

Mayor

Town of Lockeport



John Scott & Lorenda Williams
83 South Street
Lockeport, NS B0T 1L0

May 13, 2026

Dear Lorenda and John

First, I would like to simply say "Thank you for your Service John."

I am sorry to hear about your concerns. Please allow me to clarify that the residential tax rate in the Town of Lockeport has not changed since 2022. While assessed property values have increased, property tax bills are based on valuations established by the Province of Nova Scotia through Property Valuation Services Corporation (PVSC).

When you purchased the property in 2024, it had an assessed value of \$101,400 and a capped assessment value of \$47,200. These lower capped assessment values were the result of the property having remained under the Capped Assessment Program (CAP) for many years. Under this program, annual assessment increases were limited to a prescribed percentage based on the previous year's capped value. As a result, the property's taxable assessment remained significantly below market value until the property changed ownership.

When a property is sold, the CAP is removed for the first year of new ownership, and the property is reassessed at fair market value. Since the property was purchased for \$190,000, it was reassessed at \$222,800 in 2025.

It is also my understanding that, since purchasing the property in 2024, you applied for two building permits for improvements to the home with an estimated value of approximately \$60,000. Information regarding building permits is forwarded to Assessment Services so they are aware of improvements made to the property. Based on the purchase price and subsequent improvements, the current assessed value of your property for 2026 is \$237,700, with a capped assessment value of \$228,500.

I have worked in the Town of Lockeport office for 26 years and have never been made aware of any agreement with Albert Townsend, the previous property owner, regarding reduced taxes due to an infringement on Church Street.

9

I have also spoken with a former Town Clerk who served the Town for many years, and he is likewise unaware of any longstanding agreement of this nature involving Mr. Townsend.

The Town does offer an annual Seniors/Low-Income Property Tax Exemption Program when final tax bills are issued in September. In addition, the Province of Nova Scotia offers the Seniors' Property Tax Rebate Program, which refunds eligible seniors up to 50% of the previous year's property taxes, to a maximum of \$800. It is my understanding that Mr. Townsend participated in this Provincial program.

With respect to the tax adjustments involving Clearwater that were referenced in your email, those adjustments resulted from formal assessment appeals submitted by Clearwater within the appeal deadline outlined on the annual Property Assessment Notices issued each January.

To address your additional concerns:

1. If you possess a legal copy of any agreement made with the former property owner, I will ask that you provide a copy to this office for review.
2. Regarding the widening of Church Street, this has not been identified by Council as a priority in this fiscal year's budget for such work. There are several streets within the Town of Lockeport, including Allen's Lane and Cliff Street, which are similarly narrow. Residents and motorists have adapted to these road widths for many years.
3. The situation at Rood's Head Park is currently being discussed at length by Council.
4. Council has consistently requested a more regular police presence in this area. Residents are encouraged to report any concerning or inappropriate activity directly to the RCMP so that matters can be properly documented and addressed.

I hope this information helps address your concerns.

Yours Truly

June Harding
Town Clerk/Treasurer
Town of Lockeport

10

Emily Swim (she/her)

P.O. Box 223

Lockeport N.S.

B0T 1L0

Dear Emily,

Thank you for taking the time to reach out and share your thoughts regarding the future of the Peace Hut.

Currently, there are no plans to discard the structure, but rather to repurpose it in some capacity or potentially relocate it for another community use. The building has been temporarily boarded up as, in its current location and state of use, it is not considered suitable for public use while future plans for the structure are reviewed.

A number of ideas have already been discussed, including concepts similar to those you outlined such as shaded community space or beach-related uses. Your letter has been forwarded to the Recreation Committee for discussion, and the committee will be developing recommendations on potential ways to repurpose the Peace Hut for Council's consideration.

Thank you again for your thoughtful suggestions and continued community support.

Sincerely,



Derek Amalfa
Mayor
Town of Lockeport

LIST ON INVOICES ALREADY PAID TO BE PRESENTED AT THE		
MAY 22 2026 MEETING		
APRIL INVOICES		
AGAT LABORATORIES	WATER SEWER TESTS	384.18
ATLANTIC INFRASTRUCTURE MANAGEMENT NETWORK	CRCC PARTICIPATION FEE - THE TOWN GOT THE MONEY BACK FROM CLEAN FOUNDATION	5,985.00
BARRINGTON GROUND SEARCH AND RESCUE	2026/2027 GRANT	651.00
BELL ALIANT	FAX, FIREHALL KITCHEN, LIBRARY, SEWER, REC. CENTRE	612.53
BELL ALIANT	OFFICES, ELEVATOR AND EMO	170.89
BELL ALIANT	FIRE DEPARTMENT	68.85
CHETWYND, WAYNE REIMBURSEMENT	BOOTS, WELDING WIRE, SPARK PLUGS	491.48
FOSTER, TRAVIS REIMBURSEMENT	BOOTS	216.59
FUNDY SOUTH BUSINESS CENTRE	"WE REMEMBER" SIGN OF VETERNS	114.00
HARDING, JUNE	LIFE INSURANCE AND MILEAGE FOR APRIL	126.92
I.B.E.W	UNION DUES	230.91
LAMM, CONNIE REIMBURSEMENT	MYM SWAG AND GAMES (LENDING LIBRARY)	1,402.74
LOCKEPORT CEMETERY COMPANY	GRANT	500.00
LOCKEPORT REGIONAL HIGH SCHOOL	TWO TOL BURSARIES AND ONE LEO WILLIAMS BURSARY	600.00
LYDGATE LOCK STOCK AND BARREL	ANCHORS AND GLOVES	31.89
MBW COURIER	COURIER SERVICE	240.13
MUNICIPALITY OF THE DISTRICT OF BARRINGTON	SENIOR SERVICES GRANT 2026/2027	3,343.56
MUNICIPALITY OF THE DISTRICT OF SHELburne	MPAL GRANT AND KIDS FAIR PLAY FUND	1,500.00
ON TOWN AUTO	BRAKE CALIPERS AND FLUID	398.68
PAYROLL	APRIL 18 - MAY 1	12980.53
REGION OF QUEENS	TIPPING FEES	2871.63

CAPITAL BUDGET									
2026/2027									
Project	CIP Project #	Grant	Grant Program	Debtenture	Gas Tax	Reserve	Donation	General Operating	Total Cost
Two new Sewer Pumps		26,202	Gas Tax		26,202				26,202
Feasibility Study for Causeway		57,390	Green Municipal Fund					12,605	69,995
PIEVC Report		13,320	Clean Foundation						13,320
Playpark Phase two							90,000		90,000
Totals		96,912	0	0	26,202	0	90,000	12,605	199,517

**ADMINISTRATION REPORT
COUNCIL MEETING
MAY 22, 2026**

BUILDING PERMITS ISSUED 2026/2027 FISCAL YEAR

To date, there have been zero (0) building permits issued for the 2026/2027 fiscal year.

TAX COLLECTIONS

As of May 18, 2026, *taxes owed are as follows:*

- 2023 & prior = \$45,945.31
- 2024 = \$25,406.89
- 2025 = \$80,824.81
- 2026 = \$416,935.16
- Total taxes are \$569,112.17**

The total outstanding taxes on the gear shed accounts are \$3,244.55 plus \$2,634.31 interest on four Gear Sheds. I have had a recent conversation with owners of these gear sheds to try to resolve the current delinquent tax issue.

Summer Job Applications and Interviews

The Town of Lockeport was fortunate enough to get funded for three students for eight weeks each this summer, through Canada Summer jobs. We conducted interviews on Friday, May 15, 2026, and the hiring Committee has the following recommendations:

- To hire Olivia Swansburg as the Events Coordinator for eight weeks over the summer;
- To hire Tayah Scott as Youth Recreational Leisure/Activities Counsellor for eight weeks over the summer and;
- To hire Gabriel Buchanan as Tourism/Museum Information Counsellor for eight weeks over the summer.

Wastewater Treatment Plant Upgrades Project

It is my understanding that the last part of this project will take place in June, 2026.

Museum

I completed the required 2025/2026 Little School Museum Financial Report and submitted it, to secure funding for 2026/2027.

Crescent Beach Centre

There have been new toilet seats installed in all the bathrooms at the VIC and new shower heads installed in the beach showers. The VIC will be open for business on June 1, 2026.

New Funding Opportunity for Phase 2 of the Playpark

I have been made aware of a new funding opportunity from ACOA through the Build Communities Strong Fund. This is an opportunity to secure funding to help the fundraising Committee get Phase 2 of the Playpark project completed. I do not have an exact figure yet, but they will pay 50% and the Fundraising group will pay the other 50%.

I respectfully ask Council to make a motion to authorize me to apply for the funding through ACOA and the Building Communities Strong Fund to finish Phase 2 of the Playpark project. This would help the fundraising group to be able to continue to raise funds to take on annual expenses such as Insurance on the Playpark, the porta potty at the Playpark and the annual inspections of the Playpark.

Grand Walk 2026

I was fortunate enough to be able to participate in the Grand walk this year. It was a super fun event, and children and adults all had a great time. This event was very well attended.

Respectfully Submitted by:

June Harding-Town Clerk/Treasurer
Town of Lockeport

17

June Harding

From: Darren Comeau <Darren.Comeau@acoa-apec.ca>
Sent: May 15, 2026 10:46 AM
To: June Harding
Subject: Build Communities Strong Fund

Hi June.

As discussed, you can apply online (MyACOA) and include supporting documents like before (balance of funds, required permits, quotes, etc), but specific to this project. Program is Build Communities Strong Fund (BCSF).

Project Description should be:
Complete final phase of Seacaps Park Playground

Eligible activities include building or improving community infrastructure for public use and/or benefit¹, including:

- New construction
- Expansion
- Renovation
- Retrofit
- Climate adaptation
- Replacement

Examples of community infrastructure include, but are not limited to:

- Community buildings
- Recreation and sport facilities
- Parks
- Cultural infrastructure

Community infrastructure for public use and/or benefit is defined as infrastructure that is accessible to the public (i.e., access is not primarily limited to paid membership) and/or has economic, social, or environmental benefits for the broader community, region or Canada.

ACOA will generally prioritize projects that:

- Are shovel-ready, meaning required permits and approvals are obtained or near approval, key financing is secured or firmly committed, and there is reasonable confidence that the project can start and be completed within the BCSF timeframe.
- Deliver community infrastructure for public use and/or benefit, including new construction, expansion, renovation, retrofit, replacement, or climate adaptation measures that improve resilience to climate-related impacts.
- Are identified as a priority by local or provincial governments, for example through official community, regional, or infrastructure plans.

- Leverage funding from other partners, with a general preference for projects where ACOA funding does not exceed **50% of eligible costs**¹.
- Respond to geographic or regional considerations in Atlantic Canada, including infrastructure gaps, local economic context, and delivery realities.
- Deliver strong community or regional value relative to local fiscal capacity, particularly in small, rural, remote, or economically constrained communities. Officers must assess fiscal capacity holistically and document the factors considered. No single indicator, such as population size or tax base alone, is determinative.
- Contribute to Indigenous economic reconciliation objectives. Officers should support progress toward allocating approximately 10% of ACOA's BCSF funding to Indigenous-led projects, recognizing regional differences in demand, readiness, and delivery capacity. Progress toward this objective must be reflected at the regional level over time.
- Encourage the use of Canadian materials and content where competitive and available. Buy Canadian is not an eligibility requirement, condition of funding, or assessment criterion.

Proposal:

- Background
Very brief:
 - Relevant organizational info that relates to the proposed project (ownership, location, etc.)
 - Additional phase to a previous project; component of master plan, etc.
 - Products and/or services offered and area served; is the asset open to public use and/or benefit
 - Lead into project specifics in next section
- Project Specifics
 - Brief details on what the project involves and work plan/ timelines – activities necessary to achieve project outcomes - linkage to any previous projects
 - How is the project 'shovel-ready' (required permits and approvals obtained or demonstrably near approval, key financing is secured or firmly committed, and level of confidence in timely project start and completion)
 - How are activities linked to strengthening communities and advancing regional economic development (economic, social or environmental benefits for the broader community and/or region)
- Rationale
 - What gaps in the organization and/or community will the project address
 - Economic and other benefits that will result from the project (specific to BCSF) – How will the project:
 - Respond to geographic or regional considerations, including infrastructure gaps, local economic context, and delivery realities.
 - Deliver strong community or regional value relative to local fiscal capacity, particularly in small, rural, remote, or economically constrained communities.
 - Contribute to Indigenous economic reconciliation objectives.
 - Encourage the use of Canadian materials and content where competitive and available.
 - Is the project deemed to be a priority by local or provincial governments, for example through official community, regional, or infrastructure plans

Here is the project budget that I have:

Costing:

19

Total Costs: \$76,260
HST: \$10,676.40
Rebated HST (71.4%): \$7,622.95
Eligible (non-rebated) HST: \$3,053.45
Total Eligible Costs: \$79,313.45
~ \$79,313

Financing:

Town of Lockeport - Seacaps Playground Fundraising Group: \$39,657 (in place – to be confirmed)
ACOA-BCSF: \$39,656

Please do not hesitate to reach out if you have any questions.

Thank you.

darren

Darren Comeau
Area Account Manager
Field Operations, Communities and Inclusive Growth
Atlantic Canada Opportunities Agency / Government of Canada
Email: darren.comeau@acoa-apeca.gc.ca
Tel. : 902-774-3296 / 1-888-576-4444 / TTY: 1 877-456-6500

Agent d'affaires régionales, opérations régionales, Collectivités et croissance inclusive
Agence de promotion économique du Canada atlantique | Gouvernement du Canada
Courriel : darren.comeau@acoa-apeca.gc.ca
Tél. : 902-774-3296 / 1-888-576-4444 / ATS : 1 877-456-6500



Public Works Report May 2026

- REPLACED OLD, BROKEN SHOWER TAPS AT BEACH CENTRE
- MOVED DIORAMA TO BEACH CENTRE FROM MARINE ROOM (WATER ST. MODEL CONSTRUCTED BY TREVOR BEBB)
- CUT BUSHES BACK AT HEAD OF CHURCH ST AND HAULED TO C & D SITE
- TOOK OLD INTREPRETIVE SIGNS OFF PLYWOOD SO NEW SIGNS ARE PUT ON CORRECT BACKINGS
- MENDED NET IN LOBSTER POT AT BEACH CENTRE
- MOVED TABLES OUT OF RECREATION OFFICE AND HUNG AND MOVED PICTURES
- FILLED POTHOLES WITH GRAVEL (ACROSS FROM TOWN MARKET, NORTH ST.)
- CONTINUED COLD PATCHING FILLING WORST HOLES ON BUSIEST STREETS AND WILL CONTINUE DOING SO ON BUSY AND ALL STREETS
- DUG SOME POST HOLES AND WILL CEMENT POSTS IN FOR NEW INTERPRETIVE SIGNS

80

Wednesday May 13 2026

Lockeport Town Council

Lockeport Legion Branch 80

Subject: Cenotaph Park

As the town Council is aware the Legion is undertaking the refurbishment of the Cenotaph grounds.

Plans are underway for the pressure washing and sandblasting of the structure. The plaques have already been removed for upgrading last week and are currently in the valley. This operation will take 4 to 6 weeks. The cleaning and sandblasting will begin the first week of June dependent on weather conditions.

Talks are underway with blacksmith Josh Roscoe to create an archway to be placed above the sidewalk entrance to the Cenotaph. The Legion through Veterans Affairs Canada has raised grant money to help with the costs. The total costs for the park will be close to 15,000.00. The Legion has the funds available for this enterprise.

I am coming to the Council today to get help with one item, the anchor points for the archway. The anchor point needs to be cement to help brace the structure. It will be required to be 2 to 3ft deep and have a dimension of 10 inch square. I am hoping that the Council has connections with a cementer that I can talk with to get the anchor points in place prior to completion of the archway.

As the Cenotaph land is town property I also need permission to install these anchor points before the Archway can be installed. If possible I am asking the town to initially cover the cost of the anchor points and then invoice the Legion to recover costs of this instalement.

I am hoping the Council will approve this work

As a Veteran I have long looked at the Cenotaph and thought it could be so much more. The history of service in this area is second to none. The names on the memorial still hold meaning to a lot of families who still reside in town after 100 years. That is why I have taken on this challenge to improve the grounds and recognize the sacrifice those men have made.

Thank you for your time



David Holdaway CD1

President Lockeport Legion



Municipality of the Town of Lockport

PIEVC High Level Screening Report



Table of Contents

COUNCIL DECISION SUMMARY	1
1 EXECUTIVE SUMMARY.....	1
1.1 Key Findings	1
1.1.1 Emergency Management	2
1.1.2 Implement Climate-Resilient Stormwater Standards	2
1.1.3 Adaptive Capacity	2
1.1.4 Social Resilience.....	2
2 INTRODUCTION	6
3 Project Definition	8
3.1 Scope	8
3.1.1 Objectives.....	8
3.1.2 Context.....	9
3.1.3 Timing.....	9
3.1.4 Techniques	9
3.2 Elements	10
3.2.1 Built Infrastructure	10
3.2.2 Natural Environment	11
3.2.3 People.....	11
3.3 Organization Capacity	11
4 Climate Events.....	13

PIEVC REPORT – TABLE OF CONTENTS

4.1	Projection Time Horizons.....	13
4.2	Emission Scenarios.....	14
4.3	Combination of Events.....	14
5	Infrastructure Response Considerations	15
6	Risk Analysis & Assessment	17
7	Temperature-Related Hazards	19
7.1	Extreme Heat Events.....	19
7.2	Extreme Cold Events (polar breakout)	20
7.3	Temperature Variability and Rapid Swings	20
7.4	Freeze Thaw Cycles.....	21
8	Precipitation-Related Hazards	22
8.1	Frequency and Intensity of Rainfall.....	22
8.2	Frequency and Intensity of Riverine Flooding.....	25
8.3	Snow Load and Snowpack Changes	25
9	Wind Hazards	26
9.1	Extreme Wind Events.....	26
10	Drought-Related Hazards	27
10.1	Drought Conditions.....	27
10.2	Surface Water Availability	28
10.3	Groundwater Availability	28
11	Wildfire and Smoke-Related Hazards	29
11.1	Wildfire Area and Frequency	29
11.2	Wildfire Smoke.....	30
12	Ice Accretion-Related Hazards.....	31
12.1	Ice Accretion Events.....	31
13	Results and Recommendations	32
13.1	Emergency Management.....	32
13.1.1	Existing Service.....	33
13.1.2	Example Service Levels for Emergency Management	34
	Infrastructure and Service Dependencies	37
13.1.3	Upcoming Legislative Requirements	38



PIEVC REPORT – TABLE OF CONTENTS

13.1.4	Climate-Related Emergency Management Challenges	39
13.1.5	Risk Screening Results	39
13.1.6	Recommendation.....	40
13.2	Implement Climate-Resilient Stormwater Standards.....	41
13.3	Adaptive Capacity	42
13.4	Social Resilience	44
14	CLOSURE.....	46

This report was prepared for the sole use of the Municipality of the Town of Lockeport (the Town) for the specific purposes described herein. It reflects professional judgment based on engineering analysis, financial assessment, and climate data available at the time of preparation. The findings and recommendations are intended to support municipal decision-making within the scope and limitations defined in this report.

Use of this document by parties other than the Town, or for purposes beyond those stated, is at the sole risk of the user. The authors and their affiliated organizations accept no responsibility for any loss, damage, or consequence arising from such use or from interpretation of the report outside its stated context.

AI Use Declaration (Included in accordance with AI best practices and our AI Use and Ethics Policy)

This report was developed with the assistance of AI-supported research and editing tools in accordance with AIM Network’s AI Use and Ethics Policy. AI tools were used to assist in literature review, standards alignment review, regulatory synthesis, and text refinement. All findings, analyses, and recommendations were prepared, checked, and validated by qualified professionals in accordance with the quality control process defined for the project. Climate datasets have been collected from the verified public sources noted in the report. Calculations have been completed using industry tools without AI intervention and reviewed in accordance with engineering standard of practice. Professional judgment, verification against confirmed sources, and adherence to applicable engineering and planning standards have been maintained throughout. No confidential municipal data were entered into public AI systems.

COUNCIL DECISION SUMMARY

The following tables are specific actions recommended for Council consideration resulting from this report. They consider not only appropriate action for climate resilience but also the fiscal and operational realities of a small municipality, recommending the sequence of decisions that delivers the most risk reduction per dollar spent. Actions are organized by priority. High priority items represent risks that are active, escalating, or that constrain other decisions. Medium priority items are real and require attention within the planning horizon but allow more lead time. Council has been asked to receive these recommendations, direct staff at the next immediate steps, and note which items require budget or time allocation in the current or upcoming fiscal year.

Recommendations that require staff time are made with the understanding that in most smaller communities, municipal staff are already at or beyond capacity. In accepting such recommendations, council should consider what lower priority activities may be deferred to allow this to proceed. If deferring this recommendation, the discussion should acknowledge the outstanding risks, or consequences of inaction, presented in Table 1 in the Executive Summary with alternate ways to manage risk.

Decision 1: Emergency Management	HIGH PRIORITY
The Issue	
<p>Emergency management is the primary mechanism through which the Town prepares for, responds to, and recovers from hazard events affecting residents, infrastructure, and essential services. This assessment identified several climate hazards that may increase the scale and number of emergency conditions, including river flooding, drought, extreme heat, and wildfire.</p>	
<p>Unlike other services evaluated in this assessment, the Emergency Management (EMO) does not directly operate infrastructure. Instead, its effectiveness depends on coordination between emergency responders and the continued operation of supporting infrastructure, including transportation networks, communications systems, utilities, and emergency response organizations such as fire services, ambulance, and health services.</p>	
<p>At present, several components of emergency planning remain under development. At the same time, new provincial emergency management legislation is expected to introduce additional requirements for municipal emergency planning, including hazard identification, risk assessment, and response coordination.</p>	
<p>Strengthening emergency management capacity now will help ensure the Town is prepared for both increasing climate hazards and upcoming provincial standards and requirements.</p>	
The Proposed Action	
<ol style="list-style-type: none"> 1. Incorporate a comprehensive Hazard Identification and Risk Assessment (HIRA) into emergency planning that integrates projected climate hazards identified in this assessment. 2. Identify and map primary and secondary evacuation routes, considering potential disruption during flood events and other hazards. 	

3. Identify critical infrastructure dependencies that support emergency response, including transportation networks, communications systems, utilities, and emergency response organizations.
4. Develop formal public communication and warning procedures, including the use of cellular, radio, internet, and emergency alert systems.
5. Define and communicate the Town’s level of service for emergency shelter and relief (cooling and warming), including whether services will be provided directly, supported through partners, or not offered.
6. Establish procedures for evacuation planning, emergency sheltering, and support for vulnerable populations.
7. Coordinate response protocols between municipal staff, volunteer fire departments, mutual aid organizations, and provincial agencies.
8. Conduct scheduled training exercises and regular updates to emergency response plans.

Continue to engage with the Province of Nova Scotia as new emergency management legislation and standards are developed.

Why Now

Investments in emergency management are cost-effective and improve resilience across multiple climate hazards, while having the most direct impact on protecting residents and maintaining life safety during emergency events.

The province is also expected to introduce new emergency management legislation and planning requirements, making this an appropriate time to strengthen municipal emergency preparedness.

What This Improves

- Earlier warning of emergencies, reducing risk of injury or loss of life
- Reliable evacuation access during hazard events
- Expectations from public aligned with services
- Improved coordination between emergency responders and supporting infrastructure systems
- Faster and more effective emergency response

Cost Context

Many of these actions involve planning and coordination activities, though several components such as Hazard Identification and Risk Assessment may require consultant support (~\$30k–\$60k).

Most actions can be implemented incrementally through staff coordination, inter-agency collaboration, and updates to emergency planning processes.

Decision 2: Implement Climate-Resilient Stormwater Standards

High PRIORITY

The Issue

Climate change is increasing pressure on the Town’s stormwater infrastructure, with more intense rainfall events exceeding the capacity of systems designed using historical conditions. At present, the Town does not have a consistent, climate-informed design standard to guide how stormwater infrastructure is sized and replaced.

Brighton Road is a key transportation corridor within the Town, and the existing culverts are reported to be in poor condition and may not provide sufficient capacity under current or future storm conditions. While other flooding areas are known and managed, failure of these culverts presents a higher consequence scenario. Washout or loss of access would disrupt transportation and complicate emergency response.

Without a defined level of service or climate-informed design approach, the Town’s ability to plan replacement, prioritize investment, and confirm adequacy under future conditions is limited.

The Proposed Action

1. Establish a climate-informed design standard:
Adopt a consistent approach for stormwater infrastructure based on future climate conditions. This should include defined design storms for different asset classes (e.g., local drainage, transportation corridors, and critical infrastructure), aligned with Council’s risk tolerance.
2. Define level of service and failure criteria:
Using the adopted design standard, confirm what level of performance is expected for these culverts, including acceptable conditions during storm events.
3. Inspect culverts and assess condition:
Confirm current condition, identify failure modes, and estimate remaining useful life, considering both structural condition and hydraulic capacity relative to the adopted design standard.
4. Determine replacement design requirements:
Size replacement culverts based on the selected level of service using future climate conditions, including consideration of projected rainfall and potential land use changes.
5. Incorporate into capital planning:
Use inspection results and design requirements to identify timing and budget for replacement within the Town’s asset management and capital planning process.

Why Now

Stormwater has been identified as the highest risk system within this assessment, and infrastructure is already showing signs of strain under current conditions. Establishing a clear, climate-informed approach now allows the Town to make consistent, forward-looking decisions as assets are replaced, rather than reacting to failures.

Brighton Road presents an immediate opportunity to apply this approach to a high-consequence asset.

What This Improves

- Reduced risk of roadway washout and loss of access along a key transportation route
- Improved performance of stormwater infrastructure under future climate conditions
- Consistent, climate-informed decision-making across stormwater assets
- More effective capital planning and reduced likelihood of emergency repairs

Cost Context

1. Design standard development: Low (staff-led)
2. Level of service definition: Low (staff-led)
3. Inspection and condition assessment: ~\$5k–\$15k
4. Design inputs for replacement: ~\$10k–\$25k
5. Culvert replacement: To be determined (capital project, scale dependent).

Proactive planning allows the Town to pursue external funding and avoid higher costs associated with emergency repair or premature replacement.

Decision 3: Adaptive Capacity

CONTINUE SUPPORT

The Issue

The Town’s ability to respond to climate-related risks is influenced by limited staff capacity, funding, and internal resources. As a small municipality, there is limited ability to take on additional work or advance new initiatives without external support.

Climate adaptation increasingly requires access to technical guidance, coordination across jurisdictions, and alignment with evolving funding programs. Without continued participation in these supports, the Town may face challenges in advancing adaptation measures and responding to emerging risks.

The Proposed Action

1. Continue participation in the Clean Foundation Community Climate Capacity (CCC) program
Maintain access to technical support, tools, and guidance to support climate adaptation planning and implementation.
2. Continue to engage in regional climate planning efforts
Participate in ongoing regional initiatives to support coordination, shared learning, and efficient use of limited resources.
3. Position the Town to be competitive for climate-related funding
Align projects with funding requirements, including demonstrating climate risk, incorporating nature-based solutions, and maintaining up-to-date plans and data.

Why Now

Climate adaptation funding and support programs are actively available but are competitive and often require demonstrated readiness. Maintaining participation in current programs and initiatives ensures the Town remains well positioned to access funding and implement projects as opportunities arise.

What This Improves

- Improved access to technical support and climate adaptation tools
- Increased likelihood of securing external funding for projects
- Better coordination with regional partners and shared initiatives
- Reduced reliance on limited internal resources

Cost Context

1. CCC program participation: Low (staff time; program externally supported)
2. Regional collaboration: Low (staff time)
3. Funding applications and project positioning: Low to moderate (staff time; potential consultant support)

These actions primarily require staff time and coordination but can unlock significant external funding and support for implementation.

Decision 4: Social Resilience

CONTINUE SUPPORT

The Issue

Social resilience plays an important role in how communities prepare for, respond to, and recover from climate events. Strong local networks and informed residents can reduce demand on municipal services and improve outcomes during disruptions.

Lockeport benefits from active community groups and a high level of local engagement, which support communication and coordination during events. However, without continued effort, these networks may weaken over time, and opportunities to improve awareness and preparedness may be missed.

The Proposed Action

1. Continue fostering relationships with community groups and local organizations
Maintain strong communication channels and collaboration with groups that support residents during climate events.
2. Support public engagement and awareness of climate risks
Share information on local climate risks and preparedness actions through municipal communications, public sessions, and available tools.

Why Now

Climate risks are increasing, and informed, connected communities are better able to respond and recover. Existing community strength provides a strong foundation to build on, while current programs such as CRCC offer opportunities to enhance engagement and awareness.

What This Improves

- Improved communication and coordination during climate events
- Increased awareness of local risks and household preparedness
- Stronger support networks for vulnerable populations
- Reduced demand on municipal emergency response services

Cost Context

1. Community engagement and relationship-building: Low (staff time)
2. Public awareness materials and sessions: Low to moderate (~\$5k-\$15k)

These actions are low cost and can significantly improve community preparedness and response capacity.



1 EXECUTIVE SUMMARY

This report is commissioned to conduct a high-level risk screen of climate risk in the Municipality of the Town of Lockeport (the Town), to identify priority areas to focus efforts to manage climate related risks to their infrastructure. It brings together information from past reports and improves organizational understanding of climate change by incorporating uncertainties and multiple scenarios from the Intergovernmental Panel on Climate Change (IPCC) sixth assessment report (AR6) as part of the risk assessment process, rather than selecting a preferred forecast.

The goals of this report include exploring flexible options for adapting to climate change over the next eighty years, providing advice on making decisions about risks to allow adaptation action under uncertainty, and estimating costs to plan how to fund necessary measures.

Ultimately, the project endeavors to empower municipalities to make informed decisions and undertake meaningful climate adaptation initiatives, thereby contributing to long-term resilience and sustainability in Atlantic Canada.

Coastal hazards are not included within the scope of this assessment, as these risks are currently being evaluated through Natural Resources Canada's Climate-Resilient Coastal Communities (CRCC) program and through a recent Climate Ready Infrastructure Services (CRIS) assessment of the Crescent Beach Causeway.

1.1 Key Findings

This assessment applied the Public Infrastructure Engineering Vulnerability Committee (PIEVC) High-Level Screening Guide methodology to identify critical climate-related risks to municipal infrastructure and service delivery within the Municipality of the Town of Lockeport. The screening considered how projected changes in climate conditions may affect infrastructure performance and the continuity of essential municipal services over time. Several climate hazards were identified as having the potential to affect infrastructure and services across the Town, particularly river flooding, erosion, and drought conditions. Key findings from the assessment are summarized below, with a consolidated overview of recommended actions provided in Table 1: Key Findings.

1.1.1 Emergency Management

Emergency Management (EMO) plays a central role in the Town’s response to climate-related events. Several of the climate hazards identified through this assessment may create unforeseen demands on emergency coordination, public communication, and temporary response measures. Ensuring that emergency response planning continues to consider climate-related risks will remain an important component of community resilience. See section 13 for further details.

1.1.2 Implement Climate-Resilient Stormwater Standards

Climate change is increasing pressure on the Town’s stormwater infrastructure, particularly during high-intensity rainfall events. Adopting a consistent, climate-informed design standard will support long-term asset management by ensuring that infrastructure replacements are appropriately sized for future conditions, reducing the likelihood of repeated upgrades or premature failure. This approach should be applied as assets are replaced, with the Brighton Road culverts identified as a high-priority initial application due to their condition and importance within the transportation network. See Section 13 for further details.

1.1.3 Adaptive Capacity

The Town’s ability to respond to climate risks is influenced by its available resources, including staff capacity and funding. As a small municipality, advancing adaptation efforts will rely on leveraging partnerships, participating in regional initiatives, and aligning projects with external funding opportunities. Continued involvement in programs such as the Climate Resilient Coastal Communities project and Clean Foundation initiatives will support informed decision-making and help position the Town for future investment. See Section 13 for further details.

1.1.4 Social Resilience

Strong community networks and local engagement are an important component of resilience in Lockeport. Active community groups and local knowledge support communication, coordination, and response during climate events. Continued efforts to foster these relationships, along with public engagement and awareness of climate risks, will help reduce demand on municipal services and improve outcomes for residents. See Section 13 for further details.

PIEVC REPORT – EXECUTIVE SUMMARY

Climate Hazard	Service Area Impact	Current Risk		Proposed Actions	Resilient Outcome Improvements	Risk Impacts	Order of Probable Cost	Consequence of Inaction
		Today (2024)	Future (2100)					
Various	Emergency Management (EMO)	Medium (8)	High (16)	Incorporate a comprehensive Hazard Identification and Risk Assessment (HIRA) into emergency planning that incorporates projected climate hazards identified in this assessment.	Emergency plans reflect the full range of hazards that could affect the Town, including climate hazards, industrial incidents, critical infrastructure failures, transportation accidents, and public safety emergencies, allowing responders to protect residents and maintain critical services during major events.	Reduces PoF by identifying hazards and vulnerabilities before they lead to emergency management failure. Reduces CoF by improving preparedness to protect residents and critical services during major emergencies.	~\$30k–\$60k (consultant-led emergency risk assessment)	Emergency plans may not reflect the most significant hazards affecting the Town, increasing the risk of delayed or ineffective response during major emergencies.
				Identify and map primary and secondary evacuation routes, considering potential disruption during flood events and other climate hazards.	Residents and emergency responders maintain evacuation access if primary roads are flooded or blocked.	Reduces CoF by maintaining evacuation access when primary routes are disrupted.	~\$10k–\$20k (GIS analysis and mapping)	Flooding or other hazards may block primary roads, preventing residents and emergency responders from safely evacuating affected areas.
				Identify critical infrastructure dependencies that support emergency response, including transportation networks, communications systems, utilities, and emergency response organizations.	Emergency response can continue when critical infrastructure such as roads, communications, or power systems are disrupted.	Reduces PoF by identifying infrastructure failures that could disrupt emergency response.	~\$15k–\$30k (technical analysis and coordination)	Failures in critical infrastructure such as roads, power, or communications may disrupt emergency response without prior planning.
				Develop and formalize public communication and warning procedures, including the use of cellular, radio, internet, and emergency alert systems.	Residents receive earlier warning of emergencies, reducing the risk of injury or loss of life.	Reduces CoF by improving the ability of residents to take protective action during emergencies.	~\$5k–\$10k (planning and communication materials)	Residents may receive late or unclear emergency warnings, increasing the risk of injury or loss of life.
				Establish procedures for evacuation planning, emergency sheltering, and support for vulnerable populations during hazard events.	Residents displaced by emergencies have safe shelter and support during evacuations.	Reduces CoF by improving support to residents during displacement or service disruption.	~\$10k–\$20k (planning and coordination)	Residents displaced by emergencies may not have safe shelter or coordinated support during evacuation events.
				Assess and define level of service for emergency shelter and relief (food and warming) and communicate this to residents. Identify whether services will be provided directly, supported through partners, or not offered, and develop clear public messaging on available options and limitations.	Clear expectations are established for emergency shelter and relief services, improving public awareness and preparedness during extreme heat and winter events.	Reduces CoF by improving preparedness, managing public expectations, and reducing pressure on municipal services during extreme events.	Low (staff time, minor costs for communications and outreach ~\$2k–\$10k)	Residents may expect services that the Town is not prepared to provide, leading to confusion, increased pressure on staff during events, and reduced effectiveness of emergency response.
				Coordinate response protocols between municipal staff, volunteer fire departments, neighbouring municipalities, and provincial agencies.	Emergency responders operate under coordinated procedures during emergencies, reducing delays in response.	Reduces CoF by reducing delays and confusion during emergency response.	Staff coordination (minimal direct cost)	Emergency response may be delayed or disorganized due to unclear roles and coordination between agencies.
				Conduct scheduled training exercises and regular updates to emergency response plans to ensure preparedness under evolving climate risks.	Emergency responders can act quickly and safely during real emergencies.	Reduces PoF by improving readiness to implement emergency procedures effectively.	~\$5k–\$15k per exercise.	Emergency responders may be unfamiliar with procedures during real emergencies, increasing response delays.

PIEVC REPORT – EXECUTIVE SUMMARY

Climate Hazard	Service Area Impact	Current Risk		Proposed Actions	Resilient Outcome Improvements	Risk Impacts	Opinion of Probable Cost	Consequence of Inaction
		Today (2025)	Future (2100)					
Pluvial Flooding	Brighton Road Culverts			Continue to engage with the Province of Nova Scotia as new emergency management legislation and standards are developed, ensuring municipal plans remain aligned with upcoming requirements	Municipal emergency plans remain compliant with new provincial emergency management standards.	Reduces PoF by aligning municipal emergency planning with evolving provincial requirements.	Staff coordination (minimal direct cost).	Municipal emergency plans may not meet new provincial requirements when legislation is implemented.
		Medium (8)	High-Medium (12)	<p>Establish a climate-informed design standard for stormwater infrastructure:</p> <p>Adopt a consistent approach to sizing and replacing stormwater assets using future climate conditions. The following is recommended as a starting point:</p> <ul style="list-style-type: none"> -Local drainage (non-critical infrastructure): SSP2-4.5, 2100 median, 1 in 10-year event -Key transportation corridors (e.g., Brighton Road): SSP2-4.5, 2100 median, 1 in 100-year event -Critical or high-consequence assets (e.g., causeway): Up to SSP5-8.5, 2100 high percentile (p83), 1 in 100-year event <p>This framework provides a practical balance between risk and cost and can be adjusted over time based on Council's risk tolerance, available funding, and observed performance of infrastructure.</p> <p>Define what failure looks like:</p> <p>Using the design standard for key transportation corridors, confirm what level of performance is expected. This includes defining acceptable conditions (e.g., no roadway washout, limited overtopping) during the selected design event.</p> <p>Inspect the culverts and estimate remaining useful life:</p> <p>Confirm current condition and identify likely failure modes. This should consider both structural condition and hydraulic capacity relative to the adopted design storm. For this location, the primary concern is failure resulting in roadway loss or major access disruption.</p> <p>Determine the replacement design standard.</p> <p>Size replacement culverts based on the selected climate-informed design storm for Brighton Road (SSP2-4.5, 2100 median, 1 in 100-year event). Consider upstream land use, drainage patterns, and any known constraints.</p> <p>Budget and plan for replacement.</p> <p>Use inspection results and the adopted design standard to identify when replacement is required. Incorporate lining and cost into the Town's asset management and capital planning process so funding can be set aside in advance and coordinated with other priorities.</p> <p>Continue participation in the Clean Foundation Community Climate Capacity (CCC) program</p> <p>The CCC program provides ongoing technical support, guidance, and access to tools that help small municipalities advance climate</p>	<p>Consistent, climate-informed criteria are established for sizing and replacing stormwater infrastructure across the Town, supporting long-term performance and reducing the need for repeated upgrades.</p> <p>Clear expectations are established for culvert performance, including what level of service is acceptable during storm events and what conditions constitute failure.</p> <p>Current condition and likely failure modes are understood, allowing for informed decision-making and prioritization.</p> <p>Replacement culverts are designed to meet future climate conditions and maintain service over the long term.</p> <p>Replacement is planned proactively and aligned with asset management priorities, reducing disruption and improving cost efficiency.</p> <p>Access to ongoing technical support, tools, and guidance to support climate adaptation planning and implementation.</p>	<p>Defines PoF by establishing the performance standard the asset is expected to meet.</p> <p>Refines PoF of the existing asset by identifying structural condition, hydraulic capacity, and likely failure triggers.</p> <p>Reduces PoF of the replacement asset by ensuring it is appropriately sized and designed for future conditions.</p> <p>Reduces CoF by avoiding reactive emergency repairs and minimizing the duration and impact of service disruptions.</p> <p>N/A</p>	<p>Staff coordination (minimal direct cost)</p> <p>~\$5K-\$15K (inspection and basic engineering review)</p> <p>~\$10K-\$25K (engineering analysis and design inputs)</p> <p>Staff time (planning) + capital costs at time of replacement (to be determined)</p> <p>Low (staff time, program typically externally funded)</p>	<p>Lack of clarity on management of the asset leading to a higher likelihood of deferred action and increased risk of failure.</p> <p>Undetected deterioration or capacity limitations may lead to unexpected failure, including roadway washout and service disruption.</p> <p>Replacement infrastructure may be undersized for future conditions, leading to repeated failure and increased lifecycle costs.</p> <p>Failure may occur unexpectedly, requiring emergency response, increasing repair costs, and disrupting access along a key transportation route.</p> <p>Reduced access to technical support and guidance, increasing reliance on internal capacity and raising the</p>
All	Adaptive Capacity	N/A	N/A					

PIEVC REPORT – EXECUTIVE SUMMARY

Climate Hazard	Service Area Impact	Current Risk		Proposed Actions	Resilient Outcome Improvements	Risk Impacts	Opinion of Probable Cost	Consequence of Inaction
		Today (2026)	Future (2100)					
				<p>adaptation in a practical and manageable way. Continued participation will help the Town build internal capacity, stay aligned with best practices, and maintain momentum on climate-related initiatives without placing additional strain on staff resources.</p> <p>Continue to engage in regional climate planning efforts.</p> <p>Regional collaboration is already underway and should be maintained. Working with neighbouring municipalities supports shared learning, coordinated responses, and more efficient use of limited resources. Many climate risks and infrastructure systems extend beyond municipal boundaries, making regional approaches more effective than acting independently.</p> <p>Position the Town to be competitive for climate-related funding. External funding will be critical to advancing adaptation projects. To remain competitive, the Town should align projects with common funding requirements, including demonstrating clear climate risk, incorporating nature-based solutions where appropriate, and showing coordination with regional partners. Maintaining up-to-date plans, risk assessments, and asset data will strengthen applications. Programs such as those supported by Clean Foundation can assist in navigating funding streams and preparing strong submissions.</p> <p>Continue fostering relationships with community groups and local organizations</p> <p>Ongoing collaboration with community groups will help maintain strong communication channels, support vulnerable populations, and build capacity for response during climate events</p> <p>Support public engagement and awareness of climate risks</p> <p>Public engagement can support climate adaptation by improving awareness of local risks, incorporating community knowledge, and building support for resilience actions. The following engagement approaches may be considered when communicating climate risk information and developing adaptation strategies.</p>	<p>Improved coordination with neighbouring municipalities, leading to more consistent and efficient approaches to shared climate risks.</p> <p>Increased access to external funding to support implementation of climate adaptation projects and infrastructure upgrades.</p> <p>Strong communication networks and community connections that support coordination and response during climate events.</p> <p>Increased public awareness of climate risks and improved preparedness at the household and community level.</p>	<p>N/A</p> <p>N/A</p> <p>Reduces CoF by improving community-level response, supporting vulnerable populations, and reducing demand on municipal services during events.</p> <p>Reduces CoF by improving preparedness and enabling more effective response to climate events.</p>	<p>Low (staff time and participation)</p> <p>Low to moderate (staff time; potential consultant support for applications)</p> <p>Low (staff time and ongoing engagement)</p> <p>Low to moderate (~\$5k-\$15k depending on materials, sessions, and outreach methods)</p>	<p>likelihood of delayed or less effective climate adaptation actions.</p> <p>Missed opportunities for coordination and shared solutions, potentially leading to inefficient use of resources and increased vulnerability to regional-scale climate risks.</p> <p>Limited access to external funding may delay or prevent implementation of adaptation measures, increasing long-term costs and exposure to climate-related impacts.</p> <p>Weakened communication and support networks may lead to increased pressure on municipal services and reduced effectiveness of response during climate events.</p> <p>Residents may remain unaware of climate risks and appropriate response actions, increasing potential impacts during events and placing greater demand on municipal emergency response</p>
All	Social Resilience	N/A	N/A					

Table 1. Key Findings



2 INTRODUCTION

Most municipal infrastructure was designed using historical weather data. Engineers use past records of rainfall, flood levels, wind speeds, and temperature extremes to set design standards and predict how likely it is to happen again. That worked well when the climate was relatively stable, but climate change is shifting the baseline. Weather events that were once rare are becoming more frequent, and conditions that infrastructure was never designed to handle will occur with increasing regularity.

This matters because when infrastructure fails – a road washes out, a wastewater system backs up, a culvert is overwhelmed – the cost of emergency response and repair is almost always higher than the cost of planning ahead. The stakes are higher too, because climate events affect many assets at the same time, across the entire municipality, not just a single culvert or roof.

Local governments own and operate most of the infrastructure that communities depend on daily: roads, water and wastewater systems, public buildings, and drainage networks. That means the responsibility for managing these risks falls primarily at the municipal level, often with limited staff capacity and constrained budgets competing against many other priorities.

The challenge is knowing where to focus. Not every asset faces the same level of risk, and not every risk warrants the same level of investment. Spending too little leaves communities exposed; spending without clear priorities means resources may not reach the places they are needed most.

To address this, the Public Infrastructure Engineering Vulnerability Committee (PIEVC) developed a structured screening methodology specifically designed for public infrastructure in their High-Level Screening Guide. The PIEVC approach provides a consistent, evidence-based way to evaluate how climate hazards may affect different types of infrastructure and services, and to compare risks across a municipal portfolio. Rather than treating every asset as equally vulnerable, it helps municipalities identify where the risk is highest, where further investigation is warranted, and where action should be prioritized.

This assessment applies that methodology to the Town. The results are intended to support Council and staff in making informed, defensible decisions about climate adaptation, decisions that can be clearly explained, connected to evidence, and positioned to access available funding programs.

PIEVC REPORT – INTRODUCTION

No assessment can eliminate uncertainty, and no municipality can afford to protect against every possible outcome. The goal is not to be right about every prediction or to predict exactly what could impact infrastructure and prevent the impact. The goal is to demonstrate that decisions are being made through a transparent, consistent, and evidence-based process that balances available resources against identified risk.

Communities build trust not by preventing every failure; that is unaffordable. Trust is built and maintained by showing that investments are being made thoughtfully and that risk is being managed responsibly. Sometimes, despite best efforts, services will still fail but having a clear record of how and why decisions were made is what allows a municipality to respond with credibility when they do. This report supports that decision-making.



3 Project Definition

The first step in a high-level risk screening program is to define exactly what assets, climate events and impacts are considered. This constrains the assessment from expanding indefinitely and manages uncertainties throughout.

3.1 Scope

The scope of the project defines the goals of the assessment, which infrastructure is considered, what timeline is of concern and who will participate in what capacity in the assessment.

3.1.1 Objectives

This assessment is conducted as a component of the Town’s broader climate adaptation and regional coordination efforts, supported through the Clean Foundation Community Climate Capacity (CCC) Program. Its objective is to identify and prioritize climate-related risks to municipal infrastructure and service delivery systems, following the methodology set out in the Public Infrastructure Engineering Vulnerability Committee (PIEVC) High Level Screening Guide (HLSG).

This work supports the Town’s participation in regional climate action planning through the Clean Foundation Community Climate Capacity (CCC) Program. The assessment is intended to provide a consistent and comparable understanding of climate risk across Town-managed infrastructure, allowing results to align with neighbouring municipalities undertaking similar assessments. This supports coordinated planning efforts and a shared understanding of regional risks.

The assessment will inform municipal decision-making by identifying infrastructure systems and service areas that are exposed or vulnerable to current and projected climate hazards, drawing on available climate projections and existing asset information.

The intent is to establish a clear line of sight between identified risks and prioritized adaptation actions or areas requiring further study. The resulting insights will support the Town in assigning climate change

preparedness tasks to internal resources, advancing regional collaboration, and positioning future adaptation measures to align with available funding programs and strategic planning initiatives.

3.1.2 Context

This assessment is scoped to climate-related risks affecting municipal infrastructure and service delivery that fall within the decision-making authority of the Municipality of the Town of Lockeport. A high-level, semi-quantitative screening approach is applied to assess potential infrastructure performance degradation and service disruption as climate-related loads evolve over time.

Coastal hazards are not included within the scope of this assessment. The Town is currently participating in Natural Resources Canada's Climate-Resilient Coastal Communities (CRCC) program, which is assessing coastal flood and erosion risks, and identifying infrastructure adaptation options. In addition, the Crescent Beach Causeway was recently assessed through the Canadian Urban Institute's Climate Ready Infrastructure Services (CRIS) program, which evaluated risks associated with storm surge, pluvial flooding, and erosion. As a result, this report focuses on other climate events that may affect municipal infrastructure. The causeway remains part of this screening but is only assessed for climate hazards not previously evaluated through the CRIS study.

Broader environmental, ecological, health, or socio-economic impacts of climate change are acknowledged but are not assessed as part of this screening. Infrastructure or policy considerations that fall under the regulatory authority of other levels of government are not evaluated, except where they influence the Town's ability to deliver municipal services (e.g., emergency response and access).

The assessment relies on consultation with municipal staff and Council. While the findings may identify opportunities for future engagement with external stakeholders, including other levels of government, Indigenous communities, or the public, such engagement is outside the scope of this initial screening.

3.1.3 Timing

Climate risks are considered across several planning horizons to reflect how municipalities typically plan, finance, and manage infrastructure over time. Short-term horizons align with operational and capital planning cycles, while longer horizons help identify emerging risks that may influence long-term infrastructure decisions and land-use planning.

The assessment therefore considers potential climate risks across the following planning horizons:

- A. Near-term risks to be addressed within the next five years (2026–2031), informing further investigation, project scoping, and near-term planning actions;
- B. Medium-term risks to be addressed within the next 20 years (2030–2050), supporting early planning and consideration within reserve funding and capital planning processes; and
- C. Long-term potential risks extending to 2100 that may require ongoing monitoring and periodic reassessment as conditions and data evolve.

3.1.4 Techniques

This assessment is a portfolio-level, high-level climate risk screening. In this context, portfolio-level means the assessment considers infrastructure systems and service areas across the Town, rather than evaluating

individual assets in detail. The goal is to identify where climate hazards may affect groups of assets or municipal services and to highlight areas that may require further attention.

A high-level screening approach is used to identify potential climate risks and prioritize areas for further investigation. The assessment does not include detailed engineering analysis or design-level evaluation of specific infrastructure components. Instead, it provides an initial understanding of how climate hazards may interact with municipal infrastructure and services.

The screening incorporates input from:

- A. the technical project team (AIM Network), who compile climate data, provide engineering interpretation of climate hazard likelihood and potential consequences, and facilitate the risk assessment process through structured consultation with municipal staff and review by Council;
- B. municipal staff; who contribute operational knowledge of asset condition and function, identify locations with known performance issues or maintenance concerns, and draw on local experience with past weather events and early warning indicators that may not be captured in technical data alone;
- C. municipal council; who hold accountability for the risk management decisions that flow from this assessment and who direct the adaptation actions, funding commitments, and policy responses recommended through the staff reporting process; and
- D. the Community Climate Capacity (CCC) Program team (Clean Foundation), who provide community-level climate expertise and oversight to ensure the findings of this assessment are interpreted consistently with the Municipality's broader climate change action planning commitments.

This consultative approach aims to ensure that local expertise and experience is considered in the technical interpretation of climate data and infrastructure performance. The assessment may identify the need for future investigations by other parties, such as technical specialists or community engagement processes. Additional technical analysis, detailed design, or community engagement is not included within the scope of this initial assessment.

3.2 Elements

This section defines boundaries on what infrastructure assets are considered in the assessment.

3.2.1 Built Infrastructure

The following infrastructure systems were included in the assessment based on assets and services owned or managed by the Town. These elements represent the core infrastructure and operational services that support municipal functions and community safety:

- Wastewater Collection and Treatment Systems
 - o (gravity sewer mains on Locke Island and the mainland; combined sewers on Locke Island; forcemains on Locke Island and the mainland; lift stations on Locke Island and the mainland; wastewater treatment facility (structure and equipment); effluent outfall; overflow points)

PIEVC REPORT – PROJECT DEFINITION

- Stormwater (Drainage) Systems
 - o (storm and combined sewer infrastructure on Locke Island; culverts on Locke Island and the mainland; roadside drainage ditches on Locke Island and the mainland)
- Transportation Systems
 - o (roads on Locke Island and the mainland; sidewalks on Locke Island; boardwalk infrastructure; street lighting on Locke Island; guiderails on the mainland; the causeway connection between Locke Island and the mainland; Trestle Trail; winter maintenance operations)
- Recreation and Cultural Services Facilities
 - o (Crescent Beach visitor information centre; Seacaps Park including lighthouse stage, pavilion, concession stands, and playground; Volunteers Athletic Fields (soccer field); L.M. (Mac) Huskison Memorial Field (baseball field); Helen Ghent Tennis Court; Little School Museum and Marine Room; Lillian Benham Library; Rood's Head Park; Cultural Park; Dog Park; Window's Walk Lookoff)
- General Government Services Facilities
 - o (Town Office and Recreation Centre; Public Works Office)
- Protective Services
 - o (emergency management operations; Fire Hall (Red Cross site); Medical Centre)

Emergency management is included as a service element within this assessment. While not a physical asset, it plays a critical role in coordinating response and recovery during climate-related events and is therefore considered alongside built infrastructure systems.

3.2.2 Natural Environment

Natural systems (e.g., creeks, rivers, wetlands, forests, wildlife habitat) and natural assets (e.g., aquifers, surface reservoirs, wetlands, trees, and coastlines) are not assessed as assets or systems within the scope of this PIEVC High-Level Screening. These features may be referenced at a high level to provide contextual understanding of climate hazards or to inform potential adaptation considerations; however, no screening or evaluation of their condition, performance, or vulnerability is included as part of this assessment outside of their interaction with built assets.

3.2.3 People

This assessment does not include a direct evaluation of social, or health impacts related to residents, employees, visitors, vendors, suppliers, supply chains, or governance bodies. People are considered indirectly through the Consequence of Failure (CoF) scoring of infrastructure systems, where impacts to service delivery, emergency response, and public safety may occur if infrastructure performance is disrupted. The assessment does not evaluate the direct effects of climate hazards on people independent of infrastructure.

3.3 Organization Capacity

The assessment will be delivered in a manner that supports integration of climate risk considerations into Town decision-making and day-to-day operations. Findings, assumptions, and methodologies will be

4/2

PIEVC REPORT – PROJECT DEFINITION

documented clearly within the PIEVC High-Level Screening workbook and accompanying materials to support transparency and future updates.

Capacity to apply and maintain the results of this assessment is supported through the Community Climate Capacity (CCC) Program administered by the Clean Foundation, which provides participating municipalities with dedicated staff resources and technical support. While formal training is not included within the scope of this assessment, the structure and documentation of the screening are intended to enable staff to revisit and update the assessment as new information becomes available.



4 Climate Events

Climate events describe the types of weather conditions that can place stress on infrastructure and municipal services. Examples include extreme heat, intense rainfall, coastal flooding, and river flooding. The event itself does not change, but climate change may affect how often it happens, how severe it becomes, how long it lasts, or how large an area it affects.

In this assessment, climate events are used as the starting point for analysis. Rather than looking at each asset on its own, the assessment first looks at the climate hazard and then considers how different types of infrastructure may be affected by it.

For each climate event, several climate indicators are reviewed to understand current conditions and projected changes. For example, extreme heat may be informed by changes in the hottest day of the year, the number of heat waves, and the length of heat waves. These indicators are combined to form an overall picture of how that climate event is expected to change. Details are presented in Appendix A.

Where clear numerical projections are available, they are used directly to inform probability scoring. In other cases, professional engineering judgement is applied. This may include discussions with subject matter experts, input from municipal staff, historical experience with past events, and documented community impacts. These inputs help ensure that local experience is reflected alongside modeled projections.

4.1 Projection Time Horizons

Projections are reviewed using standard 30-year climate periods:

- Baseline (1981–2010)
- Short-Term (2011–2040)
- Mid-Century (2041–2070)
- Late Century (2071–2100)

Thirty-year averages are used to smooth out short-term variability and focus on longer-term trends. Many climate indicators, such as temperature and precipitation, exhibit significant year-to-year variability. Using multi-decade averages helps reduce the influence of short-term fluctuations and provides a clearer representation of long-term climate trends.

An exception is sea level rise. Unlike most climate indicators, sea level rise follows a relatively consistent upward trend over time and does not fluctuate around a stable average. For this reason, sea level rise projections are considered as cumulative change relative to baseline conditions rather than as averaged 30-year values.

4.2 Emission Scenarios

For this high-level screening, projections are based on the higher-end emissions scenario (Shared Socioeconomic Pathway (SSP). SSP5-8.5 is a classification from the Intergovernmental Panel on Climate Change that includes increasing greenhouse gas emissions through the end of the century. The modelling has more uncertainty the further out the prediction is taken, resulting in a range of possibilities with a low end and a high end. This report uses median values for the projection to as a consistent basis for comparison across hazards.

The IPCC suggests moderate emissions scenarios such as SSP2-4.5 for infrastructure design and planning, with SSP5-8.5 as a stress test on critical infrastructure. This risk screening is consistent with that approach in that the SSP5-8.5 scenario identifies potential climate risks. Using the higher emissions scenario helps highlight infrastructure interactions that may warrant further investigation, but it does not mean that adopting a lower range emissions scenario for detail design of adaptation interventions is invalid.

When moving from screening to detailed engineering analysis or the design of specific adaptation measures, the selection of climate scenarios should be revisited to ensure alignment with applicable design guidance and regulatory standards.

4.3 Combination of Events

Climate events will initially be considered as discrete and independent for the purposes of screening. Through consultation and professional judgment, the assessment will also consider the potential for interacting or compounding events (e.g., wildfire affecting runoff, erosion, or access conditions) where these interactions may influence infrastructure performance or service continuity. Where relevant, such interactions will be noted qualitatively and may inform recommendations for further investigation or consideration in subsequent, more detailed assessments.



5 Infrastructure Response Considerations

Infrastructure response considerations describe how infrastructure systems may be affected when exposed to a climate event. While climate events are external and region-wide, infrastructure response is asset-specific and depends on factors such as design, age, materials, location, and function.

In a detailed PIEVC assessment, response considerations may include evaluating specific asset thresholds (e.g., pipe capacity relative to projected rainfall intensity, or asset elevation relative to projected flood levels). At the portfolio screening level used in this assessment, that level of asset-specific analysis is not undertaken. Instead, engineering judgement is applied to assess how infrastructure categories are likely to respond based on available design information, known operating conditions, and spatial context.

Mapping and spatial analysis are used where appropriate to screen exposure (e.g., infrastructure located within mapped flood-prone areas). This allows for a rapid and consistent assessment of potential impact pathways without undertaking detailed design verification.

Response considerations capture the different ways climate stress may affect asset performance, service delivery, operations, and the surrounding environment, such as exceeding design capacity, increased maintenance needs, material degradation, or service disruptions. These considerations inform consequence scoring and overall risk evaluation.

Detailed failure modes and engineered adaptation responses are not assessed at this stage and may be explored later for priority risks identified through the screening process.

Table 2: Infrastructure Response Considerations presents the sensitivity indicators used in this analysis.

PIEVC REPORT – INFRASTRUCTURE RESPONSE CONSIDERATIONS

Category	Examples
Design Performance	Exceeding Design Capacity (e.g. exceed structural load, exceed pipe capacity)
	Slope stability (e.g. embankment slip failure)
	Change in Supply (e.g. aquifer flow rate, river flow rate)
Functionality	Reduced level of service
	Temporary service disruption
	Permanent service disruption
Operations, Maintenance, and Materials Performance	Increase in maintenance activities
	Increase in operational cost
	Accelerated material deterioration (including pavement, corrosion, freeze/thaw)
Insurance Considerations	Increase in insurance requirements
Policy Considerations	Building / design code implications
	Public sector policy
	Land use planning documents Guidelines
Environmental Effects	Short term environmental degradation (<10 years)
	Long term environmental degradation (> 10 years)
	Permanent environmental degradation

Table 2: Infrastructure Response Considerations



6 Risk Analysis & Assessment

Risk is evaluated by combining the Probability of Failure (PoF) and the Consequence of Failure (CoF), defined in Table 3, calculated as presented in Figure 1. PoF reflects the likelihood that a climate event to which infrastructure is exposed will result in failure, performance degradation, or service disruption over a given time horizon. CoF reflects the severity of impact on the community if that infrastructure category were to fail because of the climate event.

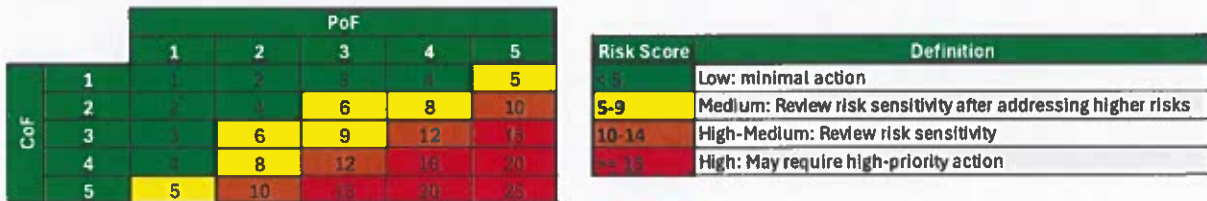


Figure 1: Risk Matrix

The assessment does not score the direct physical impact of the climate hazard itself (for example, heat stress or flood exposure), but rather the downstream consequences that occur when municipal systems are unable to perform as intended. The Town’s risk appetite is to manage climate-related risks such that they do not exceed the level of risk currently accepted for aging infrastructure systems. In practice, this means the tolerance for climate-related infrastructure risk is aligned with the Town’s existing asset management planning approach.

The probability and consequence scoring used in this assessment follow the same general risk tolerance framework applied in conventional infrastructure assessments. This alignment ensures that climate-related risks can be interpreted within the same decision-making context as other infrastructure risks considered through asset management planning.

Different climate events can lead to different types of infrastructure failure, and those failure pathways may carry different levels of consequence. For example, one event may result in temporary service interruption, while another may cause environmental release or long-term loss of service. These response considerations, discussed in Section 5, are evaluated at a portfolio level using engineering judgement and

PIEVC REPORT – RISK ANALYSIS & ASSESSMENT

available spatial analysis, recognizing that the nature and severity of impact vary depending on how infrastructure responds to a specific hazard.

Score	PoF	CoF
Null	Negligible - Not Applicable	NULL: No Effect
1	Highly Unlikely - Improbable: might happen, but not expected in a typical decade	Insignificant: - Minimal or no impact. - No safety concerns. - No measurable environmental effect. - Minor inconvenience with negligible financial impact.
2	Remotely Possible: could happen in a decade	Minor: - Limited and short-term impact. - No injury expected. - Short-term, localized environmental effects. - Temporary service disruption with manageable financial impact.
3	Possible - Occasional: could happen a few times in a decade	Moderate: - Noticeable impact requiring response. - Potential for minor injury. - Environmental degradation requiring remediation. - Service disruption affecting a portion of the community. - Moderate financial or operational impact.
4	Somewhat Likely - Normal: expected every few years	Major: - Serious impact requiring significant intervention. - Risk of serious injury. - Long-term environmental degradation. - Extended service disruption affecting a large portion of the community. - Significant financial or policy implications.
5	Likely - Frequent: expected most years (or multiple times per year/season)	Catastrophic: - Severe and potentially irreversible impact. - Risk of loss of life. - Permanent environmental damage. - Widespread and prolonged service failure. - Major financial, legal, or regulatory consequences.

Table 3: Failure Score Definitions



7 Temperature-Related Hazards

7.1 Extreme Heat Events

Definition: Extreme heat events (“heat waves”) are periods of unusually hot weather lasting multiple consecutive days. For this assessment, a heat wave is defined as **two or more consecutive days** where daily maximum temperature is **at least 29°C** and nighttime temperature **does not fall below 16°C**. Indicators used include Hottest Day (°C), Heat Wave Frequency (events per year), and Heat Wave Duration (total heat-wave days per year).

Projection: All extreme heat indicators show a clear **increasing trend**. The hottest annual temperature increases through the century by approximately **20%**, while heat wave frequency and total heat-wave days rise from **historically rare events** to becoming a **regular seasonal occurrence**, expected to happen multiple times per year by mid- and late-century. Detailed projections and risk results are provided in Appendix A.

Results: Extreme heat **mainly affects people**. It does not usually cause direct damage to infrastructure, but it does increase pressure on municipal services and facilities. Core wastewater infrastructure, including lift stations and treatment facilities, shows a low probability of failure, with only minor increases in operational stress during sustained heat.

Public buildings and community facilities may see higher cooling demand and reduced comfort as heat events become more frequent. This includes key facilities such as the fire hall and medical centre, which are important during emergencies. While the likelihood of failure remains moderate, the need to keep these facilities operating increases their overall risk.

The Town **does not currently provide a formal cooling or comfort centre service**. As extreme heat events become more frequent and longer in duration, **demand for relief and support may increase**. This may place added pressure on staff, emergency response, and available facilities.

Extreme heat is primarily a service delivery risk. It increases demand on staff and facilities and requires planning for cooling, backup systems, and continued operations. The Town **should consider what level of service it wants to provide during heat events**. This may include offering cooling spaces or supporting

community-led options. Public education on heat risks and where residents can go for relief should also be considered.

7.2 Extreme Cold Events (polar breakout)

Definition: Extreme cold events, sometimes referred to as polar outbreaks, are short periods of unusually low temperatures lasting several consecutive days. For this assessment, extreme cold was evaluated using the indicators Coldest Day (°C) and Cold Spell Days (number of days per year experiencing sustained extreme cold conditions). Cold spell was defined as two or more consecutive days where the average temperature for the day remains below -10°C.

Projection: All extreme cold indicators show a decreasing trend. The coldest annual temperature becomes progressively warmer over time, and the number of cold spell days declines significantly through mid- and late century. This indicates that extreme cold events are expected to become less frequent and less severe compared to historical conditions. Detailed projections and risk results are provided in Appendix A.

Results: Extreme cold primarily affects infrastructure through operational disruption rather than structural failure, like extreme heat. Winter maintenance operations represent the primary area of impact, driven by increased service demands during cold events. Public buildings and municipal facilities, including life safety facilities such as the fire hall and medical centre, may experience increased strain on mechanical systems; however, overall risk remains low. Emergency management operations may still be required to respond to isolated events, particularly where vulnerable populations are affected, but associated service demands are expected to remain limited.

7.3 Temperature Variability and Rapid Swings

Definition: Temperature variability refers to noticeable shifts between warmer and colder conditions over short periods of time. This hazard was assessed qualitatively due to limited availability of regionally specific data.

Projection: While long-term projections show overall warming, there is some evidence that temperature swings between hot and cold may become more frequent. There is currently no detailed local data available to clearly project short-term temperature variability, so confidence in this hazard is low. This screening is based on professional judgement and local experience. Detailed projections and risk results are provided in Appendix A.

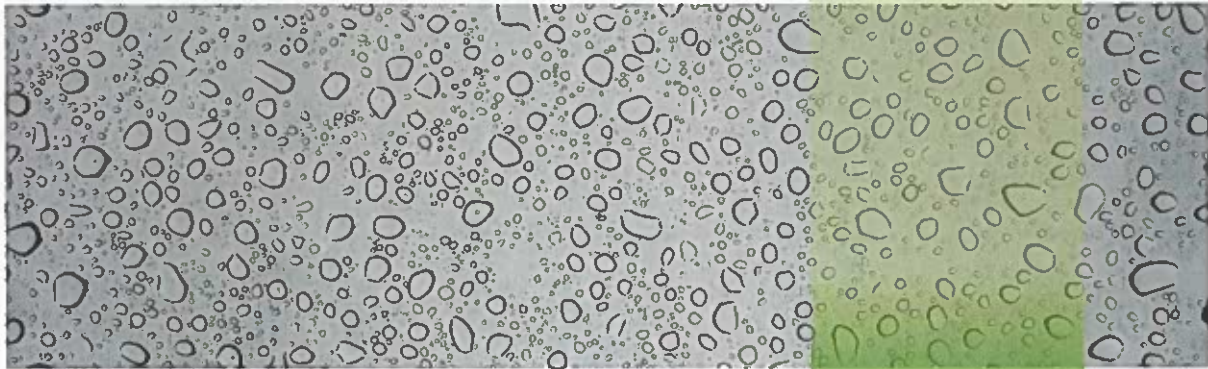
Results: Temperature variability is expected to impact infrastructure primarily through operational strain rather than structural failure, like other temperature-related hazards. Wastewater infrastructure, including lift stations and treatment systems, may experience increased stress during rapid temperature transitions. Winter maintenance operations may also be affected by more variable shoulder season conditions, requiring greater flexibility in service delivery. Overall impacts are expected to be moderate and operational in nature.

7.4 Freeze Thaw Cycles

Definition: Freeze–thaw cycles occur when temperatures fluctuate above and below 0°C, causing repeated freezing and thawing of water within soil, pavement, and other materials. For this assessment, freeze–thaw cycles were evaluated using projected changes in the number of days per year where temperatures cross the freezing threshold (0°C).

Projection: Projections for this region indicate a decrease over time as average winter temperatures rise and conditions remain above freezing more consistently. This reflects a shift from colder, more variable winters toward generally milder conditions. The qualitative hazard of temperature variability and rapid swings, detailed in Section 7.3, is not directly incorporated into this projection. In the near term, short-term variability may still result in periods that produce freeze–thaw cycles, even as long-term trends show an overall decline. Detailed projections and risk results are provided in Appendix A.

Results: Freeze–thaw cycles primarily affect infrastructure through material fatigue and surface deterioration. Roads, sidewalks, and other paved surfaces are most sensitive, as repeated freezing and thawing can accelerate cracking and pothole formation. **Overall risk is low.**



8 Precipitation-Related Hazards

8.1 Frequency and Intensity of Rainfall

Definition: Heavy rainfall events occur when large amounts of rain fall over a short period of time or when rain continues for several consecutive days. These events can overwhelm local drainage systems and cause surface flooding in streets, yards, and low-lying areas. This type of rainfall-driven flooding is referred to as pluvial flooding.

For this assessment, rainfall frequency and intensity were evaluated using the following indicators: Maximum 1-Day Total Precipitation, Maximum 5-Day Precipitation, and Maximum Consecutive Wet Days (≥ 1.0 mm). These indicators capture short-duration intense rainfall, multi-day accumulation events, and prolonged wet periods that can contribute to saturated ground conditions.

Projection: All rainfall intensity indicators show an increasing trend. Maximum 1-day and 5-day rainfall totals increase through the century, indicating a greater likelihood of intense rainfall events that may exceed stormwater system capacity. Increases in consecutive wet days may also reduce infiltration and increase runoff potential. Detailed projections are provided in the Appendix.

Results: Heavy rainfall impacts infrastructure by exceeding system capacity and increasing runoff across the system.

Public buildings, parks, and community facilities generally show low consequence and remain lower risk overall, as impacts are typically short-duration and recoverable.

On Locke Island, catchment areas are small and generally drain quickly to the coast. This understanding is supported by a review of drainage patterns derived from provincially available LiDAR data (CGVD2013),

What is I&I?
Stormwater entering the wastewater system through direct connections (inflow) or through manholes, cracks, and joints (infiltration).
Why it matters under heavy rainfall
Stormwater can rapidly enter the wastewater system, increasing flows well beyond what the system was designed to handle, often several times higher during major events. This

PIEVC REPORT – PRECIPITATION -RELATED HAZARDS

which was used to identify general flow paths and areas of runoff convergence. As a result, widespread flooding is not expected.

Overland flow is generally directed toward the coastline through short drainage paths. More defined flow routes are observed along the east side of Beach Street at the coast, the Upper Water Street & North Street intersection. Localized ponding may still occur where surface grading is uneven or drainage is restricted; however, these locations are typically small-scale and not well captured in the LiDAR-derived surface.

Known areas of concern include the soccer field and isolated locations along the causeway. The most significant flow path on the island is at the intersection of South and John Street, where runoff from two hills converges through a wooded area before reaching the road network. This area has been previously identified by the Town as a drainage concern, with documented flooding and subsequent ditching and culvert improvements. More recent funding applications for upgrades to South Street further reflect the Town's recognition of localized drainage challenges in this area.

On the mainland, larger catchment areas create the potential for greater flow volumes. However, flow paths are generally well-defined, and most infrastructure is situated at elevations that limit exposure to surface flooding. The primary concern is the condition and performance of culverts, which convey these flows. Available data indicates several culverts are in poor condition, and increasing rainfall intensity is expected to place additional stress on these structures. Culverts along Brighton Road should be inspected to confirm condition and assess risk of erosion or washout, and replacement should be planned where required with consideration for future climate conditions.

The highest risk is observed in wastewater infrastructure, including gravity mains, lift stations, overflows, and the treatment facility. This is largely driven by increased inflow and infiltration (I&I), where rainfall enters the system and significantly increases flows, increasing the likelihood of surcharging and overflows. Combined sewer areas show the highest risk. Flow data from the wastewater system should be collected and reviewed alongside rainfall events to better understand how the system responds during storm events. Where high inflows are observed, further investigation may be required to confirm sources of I&I. Over time, planning to phase out and separate combined sewer systems would help reduce system loading during heavy rainfall events.

Emergency Management Operations also shows high consequence due to its role during storm events, with increasing demand as rainfall events become more frequent and intense.



Figure 2: Lockeport Drainage Patterns

8.2 Frequency and Intensity of Riverine Flooding

Riverine flooding is not considered a significant risk within the Town. There are **no major rivers** within the municipal boundary that would be expected to impact infrastructure. Smaller streams are present but are limited in size and respond quickly to rainfall. Any flooding related to these features is addressed under the pluvial flooding event, *see previous section*.

8.3 Snow Load and Snowpack Changes

Definition: Snow load refers to the weight of **accumulated snow on structures**, particularly roofs, and the stress that sustained snowpack can place on buildings and other infrastructure. For this assessment, snow load was evaluated using projected changes in design snow load values (kPa, 1-in-50 year), along with seasonal precipitation and temperature trends that influence snow accumulation.

Projection: Projected snow load values show a **decreasing** trend over time, indicating reduced structural loading from snow accumulation. While total winter precipitation is expected to increase, rising temperatures mean that a greater proportion of precipitation will fall as rain, and snow is less likely to accumulate or remain on the ground for extended periods. In the short- to mid-term, conditions near freezing may still produce wet, heavy snow events that can create higher short-term loading. By late century, continued warming is expected to reduce overall snowpack and shift winter conditions toward rainfall. Detailed projections and risk results are provided in Appendix A.

Results: Snow load presents a decreasing risk to infrastructure over time. Occasional wet, heavy snow events may still create short-term stress on buildings, but sustained snowpack and long-duration loading are expected to become less common. **Changes to winter maintenance** practices are expected to be **manageable** and can be adapted over time as conditions shift.

Snowpack also plays an **important role in natural systems**. It helps regulate soil temperature, supports forest health, and contributes to gradual groundwater recharge as it melts. Reduced snowpack and earlier melt may affect these processes, with potential implications for vegetation and local water availability, particularly during drier periods. Recent drought conditions did not result in reported dry wells; see the Drought section for additional context.

Stewardship of natural systems is not currently considered a **core municipal service** and is outside the scope of this assessment. However, natural asset management is a rapidly evolving area, and the Town should **remain engaged with the broader community of practice** to stay informed and aligned with emerging approaches.



9 Wind Hazards

9.1 Extreme Wind Events

Definition: Extreme wind events refer to periods of unusually strong winds associated with major storm systems, including hurricanes, post-tropical storms, and nor'easters.

Projection: This hazard was assessed qualitatively. While broader climate research suggests that storm intensity may increase over time, regionally downscaled wind projections suitable for this level of assessment are not currently available. As a result, projection confidence for localized wind magnitude and frequency is considered low. Detailed projections and risk results are provided in Appendix A.

Results: Extreme wind presents a moderate and relatively consistent risk to infrastructure over time. Buildings and exposed municipal assets may experience increased stress during major storm events, and service disruptions such as power outages may affect operations. The wastewater treatment facility is equipped with a backup generator, which helps maintain service continuity during outages.

Localized erosion of dune systems along the causeway was identified as a potential concern under extreme wind conditions. However, this risk is considered secondary to coastal flooding and storm surge and is expected to be addressed through recommendations identified in related coastal studies through CRCC and CRIS.



10 Drought-Related Hazards

10.1 Drought Conditions

Definition: Drought conditions refer to extended periods with little or no precipitation, resulting in prolonged dry weather and reduced soil moisture.

For this assessment, drought was evaluated using the indicators Maximum Consecutive Dry Days, Number of Periods with More Than 5 Consecutive Dry Days, and the Standardized Precipitation Evapotranspiration Index (SPEI) (3-month and 12-month), which reflects overall water balance conditions.

Projection: Models indicate a **stable** trend for the Town. While periods of extended dry weather are expected to continue to occur, overall conditions remain near historical norms. Detailed projections and risk results are provided in Appendix A.

Results: Drought presents a relatively **low risk** to municipal infrastructure. The Town does not provide a centralized water supply, and impacts are primarily related to private wells and natural systems rather than municipally managed assets.

The primary municipal role during drought conditions is through Emergency Management (EMO), particularly in response to potential private well shortages. However, no dry wells were reported during the 2025 drought event, and groundwater levels at Hayden Lake display a stable trend.

Beyond water supply, drought conditions may affect surface vegetation, soil moisture, and landscaping, which can influence park conditions, aesthetics, and maintenance requirements. These impacts are generally manageable and do not pose a significant risk to core infrastructure services.

History:

Recent conditions provide important context. In 2025, Nova Scotia experienced significant drought, with Lockeport classified as Extreme Drought (D3) and other areas of the province reaching Exceptional Drought (D4), the highest category under the Canadian Drought Monitor. While this event highlights the potential for severe short-term conditions, it does not on its own indicate a long-term shift in climate conditions.

10.2 Surface Water Availability

The Town does not manage or rely on surface water sources for municipal service delivery. While Hayden Lake provides water to a limited number of properties, it is provincially managed and not within the Town's responsibility. As a result, changes in surface water availability are not expected to directly impact municipal infrastructure or services and are not considered further in this assessment.

10.3 Groundwater Availability

Definition: Groundwater availability refers to the level and reliability of water stored in subsurface aquifers, which supply wells used for drinking water and facility operations.

For this assessment, groundwater conditions were reviewed using provincial monitoring data from the Hayden Lake Groundwater Observation Well, which provides a local indicator of groundwater level trends.

Projection: Climate projections for the region indicate **stable to increasing** precipitation and improving drought indicators over the long term. While groundwater recharge is influenced by factors such as soil conditions, aquifer characteristics, and seasonal timing, these indicators suggest that long-term groundwater availability is not expected to decline. Detailed projections and risk results are provided in Appendix A.

Results: Groundwater presents a **low to moderate** risk to municipal operations. Municipal facilities rely on on-site wells, making them sensitive to reduced groundwater availability during extended dry periods. In coastal areas, there is also potential for saltwater intrusion, where seawater can affect freshwater aquifers, though this is not currently identified as a primary risk driver.

Available monitoring data indicates groundwater levels at Hayden Lake have remained relatively stable, including through the 2025 drought event. No impacts to municipal facility operations or reported well shortages were identified during this period.

While current conditions suggest a stable groundwater supply, continued monitoring is recommended to track long-term trends and identify any emerging risks.

What is saltwater intrusion?

Saltwater intrusion occurs when seawater moves into freshwater aquifers near the coast, typically when the natural flow of freshwater toward the ocean is reduced.

Why it matters under climate change

Sea level rise, drought, and groundwater use can shift the balance between freshwater and saltwater. This can allow saline water to move inland, affecting wells near the shoreline.

What this means for Lockeport

Regional mapping suggests Lockeport has moderate exposure compared to other areas of Nova Scotia. While risk is present, it is not considered a primary driver of infrastructure risk currently. Monitoring is recommended, particularly for wells near



11 Wildfire and Smoke-Related Hazards

11.1 Wildfire Area and Frequency

Definition: Wildfire refers to uncontrolled fires occurring in forested or vegetated areas, driven by hot, dry, and windy conditions. Fire weather influences the likelihood that a fire will ignite, spread, and become difficult to control. While wildfire behaviour is affected by vegetation, topography, and ignition sources, this assessment focuses on projected changes in fire-conducive weather conditions and how they may influence fire frequency and potential fire size.

In addition to the quantitative indicators, a qualitative spatial assessment of the wildland–urban interface (WUI) and potential ignition sources was completed. Lockeport includes areas where development is located adjacent to vegetation, particularly within mature canopy and smaller wooded areas near infrastructure.

The **Lockeport Causeway** acts as a natural **fire break**, limiting the potential for large mainland forest fires to spread onto the island, where most residents and critical infrastructure are located. As a result, exposure to large-scale wildfire events is reduced for the island. However, smaller localized vegetation areas remain present, particularly near the wastewater treatment facility, and can still pose a risk under dry conditions.

On the mainland, transportation corridors pass through or near forested areas, introducing potential ignition sources and localized wildfire risk. However, these areas are more sparsely developed, and impacts are expected to be limited in scale.

Projection: Projections indicate a **gradual increase** in wildfire-conducive conditions over the century. Fire weather severity is expected to increase modestly, the number of elevated fire danger days is projected to rise, and the fire season is expected to lengthen.

Together, these changes increase the likelihood that ignition occurs under favourable conditions and allow fires to burn for longer durations, increasing the potential affected area. While these shifts are incremental rather than abrupt, they point to a gradual increase in wildfire exposure for municipal infrastructure and services.

Potential impacts include localized infrastructure damage within interface areas, increased demand on fire and emergency response services, temporary road closures, and service disruption. These trends were incorporated qualitatively into the Probability of Failure assessment for relevant infrastructure categories. Results are provided in Appendix A.

Results: Wildfire risk is primarily associated with Emergency Management Operations (EMO), which shows the highest consequence due to its role in coordinating response, evacuation, and public safety during fire events. While the likelihood of wildfire impacting the Town remains low, increased fire weather and longer fire seasons may place greater demand on emergency response capacity over time.

All other municipal infrastructure shows low risk. Facilities such as lift stations, the treatment facility, and public buildings are not located in areas of significant wildfire exposure, and impacts are expected to be limited to localized or indirect effects.

Overall, wildfire risk in Lockeport is driven more by response requirements than direct impacts to infrastructure.

11.2 Wildfire Smoke

Definition: Wildfire smoke refers to airborne particulate matter and gases produced by vegetation fires. Unlike wildfire flame exposure, smoke impacts are not limited to areas near active fires. Smoke can travel hundreds or thousands of kilometres, affecting air quality in communities far removed from the originating fire.

Unlike wildfire area and frequency, smoke exposure is not directly projected at a regional scale within the datasets used in this assessment. Instead, smoke risk is considered qualitatively, informed by projected increases in fire weather conditions across Canada and by observed patterns of long-range smoke transport. Smoke exposure risk is influenced by both local wildfire activity and large fire events occurring in other provinces.

Projection: Climate projections indicate increasing wildfire-conducive conditions in many regions of Canada, including longer fire seasons and more frequent elevated fire weather days. As wildfire activity increases nationally, the likelihood of smoke transport events affecting the Town is also expected to increase, even if local wildfire occurrence remains moderate.

Results: Smoke events can still significantly affect public health, outdoor work, transportation visibility, recreation, and vulnerable populations. Municipal services may experience increased demand during prolonged smoke events, particularly related to public communication, cooling and clean air sheltering, and support for sensitive populations. Prolonged smoke exposure can also affect outdoor operations and infrastructure maintenance activities.



12 Ice Accretion-Related Hazards

12.1 Ice Accretion Events

Definition: Ice accretion refers to the buildup of ice on surfaces during freezing rain events, when rain freezes on contact with roads, trees, power lines, and structures.

For this assessment, ice accretion was evaluated qualitatively.

Projection: While overall winter temperatures are projected to increase, conditions near the freezing point will still occur, particularly during transitional seasons. This maintains the potential for freezing rain events. However, the frequency and intensity of these events remain uncertain, and no downscaled projections were available for this assessment. Detailed projections and risk results are provided in Appendix A.

Results: Ice accretion presents a low to moderate operational risk. Impacts are primarily related to service disruption rather than physical damage. Ice buildup on trees and overhead lines can lead to localized power outages, which may affect municipal operations.

Transportation networks are also affected, with roads and sidewalks becoming hazardous and potentially impacting mobility and emergency response. Municipal facilities may experience short-term access or operational challenges during these events, but impacts are expected to be temporary. **No significant risks were identified.**



13 Results and Recommendations

This section provides a closer review of infrastructure and services identified as presenting the highest risks in the screening assessment. While earlier sections evaluate exposure across a range of climate hazards, it is important to note that **coastal flooding and storm surge are expected to be the most significant climate risk to the Town and were outside the scope of this assessment.**

Coastal risks are being addressed through parallel work under the **Climate Resilient Coastal Communities (CRCC) project**, which focuses on understanding coastal hazards, assessing vulnerability, and supporting long-term adaptation planning. As a result, **this section focuses on other climate events** identified through the screening process.

The following sections highlight areas where the combination of probability and consequence resulted in elevated risk scores. The intent is to provide additional context on how these risks may manifest, what types of infrastructure or services are most sensitive, and where targeted actions or system-level approaches may be warranted. Summary recommendations are presented in section 1.1.

13.1 Emergency Management

The Emergency Management Organization (EMO) differs from most services evaluated in this assessment because it does not directly operate physical infrastructure assets. Instead, EMO functions as the coordination mechanism through which municipalities prepare for, respond to, and recover from emergency events affecting residents, infrastructure, and essential services. The effectiveness of emergency management therefore depends on both municipal coordination capacity and the performance of supporting infrastructure systems such as transportation networks, utilities, communications systems, and emergency response organizations such as fire services, first responders, and ambulance and health services.

Climate-related hazards identified in this assessment, including flooding, extreme rainfall, wildfire smoke, drought, and severe storms, have the **potential to increase the number and scale of emergency response situations** within the Town. While individual infrastructure systems may experience localized impacts,

emergency management plays a critical role in coordinating response actions, communicating risks to residents, and maintaining essential services during disruptive events.

For the purposes of this assessment, emergency management is therefore considered an enabling municipal service that supports community safety during hazardous events rather than a physical infrastructure asset owner and operator.

13.1.1 Existing Service

Emergency management services in the Town are delivered through a coordinated system involving municipal staff, volunteer fire departments, neighbouring municipalities, and provincial emergency management partners. The Town provides overall coordination of emergency preparedness activities, while volunteer fire departments serve as the primary local response organizations during emergency events.

Emergency response operations are coordinated regionally through the Shelburne County East Emergency Measures Organization (SCEEMO), which provides shared emergency management services for the Town of Lockeport, the Town of Shelburne, and the Municipality of Shelburne.

SCEEMO maintains an emergency management plan to ensure a coordinated response when an event exceeds the capacity of normal response agencies. This regional structure supports resource sharing, communication, and response coordination across municipal boundaries during significant incidents.

Additional support may be provided by the Province of Nova Scotia and organizations such as the Canadian Red Cross during larger events, including logistical support, emergency sheltering, and recovery assistance. However, municipal governments remain responsible for local preparedness, public communication, and initial response coordination.

Emergency response planning within the Town is closely tied to its transportation network. The Lockeport Causeway serves as the only access point to and from the island, where the majority of the population and critical infrastructure are located. As a result, the causeway is a critical link for evacuation and emergency response.

Once on the mainland, multiple routes are available to connect to Highway 3, providing redundancy for regional access and response. While this provides flexibility beyond the causeway, much of the broader transportation network falls outside direct municipal ownership and operational control. As a result, emergency response planning relies in part on infrastructure managed by other jurisdictions. Section 0 provides further discussion on infrastructure and service dependencies relevant to emergency management.

The Town's emergency management framework currently emphasizes coordination and response rather than defined service level standards. Formal response time targets, evacuation performance benchmarks, and infrastructure dependency mapping are not currently defined within the emergency management framework. As provincial emergency management legislation evolves, municipalities may be required to formalize additional elements of emergency planning, coordination protocols, and operational standards. See section 0.

13.1.2 Example Service Levels for Emergency Management

Emergency management services focus on coordination, preparedness, and response rather than the operation of physical infrastructure assets. Establishing service levels helps clarify the outcomes the municipality aims to achieve, and the operational measures used to support those outcomes. Table 4 outlines the community and technical levels of service associated with emergency management within the Town.

PIEVC REPORT – RECOMMENDATIONS

65

Service Area	Community Level of Service (What Residents Expect)	Technical Level of Service (How the Municipality Delivers It)	Performance Considerations Under Climate Change
Emergency Preparedness	Residents are informed about potential hazards and know how to respond during emergencies.	Maintain an Emergency Management Plan that identifies hazards, evacuation procedures, and response coordination protocols. Conduct periodic plan updates and training exercises.	Increasing frequency and severity of extreme weather events may require more frequent updates to emergency plans and expanded hazard identification.
Emergency Notification and Communication	Residents receive timely and reliable warnings about emergencies and safety instructions.	Maintain emergency communication procedures including public alerts, website updates, social media, and coordination with provincial alert systems. Ensure multiple communication channels are available during infrastructure disruptions.	Power outages and telecommunications failures during extreme events may affect communication systems, requiring redundant notification methods.
Emergency Response Coordination	Emergency responders can reach affected areas and coordinate response activities during incidents.	Maintain coordination protocols with volunteer fire departments, neighbouring municipalities, and provincial emergency management agencies. Support mutual aid agreements and incident coordination procedures.	Climate-related hazards such as flooding, storms, or wildfire may affect transportation networks and increase response complexity.
Evacuation and Public Safety	Residents can safely evacuate affected areas and access temporary shelter during emergencies.	Identify and maintain primary and secondary evacuation routes and establish procedures for emergency sheltering and support for vulnerable populations.	Flooding, road washouts, and storm impacts may disrupt transportation routes, requiring contingency evacuation planning.

(66)

Service Area	Community Level of Service (What Residents Expect)	Technical Level of Service (How the Municipality Delivers It)	Performance Considerations Under Climate Change
Critical Infrastructure Awareness	Essential infrastructure supporting emergency response remains accessible and functional during emergencies.	Identify infrastructure dependencies such as transportation corridors, power systems, communications networks, and water infrastructure that support emergency response.	Climate-related infrastructure disruptions may affect emergency response capability, highlighting the need for coordination with infrastructure owners.
Emergency Shelter and Relief Services	Residents expect access to safe spaces during extreme conditions, such as cooling during heat waves or warming during extended winter outages.	Define and communicate the Town's level of service for emergency shelter and relief. This includes clarifying whether cooling or warming spaces will be provided directly, coordinated through partners, or not offered as a municipal service. Identify available facilities and roles under EMO.	Extreme heat and winter events are expected to increase demand for refuge spaces. Without a clearly defined level of service, residents may expect support that the Town is not prepared to provide. Clear communication of available services, roles, and limitations will be important to manage expectations and support effective response.
Regional Coordination	Emergency response efforts are coordinated across neighbouring municipalities and provincial agencies.	Maintain regional coordination with neighbouring municipalities and emergency management partners through mutual aid agreements and shared planning exercises.	Large-scale events may require coordinated response across multiple jurisdictions and increased regional collaboration.
Training and Preparedness	Emergency responders and municipal staff are prepared to respond effectively during emergency events.	Conduct periodic emergency response exercises, training sessions, and reviews of emergency procedures.	Increasing hazard complexity may require expanded training scenarios and inter-agency exercises.

Table 4: Example Service Levels for Emergency Management

Infrastructure and Service Dependencies

Emergency management relies on the coordinated performance of multiple infrastructure systems and community organizations. Transportation networks, power systems, communications infrastructure, and emergency response organizations all play critical roles in enabling effective emergency response.

Disruptions to these systems during climate-related events may reduce the ability of emergency responders to access affected areas, communicate with residents, or maintain essential services. Figure 3 and Table 5 present the key infrastructure dependencies supporting emergency management within the Town.

The ability of emergency management to protect residents during climate-related events depends on the reliability of several supporting infrastructure systems.

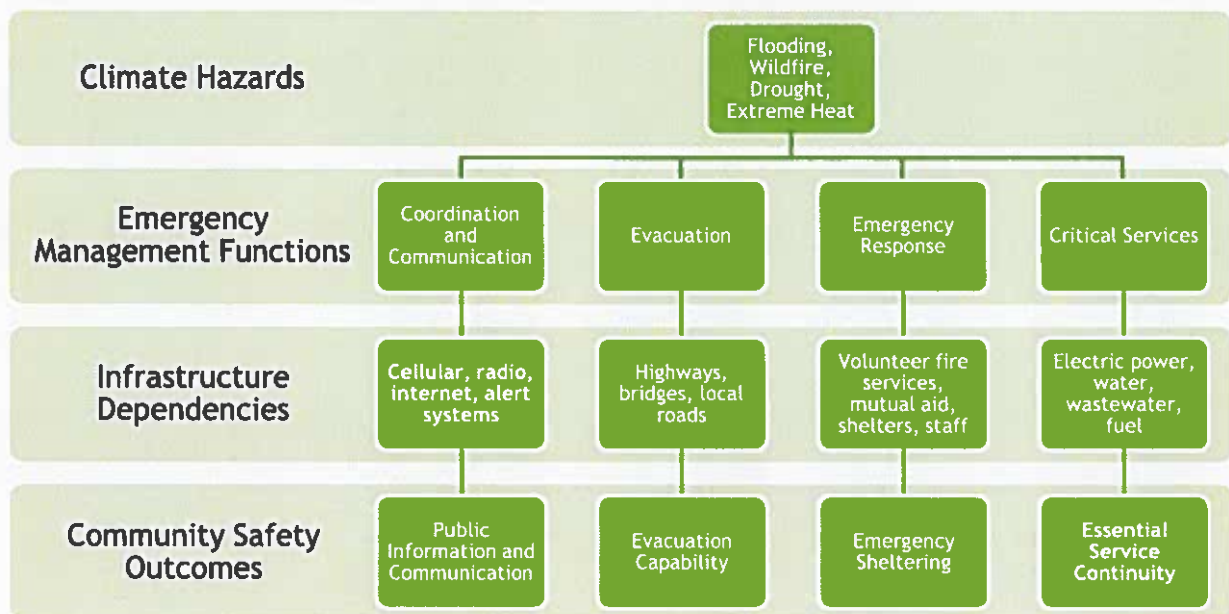


Figure 3: Emergency Management System Dependencies

Infrastructure System	Role in Emergency Response	Potential Climate Vulnerabilities	Implications for Emergency Management
Provincial highways	Primary evacuation and response corridors	Flooding, storm damage, debris, washouts	Reduced evacuation capacity and delayed emergency response
Local municipal road network	Access to communities and infrastructure assets	Flooding, culvert failure, erosion	Communities may become temporarily isolated
Bridges and river crossings	Maintain regional connectivity	Flooding, scour, structural damage	Loss of critical access routes during emergencies
Electrical power systems	Power for water, wastewater, communications, and emergency facilities	Wind, ice storms, wildfire	Service outages affecting emergency operations
Telecommunications networks	Emergency alerts, coordination, public communication	Power outages, storm damage	Delayed warnings and reduced coordination
Water and wastewater systems	Support emergency shelters, firefighting, and public health	Flooding, power outages	Reduced ability to maintain essential services
Volunteer fire departments	Primary emergency response capacity in rural areas	Recruitment challenges, increased response demand	Potential limitations in response coverage

Table 5: Key Infrastructure Dependencies Supporting Emergency Management

13.1.3 Upcoming Legislative Requirements

Emergency management governance in Nova Scotia is undergoing modernization. Recent provincial initiatives have established the Department of Emergency Management and introduced reforms intended to strengthen emergency preparedness and response capacity across the province.

These initiatives are expected to introduce more consistent standards for emergency planning, coordination, and response capability among municipalities. Future provincial guidance may include requirements related to hazard identification and risk assessment, emergency response planning, regional coordination, and preparedness training.

While the detailed requirements of the new legislative framework are still evolving, the Town should engage with the province as the legislation and supporting guidance are developed. Maintaining awareness

of these changes will help ensure the Town is well positioned to incorporate new provincial requirements into its emergency management planning as they are finalized.

13.1.4 Climate-Related Emergency Management Challenges

Emergency management capacity may be affected by several factors identified through this assessment.

First, many climate hazards have the potential to occur simultaneously or in close succession, placing increased demands on coordination and response resources. For example, flooding events may disrupt transportation networks while also affecting wastewater infrastructure and emergency access to communities. Similarly, wildfire smoke events may require public communication and support for vulnerable populations even if infrastructure damage is limited.

Second, emergency response capacity relies heavily on infrastructure systems that fall outside direct municipal control. Provincial highways, power systems, telecommunications networks, and privately operated infrastructure all play a critical role in enabling emergency response activities. Disruption to these systems during extreme events may reduce the ability of emergency services to reach affected areas or communicate effectively with residents.

Third, emergency response capacity in rural municipalities often depends on volunteer-based emergency services. While volunteer organizations provide essential local capacity, they may face challenges related to recruitment, training, and response coverage as hazard frequency and operational demands increase over time.

13.1.5 Risk Screening Results

Emergency Management (EMO) was identified as being exposed to a wide range of climate hazards assessed in this screening. Unlike physical infrastructure systems that may be affected by specific hazards, emergency management supports community response across many different hazard scenarios.

In this context, failure does not refer to the loss of a physical asset, but rather the inability of emergency management systems to adequately protect residents during a hazard event. This could include situations where warnings are not communicated in time, evacuation coordination is insufficient during flooding or wildfire events, or response resources are unable to reach affected areas due to infrastructure disruption.

Consequences associated with emergency management failure are generally high because there is limited separation between the effectiveness of the service and the safety of residents. Unlike many infrastructure systems where impacts may be indirect or delayed, shortcomings in emergency management response can directly affect life safety during an active event.

Climate-related hazards such as flooding, severe storms, wildfire smoke, and drought conditions may require municipal staff and emergency responders to coordinate complex response activities across multiple infrastructure systems and jurisdictions. Emergency response effectiveness also depends heavily on supporting infrastructure systems that fall outside direct municipal control, including transportation networks, electrical power systems, telecommunications networks, and water infrastructure. Disruption to these systems during extreme events may affect the ability of emergency responders to access affected areas or communicate effectively with residents.

Because emergency management supports the protection of residents and the coordination of response actions during hazardous events, limitations in preparedness or coordination capacity can significantly increase the challenges associated with responding effectively to climate-related emergencies. As a result, the cumulative climate-related risk associated with emergency management was assessed as Extreme.

Strengthening emergency preparedness, coordination, and response capacity therefore represents one of the most effective opportunities for reducing climate-related risk within the Town. The following section outlines potential actions and considerations to improve resilience in this area.

13.1.6 Recommendation

Given the high cumulative risk identified for emergency management and the central role that emergency management plays in protecting residents and coordinating response activities during hazardous events, strengthening the Town’s emergency preparedness framework should be considered a priority climate adaptation action.

Provincial legislation and policy related to emergency management and fire services are currently evolving, and future requirements are expected to establish more consistent expectations for emergency planning and service delivery across municipalities. While these provincial initiatives will provide important direction, the level of risk associated with climate hazards suggests that the Town should consider proactively strengthening its emergency management framework rather than waiting for minimum legislative requirements to be finalized.

Emergency management is one of the most cost-effective areas for improving community resilience, as investments in preparedness, coordination, and communication provide protection across a wide range of hazards including flooding, wildfire, severe storms, and other climate-related events.

A key opportunity is the development or modernization of the Town’s Emergency Management Plan. This process should incorporate the findings of this assessment and ensure that emergency preparedness planning reflects the range of hazards identified through the screening, including climate events, infrastructure failures, and other emergency conditions.

Emergency management planning would benefit from coordination with neighbouring municipalities and regional partners. Regional collaboration can help ensure that evacuation planning, emergency communication procedures, and mutual aid arrangements are aligned across jurisdictions.

Rather than prescribing detailed operational procedures within this report, the following elements are recommended for consideration during the development or update of that plan.

Key considerations for strengthening the Town's preparedness framework include:

- incorporation of a comprehensive Hazard Identification and Risk Assessment (HIRA) that incorporates projected climate hazards and other emergency conditions.
- identify and map of primary and secondary evacuation routes
- identify critical infrastructure dependencies that support emergency response
- develop clear public communication and warning procedures
- create procedures for evacuation planning, sheltering, and support for vulnerable populations
- coordinate protocols between municipalities, volunteer fire departments, and provincial agencies
- conduct periodic training exercises and regular updates to emergency response plans

Strengthening these elements will help ensure that the Town's emergency management framework remains capable of responding effectively to climate-related hazards and will improve the community's overall resilience to future emergency events.

13.2 Implement Climate-Resilient Stormwater Standards

Climate change is placing increased pressure on municipal infrastructure, particularly stormwater systems. More intense rainfall events increase the volume and rate of runoff, which can exceed the capacity of existing infrastructure that was designed using historical conditions. Within the scope of this assessment, stormwater has been identified as the highest risk system, and incorporating climate-resilient design into future upgrades will be important to maintain service levels and avoid repeated failures.

A practical way to address this is to incorporate climate considerations into how the Town plans and replaces aging infrastructure. Rather than addressing issues on a case-by-case basis, establishing a consistent, climate-informed design approach will help ensure that replacements are sized appropriately, funding is used effectively, and assets are not repeatedly upgraded as conditions continue to change. This creates a clear path forward that links long-term planning with day-to-day decision making.

Brighton Road serves as a primary transportation corridor within the community. While alternative routes exist to connect to Highway 3, this roadway remains an important link for local access, daily travel, and emergency response.

Other areas within the Town, including the causeway, Volunteers Athletic Fields (soccer field), and the intersection of John and South Street, have experienced localized flooding. These locations are known, actively managed, and currently under investigation. While they present operational challenges and occasional service disruptions, they are not identified as the highest risk locations.

In contrast, culverts along Brighton Road present a higher consequence of failure. Available data indicates these culverts are in poor condition, and increasing rainfall intensity is expected to place additional stress on their performance. Failure of these assets could result in washout and loss of access along a key transportation route.

The following is recommended:

1. Establish a climate-informed design standard for stormwater infrastructure.

Adopt a consistent approach to sizing and replacing stormwater assets using future climate conditions. The following is recommended as a starting point:

- Local drainage (non-critical infrastructure):
SSP2-4.5, 2100 median, 1 in 10-year event
- Key transportation corridors (e.g., Brighton Road):
SSP2-4.5, 2100 median, 1 in 100-year event
- Critical or high-consequence assets (e.g., causeway):
Up to SSP5-8.5, 2100 high percentile (p83), 1 in 100-year event

This framework provides a practical balance between risk and cost and can be adjusted over time based on Council’s risk tolerance, available funding, and observed performance of infrastructure.

2. Define what failure looks like for Brighton Road culverts.

Using the design standard for key transportation corridors, confirm what level of performance is expected. This includes defining acceptable conditions (e.g., no roadway washout, limited overtopping) during the selected design event.

3. Inspect the culverts and estimate remaining useful life.

Confirm current condition and identify likely failure modes. This should consider both structural condition and hydraulic capacity relative to the adopted design storm. For this location, the primary concern is failure resulting in roadway loss or major access disruption.

4. Determine the replacement design standard.

Size replacement culverts based on the selected climate-informed design storm for Brighton Road (SSP2-4.5, 2100 median, 1 in 100-year event). Consider upstream land use, drainage patterns, and any known constraints.

5. Budget and plan for replacement.

Use inspection results and the adopted design standard to identify when replacement is required. Incorporate timing and cost into the Town’s asset management and capital planning process so funding can be set aside in advance and coordinated with other priorities.

13.3 Adaptive Capacity

Lockeport’s ability to respond to climate-related risks is closely tied to its municipal capacity. As a small community, available staff time, funding, and internal resources are limited. Municipalities operate within constrained revenue structures, with a strong reliance on property taxation and external funding programs to deliver infrastructure and services.

PIEVC REPORT – RECCOMENDATIONS

As a result, advancing climate adaptation will depend on making efficient use of existing resources, leveraging partnerships, and aligning with external funding opportunities rather than expanding internal capacity.

The Town is already participating in regional and program-based approaches, including the Climate Resilient Coastal Communities (CRCC) project and coordination through the Shelburne County East Emergency Measures Organization (SCEEMO). These initiatives provide access to shared expertise, planning support, and coordinated response capacity.

Through the CRCC project, the Town will receive updated municipal guidelines that incorporate a range of adaptation strategies and consider the unequal impacts of climate change across the community. These guidelines will support future decision-making and help align local actions with broader regional efforts.

Given the competitive nature of climate-related funding, positioning projects to align with grant requirements will be important. This includes clearly demonstrating climate risk, maintaining up-to-date asset and risk data, and aligning projects with broader regional and provincial priorities.

At a system level, continued regional collaboration, participation in communities of practice, and ongoing engagement with organizations such as Clean Foundation will help the Town stay informed and build capacity over time without placing additional strain on internal resources.

The following is recommended:

1. Continue participation in the Clean Foundation Community Climate Capacity (CCC) program

The CCC program provides ongoing technical support, guidance, and access to tools that help small municipalities advance climate adaptation in a practical and manageable way. Continued participation will help the Town build internal capacity, stay aligned with best practices, and maintain momentum on climate-related initiatives without placing additional strain on staff resources.

2. Continue to engage in regional climate planning efforts.

Regional collaboration is already underway and should be maintained. Working with neighbouring municipalities supports shared learning, coordinated responses, and more efficient use of limited resources. Many climate risks and infrastructure systems extend beyond municipal boundaries, making regional approaches more effective than acting independently.

3. Position the Town to be competitive for climate-related funding.

External funding will be critical to advancing adaptation projects. To remain competitive, the Town should align projects with common funding requirements, including demonstrating clear climate risk, incorporating nature-based solutions where appropriate, and showing coordination with regional partners. Maintaining up-to-date plans, risk assessments, and asset data will strengthen applications. Programs such as those supported by Clean Foundation can assist in navigating funding streams and preparing strong submissions.

13.4 Social Resilience

Social resilience plays an important role in how communities prepare for, respond to, and recover from climate events. Strong local networks, active community groups, and informed residents can reduce demand on municipal services and improve outcomes during disruptions.

Lockeport demonstrates strong existing capacity in this area. The Town benefits from active community groups and a high level of local engagement, which supports communication, coordination, and informal response during events. These social networks are a key strength and contribute meaningfully to overall community resilience.

The Climate Resilient Coastal Communities (CRCC) project will further support this work through targeted engagement activities, including:

- Community input into locations of vulnerable populations and qualitative climate consequences
- Community consultation journey event nights to share experiences and build awareness

These efforts will help ensure that local knowledge is incorporated into planning and that a broader range of community voices are reflected in future decision-making.

The following is recommended:

1. Continue fostering relationships with community groups and local organizations

Ongoing collaboration with community groups will help maintain strong communication channels, support vulnerable populations, and build capacity for response during climate events.

2. Support public engagement and awareness of climate risks

Public engagement can support climate adaptation by improving awareness of local risks, incorporating community knowledge, and building support for resilience actions. The following engagement approaches may be considered when communicating climate risk information and developing adaptation strategies.

PIEVC REPORT – RECCOMENDATIONS

Engagement Goal	Potential Actions	Intended Outcome
Information and Awareness	Share results of this climate risk assessment and the CRIS assessment through public presentations, online maps, fact sheets, or municipal communications. As outcomes from the CRCC program become available, incorporate these into public-facing materials. Provide guidance on household preparedness for flooding and drought conditions.	Residents understand local climate risks and are better prepared for potential hazard events.
Consultation and Feedback	Conduct public meetings, surveys, or workshops to gather feedback on climate risks, local flooding experiences, and community priorities for adaptation actions.	Local knowledge is incorporated into planning and helps refine adaptation priorities.
Collaboration and Community Participation	Establish community advisory groups or climate working groups to support the development of local adaptation strategies and resilience initiatives.	Ongoing community participation helps develop practical solutions and build support for adaptation investments.

Table 6: Public Engagement Actions



14 CLOSURE

This report (including any enclosures and attachments) has been prepared for the exclusive use and benefit of these communities and solely for the purpose for which it is provided. Unless we provide express prior written consent, no part of this report should be reproduced, distributed, or communicated to any third party. We do not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report.

77



Municipality of the Town of Lockport

PIEVC High Level Screening

Appendix A

Municipality of the Town of Lockeport



Assessment Lead: Ian Tenhaaf, P.Eng. (AIM Network)

SCOPE

<p>Objectives</p>	<p>This assessment is conducted as a component of the Municipality of the Town of Lockeport's broader climate adaptation and regional coordination efforts, supported through the Clean Foundation Community Climate Capacity (CCC) Program. Its objective is to identify and prioritize climate-related risks to municipal infrastructure and service delivery systems, following the methodology set out in the Public Infrastructure Engineering Vulnerability Committee (PIEVC) High Level Screening Guide (HLSG).</p> <p>This work supports the Town's commitment to proactive climate adaptation, emergency preparedness, and resilient service delivery, with particular emphasis on risks associated with coastal and riverine flooding, extreme weather events, and the continuity of essential and emergency services. The assessment is intended to provide a consistent baseline for understanding climate risk across municipal infrastructure and to support coordination with neighbouring municipalities and regional partners.</p> <p>The assessment will inform municipal decision-making by identifying infrastructure systems and service areas that are exposed or vulnerable to current and projected climate hazards, drawing on available flood mapping, climate projections, and existing asset information. The intent is to establish a clear line of sight between identified risks and prioritized adaptation actions or areas requiring further study. The resulting insights will support the Town in prioritizing internal resources, advancing regional collaboration, and positioning future adaptation measures to align with available funding programs and strategic planning initiatives.</p>
<p>Timing</p>	<p>Identify priorities across multiple planning horizons, including:</p> <ul style="list-style-type: none"> a) Near-term risks to be addressed within the next five years (2026–2030), informing further investigation, project scoping, and near-term planning actions; b) Medium-term risks to be addressed within the next 20 years (2031–2050), supporting early planning and consideration within reserve funding and capital planning processes; and c) Long-term potential risks extending to 2100 that may require ongoing monitoring and periodic reassessment as conditions and data evolve.
<p>Techniques</p>	<p>This assessment is a portfolio-level, high-level climate risk screening. The screening will incorporate input from:</p> <ul style="list-style-type: none"> a) the technical project team (AIM Network); b) municipal staff; c) municipal council; and d) the Community Climate Capacity (CCC) Program team. <p>The assessment may identify the need for future investigations by other parties, such as technical specialists or community engagement processes. Additional technical analysis, detailed design, or community engagement is not included within the scope of this initial assessment.</p>

ELEMENTS

<p>Elements</p>	<p>Built Infrastructure</p> <ul style="list-style-type: none"> ☑ Wastewater Collection and Treatment Systems <ul style="list-style-type: none"> - (gravity sewer mains on Locke Island and the mainland; combined sewers on Locke Island; forcemains on Locke Island and the mainland; lift stations on Locke Island and the mainland; wastewater treatment facility (structure and equipment); effluent outfall; overflow points) ☑ Stormwater (Drainage) Systems <ul style="list-style-type: none"> - (storm and combined sewer infrastructure on Locke Island; culverts on Locke Island and the mainland; roadside drainage ditches on Locke Island and the mainland) ☑ Transportation Systems <ul style="list-style-type: none"> - (roads on Locke Island and the mainland; sidewalks on Locke Island; boardwalk infrastructure; street lighting on Locke Island; guidrails on the mainland; the causeway connection between Locke Island and the mainland; Trestle Trail; winter maintenance operations) ☑ Recreation and Cultural Services Facilities <ul style="list-style-type: none"> - (Crescent Beach visitor information centre; Seacaps Park including lighthouse stage, pavilion, concession stands, and playground; Volunteers Athletic Fields (soccer field); L.M. (Mac) Huskison Memorial Field (baseball field); Helen Ghent Tennis Court; Little School Museum and Marine Room; Lillian Benham Library; Rood's Head Park; Cultural Park; Dog Park; Window's Walk Lookoff) ☑ General Government Services Facilities <ul style="list-style-type: none"> - (Town Office and Recreation Centre; Public Works Office) ☑ Protective Services <ul style="list-style-type: none"> - (emergency management operations; Fire Hall (Red Cross site); Medical Centre) <p>Natural Environment</p> <p>Natural systems (e.g., creeks, rivers, wetlands, forests, wildlife habitat) and natural assets (e.g., aquifers, surface reservoirs, wetlands, trees, and coastlines) are not assessed as assets or systems within the scope of this PIEVC High-Level Screening. These features may be referenced at a high level to provide contextual understanding of climate hazards or to inform potential adaptation considerations; however, no screening or evaluation of their condition, performance, or vulnerability is included as part of this assessment.</p> <p>People</p> <p>This assessment does not include a direct evaluation of social or health impacts related to residents, employees, visitors, vendors, suppliers, supply chains, or governance bodies. People are considered indirectly through the Consequence of Failure (CoF) scoring of infrastructure systems, where impacts to service delivery, emergency response, and public safety may occur if infrastructure performance is disrupted. The assessment does not evaluate the direct effects of climate hazards on people independent of infrastructure.</p>
------------------------	---

CONTEXT

<p>Context</p>	<p>This assessment is scoped to climate-related risks affecting municipal infrastructure and service delivery that fall within the decision-making authority of the Municipality of the Town of Lockeport. A high-level, semi-quantitative screening approach is applied to assess potential infrastructure performance degradation and service disruption as climate-related loads evolve over time.</p> <p>Coastal hazards are not included within the scope of this assessment. The Town is currently participating in Natural Resources Canada's Climate-Resilient Coastal Communities (CRCC) program, which is assessing coastal flood and erosion risks and identifying infrastructure adaptation options. In addition, the Crescent Beach Causeway was recently assessed through the Canadian Urban Institute's Climate Ready Infrastructure Services (CRIS) program, which evaluated risks associated with storm surge, pluvial flooding, and erosion. As a result, this report focuses on other climate events that may affect municipal infrastructure. The causeway remains part of this screening but is only assessed for climate hazards not previously evaluated through the CRIS study.</p> <p>Broader environmental, ecological, health, or socio-economic impacts of climate change are acknowledged but are not assessed as part of this screening. Infrastructure or policy considerations that fall under the regulatory authority of other levels of government are not evaluated, except where they influence the Town's ability to deliver municipal services (e.g., emergency response and access).</p> <p>The assessment relies on consultation with municipal staff and Council. While the findings may identify opportunities for future engagement with external stakeholders, including other levels of government, Indigenous communities, or the public, such engagement is outside the scope of this initial screening.</p>
<p>CRITERIA</p>	
<p>Risk appetite (aggregate risk)</p>	<p>The Town aims to manage climate risk to be no greater than the risk from aging infrastructure.</p>
<p>Risk tolerance (Individual risk)</p>	<p>Risk tolerance will be the same as for conventional infrastructure assessment. Consequence and Likelihood standardization will be aligned with current asset management planning approaches.</p>
<p>Time Horizon</p>	<p>The assessment considers potential climate impacts across multiple planning horizons using standard 30-year climate projection windows:</p> <ul style="list-style-type: none"> Baseline: 1981–2010 Short-Term: 2011–2040 Mid-Century: 2041–2070 Late Century: 2071–2100 <p>Projected values are presented as 30-year averages rather than single-year values. Averaging reduces the influence of short-term variability and provides a more stable representation of long-term climate trends, consistent with accepted climate science practice.</p> <p>For the purposes of this high-level screening, projections are based primarily on the SSP5-8.5 emissions scenario, using the ensemble median values. At the screening stage, this provides a consistent and precautionary basis for comparing baseline and future conditions across hazards without attempting to define detailed design thresholds.</p>
<p>Combination of Events</p>	<p>Climate events will initially be considered as discrete and independent for the purposes of screening. Through consultation and professional judgment, the assessment will also consider the potential for interacting or compounding events (e.g., wildfire affecting runoff, erosion, or access conditions) where these interactions may influence infrastructure performance or service continuity. Where relevant, such interactions will be noted qualitatively, and may inform recommendations for further investigation or consideration in subsequent, more detailed assessments.</p>
<p>Organizational capacity</p>	<p>The assessment will be delivered in a manner that supports integration of climate risk considerations into municipal decision-making and day-to-day operations. Findings, assumptions, and methodologies will be documented clearly within the PIEVC High-Level Screening workbook and accompanying materials to support transparency and future updates.</p> <p>Capacity to apply and maintain the results of this assessment is supported through the Community Climate Capacity (CCC) Program administered by the Clean Foundation, which provides participating municipalities with dedicated staff resources and technical support. While formal training is not included within the scope of this assessment, the structure and documentation of the screening are intended to enable staff to revisit and update the assessment as new information becomes available.</p>

Climate Events

Category	Climate Events	Indicator	Unit	Baseline	Short Term	Mid Century	Late Century	Trend	Model	Emission Scenario	
Temperature	Extreme heat events	Hottest Day	°C	28.2	29.5	31.2	33.4	Increasing	CMIP6	SSP-4.5, Median	
		Heat Wave Frequency**	#	0.0	0.0	0.5	3.5	Increasing	CMIP6	SSP-4.5, Median	
		Heat Wave Duration	days	0.0	0.0	1.2	11.3	Increasing	CMIP6	SSP-4.5, Median	
		Extreme cold events (polar breakout)	°C	-18.8	-16.4	-13.4	-9.2	Decreasing	CMIP6	SSP-4.5, Median	
		Cold Spell Days	days	93.5	74.0	52.4	25.8	Decreasing	CMIP6	SSP-4.5, Median	
		Temperature variability and rapid swings	N/A					Increasing	N/A	N/A	
		Freeze thaw cycles	#	72.0	64.0	49.0	35.0	Decreasing	CMIP6	SSP-4.5, Median	
		Frequency and intensity of rainfall events (Pluvial Flooding)	mm	65.0	70.0	74.0	81.0	Increasing	CMIP6	SSP-4.5, Median	
			Maximum 1-Day Precipitation	mm	103.0	113.0	116.0	124.0	Increasing	CMIP6	SSP-4.5, Median
			Maximum Consecutive Wet Days (≥1.0mm)	#	7.9	7.6	7.3	7.7	Stable	N/A	N/A
Precipitation	Frequency and intensity of riverine flooding	Riverine flood mapping	N/A					Increasing	N/A	N/A	
		Seasonal precipitation shifts - Winter	%Δ	-	6%	12%	20%	Increasing	CMIP6	SSP-4.5, Median	
		Seasonal precipitation shifts - Spring	%Δ	-	6%	12%	19%	Increasing	CMIP6	SSP-4.5, Median	
		Seasonal precipitation shifts - Summer	%Δ	-	7%	7%	6%	Increasing	CMIP6	SSP-4.5, Median	
		Seasonal precipitation shifts - Fall	%Δ	-	3%	6%	4%	Stable	CMIP6	SSP-4.5, Median	
		Snow Load, W1, 1/50	Sr	1.4	-	0.9	0.6	Decreasing	N/A	N/A	
		Extreme wind events	Sr	0.6	-	0.4	0.2	Decreasing	N/A	N/A	
		Warm surge events	N/A	N/A	N/A	N/A	N/A	Increasing	N/A	N/A	
		Coastal / Bayside erosion	Out of Scope								
		Permanent Flood Inundation	Out of Scope								
Drought	Drought Conditions	Relative sea level rise	#	13.0	13.0	13.0	13.0	Increasing	CMIP6	SSP-4.5, Median	
		Maximum Consecutive Dry Days	#	9.0	9.0	9.0	9.0	Increasing	CMIP6	SSP-4.5, Median	
		Number of Periods with more than 5 Consecutive Dry Days	#	0.034	N/A	0.067	0.150	Varies	CMIP6	SSP-4.5, Median	
		Standardized Precipitation Evapotranspiration Index (SPEI) - 3 month		0.862	N/A	0.500	0.783	Varies	CMIP6	SSP-4.5, Median	
		Standardized Precipitation Evapotranspiration Index (SPEI) - Annual									
		Seasonal precipitation shifts									
		Historical repairs									
		Surface Water availability									
		Groundwater availability									
		Wildfire area and frequency	FWI	5	5	6	5	Increasing	CMIP6	SSP-4.5, Median	
Wildfire & Smoke	Wildfire smoke	FWI	5	5	6	5	Increasing	CMIP6	SSP-4.5, Median		
		FWI	5	5	6	5	Increasing	CMIP6	SSP-4.5, Median		
		Wildfire area and frequency	days	222	235	251	270	Increasing	CMIP6	SSP-4.5, Median	
		Wildfire smoke									
		Wildfire smoke									
		Wildfire smoke									
		Wildfire smoke									
		Wildfire smoke									
		Wildfire smoke									
		Wildfire smoke									
Ice Accretion	Ice accretion events	Frequency and severity of ice accretion events	N/A					Increasing	Libby Peak	Decreasing	



Infrastructure Response Considerations

Design Performance	Exceeding Design Capacity (e.g. exceed structural load, exceed pipe capacity) Slope stability (e.g. embankment slip failure) Change in Supply (e.g. aquifer flow rate, river flow rate)
Functionality	Reduced level of service Temporary service disruption Permanent service disruption
Operations, Maintenance, and Materials Performance	Increase in maintenance activities Increase in operational cost Accelerated material deterioration (including pavement, corrosion, freeze/thaw)
Insurance Considerations	Increase in insurance requirements
Policy Considerations	Building / design code implications Public sector policy Land use planning documents Guidelines
Environmental Effects	Short term environmental degradation (<10 years) Long term environmental degradation (> 10 years) Permanent environmental degradation

Infrastructure Components	Potential Climate Events and Change Factors												Infrastructure Response Considerations									
	Temperature			Precipitation			Wind and Coastal			Drought			Fire		Ice Accretion	Design Performance	Functionality	Operations, Maintenance, and Materials Performance	Insurance Considerations	Policy Considerations	Environmental Effects	
	Extreme heat events	Extreme cold events (polar breakout)	Temperature variability and rapid swings	Freeze thaw cycles	Frequency and intensity of rainfall events (fluvial flooding)	Flooding	Snow load and snowpack changes	Extreme wind events	Storm surge events	Coastal / Riverine erosion	Permanent flood inundation	Drought Conditions	Surface Water availability	Groundwater availability	Wildfire area and frequency							Wildfire smoke
Wastewater Collection and Treatment																						
Locke Island: Gravity Sewer Mains																						
Locke Island: Force mains																						
Locke Island: Lift Stations																						
Locke Island: Overflows																						
Locke Island: Treatment Facility (Structure and Equipment)																						
Locke Island: Effluent Outfall																						
Mainland: Gravity Sewer Mains																						
Mainland: Force mains																						
Mainland: Lift Stations																						
Mainland: Overflows																						
Transportation																						
Locke Island: Roads																						
Locke Island: Sidewalks																						
Locke Island: Board Walk																						
Locke Island: Street Lights																						
Mainland: Roads																						
Mainland: Guidarails																						
Winter Maintenance																						
Trestle Trail																						
Causeway																						
Stormwater (Drainage)																						
Locke Island: Culverts																						
Locke Island: Ditches																						



85



Education and Early Childhood Development
Office of the Deputy Minister

PO Box 578
Halifax, Nova Scotia B3J 2S9
902-424-5643
ednet.ns.ca

May 12, 2026

Derek Amalfa, Mayor
Town of Lockeport
26 North Street
Lockeport, NS B0T 1L0

Dear Mayor Amalfa,

Thank you for your letter of April 30, 2026, requesting additional information on the Mandatory Education Tax (MET) growth and Regional Funding Model.

The MET was introduced as part of broader provincial-municipal fiscal arrangements in the mid-1990s. It is a provincially determined property tax applied uniformly across Nova Scotia based on property assessment (Uniform Assessment).

The Province establishes the Mandatory Education Tax (MET) rate and overall education funding envelope. Municipalities are responsible for collecting the MET as part of property taxation and remitting those funds as required. The MET rate is referenced in s.3 of the *Governor in Council Education Act Regulations*. This uniform MET rate has not changed in over ten years.

Revenues from the MET form part of the Province's overall funding for education, along with general revenues. Funding is then allocated to Regional Centres for Education (RCEs) based on provincial formulas and system needs such as enrolment, program requirements, and service delivery considerations.

The amount of the MET is \$.3048 per \$100 per Uniform Assessment. The Uniform Assessments are based on the final numbers set by Property Valuation Services Corporation and provided to the Department of Education and Early Childhood Development by the Department of Municipal Affairs once municipalities have had an opportunity to review. Increases to the MET for over ten years have been driven by increases to property assessments rather than increases in the uniform tax rate.

The following table summarizes MET amounts for the Town of Lockeport.

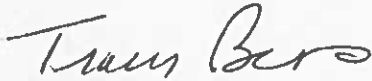
Town of Lockeport	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Uniform Assessment (000's)	33,760	34,328	37,291	41,905	46,170	47,328
MET Rate per \$100 UA	0.3048	0.3048	0.3048	0.3048	0.3048	0.3048
Total Funding (000's)	103	105	114	128	141	144

While revenue generated from the MET become part of the overall education budget, rather than allocated on a community-by-community basis, we can apply a general benchmark.

Statistics Canada's most recent Pan-Canadian Education Indicators report that Nova Scotia's expenditure-per-student is ~\$16,800 annually. Between Lockeport Elementary and High School, there are ~170 students, which would represent a cost of approximately \$2.86 million. The Town of Lockeport's contribution would represent approximately 5% of the total cost for public education in the community. Again, while this formula is not intended to be literal, it does give an overall sense of utilization of the funds.

Prudent examination of expenses is fully understood and supported. I hope this information is helpful. If you have any additional questions, please don't hesitate to reach out.

Sincerely,



Tracey Barbrick
Deputy Minister, Education and Early Childhood Development



87

Emergency Management Office of the Minister

Suite 601-1871 Upper Water Street, Halifax, Nova Scotia, Canada B3J 1S8 • Telephone 902-424-5620 • Minister.EmergencyManagement@novascotia.ca

May 8, 2026

David Mitchell
President, Nova Scotia Federation of Municipalities (NSFM)
Suite 1304, 1809 Barrington Street
Halifax, NS B3J 3K8
Via email: david.mitchell@bridgewater.ca

Dear David Mitchell and NSFM Members:

Recently, my team had the pleasure of connecting with many of you at the Nova Scotia Federation of Municipalities (NSFM) Spring Conference in Yarmouth (April 29- May 1). We deeply value the diverse perspectives of our municipal partners and have been listening intently to your feedback and questions. This ongoing dialogue will continue to help shape how we will strengthen fire services, together.

On May 2, 2026, my colleague, Minister John A. MacDonald, sent a letter to Mayor David Mitchell, President of the NSFM. This letter provides notice of any provincial legislation, regulation, or administrative actions that could have the effect of decreasing revenues or increasing the required expenditures of municipalities. This letter provides advance notice of these changes for the **fiscal year 2027-2028** and beyond.

With the introduction of the *Act to Provide Support for Fire Protection Services*, the Department is providing one-year notice that all municipalities – whether they oversee fire services or not – will be required to:

- conduct a fire protection service review to ensure municipalities and fire service providers make evidence-based decisions about the services they provide to their community,
- ensure that local firefighter competencies, training, and personal protective equipment meet the service standard required by the fire protection service review, and
- participate in a common records management system.

These requirements **will not take effect this fiscal year** (2026-2027). Over the next three years, my team will be working closely with our municipal and fire service partners to support the design and completion of fire service reviews beginning in 2027-2028 and to develop regulations and standards.

To establish the groundwork for fire service reviews our first steps – to be completed this year – will be to design and roll-out an online risk-based assessment tool to gather information and facilitate decision-making about fire protection service levels that are aligned with recommended training and assets requirements.



88

Emergency Management Office of the Minister

Suite 601-1871 Upper Water Street, Halifax, Nova Scotia, Canada B3J 1S8 • Telephone 902-424-5620 • Minister.EmergencyManagement@novascotia.ca

This tool will be provided free of charge to all municipalities and fire service providers in Nova Scotia. Training and support to use the tool will be provided by DEM.

To clarify, the tool and the fire protection service review are not separate requirements. At this time, the Province does not anticipate any significant expense to be accrued by municipalities as result of using the tool to inform fire service reviews which will be required in the next fiscal year.

In addition to standing up the new Office of the Fire Commissioner, this year's focus builds on the Province's ongoing commitment to strengthen the fire service sector through:

- access to specialized firefighter training and the certification process,
- education/training for municipal elected officials,
- procurement support,
- mutual aid and service agreement templates,
- design and roll-out of the online risk-based assessment tool, and
- the new Fire Records Management System.

Meaningful change requires planning and collaboration. That is why your continued input is essential. We look forward to continuing to work with you to create a better model for fire services in Nova Scotia. Please reach out to firemodernization@novascotia.ca if you have any further questions.

Sincerely,

Honourable Kim Masland

Minister of the Department of Emergency Management

- c. Honourable Minister John. A MacDonald, Department of Municipal Affairs
Executive Deputy Minister, Paul LaFleche, Department of Municipal Affairs
Associate Deputy Minister, Valerie Pottie Bunge, Department of Municipal Affairs
Juanita Spencer, CEO, NSFM
Victoria Brooks, Chair, Association of Municipal Administrators (AMANS)
Jeff Sunderland, Executive Director, AMANS



Mayor Amalfa,

I hope this email finds you safe and well on this sunny Friday.

Public Safety and Security Division has received the attached letter, sent on April 30, 2026. We would be pleased to meet with council regarding policing services and associated policing costs for the Town of Lockport.

As you may know, we currently have time scheduled with municipal government leaders on May 20, 2026 to discuss the RCMP Billing Mechanism. Our aim is to provide context to the announcement made by the Minister of Justice (at the NSFJ conference last week) regarding the development of a new billing mechanism for RCMP service delivery in Nova Scotia; with an aim to have the new billing mechanism operational by October 2026.

As part of the Government of Nova Scotia's response to the Nova Scotia Comprehensive Review of Policing, there is a clear commitment to establish a new, more sustainable and transparent billing mechanism for RCMP service delivery. The Review underscored the importance of ensuring that municipalities have a clear understanding of how policing costs are determined and allocated, and that the funding model supports both local service needs and provincial public safety objectives.

As you are aware, policing services in many municipalities across Nova Scotia are delivered through the Provincial Police Service Agreement (PPSA), a bilateral agreement between the Province of Nova Scotia and the Government of Canada. Under the PPSA, the Province administers RCMP policing services on behalf of municipalities that do not maintain independent police services, including the allocation of costs in accordance with the terms of the agreement. This longstanding model has enabled consistent and coordinated policing services across jurisdictions; however, it has also highlighted the need to ensure that funding structures remain transparent, equitable, and reflective of modern policing realities.



While this May 20, 2026 consultation is primarily focused on municipalities policed under the PPSA, I would also note that this invitation is being extended to municipalities operating under the Municipal Police Service Agreement (MPSA) model for situational awareness and broader system alignment, given the interconnected nature of policing governance and funding across the province.

In saying that, we would still welcome an opportunity to discuss policing costs with the Town of Lockport. Please let me know how you wish to proceed, and which dates work well for Council.

Please give me a call if you'd like to discuss.

Charcy Marchand

Director, Public Safety & Policing

Chief Firearms Officer

Public Safety and Security Division

Department of Justice
Government of Nova Scotia

T: 902-424-3178

AFRICAN NOVA SCOTIAN SEAFARING PROJECT

Date: May 7th, 2026
Via: Email

Greetings,

On behalf of the Black Loyalist Heritage Centre, the Fisheries Museum of the Atlantic, and Black Cultural Centre for Nova Scotia, we are writing to invite you to attend the launch of the African Nova Scotian Seafaring Project on **Saturday, May 30th in Shelburne, Nova Scotia.** For over 400 years, people of African descent have lived and worked in Nova Scotia, being involved in virtually every aspect of marine industry – as fishers and processors, shippers and sailors, and shipbuilders and navigators. Many historic African Nova Scotian communities featured geographies and economies built around the sea.

Despite this longstanding presence and participation, the experiences and contributions of African Nova Scotian seafarers has remained too absent from research regarding maritime industry. In a province so heavily shaped by the Atlantic, this is an issue of identity and belonging.

In recognition of this inequity and of the important stories waiting to be told, the Black Loyalist Heritage Centre, the Fisheries Museum of the Atlantic and the Black Cultural Centre of Nova Scotia have begun a collaborative relationship aimed at elevating the stories of African Nova Scotians and their connections to the sea.

The first output of this relationship is a province-wide travelling exhibit titled *We and the Sea*. This exhibit features stories from across the province and across various parts of the marine industry. The exhibit is not meant to be the end of the project, but rather a jumping off point for more discussion and uncovering more stories.

We hope you can join us on **May 30th at the Black Loyalist Heritage Centre at 119 Old Birchtown Rd, Shelburne, NS at 1:00pm** as we gather to shed light on this important history.

Kindly RSVP by May 26th, 2026.

Regards,
The African Nova Scotian Seafaring Project team



92

June Harding

From: Dayle <dayle.eshelby132@gmail.com>
Sent: May 15, 2026 7:44 PM
To: townoflockeport@ns.sympatico.ca
Subject: Presentation
Attachments: SACC_AGM_Poster.pdf

Hi all

I'm passing along this AGM invitation from David Chute with the Shelburne Chamber.

As we proceed with this AGM we believe this presentation offers many advantages and potential opportunities for the greater Shelburne County Community.

The Shelburne & Area Chamber of Commerce is truly excited to share great news about our AGM Guest Presentation by [Celes Davar](#). Celes's credentials, backed by his demonstrated success in walking the talk are a great fit for the greater Shelburne County Community on many levels.

Artists, Gardeners, Accommodations, Eateries, Museums and so many more are interconnected, even when we may not readily realize it or when the connection seems far from obvious.

Our AGM takes place on June 10th at The Osprey. We'd love you to attend. It's a FREE event and we anticipate you'll see advantages in sharing this invitation with the Arts Council executive and membership.

Please RSVP at info@shelburnechamber.com

See the attachment.

Thank you.

Cheers,
David

David Chute
Director: SACC
902.670.6294



Crafting Legendary Nova Scotia Visitor Experiences

An invitation to learn how to work with community partners to create new revenue-generating, sustainable local experiences for travellers

DATE & TIME

Wednesday June 10 at 6PM

FORMAT

75-min Presentation + 15-min Q&A

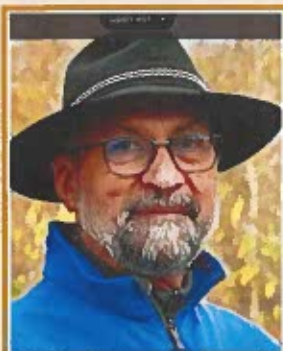
LOCATION

Osprey Art Centre, 107 Water St, Shelburne NS

WHY ATTEND THIS EVENING?

- 1 Discover What Today's Travellers Really Want**
Rural visitors seek local hosts, local food, slow travel, and meaningful connection. Learn to craft experiences that meet these new expectations.
- 2 Turn Community Assets into New Revenue**
Nature, culture, art, food, and wellbeing are the ingredients for legendary experiences. Get practical tools to generate new income for local businesses.
- 3 See Real In-Market Nova Scotia Examples**
Hear stories and video of experiences already generating new revenues — including the FoodArtNature collection in the Annapolis Valley.
- 4 Build Resilience Against Global Uncertainty**
Trade shifts, climate change, and fuel costs are reshaping travel. Position your community to thrive on authentic, sustainable tourism.
- 5 Connect with a Nationally Recognized Leader**
Canada IMPACT 2025 Award recipient — 30 years coaching communities to practice tourism as a genuine force for good.

ABOUT CELES DAVAR



Celes Davar owns and operates Earth Rhythms in the Gaspereau Valley, partnering with wineries, local producers, artists, crafters, and chefs to create memorable visitor experiences for small groups.

He is the 2025 Canada IMPACT National Sustainable Tourism Award recipient for leadership in regenerative, community-based tourism.

A biologist, storyteller, and internationally trained climate change presenter, he has spent 30 years coaching communities across Canada to craft hands-on, immersive, and legendary travel experiences. He and his wife Susan steward a 70-acre old-growth hemlock forest as a conservation easement.

★ Canada IMPACT 2025
National Sustainable Tourism Award
Leadership in Regenerative Tourism

★ FREE EVENT ★
Organized & sponsored by SACC
Members & Non-Members welcome

Advance seat booking: info@ShelburneChamber.com

SACC · Shelburne & Area Chamber of Commerce
Members & Non-Members warmly welcome

June Harding

From: Adam Dedrick <Adam.Dedrick@municipalityofshelburne.ca>
Sent: May 14, 2026 1:30 PM
To: June Harding (townoflockeport@ns.sympatico.ca)
Cc: Warren MacLeod
Subject: FYI - Recreation Facilities Assessment

Follow Up Flag: Follow up
Flag Status: Flagged

June,

The Municipal Recreation & Parks Department is doing an assessment of local recreation facilities that includes all recreation facilities in Eastern Shelburne County; those owned and operated by the Municipality of Shelburne, Town of Shelburne, Town of Lockeport, and community groups and organizations. This approach reflects the full local mix of facilities, provides useful context, and helps assess recreation facilities in our community as a whole. Being that your recreation facilities are included, I wanted to make you aware.

The assessment will aim to identify gaps, needs, and opportunities and it will give a better idea of who is using the facilities, what activities they are doing, what they like, possible improvements, and if any new facilities are desired. This information will be gathered through public consultation that will include a survey and engagement with interested parties and residents. The survey will be available online starting May 20th with the remaining consultation taking place in the early fall.

Following completion of all the consultation a report will be available. As well, the data collected can be shared so you can utilize it for your own information and planning.

Below are the TOL facilities included in the survey:

- Lockeport Ball Field
- Lockeport Pickleball/Tennis Courts
- Seacaps Park Playground
- Roods Head Park
- Lockeport Recreation Centre

Facilities not owned by TOL but included in the survey:

- Lockeport Elementary School Playground
- Lockeport Regional High School Gym

If you have any questions, please contact me.

Thanks,

Adam Dedrick
Director of Recreation & Parks
902-875-3544 ext 225
Adam.Dedrick@municipalityofshelburne.ca