



**City of Port Colborne  
Council Meeting Revised Agenda**

**Date:** Tuesday, August 27, 2024  
**Time:** 6:30 pm  
**Location:** Council Chambers, 3rd Floor, City Hall  
66 Charlotte Street, Port Colborne

**Pages**

**1. Call to Order**

**2. National Anthem**

**3. Land Acknowledgement**

The Niagara Region is situated on treaty land. This land is steeped in the rich history of the First Nations such as the Hatiwendaronk, the Haudenosaunee, and the Anishinaabe, including the Mississaugas of the Credit First Nation. There are many First Nations, Métis, and Inuit people from across Turtle Island that live and work in Niagara today. The City of Port Colborne stands with all Indigenous people, past and present, in promoting the wise stewardship of the lands on which we live.

**4. Proclamations**

4.1 Childhood Cancer Awareness Month - September 2024 and Flag Raising, August 30, 2024, Request

1

**5. Adoption of Agenda**

**6. Disclosures of Interest**

**7. Approval of Minutes**

7.1 Regular Meeting of Council - July 23, 2024

2

7.2 Public Meeting Minutes - August 6, 2024

20

7.3 Joint Special Council Meeting with Closed Session - August 12, 2024

25

**8. Staff Reports**

8.1	Investment Policy Update, 2024-154	27
8.2	User Fee Update and 2025 Sugarloaf Marina User Fees, 2024-157	40
*8.3	Recommendation Report for Draft Plan of Subdivision and Zoning By-law Amendment for VL and 563 Killaly Street East, 2024-153	51
	*Environmental Protection Zone was incorrectly noted on the Schedule A map. The map has been updated to remove the Environmental Protection Zone.	
8.4	Northland Estates Municipal Drain Report, 2024-161	95
8.5	Licensed Child Care, 2024-155	100
8.6	Fire Services Committee Recommendation, 2024-162	105
	*a. Delegation - Mike Radzikoski	

## 9. Correspondence Items

9.1	Niagara Peninsula Conservation Authority - Report FA-38-24 Re: Watershed Natural Assets Analysis and Valuation	135
9.2	Niagara Peninsula Conservation - Report NO. FA-34-24 Re: Integrated Watershed Monitoring and Reporting	142
9.3	Township of Otonabee-South Monaghan - Re: Regulations for the Importation and Safe Use of Lithium-ion Batteries	227
9.4	Ontario Forest Industries Association - Re: Immediate action Needed to Support Ontario's Forest Sector	229

## 10. Presentations

## 11. Delegations

In order to speak at a Council meeting, individuals must register no later than 12 noon on the date of the scheduled meeting. To register, complete the online application at [www.portcolborne.ca/delegation](http://www.portcolborne.ca/delegation), email [deputyclerk@portcolborne.ca](mailto:deputyclerk@portcolborne.ca) or phone 905-835-2900, ext. 115.

## 12. Mayor's Report

## 13. Regional Councillor's Report

**14. Staff Remarks**

**15. Councillors' Remarks**

**16. Consideration of Items Requiring Separate Discussion**

**17. Motions**

**18. Notice of Motions**

**19. Minutes of Boards & Committees**

\*19.1 Grant Allocation Committee Meeting Minutes - July 29, 2024

231

\*Procedural correction was made to reflect Councillor Hoyle's conflict regarding the Wave funding.

19.2 Recommendations Arising from Boards and Committees

a. Grant Allocation Committee - July 29, 2024

That funding requests be approved for a total of \$24,100 for the second and final allocation of 2024 as follows:

- Big Brothers Big Sisters \$4000
- Community Living Port Colborne Wainfleet \$3000
- Habitat for Humanity \$2500
- Port Cares Reach Out Centre \$5000
- Port Colborne and District Conservation Club \$2600
- Port Colborne Operatic Society \$2000
- Royal Canadian Legion Branch 56 \$3000
- Wave Girls Hockey Association \$2000

**20. By-laws**

20.1 Being a By-law to Appoint a Deputy Clerk (Jessica Beaupre) and Repeal By-law No. 7150/92/23 (Diana Vasu)

234

\*20.2 Being a by-law to amend Zoning By-law 6575/30/18 respecting the land legally known as Part of Lots 23 and 24 Concession 1, City of Port Colborne, Regional Municipality of Niagara, municipally known as 563 Killaly Street East and vacant land to the south 235

\*Environmental Protection Zone was incorrectly noted on the Schedule A map. The map has been updated to remove the Environmental Protection Zone.

\*a. Delegation - Kimberly Harrison McMillan on behalf of Design Plan Services Inc. - Applicant

20.3 By-law to Adopt, Ratify and Confirm the Proceedings of the Council of The Corporation of the City of Port Colborne at its Special and Regular Meetings 239

**21. Procedural Motions**

**22. Information items**

**23. Adjournment**



## PORT COLBORNE

August 27, 2024

**WHEREAS** Over 800 children under the age of 15 are diagnosed with cancer each year in Canada; and

**WHEREAS** 1 in 330 children will be diagnosed with cancer before their 18th birthday; and

**WHEREAS** Childhood cancer is the leading cause of death by disease of Canadian children; and

**WHEREAS** there are over 200 types of childhood cancers not including subtypes and mutations; and

**WHEREAS** childhood cancer places a tremendous financial burden on families; and

**WHEREAS** Over 75% of childhood cancer survivors live with at least one chronic health condition and a third of these are severe or life-threatening; and

**WHEREAS** little is known about what causes childhood cancer which limits the opportunities for prevention; and

**WHEREAS** additional awareness and funding for childhood cancer is needed as only 5 cents from every research dollar goes toward childhood cancer research; and

**WHEREAS** annually, September is recognized as Childhood Cancer Awareness Month by the Province of Ontario; and

**NOW THEREFORE** I, Mayor William C. Steele, do hereby proclaim September 2024 as “**Childhood Cancer Awareness Month**” in the City of Port Colborne.

**AND FURTHER** we ask that all residents learn more about childhood cancer and how to support those children who are afflicted and their families who are helping these heroes in their fight to live and live well.

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William C. Steele  
Mayor



**City of Port Colborne**  
**Council Meeting Minutes**

**Date:** Tuesday, July 23, 2024  
**Time:** 6:30 pm  
**Location:** Council Chambers, 3rd Floor, City Hall  
66 Charlotte Street, Port Colborne

**Members Present:** M. Aquilina, Councillor  
M. Bagu, Councillor  
E. Beauregard, Councillor  
R. Bodner, Councillor  
G. Bruno, Councillor  
F. Danch, Councillor  
T. Hoyle, Councillor  
W. Steele, Mayor (presiding officer)

\* F. Davies, Regional Councillor (non-voting)

**Member(s) Absent:** D. Elliott, Councillor

**Staff Present:** C. Schofield, Acting City Clerk  
B. Boles, Director of Corporate Services/Treasurer  
S. Luey, Chief Administrative Officer  
S. Shypowskyj, Director of Public Works  
G. Long, Director of Development and Gov. Relations  
C. Banting, Manager of Environmental Services  
J. Colasurdo, Manager of Strategic Projects  
A. Vanderveen, Drainage Superintendent  
A. Buri, Legislative Services Student

**1. Call to Order**

Mayor Steele called the meeting to order at 6:50 pm.

**2. National Anthem**

**3. Land Acknowledgement**

Councillor Bruno read the Land Acknowledgement.

**4. Proclamations**

**4.1 World Hepatitis Day, July 28, 2024**

Moved by Councillor F. Danch  
Seconded by Councillor T. Hoyle

That July 28, 2024, is hereby proclaimed World Hepatitis Day.

Carried

**4.2 Rail Safety Week, September 23-29, 2024**

Moved by Councillor M. Aquilina  
Seconded by Councillor E. Beauregard

That September 23-29, 2024, is hereby proclaimed Rail Safety Week.

Carried

**5. Adoption of Agenda**

Moved by Councillor R. Bodner  
Seconded by Councillor M. Bagu

That the agenda dated July 23, 2024 is confirmed as amended.

Carried

**6. Disclosures of Interest**

There were no Disclosures of Interest.

**7. Approval of Minutes**

**7.1 Regular Meeting of Council - June 25, 2024**

Moved by Councillor M. Bagu  
Seconded by Councillor G. Bruno

That the minutes of the regular meeting of Council, held on June 25, 2024, be approved as presented.

Carried

**a. Delegation - Gino Stinziani, 2591 Firelane 3**

Gino Stinziani asked why the City is holding a public consultation on the telecommunications tower agreement if a decision has already been made on the matter. The Director of Development and Government Relations clarified that the City has not granted final approval and that Council's decision on June 25th was only approval in-principle pending public engagement.

Mr. Stinziani also asked if there is a protocol for Councillors to respond to resident inquiries within a certain time period. The CAO stated that there is no requirement that Councillors respond. The Mayor added that while there is no requirement, there is an expectation that Councillors respond.

**8. Staff Reports**

Moved by Councillor T. Hoyle  
Seconded by Councillor F. Danch

That items 8.2 to 8.3 be approved, and the recommendations contained therein be adopted.

Carried

**8.1 Canal Days – Museum By-law Exemptions, 2024-148**

That Chief Administrative Office Report 2024-148 be received; and

That the Port Colborne Historical and Marine Museum be granted an exemption from By-law No. 7026/63/22 to permit the discharge of firearms (without ammunition) for a historical demonstration during the 2024 Canal Days Marine Heritage Festival; and

That the Port Colborne Historical and Marine Museum be granted an exemption from By-law No. 5642/73/11 to permit camping on the Museum grounds for a historical demonstration during the 2024 Canal Days Marine Heritage Festival.

**8.2 Joint Accessibility Advisory Committee Renewal, 2024-147**

That Office of the Chief Administrative Officer report 2024-17 be received; and

3



That Council approve the Proposal to Coordinate AODA Compliance for 2024-2026 attached as Appendix A to Office of the Chief Administrative Officer report 2024-17;

That the Chief Human Resources Officer (CHRO) be directed to renew the City's membership in the Joint Accessibility Advisory Committee (JAAC) as needed until otherwise directed by Council.

## **9. Correspondence Items**

Moved by Councillor T. Hoyle  
Seconded by Councillor F. Danch

THAT items 9.1 and 9.2 be received.

Carried

### **9.1 Town of Cochrane Re: Ontario Regulation 391/21: Blue Box "ineligible" Sources**

### **9.2 Niagara Region Re: Niagara Poverty Reduction Strategy - Social Assistance Rates**

### **9.3 Association of Municipalities of Ontario (AMO) and Ontario Medical Association (OMA) Resolution Re: Physician Shortage**

Moved by Councillor M. Aquilina  
Seconded by Councillor G. Bruno

WHEREAS the state of health care in Ontario is in crisis, with 2.3 million Ontarians lacking access to a family doctor, emergency room closures across the province, patients being de-rostered and 40% of family doctors considering retirement over the next five years; and

WHEREAS it has becoming increasingly challenging to attract and retain an adequate healthcare workforce throughout the health sector across Ontario; and

WHEREAS the Northern Ontario School of Medicine University says communities in northern Ontario are short more than 350 physicians, including more than 200 family doctors; and half of the physicians working in northern Ontario expected to retire in the next five years; and (Northern Ontario only)

WHEREAS Ontario municipal governments play an integral role in the health care system through responsibilities in public health, long-term care, paramedicine, and other investments.

WHEREAS the percentage of family physicians practicing comprehensive family medicine has declined from 77 in 2008 to 65 percent in 2022; and

WHEREAS per capita health-care spending in Ontario is the lowest of all provinces in Canada, and

WHEREAS a robust workforce developed through a provincial, sector-wide health human resources strategy would significantly improve access to health services across the province;

NOW THEREFORE BE IT RESOLVED THAT the Council of The Corporation of the City of Port Colborne urges the Province of Ontario to recognize the physician shortage in the City of Port Colborne and Ontario, and to fund health care appropriately and ensure every Ontarian has access to physician care.

Carried

**10. Presentations**

None.

**11. Delegations**

None.

**12. Mayor's Report**

A copy of the Mayor's Report is attached.

**13. Regional Councillor's Report**

Regional Councillor Davies stated that the Region is beginning its budget process and that he will continue updating Council throughout. The Regional Councillor announced that Regional Council is set to allocate \$10.6 million from the Investing in Ontario Fund to water and wastewater capital projects in Port

Colborne's East-side Employment Lands and the tunnel under the Welland Canal. The project is set to be ready for tendering in the spring of 2025. The Regional Councillor stated that issues with the re-organized Niagara Region Transit services have been the main source of complaints to his office, and stated that the Region is working to resolve them.

#### **14. Staff Remarks**

##### **14.1 Public Works (Shypowskyj)**

The Director of Public Work informed Council and the public that the Department will be installing in-road flexible bollards over the coming weeks as part of traffic calming and speed management plans on Empire Road and Pleasant Beach Road. The Department is on track to deliver on all aspects of its Infrastructure Needs Plan as presented: the Department has lined 4,500 metres of wastewater pipe, inspected over 500 laterals, nearly completed the CCTV gap project, started smoke testing that will continue into the Fall, and has prepared to continue flow monitoring of sewers in the spring.

The Director added that the Department has provided the MTO with digital logos of service clubs for the creation of signs on Hwy 58 and 140 and a tender for the Tennessee Avenue Gates east wall is planned to be released in August.

The Director also notified the public that the City will be conducting fire flow testing in August which may cause discolored water and Staff have been delivering door hangers to affected areas. The City is also conducting smoke testing in the East Village the week of July 29th.

#### **15. Councillors' Remarks**

##### **15.1 Niagara Region Transit Update (Beauregard)**

Councillor Beauregard informed Council that the new unified transit system has faced significant issues, including with accessibility, vehicle capacity, extended hold times, abandoned rides, and standing orders. Councillor Beauregard stated that the previous service provider was completing trips outside of the agreed terms of the contract. The Niagara Region Transit is working on the issues it can solve immediately, and working to enhance customer communication, review vehicle allocation strategies, ensure transparency, and collaborate with the new service provider and engage with stakeholders. A Report on addressing long-term

problems is scheduled to be brought to the Niagara Transit Commission on October 15th.

### **15.2 Water Leakage and Inflow Work Measuring (Bagu)**

Councillor Bagu asked the Director of Public Works if the City could provide residents with a measurable summary of savings or findings from work on water leakage and inflow.

The Director of Public Works responded that the Department has taken into consideration since the beginning that they would need to report back to Council with specific data. Flow monitors and video devices will be placed in specific locations to enable comparisons with previous years. The Director of Public Works and the Director of Corporate Services are working on a presentation for the budget approval process on this subject.

### **15.3 Erie Street Paving (Bruno)**

Councillor Bruno asked the Director of Public Works about some outstanding water pooling issues relating to watermain and paving work on Erie Street at Minto. The Director of Public Works responded that they are waiting for the warranty from the described works to expire before putting asphalt on top of Erie Street along with some shouldering in 2025. Councillor Bruno then asked whether this work was part of the regular paving project or part of the restoration in the water main budget. The Director of Public Works stated that this work will be part of the resurfacing program and will likely occur throughout Summer 2025.

### **15.4 Omer Sewershed Update (Bruno)**

Councillor Bruno asked the Manager of Strategic Projects for clarification on the status of the Omer sewershed project. The Manager of Strategic Projects stated that the Department has the contact information of residents and is currently programming flow monitors in order to have test programs going out within a week of the meeting.

### **15.5 Neff Street Project Thank You (Bruno)**

Councillor Bruno thanked the Public Works team on behalf of residents for their work on the Neff Street water drainage project. Recent rainfalls have not caused any of the problems that had existed in the past.

### **15.6 Lions Field Thank You (Danch)**

Councillor Danch thanked the Public Works Department for their excellent work on the Lions Field improvements.

### **15.7 Parks Signage Update (Danch)**

Councillor Danch asked the Director of Public Works for an update on the new parks signage which have not been added. The Director of Public Works responded that nearly all of the footings are in place, so signs will be added over the next month beginning with the major parks.

### **15.8 Nickel Beach Seaweed (Hoyle)**

Councillor Hoyle asked the Director of Corporate Services if it is true that seaweed in the water at Nickel Beach cannot be removed. The Director of Corporate Services responded that this is correct and that the City is talking with the Ministry of the Environment about finding a protocol that could allow for removing accumulated seaweed in the water. The Director also advised that the east side of the beach has much less seaweed and that the seaweed is usually removed naturally after a storm.

### **15.9 Sanitary Laterals Inquiry (Bodner)**

Councillor Bodner asked the Director of Public Works if Port Colborne has the option of relining sanitary laterals. The Director of Public Works responded that the City will be completing a sanitary laterals program later in 2024 and that a Terms of Reference have already been created in order to retain a contractor. The City has inspected 500 laterals and identified issues that can be addressed in a cost-effective manner through lining.

## **16. Consideration of Items Requiring Separate Discussion**

### **16.1 Waterfront Road Allowances, 2024-143**

Moved by Councillor R. Bodner  
Seconded by Councillor M. Aquilina

That Public Works Department Report 2024-143 be received; and

That Council direct the Director of Public Works to implement the following:

1. Retain ownership of the 7 waterfront road ends.
2. Install benches and waste receptacles at the waterfront entry points on Pleasant Beach Road, Wyldewood Road, and Pinecrest Road.
3. Include the waterfront road ends within the Active Transportation Masterplan for review.

4. Remove existing signage related to the pandemic parking prohibition.
5. Continue to highlight and drive tourism to the City's destination locations including Nickel Beach, Centennial Park, and H.H. Knoll Park.
6. Install sign boards at road end locations to indicate the location, proximity to Nickel Beach and Centennial Park, and rules to respect the environment.
7. Collect existing gate keys & return deposits.
8. Install/Upgrade gates at all 7 road end locations to allow pedestrian access and restrict vehicular access.
9. Create a by-law to restrict vehicular access and parking between the lake and gate on all 7 road ends to replace all other relevant by-laws.
10. Create a process for waterfront access through a Municipal Consent Permit; and

That Council approve increasing the Road Ends capital budget to \$140,000 by pre-encumbering the 2025 capital and related budget by \$40,000.

**Motion:**

Moved by Councillor R. Bodner

Seconded by Councillor M. Aquilina

That Public Works Department Report 2024-143 (Waterfront Road Allowances) be referred back to Staff to hold a Public Meeting and report back to Council with the results at the last meeting of September.

Carried

- a. **Delegation - Callum Shedden, Daniel & Partners LLP (Virtual)**
- b. **Delegation - Peter Prophet, 1671 Firelane 2**
- c. **Delegation - Mark Leon, 1311 Firelane 1**
- d. **Delegation - Robert Henderson, 1933 Firelane 2**
- e. **Delegation - Marsha McCreadie, 574 Wyldewood Road**

All delegations held in abeyance until Staff holds a Public Meeting and reports back to Council.

The CAO stated that residents can email 'cityclerk@portcolborne.ca' to register and be notified for the public meeting or call City Hall.

## **16.2 2024 Trimester 1 Financial Reporting, 2024-107**

The Director of Corporate Services delivered a presentation to Council outlining the recommendations.

Moved by Councillor M. Bagu  
Seconded by Councillor T. Hoyle

That Corporate Services Department Report 2024-107 be received for information; and

That the recommended transfers to and from the City's capital close-out account and related reserves as outlined in Appendix B of Corporate Services Report 2024-107 be approved; and

That the recommended reserve and capital and related project transferred as outlined in the financial section of Corporate Service Report 2024-107 be approved.

Carried

## **16.3 Oil Mill Creek Municipal Drain, 2024-141**

Moved by Councillor M. Aquilina  
Seconded by Councillor R. Bodner

That Public Works Department Report 2024-141 be received; and

That Council direct the Drainage Superintendent to advance the Oil Mill Creek Municipal Drain Engineer's Report to a 'Meeting to Consider,' in accordance with section 41, Chapter D.17 of the *Drainage Act*.

Carried

### **a. Delegation - Cathy Kalynuik, 851 Pinecrest Road**

Cathy Kalynuik asked the Mayor and the Drainage Superintendent for assurance that the Oil Mill Creek Drain will not be a "done deal" before the September 3rd Public Meeting. The Drainage

Superintendent assured the resident that it will not be a "done deal" and that the resident should bring all her concerns and questions regarding the Engineer's report to the Meeting to Consider.

K. Kalynuik also stated that according to the Engineer Report's assessment schedule, she would be assessed \$16,000. The Director of Corporate Services stated that Council has permitted that such assessments may be paid over a five year period or longer.

**b. Delegation - Gino Stinziani**

Gino Stinziani asked for clarity on how the costs are distributed and proportioned across properties. The Drainage Superintendent stated that the Engineer's methodology would be explained at the Meeting to Consider. The Drainage Superintendent agreed to meet with the resident outside of Council Chambers to further discuss this.

**c. Delegation - Christine Allen, 2591 Firelane 3**

Christine Allen stated that the Engineer's Report mentions to prior Public Meetings, one of which she attended in November. The resident then asked when the other public meeting was held and how many people attended. The Drainage Superintendent responded that the City sent a notification in the mail to all property owners assessed in the previous Engineer's Report. The meeting was held in February via Zoom. The Drainage Superintendent then stated that thirty people attended that meeting.

Moved by Councillor G. Bruno  
Seconded by Councillor M. Bagu

That the Procedural By-law be waived to allow Christine Allen to make a delegation to Council on Public Works Department Report 2024-141 without prior registration.

Carried

**16.4 POCOMAR Agreement, 2024-138**

Moved by Councillor G. Bruno  
Seconded by Councillor E. Beauregard

That Corporate Services Department Report 2024-138 be received; and



That Council approve the Mayor, Acting Clerk, Manager, Recreation, and Marina Supervisor to enter into an agreement (Appendix A) for auxiliary marine search and rescue service with Port Colborne Marina Auxiliary Rescue.

Carried

**16.5 Tourism Strategy and Tactical Plan, 2024-145**

Moved by Councillor G. Bruno  
Seconded by Councillor R. Bodner

That Corporate Services Department Report 2024-145 be received.

Carried

**16.6 Urban Forest Management Plan, 2024-144**

The Manager of Environmental Services delivered a presentation on the Urban Forest Management Plan.

Moved by Councillor M. Bagu  
Seconded by Councillor F. Danch

That Public Works Department Report 2024-144 be received; and

That the Urban Forest Management Plan in Appendix A of Public Works Report 204-144 be approved.

Carried

**a. Urban Forest Management Plan Presentation**

**16.7 2024 Watermain Replacement Project Update, 2024-146**

Moved by Councillor M. Bagu  
Seconded by Councillor G. Bruno

That Public Works Department Report 2024-146 be received; and

That an additional \$4,428,000 from the Water Reserve be approved for the 2024 watermain replacement capital project construction.

Carried

**17. Motions**

None

**18. Notice of Motions**

None

**19. Minutes of Boards & Committees**

Moved by Councillor M. Aquilina  
Seconded by Councillor E. Beauregard

That items 19.1 and 19.2 be received.

Carried

**19.1 Port Colborne Museum, Heritage, and Culture Board Meeting Minutes - May 21, 2024**

**19.2 City of Port Colborne and Township of Wainfleet Joint Fire Services Review Committee Minutes - July 8, 2024**

**19.3 Recommendations Arising from Boards and Committees - Joint Fire Services Review Committee**

Moved by Councillor T. Hoyle  
Seconded by Councillor G. Bruno

That the Councils of both participating municipalities be respectfully requested to extend the term of the Joint Fire Services Review Committee to November 1, 2024

Carried

**20. By-laws**

Moved by Councillor T. Hoyle  
Seconded by Councillor M. Bagu

That items 20.1 to 20.7 be enacted and passed, as presented.

Carried

**20.1 By-law to Appoint Municipal Law Enforcement Officers**

- 20.2 By-law to Amend By-law 6082/48/14 Being a By-law to Establish a System for Administrative Penalties respecting the Stopping, Standing and Parking of Vehicles**
- 20.3 By-law to Amend By-law 89-2000, as Amended, Being a By-law Regulating Traffic and Parking on City Roads (Stop Sign Locations)**
- 20.4 By-law to Amend By-law 4310/146/02 Being a By-law Prescribing On and Off-Street Parking for Persons with Disabilities within the City of Port Colborne**
- 20.5 By-law to Establish a Permitting System for the Parking of Vehicles on Designated Highways and Parking Lots in the City of Port Colborne (Special Events)**
- 20.6 By-law to Amend the Terms of Reference for the Fire Services Review Committee**
- 20.7 By-law to Adopt, Ratify and Confirm the Proceedings of the Council of The Corporation of the City of Port Colborne**

**21. Procedural Motions**

None

**22. Information items**

None

**23. Adjournment**

Mayor Steele adjourned the meeting at approximately 9:32 pm.

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William C. Steele, Mayor

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Carol Schofield, Acting City Clerk



## **PORT COLBORNE**

**Mayor's report to city council  
Tuesday, July 23, 2024**

### **WHAT A SUMMER SO FAR**

What a summer it's shaping up to be! Port Colborne has so much going on! Since our last meeting was in June, I want to just take a step back to acknowledge the Port Colborne Optimist Club for the fantastic Canada Day in the Park event coordinated for so many Port Colborne families. It was one of the best-attended Canada Day events I recall. Council and I thank the Optimists for all their efforts, and for including so many activities for everyone as we celebrated our country's 157th birthday.

Likewise for the Niagara Antique Power Association annual Heritage Display on Canada Day weekend, the 52nd annual event celebrating our rural heritage. The opening ceremonies had to be postponed a day due to rain, but it turned out to be a terrific weekend. Thank you to the organizers, volunteers and sponsors for continuing to shine a light on our agricultural heritage.

### **CANAL DAYS PREPARATION**

We are 10 days away from Canal Days, the city's biggest annual festival. On behalf of council, I extend thanks to our staff, our sponsors – we have more sponsors this year than we've ever had before, thanks to our communications team -- and the hundreds of volunteers who come out to

work and to support the event, one of the greatest single economic generators in our city.

Founded in 1979 at the Port Colborne Historical and Marine Museum, Canal Days has grown to include events and activities in venues across the city.

There are a dozen major sites to enjoy Canal Days, from the Craft Show in the Vale Centre, and the Car Show at the T.A. Lannan Sports Complex, to the Kids Zone in King George Park and the Midway downtown, to the concerts in HH Knoll Lakeview Park. In addition to the annual Boat Parade Lights, we have a Boat Show this year, right in the canal south of Bridge 21.

The Welland Canal figures prominently of course, and all the ships which pass upbound and downbound through our city. You'll hear master salutes all weekend – three long blasts followed by two short -- as ships sound their horns to acknowledge each other and to the crowds along West Street.

We look forward to welcoming thousands of visitors to our city, starting a week from Friday.

Staff and volunteers are in training sessions all this week, so everyone understands their role as Canal Days Ambassadors. We're ALL Canal Days ambassadors, whether we're directing traffic, emptying trash receptacles, or painting faces.

One of the first things we all do to prepare for Canal Days, is buy a Canal Days t-shirt from the museum. For the past decade or so, the t-shirts have been designed by Stephen Brule, who started out as a summer student at the museum, back in 2012.

The t-shirts have become one of their biggest fundraisers – I mean, everyone HAS to have an official Canal Days t-shirt. Be sure to get yours before they are sold out.

I hope you'll all refer to the City website, and Canal Days on all social media platforms, for the full schedule, and all the do's and don'ts. For example, please leave your dogs at home.

Thank you to our title sponsor, GIO Rail, and to all our sponsors and local businesses who partner with us in this tremendous civic enterprise.

## **SUMMER THEATRE, MUSIC, AND ART**

Things are also hopping over at Lighthouse Festival Theatre, where the third play of the summer season opens tomorrow. Mary's Wedding runs until July 20 in the theatre at the Roselawn Centre. We are so fortunate to have Lighthouse Theatre in our city, a professional company of writers, actors, directors, set designers, who share their talents with their sister-company Lighthouse Theatre in Port Dover.

Inside Roselawn, Wonder and Whimsy is an exhibit of Port Colborne Folk Art from the museum collection. Drop by Wednesday to Saturday from 1 to 3 to see the colourful, inventive, whimsical works of art. Friends of Roselawn have established a Tiny Art Library, and an Art Tool Loaning Library, so if you are inspired by the show to make something, the tools are there for you to borrow.

The next of the Concerts on the Lawn at Roselawn will be the Toronto All-Star Big Band, on the Monday of Canal Days. The orchestra and vocalists of the All-Star Big Band have played in Port Colborne many times. They tell us Roselawn is one of their favourite stops along their summer tour.

You design your own stops along the South Niagara Artists Studio Tour the weekend after Canal Days Aug. 10 and 11. I encourage you to take in the studio tour, where you'll meet so many talented local artists, sculptors, jewellery makers, potters and for sure you'll find something unique.

## **PORT COLBORNE OLYMPIAN**

The opening ceremonies of the 33rd Olympiad in Paris are this Friday. There will be almost 11,000 athletes from 206 countries competing in 32 sports.

A few weeks after, about a month from now, the Paralympic Games open August 28.

I'm thrilled to share with you that a young woman from Port Colborne will be competing in those games.

Emma Van Dyk, 21 years old, will be one of 4,400 paralympic athletes from around the world competing in Paris.

Emma is a swimmer. A sprinter. She broke the Canadian record for 100-metre backstroke three times in the last two years.

Like all Olympic athletes, she's had to work hard to qualify for the Olympics, especially after breaking her foot last spring when she fell down the stairs at home. She's in the pool at Brock eight times a week.

I met her this morning and gave her our city's best wishes. She said she's ready, and she's excited.

Well, Emma, we are excited for you. We'll be cheering you, and all Canadian athletes, at the Olympics and the Paralympics.



**City of Port Colborne**  
**Public Meeting Minutes**

**Date:** Tuesday, August 6, 2024  
**Time:** 6:30 pm  
**Location:** Council Chambers, 3rd Floor, City Hall  
66 Charlotte Street, Port Colborne

Member(s) Present: M. Aquilina, Councillor  
M. Bagu, Councillor  
R. Bodner, Councillor  
G. Bruno, Councillor  
D. Elliott, Councillor  
T. Hoyle, Councillor  
W. Steele, Mayor (presiding officer)

Member(s) Absent: E. Beauregard, Councillor  
F. Danch, Councillor

Staff Present: C. Schofield, Acting City Clerk  
D. Schulz, Senior Planner  
D. Vasu, Planner

**1. Call to Order**

Mayor Steele called the meeting to order at approximately 6:30 pm.

**2. Adoption of Agenda**

Moved By Councillor R. Bodner  
Seconded By Councillor T. Hoyle

That the agenda dated August 6th, 2024 be confirmed, as circulated.

Carried

**3. Disclosures of Interest**

Mayor Steele noted Councillor Beauregard's absence and conflict of interest.



#### 4. Statutory Public Meetings

##### 4.1 Public Meeting for Official Plan and Zoning By-law Amendments and Draft Plan of Subdivision for Stonebridge Village Subdivision – Files: D09-06-24 & D14-06-24, 2024-150

Dave Schulz, Senior Planner, provided a PowerPoint Presentation overview of the Applications, attached as Appendix A and B to Report 2024-150, respectively. The Official Plan amendment will implement site-specific policies to facilitate the proposed Draft Plan of Subdivision. The Zoning By-law amendment will permit a mix of single-detached, semi-detached, townhouses, live/work townhouses, and six-storey apartment units.

William Heikoop, Planning Manager from Upper Canada Consultants, and Drew Toth, Founder of Elevate Living, gave a presentation in favour of the proposed development. The applicant stated that the proposed development would include 385 dwelling units across a variety of housing options, including attainable, affordable, and market-rate apartments and houses. A stormwater management centre, park, and pedestrian connection are also proposed. The applicant stated that consideration was given to the existing homes on Barrick Road, and the high-density buildings have been located away from these existing units. The applicant stated that supporting studies show no impacts on the Biederman Drain water balance and wetland areas and that the Region has required that the Omer Pumping Station be upgraded before construction can begin. The applicants also stated that a Traffic Impact Study showed no upgrades to existing intersections are required.

Moved By Councillor D. Elliott  
Seconded By Councillor M. Bagu

That Development and Government Relations – Planning Division Report 2024-150 be received for information.

Carried

The following members of the public addressed Council on the application:

##### a. **Phelan Collins, 517 Barrick Road**

Phelan Collins stated concern over:

- Proximity of his property to the walking path that will run along the side of his yards, and

- Increased traffic on Barrick Road.

Phelan Collins asked if there were plans for a fence along the walkway. The Senior Planner responded that the City can work with developers to add a privacy fence along the sides of the walking path.

**b. Delegation from George Edwards, 643 Barrick Road**

George Edwards stated concern over:

- How proposed dwellings would affect his horse farm,
- The presence of a six-storey apartment building in the area, and
- Impacts of development on the wildlife corridor that goes through his property

George Edwards stated that the applicants had assured him that they would work with him to accommodate his interests.

**c. Delegation from Cameron Gunn, 550 Barrick Road**

Cameron Gunn stated concern over:

- The high volume of vehicles and residents of the proposed subdivision that would be funnelled onto Barrick Road in the absence of another connection to West Side Road,
- The impacts of increased traffic on children playing on Barrick Road and on people pulling out of their driveways,
- The impacts of increased traffic on cars turning left onto West Side Road,
- The lack of sidewalks on Barrick Road causing pedestrians to walk across existing properties, and
- High volume of construction vehicles causing cars and property to be covered in dust.

Cameron Gunn stated that he believes there should be a connection to West Side Road, the speeds on West Side Road need to be reduced, and a stop light needs to be added to the West Side Rd/Barrick Rd intersection.

**d. Delegation from Donna Putman, 805 Barrick Rd**

Donna Putman asked:

- How water is going to be funnelled to the Biederman Drain, and

- For more specific information on a drainage or ditching plan that won't disturb existing properties on Barrick Road.

The applicant responded by stating that:

- A pipe would be built down Barrick Road to a storm sewer that would be created either at the Minor Rd road allowance or further west at a watercourse,
- There would be a stormwater management facility and a wet pond on the development land that would capture the runoff differential from farm fields and impervious surfaces,
- These measures are intended to ensure the volume of water coming off the land is the same pre-development and post-development,
- They would provide the delegate with the drawings of the proposed plan relating to water drainage, and
- Homes cannot be built without the stormwater management facility and pipe being operational.

**e. Delegation from Jan Putman, 805 Barrick Rd**

Jan Putman asked:

- If it was an option to have water drain down to the Minor Rd road allowance to the Biederman Drain,
- Which side of the road water would drain down if Drain A had to be used instead of the Minor Rd road allowance, and
- Why a drain is required down Minor Rd if there is no additional run-off post-development.

The applicant responded by stating that:

- Draining water to the Minor Rd road allowance to the Biederman Drain is a viable option, but that there are existing environmental concerns regarding the provincially significant wetlands.
- The pipe alignment determining which side of the road the pipe is on would be determined in the technical design stage following approval and that the pipe drawings would need to be approved by City staff.
- Getting approval from the Ministry for a development requires applicants to demonstrate that the development will not cause additional runoff to properties downstream.

- Since the development is within the urban boundary, the City requires that the water drain in an enclosed, self-contained pipe to an appropriate facility, not to a roadside ditch.

**5. Procedural Motions**

None.

**6. Information Items**

None.

**7. By-laws**

**7.1 By-law to Adopt, Ratify and Confirm the Proceedings of the Council of The Corporation of the City of Port Colborne**

Moved By Councillor M. Aquilina

Seconded By Councillor G. Bruno

That the By-law to Adopt, Ratify and Confirm the Proceedings of the Council of The Corporation of the City of Port Colborne at its Public Meeting on August 6, 2024, be enacted and passed, as presented.

Carried

**8. Adjournment**

Mayor Steele adjourned the meeting at approximately 8:08 pm.

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William C. Steele, Mayor

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Carol Schofield, Acting City Clerk

THE CORPORATION OF THE CITY OF PORT COLBORNE  
AND  
THE CORPORATION OF THE TOWNSHIP OF WAINFLEET

**Date:** Monday, August 12, 2024  
**Time:** 6:30 pm  
**Meetings:** Joint Special Council Meeting with Closed Session  
**Location:** L.R. Wilson Heritage Research Archives  
286 King Street, Port Colborne

**MINUTES – CITY OF PORT COLBORNE**

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Members Present: M. Aquilina, Councillor  
M. Bagu, Councillor  
E. Beauregard, Councillor  
R. Bodner, Councillor  
G. Bruno, Councillor  
F. Danch, Councillor  
D. Elliott, Councillor  
T. Hoyle, Councillor  
W. Steele, Mayor (presiding officer)

Staff Present:  
S. Luey, Chief Administrative Officer  
M. Alcock, Acting Fire Chief  
S. Schutten, Deputy Chief, Wainfleet  
C. Schofield, Acting City Clerk  
A. Burri, Legislative Services Student (Technical Support)

**1. Call to Order**

Mayor Steele called the meeting to order at approximately 6:30 p.m.

**2. Disclosures of Interest and the General Nature Thereof - None**

**3. Memorandum of Understanding for Shared Services (for information only)**

**4. Closed Meeting**

Moved by Councillor Danch  
Seconded by Councillor Bodner

That Council will now hold a closed session meeting under Subsection 239 (2)

(b) of the *Municipal Act, 2001* (personal matters about an identifiable individual, including municipal or local board employees), and Subsection 239 (2 (d) (labour relations or employee negotiations)

Carried

The Acting Fire Chief provided a PowerPoint Presentation followed by a question and answer period.

**7. Rise & Report**

Moved by Councillor Bagu  
Seconded by Councillor Beauregard

That Council adjourn from the Closed meeting and reconvene into open session with report.

The Acting City Clerk reported that direction was provided in accordance with the *Municipal Act, 2001*.

**9. By-law to Confirm the Proceedings of Council**

Moved by Councillor Elliott  
Seconded by Councillor Bruno

That the By-law to adopt, ratify and confirm the actions of the Council at its Special Joint Meeting held on the 12th day of August, 2024, be enacted, as passed.

Carried

**10. Adjournment**

Mayor Steele adjourned the meeting at approximately 7:43 p.m.

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William C. Steele, Mayor

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Carol Schofield, Acting City Clerk



**Subject: Investment Policy Update**

**To: Council**

**From: Corporate Services Department**

Report Number: 2024-154

Meeting Date: August 27, 2024

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**Recommendation:**

That Corporate Services Department Report 2024-154 be received; and

That the Investment Policy in Appendix A of Corporate Services Report 2024-154 be approved.

That Staff initiate a process to close the identified trust funds in this report and disburse the related funds directly to the intended purposes or related community group subject to applicable regulation, legislation, and regulatory agencies.

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**Purpose:**

The purpose of this report is to obtain approval for the administrative changes and to include greater direction with respect to Trust Fund investing within the City Investment Policy.

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**Background:**

The City first adopted an Investment Policy in August of 2020. The attached Appendix A to this report highlights, using tracked changes, proposes changes to that policy.

The changes as outlined in the discussion section of this report below are either administrative or seek to provide greater direction with respect to Trust Fund investing.

As of December 31, 2024, the City has approximately \$509,400 in Trust Funds with 80% related to cemeteries. As the City has become the owner and custodian of additional cemeteries the City has been working with the Bereavement Authority of Ontario (BAO) to ensure a streamlined consolidation of Trust Funds with the City as Trustee.

## Discussion:

As identified this report seeks to update the City’s Investment Policy for both administrative clarity and to provide greater direction with respect to Trust Fund investing.

Salient administrative clarity includes:

- Greater clarity when the policy refers to City or Trust Fund investments.
- Additional reference to applicable acts.
- Nomenclature clarification.
- In the event there is a negative change in credit of a non-redeemable fixed term investment that would have prevented its original purchase per the policy, it will be monitored and not renewed once the fixed term has passed.

Salient direction with respect to Trust Fund investing includes:

- Trust Fund investments can be in any currency.
- Trust Funds can be invested through a trust fund account established at an investment brokerage of a Schedule I Bank.
- Establish asset mix, eligible investments, diversification and benchmarks as follows:

Asset Mix	Eligible Investments	Target		Benchmark
		Minimum	Maximum	
<b>Cash</b>	Cash and High Interest Savings Accounts	0%	15%	FTSE TMX 91-Day T-Bill Index
<b>Fixed Income</b>	Multi-Asset Credit	25%	55%	FTSE TMX Universe Bond Index
<b>Canadian Equities</b>	Equities (listed on a major recognized public exchange)	0%	45%	S&P/TSX Composite
<b>Global Equities</b>		20%	70%	MSCI World Index

In addition to the changes in the Investment Policy, Staff are working to streamline Trust Fund management and accounting as the City assumes various cemeteries. This is being done to maximize the benefit of the Trust Funds for the causes to which they support. In this process Staff are working to move the funds to a common brokerage and recommend closing all Trust Funds except for the Cemetery Trust Fund as a result of their small size (Trust Funds identified in the Financial Implications section). Staff identify that their small size causes a situation where zero or close to zero



disbursements are provided to support their desired causes. For example, the Julia Yager (Bethel) Trust would only produce \$74 dollars if the Trust Fund earned 10%. The administrative cost, including audit costs, is greater than the investment income.

### **Internal Consultations:**

This Investment Policy Update has been undertaken by Financial Services subsequent to a review of other Public Sector investment policies.

### **Financial Implications:**

As identified within the Investment Policy, the policy aims to support the preservation of capital, liquidity and achieve a competitive rate of return.

The closing of the following trusts, subject to applicable regulation and legislation, is a recognition of their size and the resulting fact that the investment income generated does not cover their required administrative or audit costs. This limits the benefit, if any, that the funds can be used to help support their intended causes.

<b>Trusts</b>	<b>Amount</b>	<b>Potential Disbursement</b>
Local Improvements	\$25,300	Capital Budget
Julia Yager (Bethel) Trust	\$7,400	Bethel Community Group
Fulton Trust	\$1,000	Capital Budget
Sherkston Trust	\$11,900	Sherkston Community Group
Roselawn Centre	\$57,300	Roselawn Capital Reserve
	\$102,900	

Where the funds are ultimately disbursed will be subject to a review of their origin, funder's original intent, funder's current agreement (should the funder(s) be contactable) and approval of applicable regulatory agencies.

### **Public Engagement:**

The City has worked with the BAO with respect to Trust Funds and its role as the Trustee. To close the remaining Trust Funds the City will work with applicable regulatory agencies as required.

## **Strategic Plan Alignment:**

The initiative contained within this report supports the following pillar(s) of the strategic plan:

- Welcoming, Livable, Healthy Community
  - Sustainable and Resilient Infrastructure
- 

## **Conclusion:**

This report recommends that the Investment Policy in Appendix A of Corporate Services Report 2024-154 be approved and that Staff initiate a process to close the identified trust funds in this report and disburse the related funds directly to the intended purposes or related community group subject to applicable regulation, legislation, and regulatory agencies.

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## **Appendices:**

- a. Appendix A – Investment Policy Update

Respectfully submitted,

Bryan Boles  
Director, Corporate Services / Treasurer  
905-228-8018  
[Bryan.boles@portcolborne.ca](mailto:Bryan.boles@portcolborne.ca)

## **Report Approval:**

All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.

## Appendix A – Investment Policy



<b>Administrative Policy No:</b>	FIN - 01
<b>Policy:</b>	INVESTMENT POLICY
<b>Effective:</b>	August 24, 2020 <del>(NEW)</del>
<b>Revised:</b>	<b>August 13, 2024</b>
<b>Current Legislation:</b>	Municipal Act, 2001 as amended, Ontario Regulation 438/97 and Trustees Act Section 26 and 27.
<b>Applicable to:</b>	Investment Transactions
<b>Policy Owner:</b>	Director of Corporate Services / Treasurer

### Policy Statement

The Corporation of the City of Port Colborne (the “City”) shall invest public funds in a manner that maximizes investment return and minimizes investment risk while meeting the daily cash requirements of the City and conforming to legislation governing the investment of public funds.

The purpose of this Investment Policy is to ensure integrity of the investment management process. The objective of this investment policy is to maximize investment income at minimal risk to capital. Accordingly, emphasis on investments is placed on security first, liquidity second and overall yields third.

This investment policy shall govern the investment activities of the City’s Operating and Capital cash flow, Reserves and Reserve Funds as well as Trust Funds. This policy applies to all investments made by the City on its own behalf and on behalf of its agencies, boards and commissions and any new funds created by the City.

#### 1) Objectives

The primary objectives of this investment policy, in priority order, are as follows:

a) ***Adherence to statutory requirements;***

All investment activities shall be governed by the *Municipal Act, 2001* as amended. Investments, unless further limited by Council, shall be those eligible under Ontario Regulation 438/97 or as authorized by subsequent provincial regulations. Trust fund investments shall be in accordance with Trustees Act Section 26 and 27

b) ***Preservation of capital***

Meeting this objective requires the adoption of a defensive policy to minimize the risk of incurring a capital loss and of preserving the value of the invested principal. As such, this risk shall be mitigated through the investment strategy which includes requirements to invest in properly rated financial instruments in accordance with applicable legislation, to limit the type of investments to a maximum percentage of the total portfolio and to be mindful of the amount invested within individual institutions.

**c) Maintenance of liquidity**

The investment portfolio shall remain sufficiently liquid to meet daily operating cash flow requirements and limit temporary borrowing. The portfolio shall be structured to maintain a proportionate ratio of short, medium and long-term maturities to meet the funding requirements of the City. The term liquidity implies a high degree of marketability and a high level of price stability. Important liquidity considerations are a reliable forecast of the timing of the requirement of funds, a contingency to cover the possibility of unplanned requirement of funds and an expectation of reliable secondary marketability prior to maturity.

**d) Competitive rate of return**

Investment yields shall be sought within the boundaries set by the three foregoing objectives and then consideration shall be given to the following guidance;

- i) Higher yields are best obtained by taking advantage of the interest rate curve of the capital market, which normally yields higher rates of return for longer term investments;
- ii) Yields will also fluctuate by institution as per individual credit ratings (greater risk confirmed by a lower credit rating) and by the type of capital instrument. For example, an instrument of a small trust company would in many cases have a slightly higher yield than a major bank
- iii) A lower credit rating generally makes an investment more difficult to sell on the secondary market and therefore less liquid; and
- iv) Capital instruments that are non-callable will have a lower yield than instruments which are callable, but the call feature does not necessarily compromise marketability.

**2) Standards of Care**

**a) Prudence**

Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived

**b) Delegation of Authority and Authorization**

The Director of Corporate Services / Treasurer shall have overall responsibility for the prudent investment of the City's investment portfolio. The Director of Corporate Services / Treasurer shall have the authority to implement the investment program and establish procedures consistent with this policy. Such procedures shall include the explicit delegation of the authority needed to complete investment transactions however the Director of Corporate Services / Treasurer shall remain responsible for ensuring that the investments are compliant with regulations and this policy. No person may engage in an investment transaction except as provided under the terms of this policy.

The Director of Corporate Services / Treasurer shall be authorized to enter into arrangements with banks, investment dealers and brokers, and other financial institutions for the purchase, sale, redemption, issuance, transfer and safekeeping of securities in a manner that conforms to the *Municipal Act, 2001 as amended and Trustees Act* and the City's ~~policy manual operating~~

**c) Ethics and Conflicts of Interest**

Staff involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment policy, or that could impair their ability to make impartial decisions. Staff shall disclose any material interests in financial institutions with which they conduct business. They shall further disclose any personal financial/investment positions that could be related to the performance of the investment portfolio. Staff shall not undertake personal investment transactions with the same individual with whom business is conducted on behalf of the City.

**d) Safekeeping and Custody**

All securities shall be held for safekeeping by a financial institution approved by the Municipality. Individual accounts shall be maintained for each portfolio. All securities shall be held in the name of the municipality.

All security transactions entered into shall be conducted on a delivery against payment basis. Securities may be held by a third party custodian designated by the Director of Corporate Services / Treasurer.

### 3) **Investment Strategy**

#### **a) Diversification**

To minimize credit risk and to maintain liquidity of the investment portfolio, investment diversification shall be guided by the following:

- i) Limiting investments to avoid over-concentration in securities from a specific issuer or sector (excluding Government of Canada securities);
- ii) Limiting investment in securities to those that have higher credit ratings;
- iii) Investing in securities with varying maturities; and
- iv) Investing in securities which have an active secondary market

#### **b) Eligible Investments**

The City may invest in certain securities as set out by O. Reg 438/97 to the Municipal Act, as amended from time to time. The Trustee Act governs investment of trust funds. In keeping with the primary objective of the City's investment policy, namely preservation of capital, permissible investments have been restricted to those of high credit quality and reasonable liquidity. The City will diversify the use of investment instruments and financial institutions to ensure security of funds. Eligible investments, diversification and ratings shall be in accordance with Schedule A for direct City. Asset Mix, eligible investments, diversification and benchmark shall be in accordance with Schedule B for Trust Funds.

All City investments must be in Canadian funds, in accordance with O. Reg 438/97. Trust Fund investments can be in any currency.

These portfolio percentage limitations apply at the time an investment is made. City and Trust Fund investments must be calculated independently of each other.

Publications of the relevant credit rating agencies shall be monitored on an ongoing basis. Should a rating change result in increased risk with respect to established limitations, the appropriate action to sell the investment within 30 days of the Director of Corporate Services / Treasurer becoming aware of it, must be taken to ensure the City's portfolio remains within the limitations and terms outlined in this policy. In the event the investment is for a non-redeemable fixed term. The related investment will not be renewed once the fixed term has passed.

The portfolio percentage targets for both City and Trust Funds shall apply at the time the investment is made. At specific times the portfolio percentages may deviate from the target for various reasons, for example the timing of maturities. The current guideline is to maintain a range of  $\pm 10\%$  from each term target. Prior to any changes to the portfolio based on term targets, the Director of Corporate Services / Treasurer may, at their discretion, retain the investment(s), that contravenes the portfolio targets provided that such action is not contrary to the *Municipal Act, 2001 as amended or the Trustee Act.*

**c) Authorized Dealers**

The City may invest City funds can be invested through the investment arm of a Schedule I banks.

Trust Funds can be invested through a trust fund account established at an investment brokerage of a Schedule I Bank.

**d) Investment Term Targets**

For the purpose of this policy, a short-term investment is defined as maturing in less than one year, medium-term as maturing between one and five years and long-term as maturing in greater than five years.

In general, the term of an investment will be based on a term strategy, comprising of short and mid-term duration. Longer terms may be considered for funds where the expected use has longer horizons and maximizing investment income is a primary consideration.

The term of the investment will be determined by analyzing the anticipated cash flow requirements of general operating funds, reserves and reserve funds, and trust funds.

**e) Buy and Hold**

To achieve the primary objectives of this investment policy, internally managed funds shall, for the most part, follow the buy and hold strategy. As noted above, higher yields are best obtained by taking advantage of the interest rate curve of the capital market, which normally yields higher rates of return for longer term investments. By purchasing securities at varying maturity dates and holding the investments to term the interest rate risk is minimized, liquidity is maintained and capital is preserved. To be successful with the buy and hold strategy, matching cash requirements to investment terms is a key element and requires a solid cash flow forecast.

**f) Performance Standards**

The investment portfolio shall be managed in accordance with parameters specified within this policy. The portfolio should obtain a market average rate of return throughout budgetary and economic cycles proportionate with investment risk constraints and the cash flow needs of the City.

The performances of investments shall be measured using the baseline yield for investments is the interest rate earned by the City on cash held in its bank account.

In developing the cash requirements for the year, sufficient cash shall be available to fund operating and capital expenditures.

If funds are required to support operating or capital expenditures during the year, the best option is to borrow from the Reserve and Reserve Funds rather than obtaining external financing. In order for this to occur, the Reserve and Reserve Funds must have sufficient cash available (i.e. not locked into long-term investments and/or funds not required for the duration of payback term) to support the internal financing through this period. A fair rate of interest shall be applied based on the interest rate which would be paid on the equivalent rate available for external debt servicing.

## 5) **Reporting**

- a) The Director of Corporate Services / Treasurer shall provide a Tri-annual investment report to Council which includes, at a minimum, the requirements set forth in O. Reg. 438/97. Under the current regulations the investment report shall contain the following:
  - i) A statement on the performance of the ~~municipality's~~ City's investment portfolio during the reporting period;
  - ii) An estimate of the relationship between all of the City's investments in its own long-term and short-term securities and all of its investments, as well as description of any changes, if any, in that estimate since the previous report was prepared;
  - iii) a statement from the Director of Corporate Services / Treasurer as to whether or not all investments are consistent with the City's investment policies and objectives;
  - iv) an indication of the date of each transaction relating to the securities issued by the municipality and each provision of such securities, as well as the purchase price and sale price of each of them;
  - v) any other information required by Council or that should be included in the Director of Corporate Services / Treasurer's opinion.
- b) If an investment is made by the municipality that is not consistent with the investment policies and goals adopted by the municipality, the Director of Corporate Services / Treasurer shall report the inconsistency and corrective action in the Tri-annual investment report to Council.



## 6) Definitions

**Credit Rating Agencies:** recognized rating houses, i.e. Dominion Bond Rating Services; Moody's Investor Services; Standard and Poor's Corporation of Canadian Bond Rating Service

**Credit Risk:** is the risk to an investor that an issuer will default in the payment of interest and/or principal on a security.

**Diversification:** a process of investing assets among a range of security types by sector, maturity, and quality rating.

**Interest Rate Risk:** the risk associated with declines or rises in interest rates that cause an investment in a fixed income security to increase or decrease in value.

**Liquidity:** a measure of an asset's convertibility to cash.

**Market Value:** current market price of a security.

**Maturity:** the date on which payment of a financial obligation is due. The final stated maturity is the date on which the issuer must retire a bond and pay the face value to the bondholder.

**One Investment Program:** a professionally managed group of investment funds composed of pooled investments that meet the eligibility criteria defined by O..Reg 438/97. The program consists of Money Market Funds, Bond Funds and Equity Funds. The ONE Fund is operated by LAS (Local Authority Services Ltd., a subsidiary of the Association of Municipalities of Ontario) and the CHUMS Financing Corporation (a subsidiary of the Municipal Finance Officers' Association of Ontario).

**Ratings:** defines how a credit agency rates the ability of an insurer to make timely and full payment of its obligations to policyholder claims and benefits, as well as financial contract guarantees and benefit obligations

**Schedule I Banks:** domestic banks that are authorized under the *Bank Act* to accept deposits, which may be eligible for deposit insurance provided by the Canadian Deposit Insurance Corporation.

**Schedule II Banks:** are foreign bank subsidiaries authorized under the *Bank Act* to accept deposits, which may be eligible for deposit insurance provided by the Canada Deposit and Insurance Corporation. Foreign bank subsidiaries are controlled by eligible foreign institutions.

**SCHEDULE A – City Funds – Eligible Investments, Diversification and Ratings**

Sector		Minimum DBRS <sup>(1)</sup> Credit Rating		Maximum Portfolio Share	Institutional Limit
		Short-term	Long-term		
Federal	Government of Canada & Federal Guarantees	n/a	n/a	100%	100%
Provincial	Provincial Governments & Provincial Guarantees	R-1 mid	AA (low)	100%	25%
	Municipal Finance Authority of BC		AA (low)	20%	20%
Municipal & Boards	Municipalities		AA (low)	50%	15%
	School board or similar		AA (low)	5%	5%
Banks	Schedule I Banks	R-1 mid	AA (low)	100%	50%
	Schedule II Banks	R-1 mid	AA (low)	50%	15%
Other Financial	Loan or Trust Companies	R-1 mid	AA (low)	50%	15%
	Credit Union to which the <i>Credit Union and Caisses Populaires Act, 1994</i> applies <sup>2</sup>	n/a	n/a	Insured Limit	Insured Limit
Joint Municipal Investment Pools – One Investment Program Money Market/High Interest Savings				50%	
Joint Municipal Investment Pools-One Investment Program Bonds				25%	
Joint Municipal Investment Pools – One Investment Program Equity				5%	
<b>TOTAL JOINT INVESTMENT ONE FUNDS</b>				50%	

1 - Recognized Credit Rating Houses- Category Ratings shows as used by Dominion Bond Rating Services (DBRS). Equivalent ratings acceptable through Moody's Investor Services, Standard and Poor's Corporation or Fitch Ratings. Ratings' Description are below.

2 - Must also meet all criteria under O. Reg 438/97

**Rating's Description**

Commercial Paper and Short-Term Debt		Bond and Long-Term Debt	
Symbol	Credit Quality	Symbol	Credit Quality
R-1 (high)	Highest	AAA	Highest
R-1 (middle)	Superior	AAA	Superior
R-1 (low)	Satisfactory	A	Satisfactory
R-2 (high)	Adequate	BBB	Adequate
R-2 (middle)	Adequate	BB	Speculative
R-2 (low)	Adequate	B	Highly Speculative
R-3 (high)	Speculative	CCC	Very Highly Speculative
R-3 (middle)	Speculative	CC	Very Highly Speculative
R-3 (low)	Speculative	C	Very Highly Speculative
D	In Arrears	D	In Arrears
NR	Not Rated		

**SCHEDULE B – Trust Funds – Asset Mix, Eligible Investments Diversification and Benchmarks**

<u>Asset Mix</u>	<u>Eligible Investments</u>	<u>Target</u>		<u>Benchmark</u>
		<u>Minimum</u>	<u>Maximum</u>	
<u>Cash</u>	<u>Cash and High Interest Savings Accounts</u>	<u>0%</u>	<u>15%</u>	<u>FTSE TMX 91-Day T-Bill Index</u>
<u>Fixed Income</u>	<u>Multi-Asset Credit</u>	<u>25%</u>	<u>55%</u>	<u>FTSE TMX Universe Bond Index</u>
<u>Canadian Equities</u>	<u>Equities (listed on a major recognized public exchange)</u>	<u>0%</u>	<u>45%</u>	<u>S&amp;P/TSX Composite</u>
<u>Global Equities</u>		<u>20%</u>	<u>70%</u>	<u>MSCI World Index</u>

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**Subject: User Fee Update and 2025 Sugarloaf Marina User Fees**

**To: Council**

**From: Corporate Services Department**

Report Number: 2024-157

Meeting Date: August 27, 2024

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**Recommendation:**

That Corporate Services Department Report 2024-157 be received; and

That the updated Beach User Fees attached as Appendix A be approved effective October 15, 2024; and

That the 2025 Sugarloaf Marina User Fees attached as Appendix C be approved effective September 1, 2024, to provide for early registration discounts.

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**Purpose:**

This report has two components. The first is to propose an update to the structure of parking fees at beaches to include an off-season hourly parking fee for use of zone 1 and zone 2 parking at Nickel Beach, as well as paid parking spaces at Centennial – Cedar Bay. Off-season dates would be defined as Thanksgiving to Victoria Day annually.

The second is to approve the 2025 Sugarloaf Marina User Fees in advance to provision for early registration discounts, and clarity with respect to next year’s fees prior to boaters “opting in” on registration deadlines.

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**Background:**

Historically, the beach season has operated from Victoria Day to Labour Day annually.

In advance of the 2023 beach season, Council approved the construction of new non-beachfront parking lots at Nickel Beach as well as the construction and installation of new accessible public washroom amenities. With the enhancements to beach parking and washroom amenities, staff extended the operating season at Nickel Beach to

Thanksgiving in 2023. There have not been defined parking fees for users accessing parking at Nickel Beach or Centennial – Cedar Bay during the off-season (Thanksgiving to Victoria Day).

Further, users of Sugarloaf Marina have asked for earlier knowledge of the following year's user fees to support their decision to opt into (or not opt into) applicable early registration and deposit deadline processes introduced in the 2022 marina user fees schedule.

Staff brought forward a report to Council on July 18, 2023, which approved the 2024 marina fees in advance of the annual budget process. The early approval of marina fees was appreciated by boaters and allowed for a more organized and efficient storage and launch operation.

Since 2022, marina rates have increased annually by 10%.

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## **Discussion**

### **Nickel Beach**

Increasingly pedestrians are using the beach as a recreational zone for running, walking, dog walking, and sightseeing during defined offseason months. Increased pedestrian traffic adds to the staffing requirements at the beach such as garbage removal, parking monitoring, and lot maintenance.

This report, as outlined in Appendix A, recommends an update to the current 2024 user fee model at beaches to include an hourly parking fee model from Thanksgiving to Victoria Day. Revenue generated during the off-season months will offset increased costs associated with maintaining programs and services at Nickel Beach. Port Colborne residents will be able to park for free at Nickel Beach and Centennial-Cedar Bay Beach with their PORTicipate pass displayed during the off season. To maintain parity with all other paid parking options within the city, off-season fees would be operationalized through the HONK mobile parking management system.

Further updates to beach user fees will be proposed through the 2025 budget process.

### **Sugarloaf Marina**

In proposing the 2025 user fees, and attached as Appendix B, staff compared marina fees to other marinas while analyzing metrics on occupancy patterns within the marina over the past several years as rates have increased.

The table below illustrates metrics on seasonal boaters at the marina since 2022, as well as numbers on specific boat sizes that have realized the most significant drop in seasonal occupancy over several years.

<b>Seasonal Boaters</b>	
2022	440
2023	401
2024	383
<b>Dock Occupancy (Boats 16-24ft)</b>	
2022	59%
2023	52%
2024	41%

Staff have noted a most significant decrease on smaller seasonal boats sized 16-24 feet annually in the marina and are proposing to maintain current rates for smaller, un-serviced docks, while increasing rates by 5% for all other dock sizes in the 2025 user fees.

The Sugarloaf Marina budget for 2025 will be proposed during the City’s budget process in the fall. The fees proposed in this report, and attached as Appendix C, will be incorporated into the budget to ensure a balanced budget for Sugarloaf Marina.

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### **Internal Consultations:**

This user fee review was conducted within the Recreation Services Division and in consultation with the Parks and Roads Division.

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### **Financial Implications:**

The financial implication of the recommended update to beach user fees is anticipated to provide a marginal increase to annual beach revenues.

The Sugarloaf Marina fees are recommended to maintain the marina as a self-sustaining entity during the City’s budget process in the fall.

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### **Public Engagement:**

Staff consulted with other beachfront municipalities on parking fee rates and reviewed fees at other comparable marinas when setting fees. Users of this report will see in Appendix B the proposed fees at Sugarloaf Marina are in the middle, or higher than other marinas.

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## **Strategic Plan Alignment:**

The initiative contained within this report supports the following pillar(s) of the strategic plan:

- Welcoming, Livable, Healthy Community
  - Economic Prosperity
- 

## **Conclusion:**

This report proposes an hourly fee model structure for parking at beaches during off season months and recommends the 2025 Sugarloaf Marina fees. The fees proposed are consistent with the user fee principles and cost models adopted by Council.

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## **Appendices:**

- a. Appendix A – Proposed Beach User Fees
- b. Appendix B – Marina Rate Comparison 2024
- c. Appendix C – Sugarloaf Marina 2025 User Fees

Respectfully submitted,

Greg Zwiep  
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Blair Holinaty  
Marina Supervisor  
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## **Report Approval:**

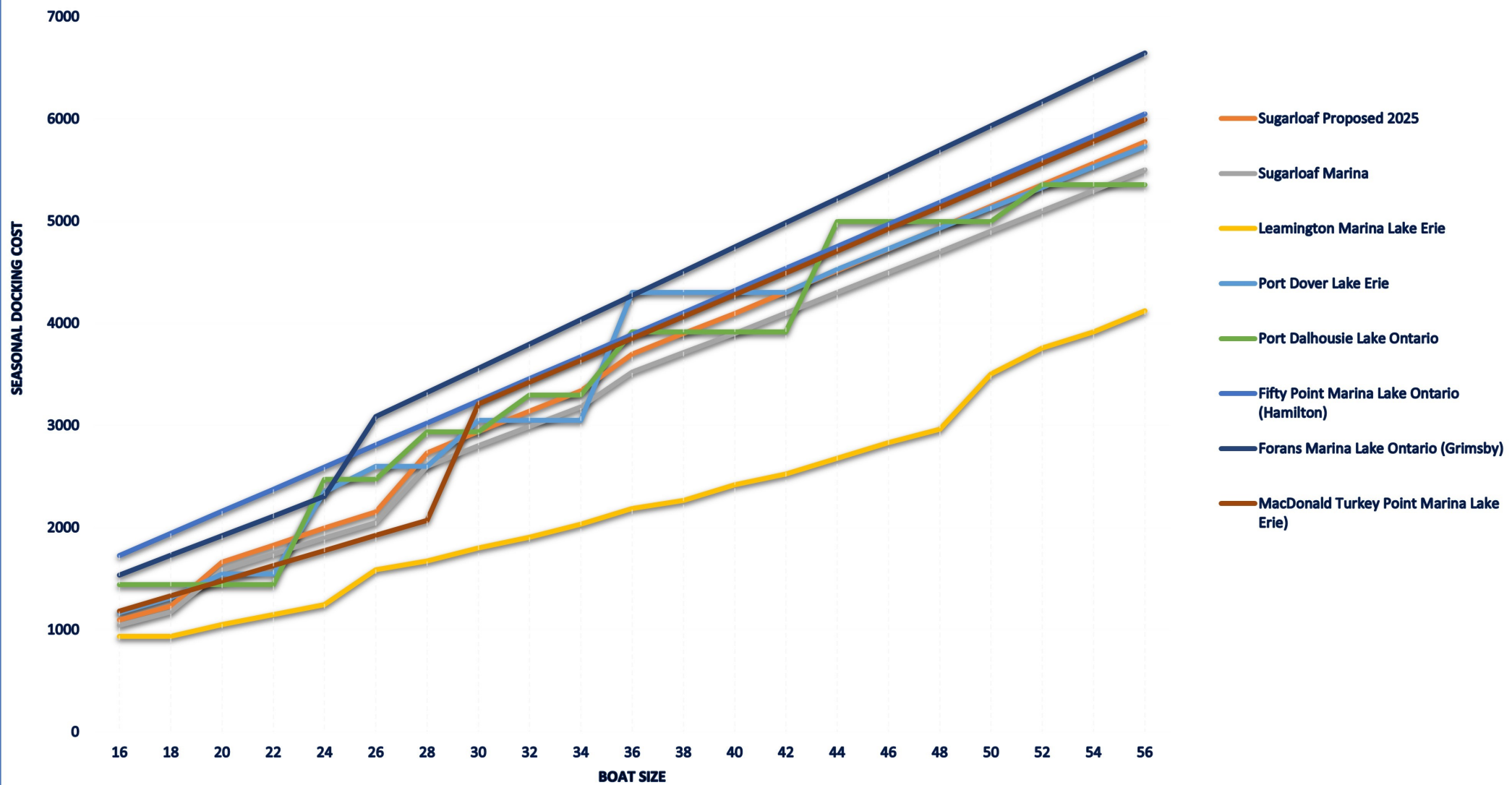
All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.

Nickel Beach			
Pass/Permit Type	Classification	2024 Fee (plus HST as applicable)	2025 Proposed Fee (plus HST as applicable)
<i>Zone 1 and 2 Hourly Fee (per vehicle offseason: Thanksgiving-Victoria Day)</i>	Weekday (Monday-Thursday)	NA	\$2.00
	Weekend (Friday-Sunday)	NA	\$2.00

Centennial – Cedar Bay Beach			
Pass/Permit Type	Classification	2024 Fee (plus HST as applicable)	2025 Proposed Fee (plus HST as applicable)
<i>Hourly Fee (per vehicle offseason: Thanksgiving-Victoria Day)</i>	Weekday (Monday-Thursday)	NA	\$2.00
	Weekend (Friday-Sunday)	NA	\$2.00



# Marina Rate Comparisons 2024



Seasonal Dock Rates		
Docking Options	2024 Fee (plus HST as applicable)	2025 Fee (plus HST as applicable)
Boats 16 - 19 ft (unserviced)	\$57.75/ft	\$57.75/ft
Boats 20 - 26 ft (optional service)	\$70.00/ft	\$73.50/ft
Boats 27 - 34 ft (serviced)	\$82.77/ft	\$86.90/ft
Boats 35 - 60 ft (serviced)	\$86.51/ft	\$90.83/ft
Power Options	2024 Fee (plus HST as applicable)	2025 Fee (plus HST as applicable)
Use of 15A/110V Power	\$110.00	\$115.00
Use of 30 Amp shore power	\$291.50	\$306.00
Second Boat (Must be owned by same owner with valid proof of insurance.)	2024 Fee (plus HST as applicable)	2025 Fee (plus HST as applicable)
On J Run (16 ft dock)	\$291.50	\$306.00
On Dock #3 (17 ft dock)	\$319.00	\$335.00
Discounted Rates	2024 Fee (plus HST as applicable)	2025 Fee (plus HST as applicable)
Early Bird Discount - Based on payment in full for winter storage fees by September 1, and summer launch/mooring fees by February 15 annually.	5% of applicable rates	5% of applicable rates
Tournament/Regatta Discount (Only with proof of registration)	40% of applicable rates	40% of applicable rates
First time seasonal customer incentive (One time only, paid in full by February 15)	10% of seasonal rate	10% of seasonal rate
Same Slip/Non Designated Space Discount *	50% of 1st dock fee	50% of 1st dock fee

\* Only available for use directly beside oversized vessels or non-designated docking spaces. Must be preapproved by marina management. Must be same owner.

Transient & Boat Ramp Rates		
Transient Rates (per foot)	2024 Fee (plus HST as applicable)	2025 Fee (plus HST as applicable)
Daily	\$2.47	\$2.47
Canal Days Daily Rates (Monday-Monday)	\$4.12	\$3.00
Weekly	\$13.75	\$13.75
Monthly	\$33.55	\$33.55
Launch Ramp Rates	2024 Fee (plus HST as applicable)	2025 Fee (plus HST as applicable)
Daily Launch Pass	\$20.00	\$20.00
Seasonal Pass	\$125.00	\$125.00
**Non-Display Fine - Missing Ramp Pass	\$35.39	\$35.39

\*\* Customer is still subject to the By-Law Parking Enforcement Fine as well

Miscellaneous Fees		
Additional Fees	2024 Fee (plus HST as applicable)	2025 Fee (plus HST as applicable)
Seasonal Dock Box Rental (Limited Availability)	\$110.00	\$115.00
Workplace Passport (Based on satisfaction of all required registration documents)	\$265.00	\$265.00
Non Registered Boat Fee (Daily) ***	\$1.65/ft	\$1.65/ft
Missed appointment/unprepared Fee****	\$125.00	\$125.00
Administrative/Cancellation Fee	\$25.00	\$25.00
Dock Hold Deposit (To hold same space for following season)	20% of current dock rate	20% of current dock rate
Interest Charges - Balances owing (Monthly)	1.25%	1.25%
Security Card Deposit	\$10.00	\$20.00

\*\*\* For any boat found in a slip or storage that is without proper registration with marina office or has balances owing. Based on dock or boat LOA, whichever is greater.

\*\*\*\* Applied to customers who are not prepared at time of scheduled service appointments, or miss scheduled

**Storage and Boat Yard Rates**

Winter Storage - All Inclusive (Includes fall haul out, powerwash*, blocking/cradle setup)	2024 Fee (plus HST as applicable)		2025 Fee (plus HST as applicable)	
		\$2.89/ sq. ft	\$1050 minimum fee	\$3.03/ sq. ft
Winter Storage - Trailerable Only (Own trailer, no marina services)	2024 Fee (plus HST as applicable)		2025 Fee (plus HST as applicable)	
	\$1.80/ sq. ft	\$500 minimum fee	\$1.89/ sq. ft	\$525 minimum fee
Winter Storage - Non Seasonal Boater	2024 Fee (plus HST as applicable)		2025 Fee (plus HST as applicable)	
	\$6.03/ sq. ft		\$6.33/ sq. ft	
Summer Storage	2024 Fee (plus HST as applicable)		2025 Fee (plus HST as applicable)	
Full Season (April 15-October 15) - Seasonal Customer*	N/A	N/A	\$3.03/sq.ft	\$1100 minimum fee
Full Season (April 15-October 15) - Non Seasonal Customer	\$6.03/ sq. ft	\$500 minimum fee	\$6.33/ sq. ft	\$1100 minimum fee
Monthly	\$1.07/ sq. ft		\$1.12/ sq. ft	
Weekly	\$0.27/ sq. ft		\$0.28/ sq. ft	
*Eligible with payment in full on dock and winter storage from previous season, and deposit on dock for following season.				
Boat Handling & Yard Fees	2024 Fee (plus HST as applicable)		2025 Fee (plus HST as applicable)	
	Seasonal Slip Holder***	Non-Seasonal Slip Holder	Seasonal Slip Holder***	Non-Seasonal Slip Holder
Travel Lift (Haul Out/Launch) Minimum \$225 charge	\$10.18/ft	\$10.90/ft	\$10.68/hr	\$11.44/hr
Travel Lift (per hour after first hour)	\$80.00/hr	\$100.00/hr	\$84.00/hr	\$105.00/hr
Block & Stand Rental (per season)	\$5.75/ft	\$6.90/ft	\$6.03/ft	\$7.24/ft
Power Washing Hull Bottom**	\$2.75/ft	\$3.15/ft	\$2.88/ft	\$3.30/ft
Yard Equipment Fee	\$ 125/hr	\$ 145/hr	\$ 125/hr	\$ 145/hr
Yard Labour Fee	\$ 80/hr	\$ 100/hr	\$ 84/hr	\$ 105/hr
Mast Stepping - Length Overall (LOA)	\$ 4.15/ft	\$ 6.40/ft	\$ 4.15/ft	\$ 6.40/ft

Mast Storage (per season) - Length Overall (LOA)	\$ 1.81/ft	\$ 3.45/ft	\$ 1.81/ft	\$ 3.45/ft
Trailer/Cradle Storage (per season)	\$115.00	\$200.00	\$115.00	\$200.00
Pump-out (Transients)	N/A	\$15.00	N/A	\$15.00

\* Based on payment in full prior to haul out.

\*\* Powerwash only free for boats with anti-fouling paint on hull. Oversized boats (>42 ft in length), or non anti-fouling on hull may result in applicable extra charges.

\*\*\* Based on payment in full for dockage during current season.

**Marina Pavilion Rates\*\***

Organization		2024 Fee (plus HST as applicable)	2025 Fee (plus HST as applicable)
		Flat Rate	Flat Rate*
Event with 1 to 100 participants with no alcohol	Seasonal boater	\$254.00	
	General Public	\$429.00	
Event with 1 to 100 participants with alcohol	Seasonal boater	\$335.00	
	General Public	\$510.00	
Event with 101 to 250 participants with no alcohol	Seasonal boater	\$308.00	
	General Public	\$483.00	
Event with 101 to 250 participants with alcohol	Seasonal boater	\$443.00	
	General Public	\$618.00	
<b>Additional charges:</b>		<b>Flat Rate</b>	<b>Flat Rate</b>
Clean-up fee is charged		\$30.00	
Damage deposit (refundable w/o damage to property)		\$200.00	
Chairs (per chair)		\$5.75	
Tables (per table)		\$13.00	

\*Includes applicable User Group Liability Insurance premium

**Non-Motorized Recreation Rental Fees**

Rates	2024 Fee (plus HST as applicable)	2025 Fee (plus HST as applicable)
Kayak	\$13.27/hr	
Stand Up Paddleboard (SUP) or Canoe	\$17.69/hr	
Refundable Security Deposit	\$100.00	
Children under 13 years of age	FREE with Adult Purchase	
PORTicipate Pass/Seasonal Slip Holder Fee	50% of all applicable fees	
Punch Pass (15 hours)	\$125.00	



**PORT COLBORNE**

**Subject: Recommendation Report for Draft Plan of Subdivision and Zoning By-law Amendment for VL and 563 Killaly Street East**

**To: Council**

**From: Development and Government Relations**

Report Number: 2024-153

Meeting Date: August 27, 2024

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**Recommendation:**

That Development and Government Relations Department – Planning Division Report 2024-153 be received; and

That Council approve the Zoning By-law Amendment attached as Appendix A of Planning Division Report 2024-153.

The Council approve the Draft Plan of Subdivision and associated conditions attached as Appendix B of Planning Division Report 2024-153, and set a lapsing date of August 27, 2027.

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**Purpose:**

The purpose of this report is to provide Council with a recommendation regarding applications submitted by Kimberley Harrison-McMillan of Design Plan Services on behalf of the owner SG Real Estate Developments III LP for a proposed Draft Plan of Subdivision and Zoning By-law Amendment at 563 Killaly Street East and vacant lot to the south, legally known as Part of Lots 23 & 24, Concession 1, Geographic Township of Humberstone, Regional Municipality of Niagara, now in the City of Port Colborne.

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**Background:**

Applications for a Draft Plan of Subdivision and Zoning By-law Amendment were submitted by Design Plan Services on August 1, 2023. The applications were deemed complete on September 13, 2023, following the posting of the required signage on the

property. The following reports/plans have been submitted to help facilitate the development of the lands: Planning Justification Report, Land Use Compatibility Study, Noise and Vibration Impact Study, Traffic Impact Study, Geotechnical Study, Functional Servicing Report, Phase 1-2 Environmental Site Assessments, and Stage 1-2 Archaeological Assessments, as well as the proposed Draft Plan of Subdivision layout and Conceptual Site Plan (Appendix D). The entirety of the reports/plans can be found on the City's website under the "Current Applications" page.

The Zoning By-law Amendment proposes to amend Zoning By-law 6575/30/18 to rezone the subject lands from R1-CH (First Density Residential with Conversion Holding), and RD (Residential Development) to a site-specific R4 (Fourth Density Residential) zone and R4-H (Fourth Density Residential with Holding provision). The site-specific R4 zone is being sought to permit block townhouses, street townhouses, semi-detached and apartment buildings with reductions in lot areas and frontage, reduction in yard setbacks, and an increase in height. Additionally, one of the units is being proposed to permit a Neighbourhood Commercial use. The R4-H zone is proposed to be subject to the completion of a Stage 4 Archaeological Assessment prior to the Holding provision being removed. The full zoning provisions can be found in the Zoning By-law Amendment, attached as Appendix A.

The Draft Plan of Subdivision proposes to divide the subject lands into 11 Blocks for street townhouses, semi-detached dwellings, stacked townhouses, a stormwater management area, flood compensation zone, and an archeological area.

A Public Meeting was held on October 3, 2023, where Council received oral and written comments from members of the public, and received a presentation from the applicant and planning staff. Key issues raised at the Public Meeting have been provided under the "Public Engagement" section of this report.

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## **Discussion:**

### **Planning Legislation:**

Planning staff reviewed these applications with consideration of several planning documents including the *Planning Act*, R.S.O, 1990, as amended, the *Provincial Policy Statement (2020)*, *A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)*, the *Regional Official Plan*, the *City of Port Colborne Official Plan* and the *City of Port Colborne Comprehensive Zoning By-law 6575/30/18*. For the applications to be supported by Staff, it must conform to or be consistent with the aforementioned plans.

### **Planning Act, 1990:**

Section 2 of the *Planning Act* (the "Act") outlines matters of provincial interest.



Section 3 of the Act requires that, in exercising any authority that affects a planning matter, planning authorities “shall be consistent with the policy statements” issued under the Act and “shall conform with the provincial plans that are in effect on that date, or shall not conflict with them, as the case may be”.

Section 34 of the Act allows for the consideration of amendments to the Zoning By-law. Section 51 of the Act allows for the consideration of a plan of subdivision.

Section 51 (24) of the Act states that in considering a draft plan of subdivision, regard shall be had, among other matters, to the health, safety, convenience, accessibility for persons with disabilities and welfare of the present and future inhabitants of the municipality, and to:

- *the effect of development of the proposed subdivision on matters of provincial interest as referred to in section 2;*
- *whether the proposed subdivision is premature or in the public interest;*
- *whether the plan conforms to the official plan and adjacent plans of subdivision, if any;*
- *the suitability of the land for the purposes for which it is to be subdivided;*
- *if any affordable housing units are being proposed, the suitability of the proposed units for affordable housing;*
- *the number, width, location and proposed grades and elevations of highways, and the adequacy of them, and the highways linking the highways in the proposed subdivision with the established highway system in the vicinity and the adequacy of them;*
- *the dimensions and shapes of the proposed lots;*
- *the restrictions or proposed restrictions, if any, on the land proposed to be subdivided or the buildings and structures proposed to be erected on it and the restrictions, if any, on adjoining land;*
- *conservation of natural resources and flood control;*
- *the adequacy of utilities and municipal services;*
- *the adequacy of school sites;*
- *the area of land, if any, within the proposed subdivision that, exclusive of highways, is to be conveyed or dedicated for public purposes;*
- *the extent to which the plan’s design optimizes the available supply, means of supplying, efficient use and conservation of energy; and*

- *the interrelationship between the design of the proposed plan of subdivision and site plan control matters relating to any development on the land, if the land is also located within a site plan control area designated under subsection 41 (2) of this Act.*

Planning staff have analyzed the considerations as shown above and provide the following in response to each:

- *Effect of the development on matters of provincial interest*

Planning staff have reviewed applicable provincial plans to ensure the applications are consistent with, and conform the Provincial Policy Statement (PPS), and Growth Plan for the Greater Golden Horseshoe (Growth Plan). These provincial policy documents will be further analyzed in this report. In the opinion of Planning staff, the proposal addresses all matters of Provincial interest as outlined in Section 2 of the Act.

- *Whether the proposal is premature in the public interest*

This proposal is not premature in the public interest. The development is contiguous with the existing built-up area of the city. The proposal conforms with the City's Official Plan and will contribute additional housing units within the City's Urban Area.

- *Whether the plan conforms to the Official Plan and adjacent plans of subdivision*

The proposal conforms to the City's Official Plan. The plan is considerate of the adjacent existing residential uses and provides future connection points to the east, should the adjacent lands develop in the future.

- *Suitability of the land for the purposes of which it is to be subdivided*

The proposal is located within the City's Built-Up Area and Designated Greenfield Area which has been planned for residential development. The uses proposed are suitable for the land and conform to applicable Regional and City plans.

- *The number, width, location, proposed grades, elevations of highways, their adequacy, and the highways linking the highways in the proposed subdivision with the established highway system*

The subdivision will have two main accesses from the existing Bell Street and Johnston Street road allowances, together with an access to Killaly Street East, by way of a condominium road. Additionally, potential access points have been provided to adjacent lands to the east to ensure connectivity, should these lands be developed in the future. As designed, the subdivision will provide sufficient connectivity to the current streets in the area. Preliminary grading and servicing plans have been reviewed and verified at this stage, further review and approvals will be undertaken through conditions of draft plan approval.

- *Dimensions and shapes of proposed lots*

The subdivision proposes to have lot shapes and sizes that are generally in compliance with the City's Zoning By-law and will provide adequate space for future dwellings and associated accessory uses.

- *Restrictions or proposed restrictions, if any, on the land proposed to be subdivided of the buildings and structures proposed to be erected on it and restrictions, if any, on adjoining land*

Adequate conditions of Draft Plan Approval have been included in Appendix B. These conditions include requirements from the Niagara Peninsula Conservation Authority (NPCA) to ensure permits are obtained prior to construction.

- *Conservation of Natural Resources and Flood Control*

The NPCA has reviewed the proposal to ensure conformity with their policies and applicable conservation authority regulations. Applicable conditions regarding the above have been provided in the draft plan conditions. Preliminary stormwater management and servicing plans have been reviewed by Public Works with additional recommendations and design to follow as a draft plan condition.

- *Adequacy of utilities and municipal services*

The applications have been circulated to applicable agencies and departments to verify the adequacy of the above. Appropriate draft plan conditions have been recommended with respect to the detailed design of the proposed services.

- *Adequacy of school sites*

The applications were circulated to local school boards and no comments have been received with respect to schools being inadequate for the development.

- *Area of land, if any, within the proposed subdivision that, exclusive of highway, is to be conveyed or dedicated for public purposes*

The development proposes to convey a Block of land to the City for infrastructure and trail purposes. Applicable conditions have been included in the draft plan conditions to ensure the quantity of land and/or cash-in-lieu is collected.

- *The extent to which the plan's design optimizes the available supply, efficient use and conservation of energy*

The proposal optimizes the available land and will efficiently make use of existing services in the vicinity.

- *The interrelationship between the design of the proposed plan of subdivision and site plan control matters relating to any development on the land, if the land is also located within a site plan control area under Subsection 41(2) of the Act*

The proposed stacked townhouse blocks will be subject to site plan control in the future. The lands proposed for mixed-use residential and commercial will be subject to site plan control in the future.

Given the above, Planning staff are confident that the proposed applications have regard for the provisions of the Planning Act.

### **Provincial Policy Statement (2020)**

The Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development. The PPS directs growth to Settlement Areas and encourages development and land use patterns to be based on densities and a mix of land uses to efficiently use land and resources.

The applications propose to develop in a settlement area in which municipal services are currently available. Semi-detached, street townhouses, condo townhouses and stacked townhouses all contribute to an appropriate range and mix of housing types and densities. These proposed uses align with the PPS with respect to promoting efficient development.

Planning staff are of the opinion that the applications are consistent with the policies of the PPS.

### **A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020 Consolidation)**

A Place to Grow: Growth Plan for the Greater Golden Horseshoe (Growth Plan) sets out a specific policy framework for the Greater Golden Horseshoe area, focusing on sustainable growth. According to the Growth Plan, the subject parcel is located within a settlement area as well as a designated greenfield area. Development in designated greenfield areas is to be planned, designated, zoned, and designed in a manner that: supports the achievement of complete communities, supports active transportation, and encourages integration and sustained viability of transit services.

The applications facilitate growth within a settlement area, adjacent to the delineated built boundary. Municipal services are currently available to the site. The applications contribute to a complete community by adding more housing stock to the area to support future non-residential uses.

The Growth Plan also states that new development taking place in designated greenfield areas will be planned, designated, zoned, and designed in a manner that supports active transportation. Active transportation is encouraged through the site's access to the Friendship Trail to the south.

Minimum density targets for Designated Greenfield Areas are established in the Growth Plan for municipalities under its purview. The density target for the Niagara Region greenfield areas is 50 people and jobs per hectare. The density target is to be applied across all of the greenfield lands in the City. The development proposes approximately

110 people and jobs per hectare in the portion of the lands within the Greenfield Area in which meets the policy.

Planning staff are of the opinion that the applications conform to the policies of the Growth Plan.

### **Niagara Official Plan (2022)**

The Niagara Official Plan (NOP) provides a policy framework for planning matters under the Region's purview. The NOP sets out growth management objectives for the Niagara Region

In alignment with NOP policy 2.3.1.1, it is encouraged that developments provide a range and mix of densities. Lot and unit sizes and housing throughout the urban area in order to meet the housing needs of people at all stages of life.

Planning staff are of the opinion that the applications conform to policies of the NOP. The Niagara Region has also reviewed the applications with consideration of applicable Provincial and Regional policy. The Region has confirmed the proposal is consistent with, and conforms with applicable Provincial and Regional policies, subject to their requested conditions.

### **Port Colborne Official Plan**

The City of Port Colborne Official Plan (OP) is a long-term, planning document designed to secure the health, safety, convenience, and welfare of the present and future residents of Port Colborne. The OP's general planning principles as follows:

- *Providing for a mix of land uses;*
- *Taking advantage of compact building design, where appropriate;*
- *Providing guidance for the location and character of new development;*
- *Creating a range of housing opportunities and choices;*
- *Creating walkable neighbourhoods;*
- *Fostering distinctive, attractive communities with a strong sense of place;*
- *Identifying and preserving open space, farmland, natural beauty and critical environmental areas;*
- *Strengthening and directing development towards existing communities;*
- *Making development decisions predictable, fair and cost effective; and*
- *Encouraging community and stakeholder collaboration in development decisions.*

Section 2 of the OP builds on the above planning principles to provide a comprehensive growth and development strategy for Port Colborne. Generally, there are six strategic directions for the city including:

1. *Enhancing Quality of Life (2.3.1)*
2. *Developing and Economic Gateway Centre (2.3.2)*
3. *Strengthening and Integrating Nature, Cultural and Heritage Resources (2.3.3)*
4. *Enhancing Public Areas (2.3.4)*
5. *Protecting Hamlet, Rural and Agricultural Lands (2.3.5)*
6. *Taking Advantage of Underutilized lands. (2.3.6)*

In the case of this application, items one and three above predominantly apply. As referenced previously, a compact urban form, quality urban design, mix of housing typologies and land uses, efficient use of infrastructure, among others, all contribute to the enhancement of one's quality of life. Item three encourages the protection and enhancement of the City's natural, cultural and heritage resources. Significant measures, including a flood storage compensation zone have been included in the proposed plans to ensure the development will not be impacted by the nearby flood hazard. Adequate conditions ensuring NPCA matters have been addressed have been included within the Draft Plan conditions.

The City OP designates the land as "Urban Residential", "Built-Up Area" and "Designated Greenfield Area". Land uses permitted in the Urban Residential designation include residential, neighbourhood commercial, community facilities and institutional uses.

Policy 3.1.1.1 provides direction on the development of lands within the Built Boundary. All growth and development within the Built Boundary is considered to be intensification and will count toward the City's intensification target.

Policy 3.1.1.2 provides direction on how Greenfield lands should be developed as follows:

- a) *Promote compact, mixed use and transit supportive development.*
- b) *Promote higher densities and a greater mix of housing types.*
- c) *Improve connections between greenfield areas and the built-up area.*
- d) *Enhance the physical design of new neighbourhoods.*
- e) *Support the Regional greenfield density target of 50 people and jobs per gross hectare by:*
  - i) *Adopting minimum and maximum densities for residential development;*

*ii) Designating portions of the Greenfield area for low, medium and high density development;*

*iii) Providing separate housing mix targets; and*

*iv) Encouraging and allowing for mixed use development in greenfield areas.*

*f) Support phasing greenfield development over time to ensure a balance of intensification and development.*

Staff are of the opinion that the proposal supports the above-noted policies by providing a compact, efficient development that is well-connected to adjacent lands and nearby recreation areas.

Section 3.2 sets out the policies regarding Urban Residential development. The majority of the proposal falls within the Medium Density Residential policies, which provide the following policies:

*b) Medium Density Residential will:*

*i) Be developed at a density ranging from 35 to 70 units per hectare as: Townhouses; Stacked townhouses; triplexes; and/or fourplexes.*

*ii) Be encouraged adjacent to arterial or collector roads; and*

*iii) Be subject to Site Plan Control.*

The residential units will be developed at a density of roughly 41 units per hectare, which meets the density range provided. The development is adjacent to Killaly Street East, which is an arterial road. Site Plan Control will be required in accordance with the City's Site Plan Control By-law.

Policy 3.2.3.1(a) of the OP provides direction on how residential communities shall be designed as follows:

*a) New residential communities shall be limited in size, have a clearly defined character and edges:*

*i) The extent of a neighbourhood should be generally defined by a 400-metre radius (5-minute walk) from centre to edge.*

*ii) The built form and landscaping of a new neighbourhood should have similar high quality architectural and vegetative treatments that provide it with identity while also allowing it to be differentiated from existing neighbourhoods.*

*iii) Parks, woodlots, watercourses, trails, topographic features, major roads and infrastructure elements such as railway lines can define the neighbourhood periphery.*

Staff find that the proposal meets the above-noted policies. The design of the subdivision is generally linear and grid-like. Future detailed design review will further build on the above.

Policies under 3.13 provide direction for parks and open space. The proposal provides a parkette within the condominium development which is intended to serve current and future residents. Additionally, the site will have sufficient access to the Friendship Trail to the south and Johnston Street Park to the west. Parkland and/or cash-in-lieu of parkland will be required as a condition of the Draft Plan approval.

Section 7 of the Official Plan provides direction with respect to archaeological resources. According to the Stage 1 & 2 Archaeological Assessment submitted with the application, the study area contains an archaeological site which has cultural heritage value and interest. This area will be protected and not developed. Proposed dwellings have been setback from this area to ensure it will remain undisturbed. This area will also be fenced, to further prevent any disturbance.

Section 8 of the Official Plan provides policies with respect to servicing and stormwater management. New developments within the Urban Area are required to be on full municipal services, including sanitary, storm and water. The developer, by way of retaining the services of a Professional Engineer, is required to ensure that adequate services exist (or are proposed) to not have an impact to neighbouring properties or the infrastructure in the area.

The proposal and accompanying engineering reports and plans have been reviewed by the City's Development Engineering review staff. The reports indicate that the proposed development will conform to Section 8 of the OP. The development will incorporate a stormwater management pond and flood storage facility along the south end of the of the subject property. Applicable Draft Plan conditions representing the detailed design requirements have been included within Appendix B.

### **City of Port Colborne Zoning By-law 6575/30/18**

The Zoning By-law Amendment proposes to amend Zoning By-law 6575/30/18 to rezone the subject lands from R1-CH (First Density Residential with Conversion Holding), and RD (Residential Development) to a site-specific R4 (Fourth Density Residential) zone and R4-H (Fourth Density Residential with Holding provision). The site-specific R4 zone is being sought to permit block townhouses, street townhouses, semi-detached and apartment buildings with reductions in lot areas and frontage, reduction in yard setbacks, and an increase in height. Additionally, one of the units is being proposed to permit a Neighbourhood Commercial use. The R4-H zone is



proposed to be subject to the completion of a Stage 4 Archaeological Assessment prior to the Holding provision being removed.

The proposed provisions have been summarized in the chart below:

<b>Table 1: Site-specific R4 zone</b>		
<b>Block Townhouse Provisions</b>		
<b>Regulation Type</b>	<b>Existing R4 Zone Regulation</b>	<b>Proposed R4-XX Zone Regulation</b>
Minimum Interior Side Yard	3 metres	2.64 metres
Minimum Corner Side Yard	4.5 metres	2.9 metres
Maximum Height	11 metres	12 metres
		Addition of Neighbourhood Commercial uses in the first townhouse unit adjacent to Killaly Street East
<b>Street Townhouse Provisions</b>		
<b>Regulation Type</b>	<b>Existing R4 Zone Regulation</b>	<b>Proposed R4-XX Zone Regulation</b>
Minimum Lot Area	200 sq. m.	195 sq. m.
Minimum Corner Side Yard	4.5 metres	1.9 metres
Minimum Interior Side Yard	3 metres	1.4 metres
Maximum Height	11 metres	12 metres
<b>Apartment Buildings (Stacked Townhouses)</b>		
<b>Regulation Type</b>	<b>Existing R4 Zone Regulation</b>	<b>Proposed R4-XX Zone Regulation</b>
Minimum Lot Area Per Unit	125 sq. m.	85 sq. m.
Minimum Front Yard	9 metres	3.9 metres
Minimum Corner Side Yard	7.5 metres	3.3 metres
Minimum Rear Yard	6 metres	4.9 metres
Maximum Porch and Steps Encroachment	N/A	3.45 metres
Minimum Parking	1.25 spaces per unit	1 space per unit
<b>Semi-detached Dwelling Provisions</b>		
Minimum Lot Frontage	18 metres	16 metres

Minimum Lot Area	0.05 hectares	0.047 hectares
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Staff find that the proposed Zoning By-law Amendment is supportable as the requested site-specific amendments contribute to a more compact efficient development, as referenced previously in the above sections of this report. The requested amendments are not anticipated to lead to any negative impacts. The full proposed Zoning By-law Amendment can be found in Appendix A.

### **Internal Consultations:**

The applications and supporting materials were circulated internally to applicable departments and agencies in September 2023. Concerns were initially raised with respect to Engineering and Niagara Peninsula Conservation Authority requirements. A number of resubmissions were required to address these concerns. The following concluded comments internal departments and agencies have been provided below.

#### **Enbridge Gas**

- No concerns with the proposed development at this time.
- Enbridge retains the right to add development conditions through the draft plan approval process.

#### **District School Board of Niagara (DSBN)**

- No concerns with the proposed development at this time.
- Students from the area will attend Dewitt Carter for JK-grade 8, and Port Colborne High School for grades 9-12.

#### **Drainage Superintendent**

*The parcel is within the boundary of the Port Colborne and Wignell Municipal Drain and as such will require a drainage apportionment agreement. This will not be completed by municipal staff and it is recommended that the drainage engineer who has completed the Port Colborne and Wignell Drain Reports complete that. The cost will be completely paid by the developer requesting the reapportionment. The contact information for the Engineer can be provided at the request of the developer.*

#### **Niagara Region**

- Recommend that an addendum to the Stage 1 and 2 Archaeological Assessment be provided to confirm the area subject to the site-specific holding provision is sufficient. Regional staff generally concur with the recommended Holding provision in this area to ensure archaeological resources are conserved.

- Recommend that a Holding provision is placed on the remainder of the lands until such a time as a Record of Site Condition (RSC) is filed with the Ministry of Environment, Conservation and Parks. It is noted that if the City wishes to proceed without a Holding provision, an appropriate condition to the Draft Plan approval has been provided.

### **Niagara Peninsula Conservation Authority**

*The NPCA has reviewed a Floodplain Hydraulic Analysis titled 563 Killaly Street East, Port Colborne and digital floodplain modelling both prepared by Exp. And dated July 24th, 2024. NPCA staff offer no objections to the conclusion of this report which states the proposed development will not negatively impact the floodplain hazard.*

*As such, the NPCA offers no objections in principle to this proposal subject to the following conditions (conditions have been included within the proposed Draft Plan conditions attached as Appendix B).*

### **Development Services Supervisor (Engineering Review)**

- Development Engineering is satisfied that all matters have been addressed with respect to the Draft Plan approval.
- Engineering conditions have been included within Appendix B.

### **Fire Department**

- No concerns with the proposed development.
- Want to confirm that the Bell and Johnston Street road ends will continue into the development.

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### **Financial Implications:**

There are no immediate financial implications with this report. However, the recommendation, if approved, will result in new assessment and new water and wastewater users, in time.

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### **Public Engagement:**

Notice of the Public Meeting was circulated in accordance with Sections 34 and 51 of the *Planning Act*. The Notice was mailed to property owners within a 120-metre radius of the subject property on September 13, 2023. Signs have been posted on the property as well. As of the date of preparing this report, the following public comments have been received:

(Full comments attached as Appendix C)

**Rick McLean – 525 Killaly Street East**

- Concerns with the signs being posted by non-City employees.
- Requests information for when the developer first made intentions known to the City.
- Are the drainage notices that were recently received by the neighbourhood connected to this development?
- Have indigenous groups been contacted with respect to archaeology?
- Has the Ministry of Natural Resources been consulted with respect to an impact study?
- Concerns with respect to the existing cut/ditch being converted to a road and what will be done for homeowners that will now have a corner lot.
- Concerns with respect to traffic and risk mitigation.
- Concerns with the land's suitability for development with respect to environmental/soil quality and nearby machine shop to the south.

**Adrienne Favero – 557 Killaly Street East**

- Concerns with the soil quality and whether proper testing has been completed.
- Concerns with traffic and impact to housing costs and whether a study was completed for this.
- Concerns with the access to the site and whether it will be through Killaly Street.
- Concerns with the number of dwelling units and type of the units as they will attract low to mid income families, it may impact the resale of homes within the area.

**Melissa and Mary Bigford – 147 Killaly Street East**

- Concerned with respect to servicing of the site and capacity of the Johnston Street Pumping Station as well as aging infrastructure in the area.
- Concerned with watermain easements – are these something the City does and/or permits?
- Concerned with the maintenance, construction and access to the stormwater management area and its relation to the proposed acoustic barrier.
- Concerned with the condominium development and private roads – who will maintain them and how will traffic be accommodated through a 6m roadway?
- Concerned with the flood hazard.
- What is the height of the stacked townhouses?
- Concerned with the traffic study.
- Concerned with the disposing of on-site soils and potential air quality.

### Brian Rose – 508 Bell Street (oral comments at Public Meeting)

- Concerned with stormwater management in the area with the additional houses in the area. The infrastructure is very old in the area.
- Concerned with the archaeological assessments to ensure protection of the archaeological resources.
- Concerned with the extra people and community resources and its impact on traffic.
- Concerned with the development and its impact on property values.

### Staff Responses to Public Comments

Comment/Question	Response
Concern/question for why the Public Notice sign was not posted by City employees?	Subdivision Public Notice signs are posted by the developer. The sign proof is reviewed by the City prior to posting. All costs associated with the posting/printing etc. are borne by the developer.
When did the developer first make their intentions known to the City about the proposed development?	A pre-consultation meeting was held on July 28, 2022 in which the developer presented their proposal to the City.
Are the drainage notices that were recently received by the neighbourhood connected to this development?	It is Planning staff's understanding that drainage notices would have been sent to all owners within the urban boundary that are on municipal services. The notices are not directly correlated with this development.
Have Indigenous groups been contacted with respect to archaeology?	Yes. The development notices were circulated to Indigenous groups and no comments have been received.
Has the Ministry of Natural Resources been consulted with respect to an impact study?	Typically, the Ministry of Natural Resources is not an agency circulated through the development process. The Niagara Region reviews development applications on behalf of applicable provincial ministries.
Concerns with existing lots becoming corner lots and the filling of ditches in the area.	Planning staff are not aware of any existing lots becoming corner lots as per the City Zoning By-law. The proposed development will be constructed to the full

	municipal standards with sanitary, water, and stormwater systems.
Concerns with respect to traffic.	The applicant has submitted a Traffic Impact Study which has been vetted by City Engineering staff. No concerns with respect to traffic have been identified.
Concerns with respect to soil quality and noise/vibration from the nearby industries.	The applicant has submitted Phase 1 & 2 Environmental Site Assessments and Noise/Vibration study to review these concerns. Recommendations have been made to limit the impact of these industries on the development. A Record of Site Condition is required to be filed with the Ministry of the Environment, Conservation and Parks to ensure the soil is clean before construction.
Concerns with the access point to Killaly Street East.	The access from Killaly Street East will be through a condominium road, with the main municipal road accessed by way of Bell and Johnston Streets.
Concerns with the number of dwelling units and them being affordable.	The number of dwellings fit within the City's vision and density range for housing. There is an affordable housing shortage in Ontario. The City's Official Plan and/or Zoning By-law does not differentiate between the tenure of dwellings or whether they are affordable or not.
Concerned with respect to servicing of the site and capacity of the Johnston Street Pumping Station as well as aging infrastructure in the area.	Servicing has been reviewed by the City's Engineering staff to ensure their adequacy for the development. Draft Plan conditions for future detailed design have been included within the conditions attached as Appendix B.
Concerned with watermain easements – are these something the City does and/or permits?	Servicing has been reviewed by the City's Engineering staff to ensure their adequacy for the development. No further concerns have been identified. Draft Plan conditions for future detailed design have

	been included within the conditions attached as Appendix B.
Concerned with the maintenance, construction, and access to the stormwater management area and its relation to the proposed acoustic barrier.	There will be sufficient access to the stormwater management facility by way of the City-owned road allowance directly west of the development, in addition to the City-owned lands further west. This access will be further designed at the detailed design stage.
Concerned with the condominium development and private roads – who will maintain them and how will traffic be accommodated through a 6m roadway?	Maintenance of condominium roads are the responsibility of the condo owners/condo corporation. No concerns have been raised with respect to traffic and the 6m right-of-way width.
Concerned with the flood hazard.	The NPCA has reviewed the flood hazard in relation to this development at length. The NPCA is satisfied that the flood hazard will be successfully mitigated through the flood compensation zone.
What height will the stacked townhouses be?	A maximum height of 12m has been requested through the Zoning By-law Amendment.

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### Strategic Plan Alignment:

The initiative contained within this report supports the following pillar(s) of the strategic plan:

- Welcoming, Livable, Healthy Community
- Increased Housing Options
- Sustainable and Resilient Infrastructure

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### Conclusion:

It is the opinion of Planning staff that the proposed Draft Plan of Subdivision and Zoning By-law Amendment applications are consistent with the PPS, conform to Provincial, Regional and City policies and requirements, are appropriate for the subject lands and

are compatible with the surrounding area, subject to the recommended Draft Plan conditions.

Planning staff recommend that Council approve the applications to facilitate the proposed development.

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### **Appendices:**

- a. Zoning By-law Amendment
- b. Draft Plan of Subdivision and Conditions
- c. Public Comments

Prepared by,

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Respectfully submitted,

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### **Report Approval:**

All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.



The Corporation of the City of Port Colborne

By-law no. \_\_\_\_\_

Being a by-law to amend Zoning By-law 6575/30/18 respecting the land legally known as Part of Lots 23 and 24 Concession 1, City of Port Colborne, Regional Municipality of Niagara, municipally known as 563 Killaly Street East and vacant land to the south.

Whereas By-law 6575/30/18 is a by-law of The Corporation of the City of Port Colborne restricting the use of land and the location and use of buildings and structures; and

Whereas the Council of The Corporation of the City of Port Colborne desires to amend the said by-law.

Now therefore, and pursuant to the provisions of Section 34 of the *Planning Act, R.S.O. 1990*, The Corporation of the City of Port Colborne enacts as follows:

1. This amendment shall apply to those lands described on Schedule "A" attached to and forming part of this by-law.
2. That the Zoning Map referenced as Schedule "A6" forming part of By-law 6575/30/18 is hereby amended by changing those lands described on Schedule A from Residential Development (RD) and First Density Residential – Conversion Holding (R1-CH) to:
  - R4-83 (Site-Specific Fourth Density Residential Zone)
  - R4-84-H (Site-Specific Fourth Density Residential Zone with Holding)
3. That Section 37 entitled "Special Provisions" of Zoning By-law 6575/30/18, is hereby further amended by adding the following:

R4-83 (Site-Specific Fourth Density Residential Zone)

Notwithstanding the provisions of Residential Fourth Density Zone (R4), the following regulations shall apply:

**Dwelling, Townhouse, Block**

- |    |  |             |
|----|--|-------------|
| a. | Minimum Interior Side Yard   | 2.64 metres |
| b. | Minimum Corner Side Yard   | 2.9 metres  |
| c. | Maximum Height   | 12 metres   |
| d. | Notwithstanding the R4 zoning provisions, the first townhouse unit of the first townhouse dwelling block adjacent to Killaly Street East may be used for the following Neighbourhood Commercial Uses, provided the use meets the provisions set out in the R4-83 zone, and parking requirements in Section 3 of the Zoning By-law: <ul style="list-style-type: none"><li>i. Convenience Store;</li><li>ii. Personal Service Business; and</li><li>iii. Restaurant, Take-out</li><li>iv. Uses, structures and buildings accessory thereto</li></ul> |             |

**Dwelling, Townhouse, Street**

- |    |                            |                   |
|----|----------------------------|-------------------|
| a. | Minimum Lot Area           | 195 square metres |
| b. | Minimum Corner Side Yard   | 1.9 metres        |
| c. | Minimum Interior Side Yard | 1.4 metres        |

- |    |                |           |
|----|----------------|-----------|
| d. | Maximum Height | 12 metres |
|----|----------------|-----------|

**Apartment Buildings**

- |    |                                      |                  |
|----|--------------------------------------|------------------|
| a. | Minimum Lot Area, per unit           | 85 square metres |
| b. | Minimum Front Yard                   | 3.9 metres       |
| c. | Minimum Corner Side Yard             | 3.3 metres       |
| d. | Minimum Rear Yard                    | 4.9 metres       |
| e. | Maximum Porch and Steps Encroachment | 3.45 metres      |
| f. | Minimum Parking                      | 1 space per unit |

**Dwelling, Semi-detached**

- |    |                      |                   |
|----|----------------------|-------------------|
| a. | Minimum Lot Frontage | 16 metres         |
| b. | Minimum Lot Area     | 470 square metres |

**Definitions**

For the purposes of development within the R4-38 zone, the following definitions shall prevail over the regular definitions in Section 38:

**Lot Frontage:** means the horizontal distance between the interior side lot lines.

**Lot Line (applicable to block townhouse dwellings only):** means the boundary of a lot and for the purposes of measuring required yard setbacks, individual unit property lines of a registrable plan pursuant to the Condominium Act, and includes:

**a) Front Lot Line:** which means the lot line, not including a corner lot line, which abuts a street for the shortest distance, whether or not that line jogs or curves, and extending between the side lot lines, more or less for the full width of the lot and where more than one such lot line exists, means a lot line which abuts the same street as the front lot line of an abutting lot;

**b) Rear Lot Line:** which means the lot line furthest from and opposite the front lot line but if there is no such line, that point furthest from and opposite the front lot line; and

**c) Interior Side Lot Line:** which means the lot line other than a front lot line, a corner lot line or a rear lot line; or

**d) Corner Side Lot Line:** which means the longest line along a public road where a lot has two or more lot lines along a public road.

**Yard Setback:** means the distance required by this By-law between a lot line, not including a corner lot line, and a building, or in the case of a multi- unit development under one ownership such as condominium tenure pursuant to the Condominium Act, any devising property line between a common element feature or another unit and includes:

a) **Front Yard Setback:** which means the shortest distance between the front lot line and any part of a building, not including a projection permitted under Section 2.20.

i. Where a building has front-loaded vehicle access from a private road or laneway, the lot line of that common

element feature shall be deemed to be the front lot line;  
or

- ii. The front lot line abutting a public street supersedes an internal front lot line.

b) **Rear Yard Setback:** which means the shortest distance between the rear lot line and the nearest point of the principal building, not including a projection permitted under Section 2.20.

- i. Where a building has front-loaded vehicle access from a private road or laneway, the lot line opposite the common element feature shall be deemed to be the rear lot line; or
- ii. Where a building has vehicle access from private road or laneway and has front entry onto a common element sidewalk, the private road or laneway devising lot line providing vehicle access shall be deemed to be the rear lot line.

c) **Corner Side Yard Setback:** which means the shortest distance between the corner side lot line and any part of a building between the front and rear yards, not including a projection permitted under Section 2.20.

- i. Where a building fronts both a public street and a private road or laneway, the devising lot line of that common element feature shall be deemed to be the corner side lot line.

R4-84-H (Site-Specific Fourth Density Residential Zone - Holding)

Notwithstanding the provisions of Residential Fourth Density Zone (R4), the following regulations shall apply:

- a. The uses permitted in the Residential Fourth Density Zone (R4) shall not occur until the Holding (H) symbol on the R4-84-H zone is removed. The removal of the Holding (H) symbol is subject to the following condition:
  - i) Completion of a Stage 4 Archaeological Assessment and acknowledgement of the report by the Ministry of Tourism, Culture and Recreation.

4. That this by-law shall come into force and take effect on the day that it is passed by Council, subject to the provisions of the *Planning Act*.
5. The City Clerk is hereby authorized and directed to proceed with the giving of notice of the passing of this by-law, in accordance with the *Planning Act*.

Enacted and passed this 27<sup>th</sup> day of August 2024.

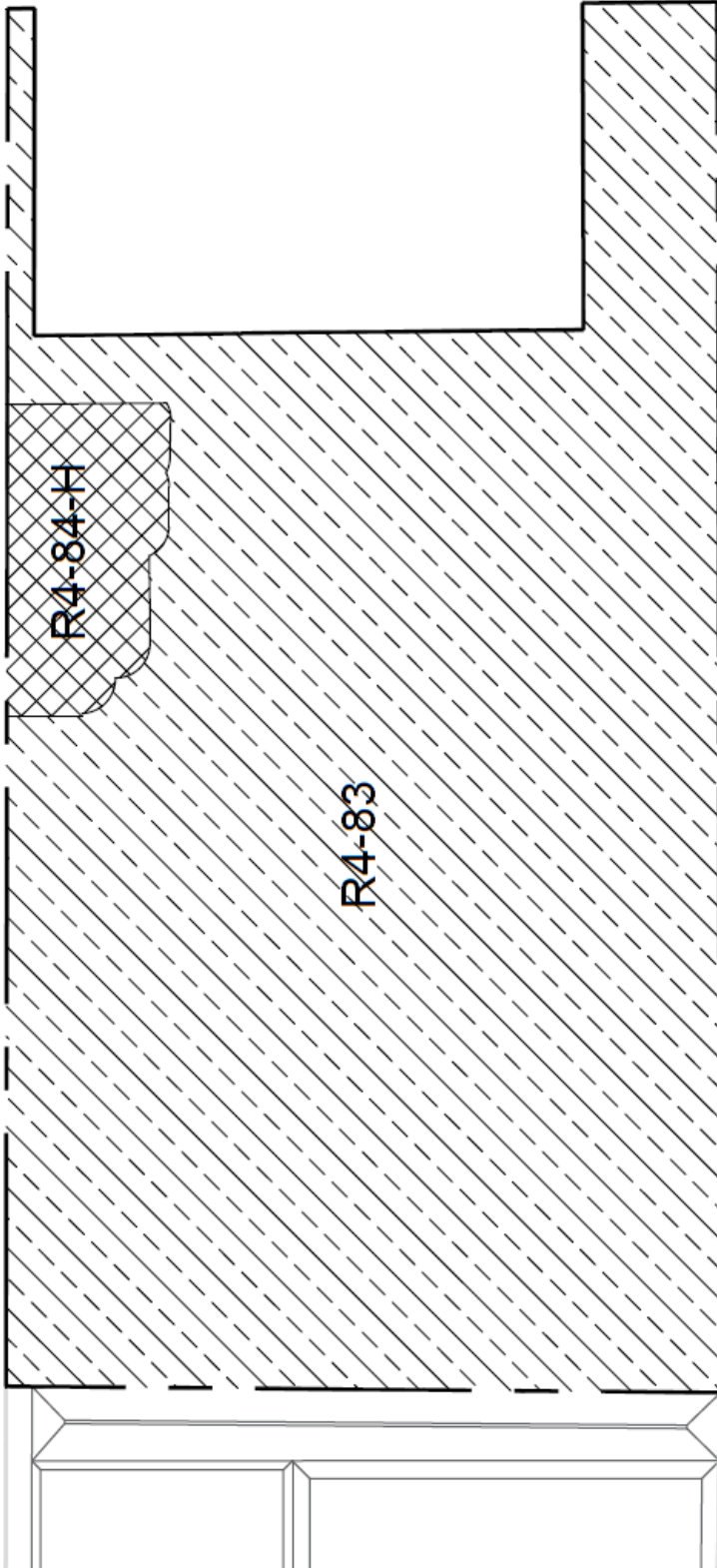
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William C Steele  
Mayor

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Carol Schofield  
Acting City Clerk

KILLALY STREET EAST



SCHEDULE "A"

To By-law No. \_\_\_\_\_

Legend



R4-83



R4-84-H

THIS IS SCHEDULE "A" TO BY-LAW No \_\_\_\_\_

PASSED THE \_\_\_\_\_ DAY OF \_\_\_\_\_



Mayor \_\_\_\_\_

62.5

125

0

Clerk \_\_\_\_\_

City of  
Port Colborne



**Conditions of Draft Plan Approval**  
**563 Killaly Street East & VL to the South (File No. DPS D12-02-23)**

The conditions of final approval and registration of the 563 Killaly Street East & VL to the South Plan of Subdivision by SG Real Estate Developments III LP (file: D12-02-23) in the City of Port Colborne are as follows:

**DRAFT PLAN**

1. This approval applies to the lands known as 563 Killaly Street East & VL to the South - Draft Plan of Subdivision, legally described as Part of Lots 23 & 24, Concession 1, Geographic Township of Humberstone, Regional Municipality of Niagara, now in the City of Port Colborne prepared by Design Plan Services Inc. dated June 6, 2024 depicting:
  - Blocks 1 and 6 for Condo Townhouses;
  - Blocks 2, 4 and 5 for Street Townhouses;
  - Block 3 for Stacked Condo Townhouses;
  - Block 7 for Semi-Detached Dwellings;
  - Block 8 for an Archaeological Area;
  - Block 9 for an Acoustic Barrier;
  - Block 10 for a Flood Storage Compensation Zone;
  - Block 11 for a Dry Stormwater Management Pond/Facility and Outlet; and
  - Block 12 for a Pedestrian Path to Friendship Trail.
2. Conditions are inserted for convenience only and shall not be used as a means of interpreting these draft plan conditions.
3. Unless stated otherwise, each condition shall apply to all phases, as applicable.

**AGREEMENTS AND FINANCIAL REQUIREMENTS**

4. The Developer shall provide three (3) paper copies and an electronic copy of the preregistration plan, prepared by an Ontario Land Surveyor, and a letter to the Planning Division stating how all the conditions imposed have been, or are to be fulfilled.
5. The Developer shall agree to pay to the City of Port Colborne all required processing and administration fees.
6. The Developer shall submit a Solicitor's Certificate of Ownership for the Plan of Subdivision of land to the Planning Division prior to the preparation of the Subdivision Agreement.

9. That the Subdivision Agreement between the Developer and the City of Port Colborne be registered by the Municipality against the lands to which it applies in accordance with the *Planning Act R.S.O. 1990, c. P.13*.
10. That the Developer shall pay the applicable City of Port Colborne, Niagara Region, and Niagara District Catholic School Board development charges in place at the time of the Building Permit issuance.
11. That the Developer agrees in writing to satisfy all of the requirements, financial and otherwise, of the City of Port Colborne concerning the provision of roads, daylight triangles, lot reserves, road widenings, sidewalks, fire hydrants, streetlights, the extension and installation of services, stormwater management and drainage including the upgrading of services and the restoration of existing roads damaged during the development of the Plan of Subdivision.
12. That the subdivision, if phased, will be to the satisfaction of the Chief Planner or designate and the Director of Public Works.
13. That the Developer shall dedicate Block 11 to the City of Port Colborne, free and clear of any mortgages, liens and encumbrances as a stormwater management facility (retention pond).
14. That the Developer shall dedicate Block 12 to the City of Port Colborne, free and clear of any mortgages, liens and encumbrances as a pedestrian path to the Friendship Trail.
15. That the Developer shall provide street tree plantings in the boulevards abutting street townhouses and semi-detached dwellings or a suitable alternative on both sides of all roads at the rate of one tree per dwelling lot frontage, or at 15 metre intervals elsewhere, to the satisfaction of the Chief Planner.
16. That the Developer agrees that Blocks 1, 3 and 6 will require site plan control and/or additional draft plan of subdivision/condominium application(s), and that all ingress and egress will be via public or private laneways.
17. Prior to any site alteration, or final approval, the Developer shall submit all supporting materials, prepared by a qualified professional, as required by the City or any applicable authority, and shall agree to implement the recommendations of the reports, studies and plans to the satisfaction of the Director of Public Works, Chief Planner, and any other applicable authority.
18. This approval is for a period of three (3) years. Approval may be extended pursuant to Section 51 (33) of the Planning Act R.S.O. 1990, c. P.13 but no extension can be granted once the approval has lapsed. If the Developer wishes

to request an extension to the approval, a written explanation on why the extension is required, together with the resolution from the Region must be submitted for City Council's consideration, prior to the lapsing date.

19. If final approval is not given to this draft plan within three (3) years of the approval date, and no extensions have been granted, approval will lapse under Section 51 (32) of the Planning Act R.S.O. 1990, c. P.13.

20. It is the Developer's responsibility to fulfill the conditions of draft plan approval and to ensure that the required clearance letters are forwarded by the appropriate agencies to the City, quoting file number D12-02-23 and referencing the conditions that are cleared.

## **LAND TRANSFERS AND EASEMENTS**

21. That the Developer agrees to deed any and all easements that may be required for access utility and drainage purposes to the appropriate authorities and utilities.

22. The Developer shall indicate in the Agreement, in words satisfactory to Bell Canada, that it will grant to Bell Canada any easements that may be required, which may include a blanket easement, for communication/telecommunication infrastructure. In the event of any conflict with existing Bell Canada facilities or easements, the Owner shall be responsible for the relocation of such facilities or easements.

23. The Developer shall agree that in the event that easement(s) are required to service this development, and any future adjacent developments, the applicant will provide the easement(s) to Enbridge Gas Inc. at no cost.

## **ZONING**

24. That prior to final approval, the Zoning By-law Amendment application (File No. ZBA D14-06-23), which reflects the layout of the draft plan of subdivision, has come into effect in accordance with the provisions of Section 34 and 35.1 (1) of the Planning Act R.S.O. 1990, c. P.13.

25. The Developer shall submit to the Planning Division three (3) paper copies and an electronic copy of the proposed draft plan and a letter prepared by an Ontario Land Surveyor to confirm zoning compliance.

26. That the Chief Planner be provided with a surveyor's certificate showing lot frontages and net lot area for the final Plan of Subdivision.



## **ROADS**

27. That the Developer agrees that all streets within the subdivision be conveyed to the City of Port Colborne as public highways.
28. That the Developer agrees that the proposed streets be named to the satisfaction of the City of Port Colborne in accordance with the City's Road Naming Policy.
29. That the Developer provides detailed engineering design drawings for the roads, sidewalks and street lighting facilities required to service the subject lands to the Director of Public Works for review and approval.
30. The Developer shall be responsible for the construction of all primary and secondary services, including sidewalks, boulevard plantings and sodding/hydroseeding, in accordance with the City of Port Colborne Standards, or subsequent standards.
31. That the Developer agrees to provide street lighting to the satisfaction of the Director of Public Works.
32. That the Developer agrees to provide a detailed streetscape plan in accordance with the City of Port Colborne Standards, or subsequent standards, to the satisfaction of the Chief Planner and the Director of Public Works illustrating street trees, on-street parking and driveway entrances.
33. That the Developer agrees to install sidewalk and grade and sod boulevards in accordance with the requirements of the City of Port Colborne Standards, or subsequent standards. All sidewalks shall be deemed to be Secondary Services and shall be completed within six (6) months of occupancy of each dwelling, except between November 15th and April 15th at which time the sidewalks must be installed as soon as possible, at the locations shown on the Plans and in accordance with the approved Subdivision Grade Control Plan or as amended by the Director of Public Works. The sidewalks are to be constructed in their entirety in block long sections.

## **MUNICIPAL SERVICES**

34. That a Functional Servicing Study report indicating that the accepting servicing infrastructure (storm sewers, sanitary sewers, and water mains) can accommodate the additional flows and that adequate fire flows are provided to the development, be submitted to the City of Port Colborne for review and to the satisfaction of the Director of Public Works and Fire Chief.

35. That the Developer will provide the City of Port Colborne with the proposed site servicing plans for the subject property. The Director of Public Works shall approve the plans prior to final approval of the subdivision.
36. That the Developer submit to the City of Port Colborne for review and approval, a Geotechnical Study, prepared by a qualified engineer, that verifies the soil bearing capacity, recommends appropriate sewer pipe design, pipe bedding, backfill and roadway designs, to the satisfaction of the Director of Public Works.
37. That the design drawings for the sanitary sewer and stormwater drainage systems to service this development be submitted to the Director of Public Works.
38. Prior to installing the watermain to service the proposed development, the Developer must submit Ministry of Environment, Conservation and Parks 'Form 1' Record of Watermain.
39. At the end of the project, the design engineer shall certify that all grading, storm sewers, and stormwater management controls have been constructed in general conformity to the approved drawings. Copies of the certification shall be circulated to the City of Port Colborne and the Regional Municipality of Niagara.
40. That all sub-grade building foundation's drainage be directed to a sump pump(s) in each house discharging via storm laterals to the municipal storm sewer system. Foundation drains are prohibited from connecting to the sanitary sewer system.
41. Roof water drainage from any structure or building shall discharge onto splash pads (concrete or other suitable material) to grass surfaces via downspouts. These splash pads shall extend a distance at least 1.2 metres away from the structure and must direct the flow away from the building, not onto walks or driveways, and not towards adjacent property.

#### **STORMWATER MANAGEMENT, GRADING, SEDIMENT AND EROSION CONTROL**

42. That the subdivision agreement contains provisions whereby the Developer agrees to implement the approved Stormwater Management Plan required in accordance with Condition 44.
43. That the Developer prepare a detailed subdivision grade control plan showing both existing and proposed grades and the means whereby major storm flows will be accommodated across the site to be submitted to the City of Port Colborne, Regional Municipality of Niagara Development Services

Division, and the Niagara Peninsula Conservation Authority for review and approval.

44. That prior to approval of the final plan or any on-site grading, the Developer submit to the City of Port Colborne for review and approval, two copies of a detailed Stormwater Management Plan for the subdivision and the following plans designed and sealed by a suitably qualified professional engineer in accordance with the Ministry of the Environment, Conservation and Parks documents entitled "Stormwater Management Planning and Design Manual (March 2003)" and "Stormwater Quality Guidelines for New Development (May 1991)", and in accordance with the City of Port Colborne's Lot Grading and Drainage Policy, and the City of Port Colborne's Stormwater Management Facility Standards:
  - a) Detailed lot grading and drainage plans, noting both existing and proposed grades and the means whereby overland flows will be accommodated across the site; and,
  - b) Detailed sediment and erosion control plans.
45. That detailed sedimentation and erosion control plans be prepared for review and approval by the Niagara Peninsula Conservation Authority and Niagara Region as detailed in their respective conditions.
46. That detailed lot grading and drainage plans, noting both existing and proposed grades and the means whereby overland flows will be accommodated across the site, be submitted to the Region of Niagara for review and approval.
47. That prior to approval of the final plan, the Developer submit to the City of Port Colborne a detailed Stormwater Management Plan for the development completed by a qualified engineer and prepared in accordance with the "MOEE Stormwater Management Practices, Planning and Design Manual (June 1994)".

## **FENCING**

48. That the Developer shall provide 1.5 m high black chain-link fencing where adjacent to the archaeological area in Block 8, unless otherwise stated by the City of Port Colborne or Niagara Region. This fencing should be indicated on all future Plans.
49. That the Developer shall provide 1.5 m high black chain-link fencing along the boundary of Block 11 (SWM pond), together with any required life-saving devices to the satisfaction of the City.

## **PUBLIC PARKLAND**

50. The Developer shall convey land in the amount of 5% of the land included in the draft plan to the City of Port Colborne for park purposes as permitted in Section 51.1 of the Planning Act R.S.O. 1990, c. P.13. Alternatively, the City may accept cash-in-lieu of the conveyance and under the provisions of Section 51.1 (3) of the Planning Act R.S.O. 1990, c. P.13.

## **UTILITIES**

51. The Developer shall coordinate the preparation of an overall utility distribution plan to the satisfaction of all affected authorities.
52. The Developer shall enter into any agreement as required by utility companies for installation of services, including street lighting, all in accordance with the standards of the City of Port Colborne. All utilities servicing the subdivision shall be underground. Upon installation and acceptance by the City, streetlights and streetlight electrical supply system will be added to the City's inventory.

## **CANADA POST**

53. The Developer shall include on all offers of purchase and sale, a statement that advises the prospective purchaser that:
- i) the home/business mail delivery will be from a designated Central Mail Box;
  - ii) the developer/owners be responsible for officially notifying the purchasers of the exact Centralized Mail Box locations prior to the closing of any home sales.
54. The Developer agrees to work with Canada Post to determine and provide temporary suitable Centralized Mail Box locations which may be utilized by Canada Post until the curbs, boulevards and sidewalks are in place in the remainder of the development;
- i) install a concrete pad in accordance with the requirements of and in locations to be approved by Canada Post to facilitate the placement of Community Mail Boxes;
  - ii) identify the pads above on the engineering servicing drawings. Said pads are to be poured at the time of the sidewalk and/or curb installation within each phase of the plan of subdivision;
  - iii) determine the location of all centralized mail receiving facilities in co-operation with Canada Post and to indicate the location of the centralized mail facilities on appropriate maps, information boards and plans. Maps are also to be prominently displayed in the sales office(s) showing specific Centralized Mail Facility locations.

## **NIAGARA PENINSULA CONSERVATION AUTHORITY (NPCA)**

55. That the Developer provide detailed grading, construction sediment, and erosion control drawings to the Niagara Peninsula Conservation Authority for review and approval.

56. That the Developer obtain a Work Permit from the Niagara Peninsula Conservation Authority for the proposed alterations to the floodplain as per the approved Hydraulic Analysis (prepared by exp. And dated July 24, 2024) prior to the commencement of any site alterations on site. As part of the Permit review process, the NPCA will require:

- a. Detailed cross sections/calculations of the proposed fill and revisions to the regulatory floodplain limits
- b. All digital floodplain modelling
- c. Any other details as determined by the NPCA to further the review of the work permit application.

57. The revised location of the floodplain hazard on these lands shall be placed in a Hazard zone category or similar to ensure protection to the floodplain lands which precludes further development activities or site alterations to those areas.

58. That conditions 55-57 are incorporated into the Subdivision Agreement between the Developer and the City of Port Colborne, to the satisfaction of the Niagara Peninsula Conservation Authority. The City shall circulate the draft Subdivision Agreement to the Niagara Peninsula Conservation Authority for its review and approval.

## **NIAGARA REGION PLANNING & DEVELOPMENT SERVICES**

59. That following completion of the Modified Generic Risk Assessment and any further remediation work, if required, a Record of Site Condition (RSC) shall be filed on the Ministry of the Environment, Conservation and Parks' Environmental Site Registry in accordance with Environmental Protection Act and associated regulations as amended. Copies of the Environmental Site Assessment and site remediation reports as well as a copy of the Ministry of the Environment, Conservation and Parks' written acknowledgement of the filing of the RSC, together with a certification from a Qualified Professional (QP) that the development lands meet the applicable standard(s) of the intended land uses shall be submitted to Niagara Region. A reliance letter from a QP shall also be submitted to Niagara Region, to indicate that, despite any limitations or qualifications included in the above submitted reports/documents, the Region is authorized to rely on all information and opinions provided in the reports submitted, in order to clear this condition.

60. That the Applicant/Owner receive acceptance from the Ministry of Citizenship and Multiculturalism (MCM) for the archaeological assessment reports titled Stage 1 & 2 Archaeological Assessment, prepared by Earthworks Archaeological Services Inc. (dated August 8, 2021) and Stage 1 & 2 Archaeological Assessment, prepared by Earthworks Archaeological Services Inc. (dated November 8, 2022), respectively. If the Ministry requires further archaeological work to be completed prior to acknowledging these report, these report(s) must also be submitted to and acknowledged by the Ministry, to the satisfaction of Niagara Region, prior to clearance of this condition.

- That the Applicant/Owner submit a site-specific Stage 3 archaeological assessment for site AfGT-329 (and any required subsequent archaeological assessments), as required by the licensed archaeologist or Ministry, to the Ministry of Citizenship and Multiculturalism (MCM) and receive an acknowledgement letter from the MCM (copied to Niagara Region) confirming that all archaeological resource concerns have met licensing and resource conservation requirements prior to any development on the site. The licensed archaeologist must engage with the appropriate First Nations and Indigenous community of closest cultural affiliation for the recommended site-specific Stage 3 Archaeological Assessment (and any subsequent recommended Stage 4 assessment), in accordance with the Standards and Guidelines for Consulting Archaeologists and NOP policies 7.11.1.5. It should be noted that subsequent Stage 4 study may be recommended to mitigate any adverse impacts to significant archaeological resources found on the site through preservation or resource removal and documentation. If the licensed archaeologist or the Ministry recommends/requires further Stage 4 Archaeological Assessments, these report(s) must also be submitted to and acknowledged by the Ministry, to the satisfaction of Niagara Region, prior to clearance of this condition. No demolition, grading or other soil disturbances shall take place on the subject property prior to the issuance of a letter from the MCM through Niagara Region confirming that all archaeological resource concerns have met licensing and resource conservation requirements.

61. That the following warning clause is included within the Subdivision Agreement to protect for any potential archaeological resources that may be encountered during construction activities.

- “Should deeply buried archaeological remains/resources be found during construction activities, all activities impacting archaeological resources must cease immediately, and the proponent must notify the Archaeology Programs Unit of the Ministry of Citizenship and Multiculturalism (416-212-8886) and contact a licensed archaeologist to carry out an archaeological assessment in accordance with the Ontario Heritage Act and the Standards and Guidelines for Consultant Archaeologists.
- In the event that human remains are encountered during construction, all activities must cease immediately and the local police as well as the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services (416-326-8800) must

be contacted. In situations where human remains are associated with archaeological resources, the Ministry of Citizenship and Multiculturalism should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the Ontario Heritage Act.

62. The Owner agrees to implement the recommendations of the Noise and Vibration Impact Study, prepared by RWDI (dated July 26, 2023), as well as any other recommendations that may occur as a result of further acoustical review by a Qualified Professional at the time of that detailed design for the development is available.

63. That future Agreements of Offers of Purchase and Sale or Lease or Rental include the following warning clauses:

All Dwelling Units

- *"Purchasers/tenants are advised that due to the proximity of the adjacent industrial/commercial land-uses, noise from the industrial/commercial land-uses may at times be audible."*

Phase One Block Townhouse Units along Killaly Street East

- *"This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."*

64. That the Owner provides a written acknowledgement to Niagara Region Growth Strategy and Economic Development Department stating that draft approval of this subdivision does not include a commitment of servicing allocation by Niagara Region as servicing allocation will not be assigned until the plan is registered and that any pre-servicing will be at the sole risk and responsibility of the owner.

65. That the Owner provides a written undertaking to Niagara Region Growth Strategy and Economic Development Department stating that all Offers and Agreements of Purchase and Sale or Lease, which may be negotiated prior to registration of this subdivision shall contain a clause indicating that servicing allocation for the subdivision will not be assigned until the plan is registered, and a similar clause be inserted in the subdivision agreement between the owner and the City.

66. That prior to final approval for registration of this plan of subdivision, the owner shall submit the design drawings [with calculations] for any new municipal sanitary and storm sewers, and stormwater management facilities required to service this development to the Region to confirm capacity in the Regional

Infrastructure and obtain approval through the City's Consolidated Linear ECA and Drinking water licence for the new municipal infrastructure.

67. That the Subdivision Agreement between the Owner and the City contain a condition that the Owner agrees to comply with the requirements of Niagara Region's Corporate Waste Collection Policy and enters into an Indemnity Agreement with Niagara Region for the purpose of entering the subject property to provide waste collection services.

68. That the Subdivision Agreement between the Owner and the City contain a provision whereby the Owner agrees to include the following warning clauses within future Purchase and Sale or Lease Agreement:

*Purchasers are advised that a properly executed Indemnity Agreement must be submitted from the private property owner(s) or property management company with signing authority to Niagara Region in order to maintain waste collection services on private roadway(s) and/or property(ies).*

69. In order to be eligible for internal Regional curbside collection a Plan must be submitted showing the appropriate number of waste collection pads, labelled with the required unit numbers and pad dimensions along with turning templates for the trucks.

70. That the following clause be included in the Subdivision Agreement and inserted into all offers and agreements of Purchase and Sale or Lease for each of the affected dwelling units:

*Purchasers/Tenants of townhouse units which require the use of collection pads, are advised that in order to accommodate Regional Waste Collection Services, waste and recycling containers will need to be brought to the designated waste collection pads on the required collection day.*

### **Clearance of Conditions**

Prior to granting final approval, the City of Port Colborne must be in receipt of written confirmation that the requirements of each condition have been met satisfactorily and that all fees have been paid to the satisfaction of Niagara Region.

### **Subdivision Agreement**

Prior to final approval for registration, a copy of the executed Subdivision Agreement for the proposed development should be submitted to Niagara Region for verification that the appropriate clauses have been included. Niagara Region recommends that a copy of the draft agreement be provided in order to allow for the incorporation of any necessary revisions prior to execution.



**Note:** Clearance requests shall be submitted to the Region in accordance with the Memorandum of Understanding, which stipulates that requests for formal clearance of conditions are to be received and circulated to the Region by the local municipality. The local municipality is also responsible for circulating a copy of the draft agreement, and the Region is unable to provide a final clearance letter until the draft agreement is received. The Region is committed to reviewing submissions related to individual conditions prior to receiving the formal request for clearance. In this regard, studies and reports (one hard copy and a PDF digital copy) can be sent directly to the Region with a copy provided to the local municipality.

## **CITY OF PORT COLBORNE FIRE DEPARTMENT**

71. Fire break lot(s) shall be outlined on the final plan as necessary.
72. During construction streets shall be left clear in conformance with the requirements of the Ontario Building Code (i.e. minimum 6 m width and a minimum 12 m centreline turning radius). Streets are to be hard surfaced (first layer of asphalt) prior to construction above ground to ensure that they will accept the weight of fire fighting vehicles and provide emergency access at all times and under all weather conditions.
73. Access for fire department vehicles shall be maintained to new buildings, construction trailers and material storage areas at all times during construction.
74. Fire hydrants are to be in place, operational and secured prior to construction above ground. The water supply for fire fighting purposes must be kept accessible and operational at all times.
75. A detailed site plan, noting all services / hydrant locations shall be submitted for review and comment.
76. Construction waste material is not to accumulate on site in quantity or locations so as to create a fire hazard.
77. Open burning is not permitted.
78. When hot work is being utilized portable fire extinguishers shall be on site and accessible.
79. The owner agrees that conditions 71-78 will be included as conditions within the future Subdivision Agreement.

## **Clearance of Conditions**

### **FINAL APPROVAL**

Subject to the conditions set forth herein, this Draft Plan is approved under Section 51 (31) of the *Planning Act R.S.O. 1990, c. P. 13*. Final approval shall be granted by the City.

**CLEARANCE OF CONDITIONS** Prior to granting final plan approval, the Planning Division requires written notice from applicable City Departments and the following agencies indicating that their respective conditions have been satisfied:

- Bell Canada – Condition 22
- Enbridge Gas – Condition 23
- Canada Post – Conditions 53-54
- NPCA – Conditions 55-58
- Niagara Region Planning & Development Services – Conditions 59-70
- City of Port Colborne
  - Public Works – Conditions 12, 27-47
  - Unless otherwise specified, all other conditions shall be to the satisfaction of the Planning Division.
  - Fire Department – Conditions 71-79

David Schulz, Senior Planner, City of Port Colborne, [david.schulz@portcolborne.ca](mailto:david.schulz@portcolborne.ca)

Regarding Proposed Subdivision, 563 Killaly east, lots 23&24 Concession 1

We, the homeowners around this development, are requesting more information on this matter and intend to appeal. We also have questions and some strong concerns, and we request a response from you at your earliest convenience.

On Friday, August 26<sup>th</sup>, a black truck pulled up in front of my home at 525 Killaly street east and began erecting a City of Port Colborne sign regarding the proposed development. I asked the workers, who were dressed in street clothes, who they were. They informed me that they worked for the developers of this project.

**Question #1- Is it standard practice for the City of Port Colborne to erect notifications using non-unionized non-City employees?**

The optics of this are obviously atrocious, especially after the Ford government was caught in bed with developers of the Greenbelt.

**Question #2 – What is the exact date that the developers made their intentions known to the City?**

Please do not disregard our letter as having conspiracy theories. You have done a poor job of communicating intent to consider development in this area. We would like to corroborate the dates of contact with the developers along with the notices you sent out in our water bills advising us that we should consider purchasing sewer line insurance. If indeed you knew that there would be this amount of development in this area with old infrastructure, then you also know legally that you would be expected to correct any water main issues from the street to the connection at the house. There would also need to be an avenue to seek recompense for damage to our existing older homes as major development occurred both across the street and in behind our properties.

**Question #3 – Are the notices we have been receiving regarding drainage and the quarry connected to all this development?**

Block 6 is listed as an archeological area. I spoke with the archeologist the previous 2 summers as they combed the land and they confirmed that it is a site of my Ancestors. You have a duty to consult with the appropriate Indigenous Peoples when such things are discovered.

**Question #4 - Have you contacted Six Nations of the Grand River and the Mississaugas of the Credit? And what will be done with the site on which my relations camped?**

Development does not just impact humans. That field back there regularly host a healthy herd of deer, wild turkeys, at least 2 distinct packs of coyotes and many plants and trees.

**Question #5 – Has there been any consultation with the Ministry of Natural Resources regarding an impact study? Has there been any consultation with the Ministry of the Environment?**

There is a drainage ditch beside my house and a significant “cut” of land beside it, enough for one vehicle to travel down. The cut is well used by school children and dog walkers. We are concerned that there are plans to cover this ditch and create a road from Killaly east beside my home down to Johnson street. There are a number of reasons this is a concern for us.

First of all, the salt and sand needed to keep roads passable in the winter would end up in the Johnson street pump house which does not have filtration capabilities for these things which would lead to environmental violations. Secondly, you would be creating 8 corner lots that were not previously corner lots. We all purchase these properties for the semi-rural privacy and feel. There would have to be compensation for that obviously. And third, the increase in traffic from 1,000 homes across from us and 206 dwellings behind us needs to be accounted for. Currently, Killaly east is dangerous to the school children due to high speed traffic to and from Gasline and the confusing intersection at Elizabeth and Killaly. Another 1,200 vehicles will make a significant impact.

**Question #6 – Will the cut be turned into a road? If so, has there been an environmental assessment? Is there a plan to compensate home owners for creating corner lots?**

**Question #7 – What is the risk mitigation plan for the increase in traffic?**

When I bought this property 8 years ago, I had to sign documents acknowledging that although Inco attempted to clean up the soil of nickel here, it still could be an issue. And the land across the road was tested and came back much worse than the south side of Killaly east.

**Question #8 – How did all this land suddenly become suitable for development?**

JTL Integrated Machine and Port Colborne Forge are felt all the way to my property. I understand things were different on Johnson street years ago so the homeowners there have had to live with the incredible decibel levels. We observed companies monitoring the decibel levels last summer and they were quite shocked at how loud the drop forge is. Again, how is this land suitable for development?

**Question #9 – Will there be changes to the operating hours of JTL Integrated Machine and the Drop Forge or other considerations with those companies?**

As you can see Mr. Shulz, your sign has prompted many questions and concerns and the notice of this plan to the citizens who live here was poorly planned if not outright disrespectful. You will notice that our steering committee have been CC'd on this

correspondence as we intend to act as a community group. Therefore I request that you Reply to All when you send the information and answers to our questions.

Chi Miigwetch;

Rick McLean [mcleanrick@hotmail.com](mailto:mcleanrick@hotmail.com) 905-932-3416

Christine Arsenault [Carsenault26@gmail.com](mailto:Carsenault26@gmail.com)

Pierre Renaud [frenchyee@gmail.com](mailto:frenchyee@gmail.com)

Greg Scott [scottgscottr@gmail.com](mailto:scottgscottr@gmail.com)

## David Schulz

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**From:** atfaver052@gmail.com  
**Sent:** September 18, 2023 10:49 AM  
**To:** David Schulz  
**Subject:** housing expansion 563 Killaly St E part of lot 23 and 24

You don't often get email from atfaver052@gmail.com. [Learn why this is important](#)

Good morning, David!

In reference to this housing proposal, I have several concerns.

- I though the soil was contaminated due to INCO, has the proper soiling testing been completed.
- Was there a study to determine impact to this area, i.e. traffic, housing cost of existing homes, etc.
- The number of units being built ( 286) which will impact the population – density in the area. I live at the end of Bell street in exceed of 60 years and one reasons many homeowners have purchase or built homes in this area was due to the dead-end Street and the quietness of this area. Will the main throughway to this subdivision be via Killaly Street.
- I am not opposed to the new subdivision, just the number of units,( type of units ) the traffic potential and as all the units will be townhomes, it will attract low to mid income families. Also, it may impact the resale of homes within this area.

Regards

*Adrienne*  
416-806-7658

## David Schulz

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**From:** Saima Tufail  
**Sent:** October 5, 2023 9:00 AM  
**To:** David Schulz  
**Subject:** FW: Killaly Street East Subdivision Public Meeting Held October 3, 2023

Good morning David,

Please see the email below.

Thank you,  
Saima



**Saima Tufail**  
*Interim City Clerk*  
**City of Port Colborne**

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[www.portcolborne.ca](http://www.portcolborne.ca)

66 Charlotte Street  
Port Colborne, ON L3K 3C8  
**Phone** 905-835-2900 x106  
**Email** [Saima.Tufail@portcolborne.ca](mailto:Saima.Tufail@portcolborne.ca)

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**From:** Doreen Bennett <doreen.bennett2000@gmail.com>  
**Sent:** Thursday, October 5, 2023 8:57 AM  
**To:** City Clerk <cityclerk@portcolborne.ca>  
**Cc:** Saima Tufail <Saima.Tufail@portcolborne.ca>  
**Subject:** Killaly Street East Subdivision Public Meeting Held October 3, 2023

You don't often get email from [doreen.bennett2000@gmail.com](mailto:doreen.bennett2000@gmail.com). [Learn why this is important](#)

Good Morning

As a home owner on 214 Johnston Street can you please add my e-mail address to the list to people requesting a copy of the answers to the questions that were presented to council on Tuesday, October 3, 2023. Please acknowledge receipt of this email

e-mail: [doreen.bennett2000@gmail.com](mailto:doreen.bennett2000@gmail.com)

Thank you

Doreen Bennett



Melissa Bigford on behalf of Mary Bigford  
147 Killaly St. E  
Port Colborne, Ont.  
L3K 1N7

October 3rd, 2023

To: Mayor and Members of Council,

The proposed Draft Plan of Subdivision and Zoning By-law Amendment D12-02-23 & D14-06-23 should not be approved. After reading through the reports we have significant questions and concerns that need to be addressed on the impact these changes will have the surrounding neighborhood.

How are the servicing requirements water, sewer, storm sewer of the surrounding neighbourhood being protected?

What is the current available capacity of the Johnson Street Stormwater Pumping Station (SPS)?

What exact portion of capacity of the existing Johnson Street SPS will be used for this proposed development? What measures will be put in place to ensure only this portion of the Johnson Street SPS is utilized that is if the required capacity is available?

What is the current capacity of the Johnson Street sanitary sewer? Is there adequate capacity to allow for this development to use 29% of the sanitary sewer without affecting the surrounding neighbourhood? Also, if this development alone requires 29% of the existing municipal sanitary system, how will the sanitary system accommodate the Future Elite Group Development to the North of another 2000 homes?

Are watermain municipal easements something the city does and or permits? Who is liable for costs/repairs of watermain breaks over the easement?

Why are city owned lands being used to accommodate this development? Why is the developer not putting the acoustic barrier/berm, stormwater management and flood facility on their property? Is the city (taxpayers) liable for the stormwater management and flood storage facility? What costs are associated with the construction of these facilities to the city? Who maintains these facilities? If the city maintains them what are the costs to the taxpayer to maintain this facility in the future? How will the stormwater facilities be accessed as it is located along the condominium section of the development separated by an acoustic barrier and not accessible through public roads?

With low groundwater levels the use of sump pumps is required in each basement, how will the sump pump discharge to splash and grade be captured, flooding prevented if directed towards the rear of each lot?

How will groundwater, potential flooding be directed to the flood storage facility if an acoustic berm/barrier aligns the facility?

How will the different block and stacked townhouses rules under a condominium development on private roads interact with those fronting onto public roads in the subdivision? How will maintenance be ensured on these roads? ? How will the movement of traffic be accommodated on only a 6m roadway?

With part of the development being under condominium ownership to what standard will the pavement structure of these roads be will it be to the city's standards or the condominiums? If the condominium ownership goes bankrupt who is responsible for the maintenance of the roads, infrastructure and properties? Is it the city and ultimately taxpayers who become liable?

Another major concern is the realignment of the floodline, when will developers and consultants realize you cannot just realign a floodlines!!

Is the park/parkette large enough to suit the proposed size of the development?

What is the proposed height of the stacked townhouses?

How was it determined that the large future residential development to the North should not be included in the traffic study? This potential development and the current development before council will have significant impacts on traffic along Killaly St and the surrounding neighbourhood and should not just be considered background traffic in the 2028 future horizon year in the traffic study!!

What measures will be put in place to ensure the proper removal and disposal of the contaminated soil, including measures to protect the abutting neighbours specifically to dust and air pollution?

Why does the city have a set of established by-laws that are put in place to protect abutting landowners if they can be amended or reduced at will to suit developers? Why the different set of rules? The city has experienced many major storm events over the past couple of years, and this development will significantly increase demand on the storm and sanitary sewer system. Many of the surrounding neighborhood's insurance policies have changed the designation as being on a flood plain and have had reductions in coverage due to these changes? At least 14 homes on Janet St. were flooded in a major storm event from back-up of the city storm and sanitary sewers and no explanation of cause was provided. How do we prevent this from happening to the abutting properties of this development considering the aged infrastructure that will be accessed and used by this development?

In conclusion, the Zoning By-Law amendments, special provisions and reductions in minimum setbacks should not be approved!! There are numerous issues and concerns regarding the development of this property as mentioned above. The sheer size and nature of this development with all the reductions in lot areas and frontage, reduction in yard setbacks, and an increase in height required to make it fit on the property do not work and our not in the best interest of the city and the surrounding neighbourhood!

Thank you,  
Melissa Bigford & Mary Bigford



**Subject: Northland Estates Municipal Drain**

**To: Council**

**From: Public Works Department**

Report Number: 2024-161

Meeting Date: August 27, 2024

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**Recommendation:**

That Public Works Department Report 2024-161 be received; and

That Council direct the Drainage Superintendent to advance the Northland Municipal Drain Engineer's Report to a 'Meeting to Consider,' in accordance with section 41, Chapter D.17 of the *Drainage Act*.

---

**Purpose:**

The purpose of this report is to provide Council with an update on the delivery of the Engineer's Report and requisite actions pertaining to the Meeting to Consider.

Receipt of an Engineer's Report, under Section 41, Chapter D.17 of the *Drainage Act*, requires Council's advancement of the report to a Meeting to Consider the report.

The Meeting to Consider the Report is tentatively set for September 18, 2024, pending acceptance of this report and direction for staff to complete a mailing of the required notification to the affected landowners.

---

**Background:**

On November 12, 2019, Brandon Widner, P. Eng of Spriet Engineering was appointed to complete a new report under Section 78 of the Drainage Act R.S.O. 1990 for the Eagle Marsh Municipal Drain. The Eagle Marsh Drain outlets to Lake Erie in the southwest corner of the municipality near Lakeshore Road West. The drain proceeds northwest into the Township of Wainfleet and then back into the City of Port Colborne, where the drain ends at Highway #58 in the rear yards of Coronation Drive.

On November 22, 2022, a petition, under Section 4 of the Drainage Act was signed and submitted to the Clerk's office for new drainage. A request for a branch drain to outlet the proposed Northland Estates Subdivision was made. Being in the same watershed as the Eagle Marsh Drain, Spriet Associates was asked to add this petition drain to their scope of work.

---

### **Discussion:**

At the onset of this development, it was the preference of staff to have the new subdivision drain to the existing storm sewer at Highway #58 and the extension of Franklin Avenue. Due to the lay of the land, and the depth of the existing storm sewer, that was not a possibility.

The southwest corner of the existing parcel for the development is not far from the Eagle Marsh Drain. The petitioner has requested for a 340-meter section of drain which will serve as a sufficient outlet for the development. The confluence of the proposed branch to the existing Eagle Marsh Drain will be at the westerly limit of 43 Coronation Drive.

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### **Internal Consultations:**

Consultation with various departments regarding the financials and the proposed work illustrated in the Engineers report have taken place.

---

### **Financial Implications:**

The fees incurred by the municipality to date, for the survey of the drain, the drafting fees, and the engineering fees for the completed engineer's report, total approximately \$25,850. As per the Engineer's Report, the estimated cost of the project is \$189,900 inclusive of the Engineer's fees.

Should this report not proceed, the municipality will not have the opportunity to collect the funds expensed to date nor will there be drainage for the proposed subdivision known as Northland Estates.

As the City of Port Colborne is the only contributing municipality within this drainage project, it will continue to bear all costs until completion of construction of this project, at which time staff will bill to the respective property owners as detailed in the engineer's report. Although this municipal drain will be in the defined urban storm area, the initial cost of the report and the construction will be billed to the developer.

To finance the drainage works, the Municipality will charge interest. The interest rate is calculated at the City's Bank Prime Rate + 2%. As per the Drainage Act, interest will be calculated until the Engineer signs the certificate of final completion

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### **Public Engagement:**

Any reports or works completed through the *Drainage Act* must follow all regulations of the *Drainage Act*. Two meetings were held with the affected residents. Following Council's direction to proceed with the Meeting to Consider, staff will initiate a mailing to the landowners assessed in this report. The mailing will contain notification of the Meeting to Consider and directions to obtain a copy of the Engineer's report on the City's website. For those that are unable to use the website or prefer an electronic version of the report, they will be provided directions to contact staff.

---

### **Strategic Plan Alignment:**

The initiative contained within this report supports the following pillar(s) of the strategic plan:

- Welcoming, Livable, Healthy Community
  - Increased Housing Options
- 

### **Conclusion:**

An up-to-date Engineer's Report allows for routine drain maintenance, effective roadside ditching programs ensuring road safety, enhancing community resiliency, and allows staff to provide residents with a standard level of service.

The Municipality is bound by the *Drainage Act* to comply and proceed accordingly, thus advancing the Engineer's Report to the Meeting to Consider, under Section 41 of the Act, complies with these requirements.

The advancement of this report initiates a public process, beginning with a notification for the upcoming 'Meeting to Consider' to each assessed owner within the engineer's report.

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### **Appendices:**

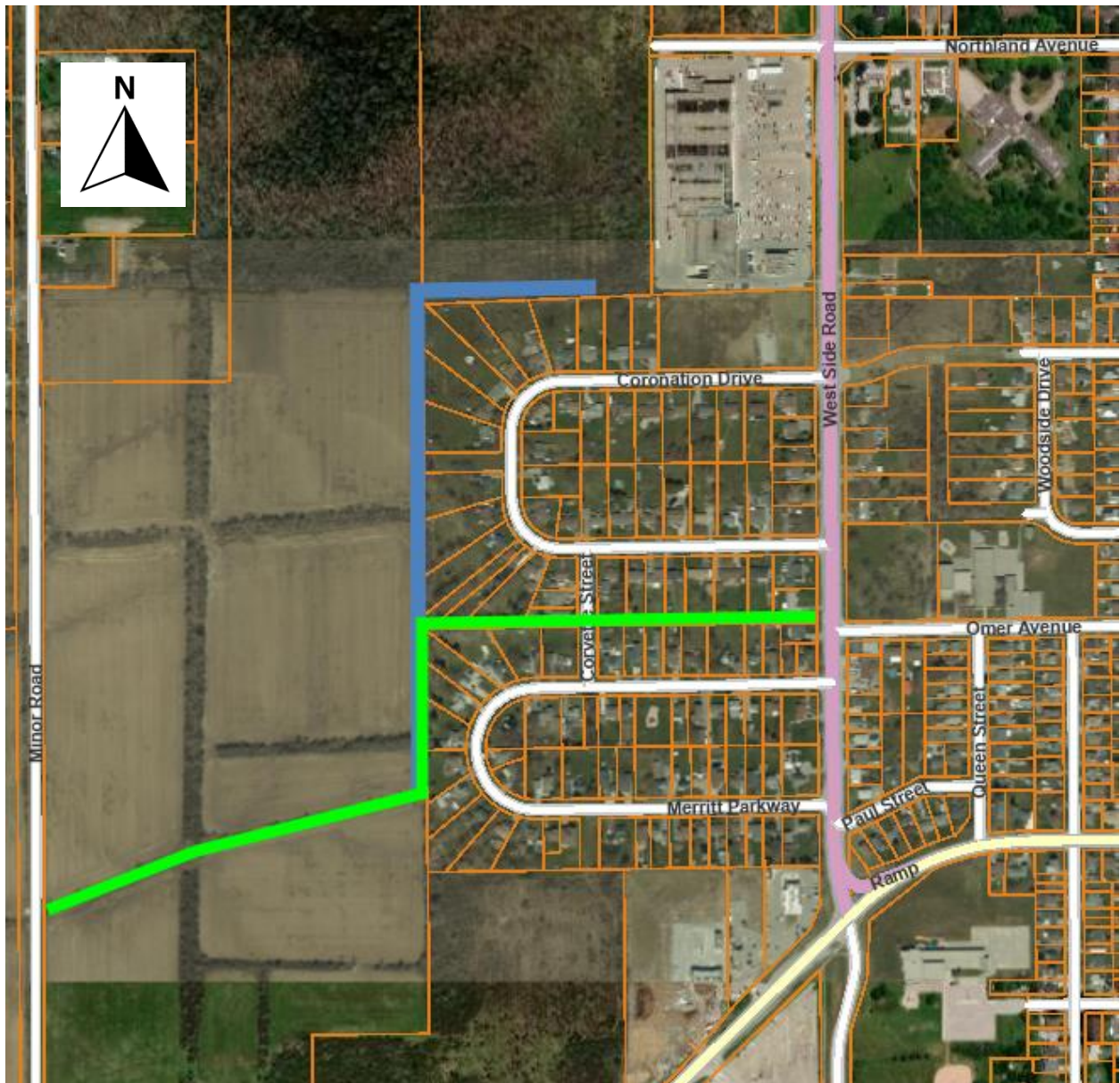
- a. Plan of the Northland Estates Drain

Respectfully submitted,

Alana Vander Veen  
Drainage Superintendent  
905-228-8127  
Alana.VanderVeen@portcolborne.ca

**Report Approval:**

All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.



Proposed Northland Estates Municipal Drain in Blue

Existing Eagle Marsh Municipal Drain in Green



**Subject: Licensed Child Care**  
**To: Council**  
**From: Corporate Services Department**

Report Number: 2024-155

Meeting Date: August 27, 2024

---

**Recommendation:**

That Corporate Services Department Report 2024-155 be received;

That Council direct staff to jointly apply with the YMCA of Niagara to the Niagara Region for more licensed child care spaces in Port Colborne; and

That, subject to Niagara Region approval for more licensed child care spaces, staff be directed to procure architectural services for a child care centre at the Vale Health and Wellness Centre.

---

**Purpose:**

This report seeks Council support to expand child care spaces and access in Port Colborne.

---

**Background:**

The Ontario and Canada governments signed the Canada-wide Early Learning and Child Care (CWELCC) Agreement in 2022, focusing on five priority areas, including lowering fees, increasing access, enhancing quality, supporting inclusion, and strengthening data/reporting. Central to this agreement is achieving average child care fees of \$10 per day by March 2026 for children under six years old. The Ontario government reports that 25,500 new child care spaces were created as of December 2023, and their goal is to reach a target of 86,000 spaces by the end of 2026.

Niagara Region Children's Services is a Ministry of Education (MED) agency operating five licensed child care centres throughout Niagara. Additionally, as the Early Years and Child Care Service System Manager, they coordinate early years and child care



operators region-wide through licensing, and manage a Home Child Care Program that contracts qualified independent caregivers to provide in-home child care for children up to age 12. In May 2023, the MED confirmed Niagara Region’s allocation of 4,067 new child care spaces through the CWELCC Agreement by 2026. This allocation has been divided among the priority communities selected by Children’s Services, taking into account child care demand, demographic, and socioeconomic factors. While Port Colborne was not initially identified as a priority community, there is a strong case to be made for including it in the allocation due to population growth projections and the expected rise in child care demand.

Of the five child care centres operated by Children’s Services, one is located in Port Colborne. There are also four other licensed child care centres in the city from among the region-wide total of 181 (approx. 12,000 total spaces). Approximately three operators in Port Colborne are licensed to provide home child care services.

Program	Category	Spaces
Port Colborne Regional Child Care Centre	Regional Licensed Facility	95
La Boite a Soleil - St. Joseph	Licensed Child Care Facility	76
ACW - First Friends	Licensed Child Care Facility	93
ACW - Oakwood	Licensed Child Care Facility	50
ACW - McKay	Licensed Child Care Facility	25
*Home Child Care Providers	Licensed Home Child Care	18 (approx.)
<b>Total Spaces</b>		<b>357</b>
ACW = A Child’s World *Home child care providers can serve a maximum of six children and must count their own children in this allotment if they are younger than four years old.		

**Discussion:**

As Niagara Region Children’s Services works with child care operators to determine the feasibility of adding new licensed child care spaces in priority communities – mainly by monitoring supply and demand – they may consider expanding into more communities. City staff have had meetings with Children’s Services’ management about increasing child care spaces in Port Colborne on account of the city’s current level of need and population growth rate. Staff will continue to advocate for Port Colborne to be designated a priority community until the Region and the province give their approval.

Partnering with the YMCA on an application for increased child care spaces would be beneficial given that the charitable organization currently operates eight early learning and child care centres and 47 school age centres (before and after school hours) across Niagara. Subject to the Region’s approval for more child care spaces in Port Colborne, staff recommends engaging the services of an architect to design a child care centre at the Vale Health and Wellness Centre (VHWC), which could be operated by the YMCA.

Architect services would be procured on a phased project basis with the first phase to assess the feasibility of the VHWC location and the possibility of adding a second floor to expand indoor recreational space with the City to support recreation programming, clubs, camps, public events and/or gatherings, and additional space to house recreation equipment.

As the CWELCC system improves affordability for families, the demand for licensed child care will further increase. Niagara Region Children's Services estimates that the provincial child care expansion targets for Niagara are not reflective of what the local area municipalities need in the future, with a 31% increase in the number of children expected over the next 20 years. Without priority community status, Port Colborne will face mounting pressure to expand child care access as the need continues to rise. City staff remain mindful of this growing gap, and they envision working with the development community on a model where designated space in multi-family buildings is set aside for non-profit child care operators to purchase or rent.

### **Internal Consultations:**

The Corporate Leadership Team proposes this initiative and the VHWC child care centre project for Council consideration.

### **Financial Implications:**

Fees for an architect would be paid from the project budget, and neither the City nor the architect will be bound by a commitment to continue beyond the feasibility stage.

Financial implications will not arise until the Region approves more child care spaces in Port Colborne. An addition to the VHWC to accommodate a new child care centre will require debenture financing, though grant opportunities will be pursued. The debenture for the child care centre would be financed as follows:

<b>Source</b>	<b>Percentage of Space</b>
Lease payment for child care space	50%
Development charges	25%
Property taxes from growth	25%

The operating costs of the new child care centre would be the responsibility of the service provider. There would be no cost to the City to provide these services.

Development charges and property taxes are only considered as funding sources if the second floor is deemed feasible by the architect and approved to move forward by Council once presented.

## **Public Engagement:**

The City continues to have discussions with the YMCA of Niagara and Niagara Region Children's Services.

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## **Strategic Plan Alignment:**

The initiative contained within this report supports the following pillars of the strategic plan:

- Welcoming, Livable, Healthy Community
  - Economic Prosperity
- 

## **Conclusion:**

Faced with lengthy waitlists – the waitlist in Niagara for toddlers and preschoolers has experienced a dramatic surge of 227% since March 2022, jumping from 712 to 2,326 – parents and guardians across Niagara continue to seek out affordable child care in their communities. Advocating for an increase in the provision of licensed child care services in Port Colborne is essential for fulfilling the City's strategic objectives of economic prosperity and fostering a welcoming, liveable, and healthy community. Expanded access to quality child care supports childhood learning and development, and enables working families in Port Colborne to achieve a work-life balance.

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Respectfully submitted,

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Steve Shypowskyj  
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**Report Approval:**

All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.



**Subject: Fire Services Committee Recommendation**

**To: Council**

**From: Office of the Chief Administrative Officer**

Report Number: 2024-162

Meeting Date: August 27, 2024

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**Recommendation:**

That Chief Administrative Officer Report 2024-162 be received; and

That a Shared Fire Services Management Oversight Committee be created and the Terms of Reference in Appendix "A" be approved; and

That Councillor Hoyle be appointed to the Shared Fire Services Oversight Committee as the Council representative; and

That Staff be directed to negotiate a Shared Services Agreement for the delivery of fire administration and management services for a term agreeable to both parties; and

That Staff be directed to negotiate and execute employment contracts for the positions of Fire Chief, Deputy Fire Chief of Community Risk Reduction & Administration and recruit a candidate for the position of Deputy Chief of Operations & Training; and

That an annual review of the shared Management team be conducted; and

That a Community Risk Assessment and Master Fire Plan be undertaken by year two of the agreement.

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**Purpose:**

This report is being presented to Council as requested at the Joint Special Meeting of Council held on August 12, 2024, the Joint Shared Services Committee (the Committee) provided recommendations and next steps which now need to be approved and implemented.

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## **Background:**

At the Special Meeting of Council on March 19, 2024, the Chief Administrative Officer presented Report 2024-83 – Fire Administration Update, which recommended establishing a Joint Shared Services Committee with the Township of Wainfleet. This committee would be tasked with overseeing negotiations of future shared service arrangements between Port Colborne and Wainfleet.

Report 2024-83 recommended that the Chief Administrative Officers and Mayors from both municipalities be appointed to the committee. Council requested that the Chief Administrative Officer bring forward a report considering additional Council members to the Joint Shared Services Committee to the March 26, 2024, Council Meeting. Since the deadline for adding items to the agenda for the March 26, 2024, Council Meeting had passed, the report was brought forward at the meeting on April 9, 2024.

At the March 19, 2024, Special Meeting of Council, Port Colborne Council approved a temporary arrangement with the Township of Wainfleet to enlist the services of a Fire Chief and Deputy Fire Chief for a period of no more than 120 days.

At the April 9, 2024, the Committee was established and Councillor Hoyle was appointed as the Council representative and Councillor Beauregard was appointed as the alternate Council representative.

The Committee met several times and provided a recommendation and next steps for implementation.

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## **Discussion:**

After the April 9, 2024, Meeting of Council a Joint Shared Services Committee was established to review the options for delivery of fire service and prepare a recommendation for Council consideration.

The Committee met several times and considered factors surrounding organization structure, costing models, logistics, opportunities and challenges, employment relationship, and terms of an agreement.

The decision from the committee was to engage a shared administrative team of three management personnel to oversee operations in Port Colborne and Wainfleet – Fire Chief, Deputy Fire Chief of Community Risk Reduction & Administration, and Deputy Chief of Operations & Training with the City of Port Colborne being the Employer of all three employees. While the City of Port Colborne is intended to be the employer, the three employees would perform duties in both municipal jurisdictions – Port Colborne and Wainfleet – on a shared service basis.

The next steps prepared by the Committee are presented as the recommendations of this report. They were presented in a joint meeting of Wainfleet and Port Colborne

Councils. A copy of the presentation from that Council meeting is attached as Appendix B.

This presentation contemplated the negotiation of a 10-year agreement, however further discussion during the meeting indicated a duration that was more suitable based on the statutory election cycle, such as 8 years or a number of years that would not interfere with the 2034 municipal election.

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### **Financial Implications:**

The Committee has identified savings that can be realized in a shared service model that includes a Fire Chief and 2 Deputy Fire Chiefs when compared to the current state of 2 Fire Chiefs and 2 Deputy Chiefs in both municipalities.

The Shared Services Agreement will outline a funding model that provides a cost sharing arrangement that provides savings for each municipality.

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### **Strategic Plan Alignment:**

The initiative contained within this report supports the following pillar(s) of the strategic plan:

- Welcoming, Livable, Healthy Community
  - Economic Prosperity
- 

### **Conclusion:**

After several Committee meetings a recommendation to move forward with a Shared Management Team was recommended in a Special Joint Meeting of Council on August 12, 2024. Next steps have been outlined by the Committee for implementation following this meeting of August 27, 2024.

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### **Appendices:**

- a. Draft Terms of Reference – Shared Fire Services Management Oversight Committee
- b. Fire Services Partnership Proposal – August 12, 2024

Respectfully submitted,

Scott Luey  
Chief Administrative Officer  
905-228-8060  
Scott.Luey@portcolborne.ca

**Report Approval:**

All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.





# Shared Fire Services Management Oversight Committee Terms of Reference



## **Purpose:**

The Fire Services Management Oversight Committee, herein referred to as the “Committee”, will serve to provide governance and oversight of the Shared Fire Services Management Team, including providing advice and making recommendations to both Councils relating to fire services provision in each municipality.

Although accountable to both Councils, it is the responsibility of the committee members to make decisions that favour neither municipality but will provide equal level of service to all the combined residents of both municipalities.

## **Authority:**

The Committee is an advisory committee of Council and does not have any delegated authority.

## **Membership:**

The Committee shall total 6 members, composed of the Mayors as Co-Chairs, one (1) Council representative from each municipality and the CAOs of each municipality. All members will have the full authority to debate and vote.

Other personnel may be called to attend meetings and provide guidance or information as the committee deems required. These personnel may include but is not limited to the following:

- Fire Chief & Deputy Chiefs
- Port Colborne & Wainfleet Finance personnel
- Port Colborne & Wainfleet Human Resources personnel
- Port Colborne & Wainfleet Legal personnel
- any other support staff as deemed necessary by the Committee.

Administrative support will be provided by the Clerks office.

## **Quorum:**

In order to constitute a quorum, at least four (4) voting members shall be present at all times, and all matters shall be decided by a majority vote of the Members attending, each of whom shall have one (1) vote including the Chair.

The Fire Chief & Deputy Fire Chief will not have a vote and therefore, in the event of a tie, the matter shall be deemed to have been denied or refused.

## **Term**

Unless otherwise stated by resolution of both municipal Councils, the Committee shall begin once the shared service agreement has been executed.

The Mayors and CAOs will remain on the committee for the duration of the term of Council.



# Shared Fire Services Management Oversight Committee Terms of Reference



The Council representative for each municipality will be selected for a two-year term at the first regular Council meeting in January following the end of each two-year period.

## Remuneration

None.

## Goals/Objectives & Scope of Activities:

The following represent the general activities of the Committee

1. Reviewing, updating, and establishing the fire protection and prevention agreement between the City of Port Colborne and the Township of Wainfleet, including governance and cost sharing agreements.
2. Discuss best practices related to the fire services organizational structure, shared service opportunities, the local needs and level of service requirements of our community;
3. Work within the Terms of Reference of the Fire Services Management Oversight Committee as a guidance document and provide a report and recommendations for Council's consideration;
4. Conduct Annual Performance Evaluations of the Shared Fire Service Management Team;
5. Provide guidance to the Shared Fire Service Management Team on priorities and

## Reporting to Council:

Unless otherwise directed by Council, the minutes of committee meetings will be presented to Council through the regularly scheduled Council Information Package.

The CAOs for each municipality shall provide updates, and present Committee recommendations and advice for the consideration of each municipal Council as required.

Both Councils must pass resolutions accepting recommendations for a Committee recommendation to be implemented by the Fire Service Management.

## Restrictions:

1. The Fire Committee shall not direct the Fire Chief/Deputy Fire Chief or other Personnel in the day-to-day operation of employees in relation to managing/supervising/assignment of tasks.
2. It shall be the sole responsibility of department head/manager to operate within the department pursuant to the description of his/her duties without interference of the Fire Committee.

## Meeting Time and Location



# Shared Fire Services Management Oversight Committee Terms of Reference



The Committee shall meet at least quarterly or on an “as needed basis” with the location alternating between the City of Port Colborne and the Township of Wainfleet. The host municipality of the meeting will also provide the Chair of the meeting.

**DRAFT**

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# Fire Services Management Review

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Joint Council Meeting  
August 12, 2024

# Agenda for This Evening

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- **Review of Current Opportunity**
- **Review Committee Recommendation**
- **Next Steps**

# Shared Services Review Committee

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The Shared Services Review Committee has completed the following

## **May 30, 2024**

- Reviewed Service Delivery Options & Established a Work Plan

## **June 17, 2024**

- Reviewed Levels of Service, By-laws, Committee Q&A, and Draft Survey

## **July 8, 2024**

- Reviewed Survey Results, Comparators of Shared Services across Ontario & Span of Responsibility to Niagara Fire Services, and Financial Estimates

## **July 22, 2024**

- Reviewed draft presentation and selected recommendation

# The Fire Service Landscape in Canada

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**Canadian Association of Fire Chiefs “Great Canadian Fire Census” is the largest and most complete dataset about fire departments in the country.**

Unsettling trends, 3200 FDs across Canada are seeing:

- Declining supply of firefighters (aging demographic, cost of living, family pressures)
- High demand for service. (calls for service continue to rise)
- Increasing associated risks and mitigation requirements & regulations. (Mental Health & Wellness, Cancer Prevention, Community Risk Assessments, Mandatory Certification, etc.)
- Resource challenges that include aging equipment and unprecedented replacement values. (Massive increase in the cost of equipment and apparatus)

***Pumper trucks have increased in price from \$750,000 to more than one million per apparatus.***

# What Are Our Options?

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- 1. Each municipality operate individual Fire Services**
- 2. Shared Fire Administration/Management Team**
- 3. One single fully amalgamated shared Fire Service**



# Can We Do It Alone?

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To maintain standalone operations, rising costs associated with the delivery of current service levels results in Council having two choices.

## **Option 1**

Increase investment in additional resources and personnel

## **Option 2**

Reduce the level of service

# Can We Do It As One?

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Wainfleet operates using an all volunteer model with many senior and experienced members who are career firefighters for other municipalities.

If both departments were to merge into one large Composite department, those members may choose to no longer volunteer, as a result of union pressure.

This could have a serious negative impact to the sustainable operations and delivery of service within the Township of Wainfleet.

# Can We Share?

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Collaboration will be key to sustainable operations.

By sharing information, resources, & capabilities we can achieve things together that would be difficult to achieve alone.

Having personnel specialize in each area of department operations, builds efficiencies and reduces duplication.

# Partnerships?

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- In business, partnerships are often best for a group of professionals in the same line of work where each partner has a role in running the business.
- Port Colborne & Wainfleet both have fire departments that are in the same business with some similar challenges and opportunities.
- A shared management team would be able to **maintain the identity of each individual fire department** while ensuring that resources & capabilities are optimized and efficiently used in both municipalities.

# Has It Been Done Before?

MUNICIPALITY/DEPARTMENT	DEPARTMENT TYPE	POPULATION	AREA SQ. KM.	STATIONS	FLEET	YEAR
Southwold Fire Department	Volunteer	4851	301.38	2	7	2020
West Elgin Fire Department	Volunteer	5060	322.09	2	8	
	<b>TOTAL</b>	<b>9911</b>	<b>623.47</b>	<b>4</b>	<b>15</b>	
Stirling-Rawdon-Tweed Fire Services	Volunteer	5015	282.48	2	8	2016
Tweed Fire Department	Volunteer	6067	918.61	1	6	
	<b>TOTAL</b>	<b>11082</b>	<b>1201.09</b>	<b>3</b>	<b>14</b>	
Clarence-Rockland Fire Department	Composite	26505	297.71	3	11	2021
The Nation Fire Department	Volunteer	13350	658.32	5	17	
Casselman	Volunteer	3970	5.12	1	5	2024
	<b>TOTAL</b>	<b>43825</b>	<b>961.15</b>	<b>9</b>	<b>33</b>	
Midland Fire Department	Composite	17817	35.33	1	8	2015
Town of Penetanguishene Fire & Emergency Services	Volunteer	10077	25.42	1	8	
	<b>TOTAL</b>	<b>27894</b>	<b>60.75</b>	<b>2</b>	<b>16</b>	
Minto Fire Department	Volunteer	9094	300.19	3	10	2020
Wellington North Fire Services	Volunteer	12431	526.31	2	8	
Mapleton Fire Department	Volunteer	10839	535.56	2	7	2024
	<b>TOTAL</b>	<b>32364</b>	<b>1362.06</b>	<b>7</b>	<b>25</b>	
Perth East Fire Department	Volunteer	12595	711.93	3	14	2014
West Perth Fire Department	Volunteer	9038	578.88	1	7	
	<b>TOTAL</b>	<b>21633</b>	<b>1290.81</b>	<b>4</b>	<b>21</b>	
Port Colborne Fire & Emergency Services	Composite	20033	121.99	1	10	?
Wainfleet Fire & Emergency Services	Volunteer	6887	217.53	3	12	
	<b>TOTAL</b>	<b>26920</b>	<b>339.52</b>	<b>4</b>	<b>22</b>	

# Can It Be Done Here?

Think of this as “Span of Responsibility”

MUNICIPALITY (DEPARTMENT)	DEPARTMENT TYPE	POPULATION	AREA SQ. KM.	STATIONS	FLEET
Fort Erie	Volunteer	32,901	166.24	4	24
Niagara Falls	Composite	<b>94,415</b>	209.58	<b>7</b>	<b>27</b>
Niagara-on-the-Lake	Volunteer	19,088	131.35	<b>5</b>	19
Pelham	Volunteer	18,192	126.35	3	15
Thorold	Composite	23,816	83.26	3	15
Welland	Composite	55,750	81.09	3	21
West Lincoln	Volunteer	15,454	<b>387.02</b>	2	11
Lincoln	Volunteer	25,719	162.74	4	18
Grimsby	Volunteer	28,883	68.71	2	14
<i>West Niagara (Lincoln &amp; Grimsby)</i>	<i>Volunteer</i>	<i>54,602</i>	<i>231.45</i>	<i>6</i>	<b>32</b>
Port Colborne	Composite	20,033	121.99	1	10
Wainfleet	Volunteer	6,887	217.53	3	12
PC & WF Combined Responsibility	Composite	26,920	339.52	4	22

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# How Do We Do This?

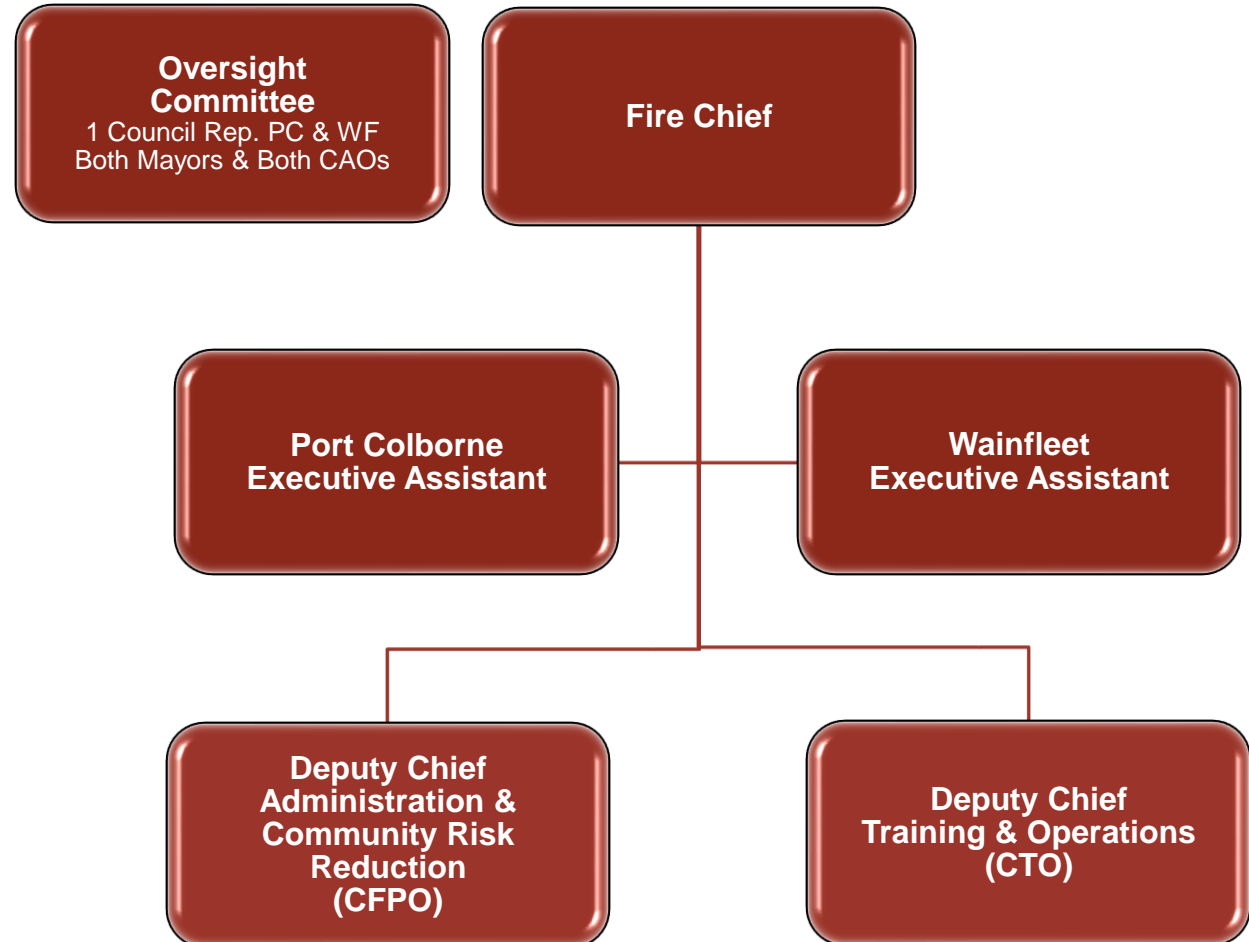
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## **BENEFITS & CHALLENGES OF A SHARED MANAGEMENT TEAM**

# Build the Team

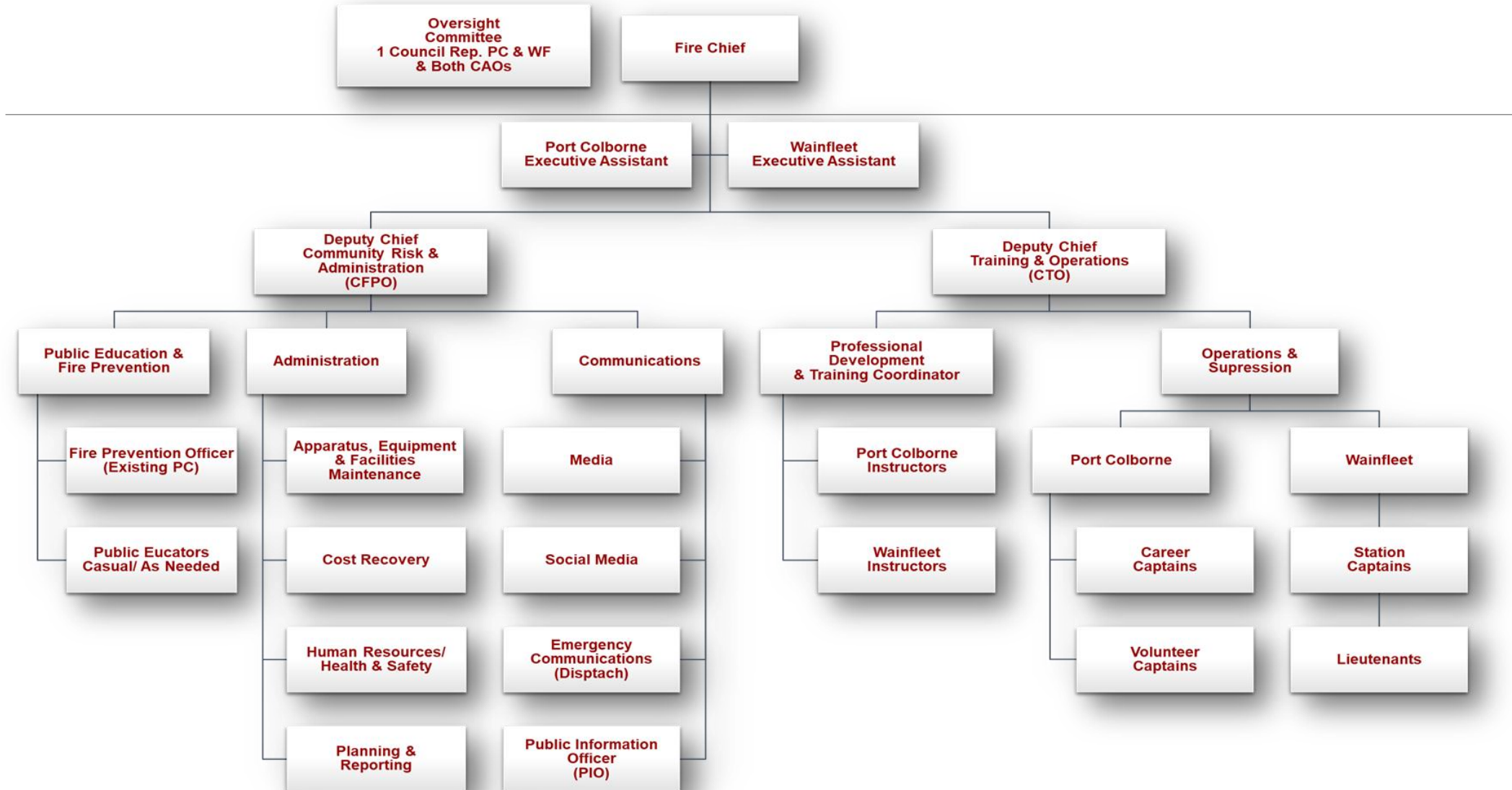
## Fire Services Management Team

Expenditures of the Shared Fire Services Management Team would be shared 60%-40% between the municipalities





# Management Team Roles & Responsibilities



# Benefits of Shared Leadership

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Allows each leader to contribute their unique abilities & strengths to the management process providing expertise in all areas

Larger system of accountability and built in redundancy for each function

Better data capturing and picture of area responses

# Benefits of Shared Leadership

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Improved inter-department communications and working relationships

Stronger public education/emergency management messaging

Aligned Standard Operating Guidelines/Policies

Access to better response capabilities and specialized resources

# Potential Savings from Shared Leadership

	Option 1	Option 2 (Recommended)	Option 3
<b>Option</b>	Status Quo (1 Chief & 1 Deputy)	<b>One Chief &amp; Two Deputies</b>	One Chief & Two Deputies
<b>Employer</b>	Each	<b>Port Colborne</b>	Wainfleet
<b>Split</b>	0	<b>60/40</b>	60/40
<b>Port Colborne Costs</b>	\$413,700	<b>\$366,840</b>	\$294,875
<b>Wainfleet Costs</b>	\$298,494	<b>\$244,560</b>	\$196,584
<b>TOTAL</b>	<b>\$712,194</b>	<b>\$611,400</b>	<b>\$491,459</b>
<b>Port Colborne Savings</b>	\$0	<b>\$46,860</b>	\$118,825
<b>Wainfleet Savings</b>	\$0	<b>\$53,934</b>	\$101,910
<b>SAVINGS</b>	<b>\$0</b>	<b>\$100,794</b>	<b>\$220,735</b>

# Challenges and risks of Shared Leadership

Political will needs to be present to adopt the concept and work with the team

Requires collaborative leaders and a synergy amongst the individuals at the top

Takes time to implement

Requires training and culture change within the firefighters

# Set The Direction & Capture the Value

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Aligning goals, policy and procedure.

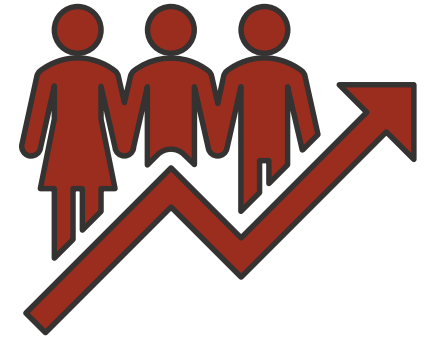
- Examples: HR Policy, standard operating guidelines

Optimizing costs and leaning out operations by reducing duplication of efforts.

- Examples: bulk purchasing, sharing inventory, sharing the costs of duplicate resources (software programs, equipment, training)

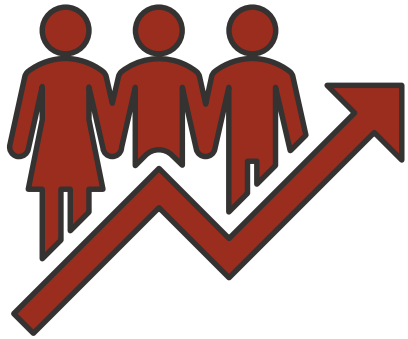
Recruitment & retention of volunteers.

- Allows for cumbersome work to be lifted off the volunteers and absorbed by Management Team to make Volunteer FF sustainable



# Set The Direction & Capture the Value

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Enhancing and aligning response capabilities to prepare for future response trends.

- Examples: sharing an aerial truck, two station responses for specific call types, larger equipment pool during equipment repair times.

Ensuring the fire departments are strategically positioned to meet all current and future regulations and requirements as set.

- Examples: Mental Health, Cancer Prevention, Rehabilitation and Mandatory Certification.

# Support from Council

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- The Public needs to be reassured that public safety is a priority, and that both Councils are not sacrificing services for perceived cost reductions
- Personnel from both departments need reassurance that they have the support of both Councils through the provision of adequate resources to ensure consistency and reduce tensions.
- Councils need to support the Fire Management Team in the implementation of the shared system and understand that it may take time to see meaningful change or return on investments



# NEXT STEPS

---

- 1) Establish a Fire Services Management Oversight Committee with a mutually agreed Terms of Reference (attached).
- 2) Authorize the Mayors and CAO's to negotiate and enter into a 10 year Shared Services Agreement for the delivery of Fire Administration/Management Services, with a costs review at year 5.
- 3) Authorize the CAO's to negotiate and execute employment contracts for the positions of Fire Chief, Deputy Chief of Community Risk Reductions & Administration and post for the position of Deputy Chief of Operations & Training.
- 4) Conduct an annual review of the shared Fire Administration/ Management Services team
- 5) Each municipality shall complete and implement a Community Risk Assessment and Master Fire Plan by year 2 of the agreement.

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# QUESTIONS?

July 29, 2024

**City of Hamilton  
Haldimand County  
Regional Municipality of Niagara  
Local Area Municipalities**

**SENT ELECTRONICALLY**

**Report No. FA-38-24 RE: Watershed Natural Assets Analysis and Valuation**

---

At the Board of Directors meeting held on July 19, 2024, the following resolution was passed:

**Resolution No. FA-82-2024**

Moved by: Stew Beattie

Seconded by: Donna Cridland

**THAT** Report No. FA-38-24 RE: Watershed Natural Assets Analysis and Valuation  
**BE RECEIVED;**

**AND THAT** a copy of Report No. FA-38-24 RE: Watershed Natural Assets Analysis  
and Valuation **BE CIRCULATED** to NPCA watershed municipalities.

Those interested can learn about the value of nature-based solutions in the watershed [here](#). A copy of Report No. FA-38-24 is enclosed for reference and associated appendices are available on request.

Staff leading this initiative invite Councils or staff to reach out if they are interested in how a Natural Assets Analysis can support their municipal asset management planning. I welcome you to connect with me via email at [mdavis@npca.ca](mailto:mdavis@npca.ca) if there is interest in learning more.

Sincerely,



Melanie Davis  
Manager, Office of the CAO & Board  
Niagara Peninsula Conservation Authority  
905.788.3135 ext. 250

cc: Chandra Sharma, CAO / Secretary – Treasurer  
Leilani Lee-Yates, Director, Watershed Strategies & Climate Change  
Natalie Green, Manager, Climate Change & Special Programs  
Tara Gaade, Program Coordinator, Watershed Strategies & Climate Research  
Cathy Coverdale, Manager, Financial Services

**Report To: Board of Directors**

**Subject: Watershed Natural Assets Analysis and Valuation**

**Report No: FA-38-24**

**Date: July 19, 2024**

---

**Recommendation:**

**THAT** Report No. FA-38-24 RE: Watershed Natural Assets Analysis and Valuation **BE RECEIVED**;

**AND THAT** a copy of Report No. FA-38-24 RE: Watershed Natural Assets Analysis and Valuation **BE CIRCULATED** to NPCA watershed municipalities.

**Purpose:**

To inform the Board of Directors about the results of the NPCA's watershed natural asset analysis, assessment and valuation project, including the Town of Fort Erie case study.

**Background:**

Nature is a valuable infrastructure asset critical for mitigating and adapting to the effects of climate change. With its role in watershed-based natural resource management, the NPCA is a key leader in implementing local climate change adaptation and mitigation initiatives such as water monitoring, flood forecasting and warning, floodplain mapping and flood infrastructure risk management, ecosystem restoration and stewardship, land securement, and natural asset management.

In 2019, the NPCA Board of Directors declared a climate change emergency through approval of Resolution No. 174-2019 recognizing the critical need to act on the impacts and effects of climate change across the NPCA watershed. More recently, climate change was identified as a critical priority under the NPCA's 2021-2031 strategic plan which includes numerous climate-related actions across six strategic priorities. The relevant strategic plan's goals and actions have been integrated within the NPCA's Climate Change Action Plan (CCAP) which is currently being implemented and finalized by staff (refer to FA-39-24 for more information).

The CCAP aims to achieve the following three objectives:

1. Build climate change resilience within the Niagara Peninsula watershed and NPCA properties
2. Reduce NPCA's carbon footprint to achieve net-zero greenhouse gas (GHG) emissions by 2050
3. Engage with NPCA staff, partners, and stakeholders to accelerate local climate change action

Following the December 2022 approval of the CCAP framework (Report FA-50-22), extensive staff engagements were conducted to help shape the details/actions of the plan, including updating the six updated key outcomes as follows:

- Outcome 1 Targets for corporate GHG reduction established
- Outcome 2 Understand climate change impacts and vulnerabilities to the Niagara Peninsula watershed jurisdiction, including on NPCA properties.
- Outcome 3 Increase climate change resiliency throughout the watershed.
- Outcome 4 Enhanced climate change resiliency at NPCA properties.
- Outcome 5 Improved corporate sustainability practices
- Outcome 6 Collaboration with external partners to advance research and on-the-ground climate action.

As part of the NPCA's climate change initiatives (related to CCAP outcomes 2, 3, 4, and 6), NPCA initiated a project to undertake a natural asset inventory, analysis and valuation project for the Niagara Peninsula watershed. The project also included a case study application of natural asset management approaches for the Town of Fort Erie and help them meet regulatory requirements for incorporating green infrastructure into asset management plans.

In September 2023, staff provided an update on the NPCA's asset management initiatives including tangible capital asset management planning, the watershed natural heritage asset project, and overview of a pilot project with the Town of Fort Erie (Report FA-38-23).

### **Discussion:**

Natural or green infrastructure, also called nature-based solutions, are those natural or human-made elements that provide essential services to people and the environment, such as carbon uptake (i.e., sequestration) and storage, protecting against flood and erosion, supporting biodiversity, providing shade/cooling effects, improving water quality, and many human health and recreational benefits.

In Q3 of 2023, in accordance with corporate procurement policies, NPCA retained Green Analytics to support the completion of a watershed-wide natural asset management project using NPCA's recently updated natural areas inventory and ecological land classification data. The purpose of the project was to: create an inventory of natural assets across three levels ranging from general natural areas to specific ecosystem types, better understand the

state of the assets through an ecosystem-based condition assessment, and estimate the value of natural assets using replacement cost and provision of ecosystem services.

The information from this project is critical for watershed management, land acquisition, conservation area land planning, natural asset management, financial planning, and targeted habitat restoration.

### Natural Asset Inventory

The final report, attached as Appendix 1, shows that altogether agricultural, natural, and pervious area assets cover 83.5% of the NPCA's watershed. Agricultural land dominates the natural asset composition within the NPCA watershed, covering 52.6% of the watershed while natural assets comprise 28.1% of the NPCA watershed.

### Condition Assessment

A condition assessment was conducted using a desktop approach to produce a high-level evaluation of an asset's ability to provide ecosystem services, such as nature-based recreation, air pollution filtration, and storm water attenuation.

To assess natural asset condition, a set of nine indicators were used following the approach outlined in the Canadian Standards Association (CSA) for natural asset inventories. The indicator criteria were categorized into either landscape context (e.g., percent of forest cover, percent wetland cover, extent of adjacent permeable land uses) or physical context (e.g., interior habitat, natural area patch shape, road density, proximity to watercourses, forest proximity to other natural assets, and wetland proximity to other natural assets).

The underlying assumption for natural asset condition assessments is that an asset in "good" condition (from an ecological perspective) is anticipated to be able to provide a "good" level of ecological services. The condition assessment found that 59% of the watershed's natural assets are in 'good' condition and 40% in 'fair' condition. Notably, 89% of wetland assets rated as good and other natural assets generally rated fair.

### Replacement Costs

In the context of tangible capital asset management processes, a replacement cost includes the comprehensive costs for replacing and maintaining as asset through its lifecycle; however, estimating replacement costs for natural assets can be challenging because natural assets are irreplaceable in an ecological sense, may not have a historical or capital construction cost, and gain more value as they age (unlike capital assets that depreciate over time).

Using the established natural asset guidance and scientific literature, the estimated replacement costs for the natural assets within the Niagara Peninsula watershed was estimated to exceed \$10 billion, based on per unit restoration costs. Overall, forest assets account for 46% and wetlands account for 44% of the total replacement cost. It is important

to note that the estimate accounts for the complexity and extended time required to restore natural assets.

### Ecosystem Service Valuation

Natural assets support climate change mitigation efforts through carbon sequestration, where carbon is removed from the atmosphere and stored within the asset. They also support climate adaptation efforts through the provision of other ecosystem services, such as stormwater attenuation, supporting biodiversity, and more.

The amount of carbon sequestration and storage was evaluated for forest and non-forest assets in the NPCA watersheds. The study found that forest assets, including forested wetlands, within the NPCA jurisdiction exhibit carbon sequestration rates ranging from 0.25 to over 2.5 tonnes of carbon per ha annually. Carbon storage for forest assets within the NPCA watershed surpasses 1.3 tonnes, with a weighted average of approximately 261 tonnes per ha. Sequestration rates for non-forest assets were derived from literature and vary by asset type ranging from 0.3 to 2.16 tonnes carbon per ha.

Natural assets also provide numerous additional ecosystem services such as nature-based recreation, air quality regulation, stormwater regulation, habitat preservation, and contribution to crop productivity. The report assessed these select ecosystem services delivered by natural assets within NPCA's watershed. Using established methods and scientific literature, the value of the ecosystem services was estimated at \$331 million to \$463 million, annually. Nature-based recreation and stormwater regulation were identified as the most valuable services. It is important to note that the study only examined a subset of ecosystem services as noted and that the value is considered an underestimate of the true value of natural asset service provision.

### Supporting our Municipal Partners: Fort Erie Natural Asset Inventory Pilot Project

As part of this watershed analysis project and through a collaborative approach with the Town of Fort Erie, NPCA staff led a Fort Erie natural assets inventory and assessment project to help the municipality fulfill the requirements of *O. Reg. 588/17*. Given the NPCA's role in watershed-based natural resource management, most of the natural asset data was readily available and up to date. NPCA staff filled critical data gaps relating to urban street trees while other green infrastructure data were provided by the Town of Fort Erie.

The Fort Erie natural asset project provides an evaluation of the municipality's natural assets and their capacity to deliver services. The report showcases the inventory, condition, risks, level of services, ecosystem service valuations, and replacement costs associated with Fort Erie's natural assets, which include various land covers such as forests, wetlands, and waterbodies. This information will help the Town of Fort Erie meet its asset management planning requirements for green infrastructure under *O. Reg. 588/17*.

The final report was provided to municipal staff for incorporation into the Town's asset management plan and approval by Council at their [July 8, 2024 meeting](#).

## Next steps

With the completion of the watershed natural assets analysis and valuation project, NPCA staff will continue to advance our work in this emerging field and will develop a workplan to:

- Integrate natural asset information into NPCA asset management planning process and policies, as applicable.
- Complete data collection at NPCA conservation areas to fill remaining data gaps related to enhanced assets, such as park, trees, and trails.
- Determine best practices for data management and sharing.
- Continue to collaborate with Conservation Ontario and other conservation authorities engaged in natural asset initiatives (i.e., Toronto & Region, Credit Valley, Halton Region, Lake Simcoe Region, and Ausable Bayfield) to support knowledge sharing and build a community of practice amongst Ontario's Conservation Authorities and municipal partners in natural asset management.
- Explore additional opportunities to support watershed municipalities, as appropriate, by providing natural asset inventory and valuation information.
- Develop a program to update the watershed natural asset inventory as new data becomes available and conduct field-based condition assessment and risk assessments to detect changes over time, enabling proactive management and early identification of threats for timely intervention.

## **Financial Implications:**

The Watershed Natural Assets Analysis and Valuation project was supported through the approved operational budgets. The NPCA entered a partnership with the Town of Fort Erie to complete the Fort Erie Natural Asset Inventory Pilot Project with cash and in-kind contributions from both partners.

## **Links to Policy/Strategic Plan:**

Goal 2.3 – Lead the implementation of sustainable technologies and green infrastructure best practices for climate resiliency and sustainability.

Goal 4.1 – strengthen government relations toward collective outcomes and impact

Goal 6.3 – Improve asset management and close the state of good repair

## **Related Reports and Appendices:**

Appendix 1: Final Report Niagara Peninsula Watershed Natural Asset Analysis & Valuation

Appendix 2: Presentation by Amy Taylor, Green Analytics, Niagara Peninsula Watershed Natural Asset Analysis and Valuation



**Co-Authored by:**

*Original Signed by:*

---

Natalie Green, M.Sc., PMP, Manager, Climate Change & Special Programs  
Tara Gaade, Program Coordinator, Watershed Strategies & Climate Research  
Cathy Coverdale, CPA, CGA, Manager, Financial Services

**Reviewed by:**

*Original Signed by:*

---

Leilani Lee-Yates  
Director, Watershed Strategies and Climate Change

**Submitted by:**

*Original Signed by:*

---

Chandra Sharma, MCIP, RPP  
Chief Administrative Officer/Secretary-Treasurer

July 29, 2024

**City of Hamilton  
Haldimand County  
Regional Municipality of Niagara  
Local Area Municipalities**

***SENT ELECTRONICALLY***

**Report No. FA-34-24 RE: Integrated Watershed Monitoring and Reporting**

---

At the Board of Directors meeting held on July 19, 2024, the following resolution was passed:

**Resolution No. FA-88-2024**

Moved by: Stew Beattie

Seconded by: Robert Foster

**THAT** Report No. FA-34-24 RE: Integrated Watershed Monitoring and Reporting  
**BE RECEIVED;**

**AND THAT** the Enhanced Integrated Watershed Monitoring Program and  
associated implementation recommendations **BE ENDORSED;**

**AND FURTHER THAT** a copy of Report No. FA-34-24 RE: Integrated Watershed  
Monitoring and Reporting **BE CIRCULATED** to NPCA watershed municipalities for  
their information.

A copy of Report No. FA-34-24 and associated appendices are enclosed for reference. The Watershed Monitoring & Reporting team invites those interested in learning more about the integrated watershed monitoring & reporting program to connect for further discussion. Please reach out via email at [mdavis@npca.ca](mailto:mdavis@npca.ca) if there is interest in learning more.

Sincerely,



Melanie Davis  
Manager, Office of the CAO & Board  
Niagara Peninsula Conservation Authority  
905.788.3135 ext. 250

cc: Chandra Sharma, CAO / Secretary – Treasurer  
Leilani Lee-Yates, Director, Watershed Strategies & Climate Change  
Josh Diamond, Manager, Watershed Monitoring & Reporting

**Report To: Board of Directors**

**Subject: Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program**

**Report No: FA-34-24**

**Date: July 19, 2024**

---

**Recommendation:**

**THAT Report** No. FA-34-24 RE: Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program **BE RECEIVED**;

**AND THAT** the Enhanced Integrated Watershed Monitoring Program and associated implementation recommendations **BE ENDORSED**;

**AND FURTHER THAT** staff Report No. FA-34-24 RE: Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program **BE CIRCULATED** to NPCA watershed municipalities for their information.

**Purpose:**

The purpose of this report is to provide an overview of the Niagara Peninsula Conservation Authority's (NPCA) Enhanced Integrated Watershed Monitoring Program (IWMP) and obtain the endorsement of the Board of Directors for the program's continued implementation.

**Background:**

NPCA's 2021-2031 Strategic Plan identifies the need to address watershed data gaps to support evidence-based decision-making for climate-resilient watersheds. The Strategic Plan further establishes specific goals to:

- Expand and enhance monitoring and associated tools to fill information gaps and research needs
- Lead water quality (e.g., surface and groundwater) and quantity monitoring throughout the NPCA jurisdiction

- Support municipal partners with watershed data collection and analysis to understand cumulative impacts
- Develop a solid understanding of climate impacts and risks on NPCA watersheds

Further, the *Conservation Authorities Act* and Ontario Regulation (O. Reg.) 686/21: Mandatory Programs and Services requires NPCA to develop a Watershed-based Resource Management Strategy that will need to be supported by an enhanced watershed monitoring program to address data gaps and support decisions for a healthy watershed. Work began in 2023, to develop an enhanced IWMP.

### **Discussion:**

The "Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program" document in Appendix 1, outlines the current monitoring and reporting programs run by the NPCA, either alone or with partners. It emphasizes programs essential for understanding watershed health and managing NPCA activities like hydrometry, water quality, ecology, regulatory compliance, community science, and restoration. The IWMP considers reorganizing and expanding monitoring efforts across various areas to better assess ecosystem health, gather data for NPCA programs, and continue to provide monitoring services to municipalities and other clients within the NPCA watershed jurisdiction.

Beginning in 2023, the NPCA Watershed Monitoring and Reporting team led the following key activities to inform the development of the enhanced IWMP:

- Inventory of existing NPCA monitoring programs;
- Comprehensive NPCA monitoring gap analysis;
- Formation of the internal Integrated Watershed Monitoring Program Advisory Group;
- A facilitated session with the Integrated Watershed Monitoring Program Advisory Group and additional technical staff;
- Municipal partner meetings;
- Engagement with the NPCA Public Advisory Committee; and
- Formation of an internal Project Intake Team.

The objective of the NPCA enhanced IWMP is to comprehensively assess the ecological health and resilience of the watershed through monitoring initiatives, to inform evidence-based conservation and management strategies for the NPCA watershed.

## Integrated Watershed Monitoring Program Conceptual Model

To support the IWMP's objective, a conceptual model has been developed that identifies three key Watershed Monitoring Program areas and four key Monitoring Support Systems that are further detailed in Appendix 2.

The three Watershed Monitoring Areas are:

1. Long-Term Watershed Monitoring,
2. Corporate Support Services, and
3. Monitoring Service Provider.

The four Monitoring Support Systems include:

1. Corporate Services,
2. Data Management and GIS
3. Communications, and
4. External Partnerships and Data.

Within the purview of the IWMP are long-term monitoring initiatives encompassing water quantity, surface water, groundwater, terrestrial and watershed landscape components. These programs form the cornerstone of the NPCA's monitoring efforts, providing crucial data for informed decision-making and environmental management. The Program also identifies internal monitoring needs, while also providing opportunities for external environmental monitoring services.

## Long-Term Watershed Monitoring and Reporting Program

The goals of NPCA's Long-Term Integrated Monitoring and Reporting Program area are:

- To establish baseline conditions by understanding natural variability and ecological thresholds within the NPCA watershed;
- To assess the temporal and spatial conditions of aquatic and terrestrial resources at various locations across the watershed compared to established baselines; and
- To identify potential stressors and emerging threats that could be addressed through other programs.

Monitoring Units for this Program include:

1. Surface Water Monitoring: Water chemistry, stream benthic macroinvertebrates and stream temperature, fish communities and fluvial geomorphology monitoring components.
2. Groundwater Monitoring: Water chemistry and water levels monitoring components.
3. Terrestrial Monitoring: Forest, wetland, and wildlife monitoring components.

4. Hydrometric Monitoring: Water quantity and climate monitoring components.
5. Watershed Landscape Analysis: Watershed scale analysis of various landscape components to monitor changes over time.

Components of the long-term watershed monitoring program are provincially mandated, such as the surface and groundwater Provincial Monitoring Networks implemented by the NPCA, and the hydrometric monitoring that supports NPCA's flood forecast and warning system.

#### Corporate Support Services Program

The goal of the NPCA Corporate Support Service monitoring area is to provide monitoring services and expert advice for NPCA's internal department programs and projects.

Monitoring Units for this Program include:

1. Environmental Permissions: Required regulatory monitoring related to NPCA Conservation Area services and infrastructure.
2. Conservation Areas Beach Monitoring: Monitoring of bacterial (E. coli) at NPCA swimming areas at Long Beach and Chippawa Creek Conservation Areas.
3. Restoration Monitoring Program: Monitoring of restoration project progression after implementation for adaptive management options.
4. Conservation Area Management Plans: Range of environmental inventories and monitoring studies to inform Conservation Area Management Plans.
5. Conservation Area Lands Ecological Monitoring: Range of monitoring programs for Conservation Areas to assess a variety of management areas for NPCA properties.
6. Climate Change: Climate change affects all aspects of the NPCA watershed and can be monitored through a variety of watershed components and functions.
7. Low Impact Development Monitoring: Low Impact Development Monitoring program can track the effectiveness of LID measures on NPCA lands.
8. Community Science Monitoring: This program partners with citizens and NGOs to collect various environmental monitoring data.

#### Monitoring Service Provider Program

The goal of the NPCA Monitoring Service Provider Area is to provide environmental monitoring services to external partners within the Niagara Peninsula watershed.

A wide range of environmental inventory and monitoring services can be made

available, such as ecological, environmental permissions, climate change and LID performance monitoring. Current projects include the Niagara Region surface water chemistry, City of Hamilton Glanbrook Landfill Bioassessment, and Hamilton International Airport Bioassessment.

### Program Implementation

The “Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program” document includes several recommendations to implement the Program. Each recommendation is accompanied by actions to be implemented by 2031. These recommendations are:

- Recommendation 1:  
That the NPCA **prioritize and enhance the Long-Term Watershed Monitoring program** within the IWMP, as it is essential for understanding and managing ecosystems, supporting scientific research, conservation initiatives, and inform decision-making to ensure ecosystem resilience against ongoing environmental changes.
- Recommendation 2:  
That the NPCA will **continue to regularly report results of its environmental monitoring programs** in an understandable and accessible format to support decision-making by the NPCA and its partners to enhance watershed health and community awareness.
- Recommendation 3:  
That the NPCA **ensures the IWMP has a robust Corporate Support Services Monitoring Area** to incorporate internal monitoring components through collaboration, optimize resource allocation, and better define the scope and capacity of crucial monitoring programs and projects across multiple departments and divisions.
- Recommendation 4:  
That the NPCA will **continue to increase the capacity of its monitoring and inventory services within the IWMP** to enable NPCA to become a comprehensive environmental monitoring provider for watershed partners, including municipalities, provincial and federal agencies, and private companies.
- Recommendation 5:  
That the NPCA will **continue to collaborate** with municipal and community partners, agriculture, academia, and indigenous communities moving forward.

- Recommendation 6:  
That the NPCA will **continue to explore efficiencies and innovations** to continuously improve the IWMP.

A Watershed-based Resource Management Strategy is to be developed by the end of 2024, as required under the *Conservation Authorities Act* and O. Reg. 686/21: Mandatory Programs and Services. The enhanced IWMP will be an integral part of the Watershed-based Resource Management Strategy.

### **Financial Implications:**

There are no current financial implications associated with the preparation of the "Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program" document. Further program development and scoping will be accounted for in future budgets, supported by a long-term budget plan guided by the Watershed-based Resource Management Strategy. Specialized monitoring services for municipalities and external stakeholders will be on a fee-for-service basis based on a Board-approved fee schedule.

### **Links to Policy/Strategic Plan:**

The NPCA 2021-2031 Strategic Plan has identified an Integrated Watershed Monitoring Program as a critical priority to help achieve the goals outlined under the Healthy and Climate Resilient Watersheds strategic priority. The IWMP further advances the following additional goals in the 2021-2031 Strategic Plan:

Goal 3.1 – Create equitable access to greenspace for the health and well-being of people.

Goal 3.2 – Lead nature education, environmental stewardship, and volunteerism.

Goal 4.1 – Strengthen government relations toward collective outcomes and impact.

Goal 4.3 – Improve engagement with local First Nations, Métis, and Inuit peoples that support shared stewardship.

Goal 5.2 – Improve internal operations and processes.

Goal 6.2 – Optimize self-generating revenue using innovative approaches.

The program supports NPCA's vision of "Nature for all" that envisions a healthy and vibrant environment with shared greenspace and clean water that sustains life for future generations.

### **Related Reports and Appendices:**

Appendix 1: Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program (Draft)



Appendix 2: Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program Conceptual Model

**Authored by:**

*Original Signed by:*

---

Joshua Diamond, M.Sc. C. Tech.  
Manager, Watershed Monitoring and Reporting

**Reviewed by:**

*Original Signed by:*

---

Leilani Lee-Yates, BES, MSPL.RPD, MCIP, RPP  
Director, Watershed Strategies and Climate Change  
Interim Director, Planning and Development

**Submitted by:**

*Original Signed by:*

---

Chandra Sharma, MCIP, RPP  
Chief Administrative Officer/Secretary-Treasurer



# Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program

July 19, 2024



[www.npca.ca](http://www.npca.ca)

# LAND ACKNOWLEDGEMENT

The Niagara Peninsula watershed is situated within the traditional territory of the Haudenosaunee, Attiwonderonk (Neutral), and the Anishinaabeg, including the Mississaugas of the Credit many of whom continue to live and work here today. This territory is covered by the Upper Canada Treaties (No. 3, 4, and 381) and is within the land protected by the Dish with One Spoon Wampum agreement. Today, the watershed is home to First Nations, Metis, and Inuit.

Through the NPCA's strategic plan, the NPCA re-confirms its commitment to shared stewardship of natural resources and deep appreciation of Indigenous culture and history in the watershed.

## PROJECT ACKNOWLEDGEMENTS

Technical input and information by provided by several staff at the Niagara Peninsula Conservation Authority was instrumental to the completion of this document and their efforts are gratefully acknowledged:

Eric Augustino  
Eric Baldin  
David Deluce  
Carly Fazekas  
Kim Frohlich  
Tara Gaade  
Steve Gillis  
Natalie Green  
Ryan Kitchen  
Leilani Lee-Yates  
Megan Lalli  
Carly Mason  
Steve Miller  
Amy Parks  
Tom Proks  
Geoffrey Verkade

Additional input from the NPCA Public Advisory Committee is also acknowledged.

The NPCA would also like to thank Andrea Dunn (Conservation Halton), Lesley McDonell (Hamilton Conservation Authority), Jon Nodwell (Credit Valley Conservation Authority) and Lyndsay Cartwright and Sue Hayes (Toronto and Region Conservation Authority) for meeting, sharing resources and discussing their monitoring programs with our staff.

To be cited as:

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## CONTENTS

LAND ACKNOWLEDGEMENT .....	2
PROJECT ACKNOWLEDGEMENTS .....	2
TABLE OF ACRONYMS .....	5
1.0 INTRODUCTION.....	7
2.0 CURRENT NPCA MONITORING PROGRAMS .....	9
2.1 NPCA Hydrometric Monitoring Network .....	9
2.2 Surface Water Quality Monitoring Program .....	10
2.3 NPCA Groundwater Monitoring Program .....	20
2.4 NPCA Ecological Monitoring Program .....	24
2.5 NPCA Restoration Program Monitoring.....	26
2.6 Environmental Permissions.....	27
2.7 Stewardship and Community Science Monitoring .....	29
3.0 INTEGRATED WATERSHED MONITORING PROGRAM .....	30
3.1 Background: Integrated Watershed Monitoring .....	30
3.2 The Rationale for an NPCA Integrated Watershed Monitoring Program.....	30
3.3 Integrated Watershed Monitoring Program Advisory Group .....	34
3.4 Overview of NPCA’s Integrated Watershed Monitoring Program .....	35
4.0 NPCA LONG-TERM MONITORING AND REPORTING PROGRAM .....	37
4.1 Program Goal .....	39
4.2 Data Management .....	49
4.3 Long-Term Monitoring Reporting .....	52
5.0 CORPORATE SUPPORT SERVICES.....	55
5.1 Program Goal .....	55
6.0 MONITORING SERVICE PROVIDER.....	61
6.1 Program Goal .....	61
6.2 Monitoring Provider Services Project Intake Process .....	62
7.0 Integrated Watershed Monitoring Program Implementation.....	65
7.1 Financial Considerations.....	66
7.2 Standard Operating Procedures .....	68

7.3 Training.....	68
7.4 Indigenous Knowledge.....	69
8.0 RECOMMENDATIONS AND CONCLUSION .....	70
8.1 Recommendations.....	70
8.2 Conclusion.....	73
9.0 REFERENCES.....	74

# TABLE OF ACRONYMS

BioMAP	Bioassessment of Water Quality
CLI-ECA	Consolidated Linear Infrastructure Environmental Compliance Approval
CCME	Canadian Council of Ministers of the Environment
CO	Conservation Ontario
CVC	Credit Valley Conservation Authority
ECAs	Environmental Certification Approvals
ECCC	Environment Climate Change Canada
ELC	Ecological Land Classification
EMAN	Ecological Monitoring and Assessment Network
GIS	Geographic Information System
HIA	Hamilton International Airport
IWMP	Integrated Watershed Monitoring Program
IT	Information technology
LID	Low Impact Development
MECP	(Ontario) Ministry Environment Conservation and Parks
MOU	Memorandums of Understanding
NAI	Natural Areas Inventory
NGO	Non-Governmental Organization
OBBN	Ontario Benthos Biomonitoring Network
OGS	Ontario Geological Survey

OSAP	Ontario Stream Assessment Protocol
NPCA	Niagara Peninsula Conservation Authority
PCBs	Polychlorinated Biphenyls
PFAS	Per - and polyfluoroalkyl substances
PTTW	Permit to Take Water
PWQMN	Provincial Water Quality Monitoring Network
PWQO	Provincial Water Quality Objectives
RGA	Rapid Geomorphic Assessments
RMN	Regional Municipality of Niagara
SLAs	Service-Level Agreements
SOP	Standard Operating Procedures
TRCA	Toronto and Region Conservation Authority
WSC	Water Surveys Canada
YSI	Yellow Springs Instruments

# 1.0 INTRODUCTION

The Niagara Peninsula Conservation Authority (NPCA) is developing a new comprehensive Integrated Watershed Monitoring Program (IWMP) in accordance with the 2021-2031 Strategic Plan. Under the strategic priority, “Healthy and Climate Resilient Watersheds,” Goal 1.1 – Support evidence-based decision-making for climate-resilient watersheds and shorelines, several actions related to integrate watershed monitoring are identified. To achieve Goal 1.1, the NPCA will:

- Expand and enhance monitoring and associated tools to fill information gaps and research needs
- Lead water quality (e.g., surface and groundwater) and quantity monitoring throughout the NPCA jurisdiction
- Support municipal partners with watershed data collection and analysis to understand cumulative impacts
- Develop a solid understanding of climate impacts and risks on NPCA watersheds

The performance indicator for Goal 1.1 is a robust data collection program established by 2023 and data gaps filled by 2026. Several metrics are included such as the number and types of data gaps identified (gap analysis), percentage of priority data collection gaps filled and number of surface water and groundwater samples. Work began in 2023, to develop the IWMP to achieve the actions for Goal 1.1 and position NPCA as a leader and partner of choice for collecting, analyzing and reporting on watershed data that supports evidence-based decision making for climate-resilient watersheds and shorelines.





This “Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program” document first describes monitoring and reporting programs currently implemented by the NPCA, either independently or through partnerships. It highlights the monitoring programs fundamental to the understanding of watershed health and informing the management of internal NPCA programs such as hydrometry, water quality, ecology, stewardship and community science, regulatory compliance, and restoration. This document contains expanded monitoring program considerations across several disciplines to allow for a more complete evaluation of ecosystem integrity, data capture for internal NPCA programs, and monitoring services for the municipalities and other clients within the NPCA jurisdiction. These range from short to long-term monitoring initiatives depending on the program. This transition to an integrated approach stresses a focused commitment to robust long-term monitoring initiatives across a variety of monitoring components that can more accurately identify watershed trends. Understanding these trends leads directly to changes in how the NPCA and its watershed partners manage and address impacts to watershed health. The IWMP will support the NPCA’s “Nature for all” vision of a healthy and vibrant environment with shared greenspace and clean water that sustains life for future generations.

## 2.0 CURRENT NPCA MONITORING PROGRAMS

NPCA's existing monitoring programs were implemented to support the delivery of programs and services that further the conservation, restoration, development, and management of natural resources in NPCA's watersheds, and vary in terms of scope and scale based on their intended purpose. The NPCA's monitoring programs have become an essential tool for flood risk protection, assessing the health of ecosystems, protecting biodiversity, evaluating the state of our watersheds, and promoting sustainable practices. These programs contribute valuable data for informed decision-making, policy development, and community engagement in environmental conservation efforts. Details regarding current monitoring programs that the NPCA administers are found in forthcoming sections.

### 2.1 NPCA Hydrometric Monitoring Network

#### 2.1.1 Overview

The NPCA is responsible for managing and protecting watersheds, including addressing flood risks. On January 1, 2022, Ontario Regulation 686/21: Mandatory Programs and Services (O. Reg. 686/21) was implemented under the Conservation Authorities Act, requiring Conservation Authorities to provide programs and services related to the risk of natural hazards, including flood forecast and warning, and the management of water and erosion control structures that the Conservation Authority owns. The NPCA's Hydrometric Monitoring Program involves several key components:

- 1) **Hydrometric Monitoring:** Monitoring weather conditions, river levels, and other hydrological parameters is crucial for early detection of potential flood events. This monitoring is often done in real-time, and the data collected helps authorities make informed decisions.
- 2) **Forecasting and Warning Systems:** The objective of this program is to provide the delivery of timely and accurate flood forecasting information to the public, municipalities, first responders, and the media. Should conditions require that the NPCA issue a Flood Warning bulletin, the NPCA posts these messages on the NPCA website, social media platforms, and via email directly to municipalities, first responders, and the media. In the future, the NPCA would like to further develop forecasting models that predict potential flood events based on weather forecasts, river gauging, and other relevant data. These models will assist with issuing timely warnings to communities at risk, allowing for preparedness and evacuation measures.
- 3) **Community Outreach and Education:** Many programs include initiatives to educate the public about flood risks, emergency preparedness, and the importance of following evacuation plans. Public awareness campaigns contribute to community resilience and response during flood events.

- 4) **Infrastructure Management:** NPCA maintains infrastructure designed to manage water flow, such as dams. Regular monitoring, maintenance and upgrades are essential to ensure the effectiveness of these structures.
- 5) **Collaboration with Emergency Services:** NPCA often collaborates with emergency services, municipalities, and other relevant agencies to coordinate response efforts during flood events.

### 2.1.2 Monitoring Components

The first gauging of streams in the NPCA watershed in the 1950's was established by Environment Canada's Water Survey Division to quantify water resources. Over the years additional stream/river water level gauges were first added by Environment Canada and later by the NPCA. The NPCA modernized its Hydrometric Monitoring Network to include weather stations (rainfall, air temperature, wind speed and direction, soil moisture, barometric pressure, and solar radiation) and snow surveys (snow depth and water equivalent) (OMNR, 1985) across the NPCA watershed. All water quantity stations are shown in **Figure 1** and summarized in **Table 1**.

### 2.1.3 Data Management

NPCA Hydrometric Monitoring Network produces a large volume of stream level and climate data and currently stores this information in two separate databases. One is the WISKI Database, and the other is in the NPCA's SQL server. Staff are transitioning to process where data is configured and posted to Conservation Ontario's Web data viewer portal (<https://co-opendata-camaps.hub.arcgis.com/>) and Upper Thames River Conservation Authority Web data portal.

### 2.1.4 Program Reporting

The NPCA's Hydrometric Program is an integral component of the Flood Forecasting and Warning system, and its reporting requirements are those prescribed under regulation (O. Reg. 686/21). These reporting requirements include issuing flood messages to the municipalities and media within their jurisdiction as per respective flood message distribution lists. These messages are the result of NPCA staff providing on-going analysis and knowledge of current and forecasted local watershed and river conditions and flood potential within watershed jurisdiction. The NPCA provides near real-time hydrometric data to the public by posting to NPCA website (<https://npca.ca/watershed-health#flooding-stream-flow-monitoring>). Data can be observed or downloaded from the NPCA webpage.

## 2.2 Surface Water Quality Monitoring Program

### 2.2.1 Overview

The NPCA's Water Quality Monitoring Program focuses on the water quality conditions of streams, rivers, and water features of NPCA's watershed and Conservation Areas. Surface water quality monitoring within the NPCA watershed jurisdiction started with Ontario Ministry Environment Conservation and Parks (MECP) and the City of St. Catharines through the Provincial Water Quality Monitoring Network (PWQMN) dating back to the 1960s and 1970s. NPCA was involved in numerous

water quality related initiatives with its watershed partners but did not have a dedicated monitoring program until 2001, when the NPCA Water Quality Monitoring Program was initiated. The NPCA has since established an extensive network of monitoring stations located throughout its watershed jurisdiction with the purpose of gathering long-term data to assess the ambient water quality in local watersheds using a network of chemical and biological monitoring stations. The data collected contributes to the protection of aquatic ecosystems and public health. This monitoring also provides a high-level characterization of existing conditions on a watershed scale and allows for the identification of potential water quality issues in reference to the existing land uses present within the watershed. This network represents the largest and most comprehensive water quality monitoring program in the Niagara Peninsula. The NPCA monitoring network is operated in partnership with the MECP through the PWQMN, Regional Municipality of Niagara (RMN), Haldimand County and City of Hamilton. The NPCA's surface water monitoring program has been designed with flexibility in mind, enabling it to seamlessly integrate new monitoring initiatives. These include sampling programs to monitor contaminants of concern within the watershed, utilization of in-situ water quality datalogger technology, and the provision of fee-for-service biological monitoring services. The NPCA Surface Water Quality Program is summarized in **Table 2**.



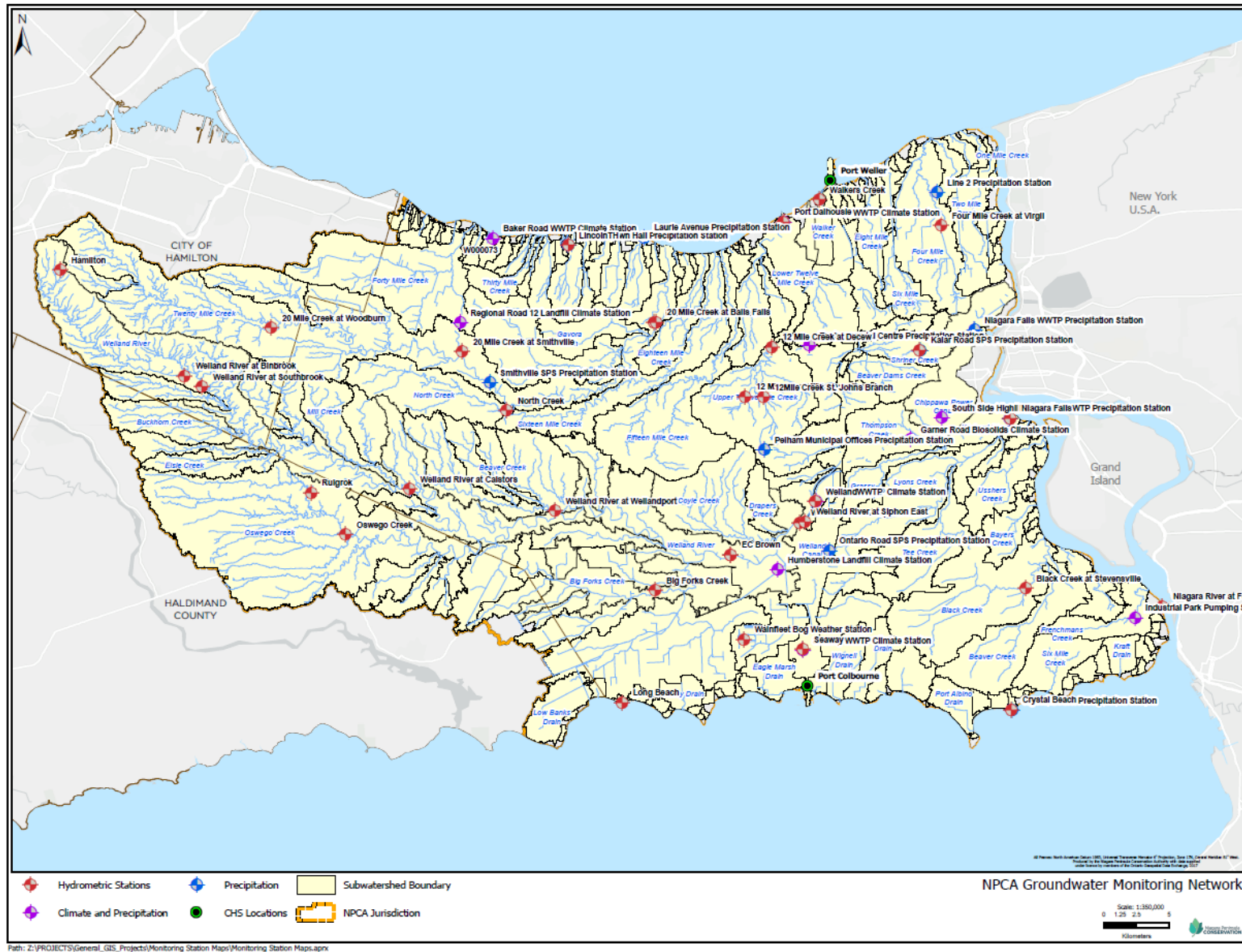
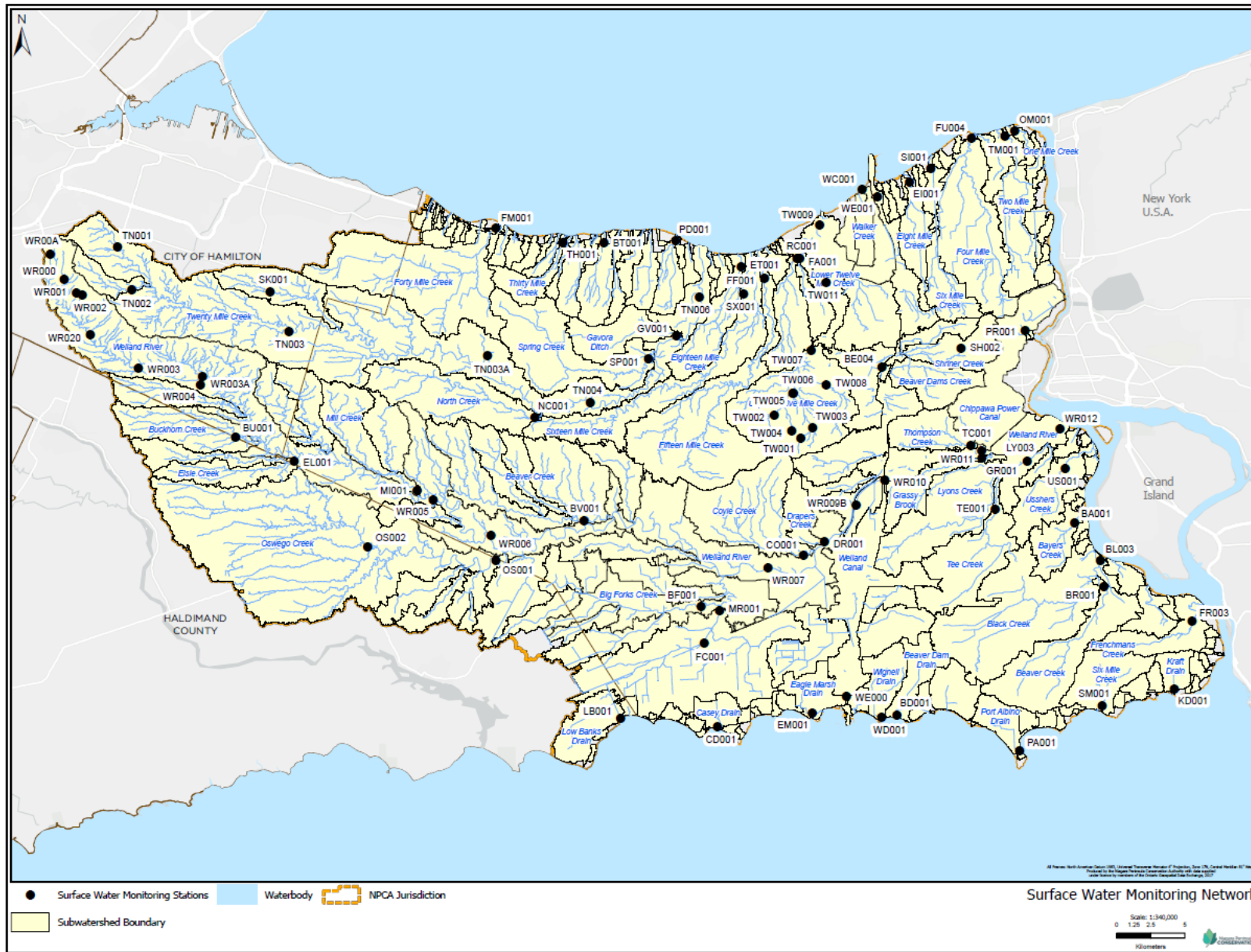


Figure 1. Current NPCA Climate and Hydrometric Network

**Table 1: Summary of the NPCA the current Hydrometric Monitoring Network.**

NPCA Monitoring Programs	Monitoring Components	Support Programs	Program Purpose
<b>Hydrometric Monitoring Network (Water Quantity and Climate) (2009-present)</b>	<ul style="list-style-type: none"> <li>➤ Water Level (19 Stations) &amp; Flow (7 Stations)</li> <li>➤ Snow Surveys (7 Stations)</li> <li>➤ Air Temperature (7 Stations)</li> <li>➤ Precipitation (11 Stations)</li> <li>➤ Wind Conditions (7 Stations)</li> <li>➤ Relative Humidity (2 Stations)</li> </ul>	Water Surveys Canada (WSC) and Niagara Region	<ol style="list-style-type: none"> <li>1) Watershed Management</li> <li>2) Flood Forecasting and Warning</li> <li>3) Climate Change Monitoring</li> <li>4) Water Budgets (Source Water Protection and Development Applications)</li> <li>5) Ontario Low Water Program</li> </ol>



**Figure 2:** NPCA Surface Water Monitoring Network Program Stations



Figure 3. NPCA Conservation Area Properties



**Table 2: Summary of NPCA Surface Water Quality Monitoring Program.**

NPCA Monitoring Program	Monitoring Components	Support Programs	Program Purpose
<p><b>Surface Water Quality Monitoring Program (2001-present)</b></p>	<ul style="list-style-type: none"> <li>➤ Surface Water Chemistry (83 Stations)</li> <li>➤ Benthic Macroinvertebrate Communities (65 Stations)</li> <li>➤ In Situ-Water Quality Sensors (6 Stations)</li> <li>➤ Stream Water Temperature (9-12 Stations)</li> <li>➤ Special Contaminates Polychlorinated Biphenyls (1 Station) and Per-Polyfluoroalkyl (1 Station)</li> <li>➤ Fluvial Geomorphology (40 Stations)</li> </ul>	<p>Ministry of Environment, Conservation and Parks (MECP)-Provincial Surface Water Quality Monitoring Program (PWQMN)</p>	<ol style="list-style-type: none"> <li>1) Watershed Management</li> <li>2) Ambient Watershed Surface Water Chemistry</li> <li>3) Conservation Area Surface Water Quality</li> <li>4) Twelve Mile Creek Polychlorinated Biphenyls Monitoring</li> <li>5) Lake Niapenco Per and Polyfluoroalkyl Substances Monitoring</li> <li>6) Municipal Landfill Monitoring</li> <li>7) Hamilton Airport Bioassessment</li> <li>8) Coldwater Watershed Monitoring</li> <li>9) Climate Change Monitoring</li> </ol>

## 2.2.2 Monitoring Components

### ***Ambient Watershed Surface Water Chemistry***

As of 2023 the NPCA Surface Water Chemistry Program currently monitors surface water quality at 83 stations (13 PWQMN & 70 NPCA) across 52 watersheds (**Figure 2**). Surface water samples are collected monthly eight times each year during the ice-free season and analyzed for several parameters including nutrients, metals, bacteria, suspended solids, and general chemistry using PWQMN sampling protocols (MECP, 2020). The NPCA's surface chemical monitoring program is supported in partnership with MECP (PWQMN) and the Niagara Region. Since 2019, additional winter surface water sampling is made available through the MECP at PWQMN monitoring stations.

### ***Biological Monitoring Benthic Macroinvertebrates***

The NPCA monitors benthic macroinvertebrates communities as a biological indicator of water quality conditions and overall health of a waterbody because they are sensitive to pollution and human disturbance. For the NPCA's benthic invertebrate monitoring program, samples are collected at 20-25 water quality stations yearly with every accessible surface water station being sampled once every 3 years (**Figure 2**). From 1996 to 2016 the NPCA used the Bioassessment of Water Quality (BioMAP) protocol (Griffiths 1999) for sample collection. In 2017, the NPCA transitioned to the Ontario Benthos Biomonitoring Network (OBBN) sampling protocol (Jones et al. 2006).

### ***In-Situ Stream Monitoring Program***

Since 2014, the NPCA has deployed in-situ water quality monitoring probes at several key stations used with the watershed. These probes have various water quality sensors like pH, temperature, conductivity, dissolved oxygen, and turbidity. Data from these sensors are logged hourly and are downloaded at monthly intervals. Since 2017, the NPCA has integrated six EXO Yellow Springs Instruments (YSI) water quality monitoring probes with 5 NPCA hydrometric stations and 1 at Lake Niapenco.

### ***Conservation Areas Surface Water Quality Monitoring Program***

The NPCA Water Quality Monitoring Program was expanded in 2017 to include the waterbodies of the Conservation Areas: Chippawa Creek, Jordan Harbour, Lake Niapenco, Mud Lake, St. John's Pond, Virgil Reservoir, Wainfleet Wetlands and Wainfleet Bog (**Figure 3**). Water samples are collected quarterly or seasonally during the year and analyzed for general chemistry, nutrients, metals, and bacteria.

### ***Conservation Areas Beach Monitoring Program***

In 2020, the NPCA initiated a Beach Monitoring Program at Long beach Conservation and Chippawa Creek Conservation Areas. This program replaced Niagara Public Health's Beach Monitoring Program. NPCA collects water quality sampling for bacterial (*E. coli*) counts every other week during the warmer

months, typically beginning in June, and through July and August Ontario (Ministry of Health 2019). The sampling is conducted at Long beach Conservation and Chippawa Creek Conservation Areas. After laboratory analysis, the NPCA posts most recent sampling data available on its webpage (<https://npca.ca/parks-recreation/beach-conditions>). The data collected through this program is not used to identify public health risk when swimming in natural water bodies but is used to determine long-term trends in the water quality at NPCA swimming areas over time.

### ***Stream Water Temperature Monitoring***

The focal point of this monitoring program is the upper Twelve Mile Creek watershed. This portion of the watershed contains the last remaining coldwater streams in the NPCA watershed. Coldwater streams are fed by groundwater, and they are characterized by sustained cold water temperatures year-round. These ecosystems support a unique aquatic community adapted for coldwater conditions and significant warming can impact coldwater species from these watersheds. Since 2013, the NPCA initiated a dedicated temperature monitoring program using a network of temperature dataloggers to identify and classify the thermal regime for the Twelve Mile Creek surface water sampling stations and identify any changes that may have occurred to the thermal stability of this watershed.

### ***Per and Polyfluoroalkyl Substances Monitoring Lake Niapenco***

Since 2012, the NPCA has been monitoring for Per - and polyfluoroalkyl substances (PFAS) in Lake Niapenco. PFAS were found in the plasma of snapping turtles at Lake Niapenco in 2009 and 2010 by an Environment Canada and Climate Change (ECCC) scientist as part of an organic toxins' accumulation study (de Solla et al. 2012). PFAS track down studies by MECP confirmed the presence of PFAS in Lake Niapenco and identified John C. Munro International Airport as the source of the contamination. The NPCA PFAS monitoring program consists of a single sample collected within Lake Niapenco in late June near the Conservation Area's beach area which provides data on the current PFAS concentrations within the lake.

### ***Lower Twelve Mile Creek Polychlorinated Biphenyls Monitoring Program***

In 2020, MECP and City of St. Catharines had been investigating potential offsite impacts on surface water of Twelve Mile Creek from a former industrial area. To support agency partners, the NPCA has developed a Polychlorinated Biphenyls (PCBs) sampling program that was initiated in September 2020. This program was designed to measure ambient water quality conditions upstream and downstream of the former industrial plant on 12 Mile Creek. This program included enhanced monitoring at the PWQMN station and reactivating a former monitoring site. Data from this program is sent quarterly to the City of St. Catharines and MECP staff.

### ***Glanbrook Landfill Biomonitoring Program***

At the request of the Glanbrook Landfill Committee, the City of Hamilton contracts the NPCA biennially (since 1996) to monitor macroinvertebrates upstream and downstream of the Glanbrook Landfill to assess any landfill impacts to the adjacent watercourses. The NPCA collects samples in the spring and fall of each monitoring year and a report is provided to the City of Hamilton and the Glanbrook Landfill Committee.

### ***Hamilton Airport Biomonitoring Program***

The Hamilton International Airport (HIA) contracts the NPCA to monitor macroinvertebrates in two watercourses that drain from the HIA property. The goal of this program is to determine if stormwater runoff and de-icing fluids such as propylene glycol are impacting surface water quality in two headwater tributaries of the Welland River. The NPCA has been collecting samples in the spring and fall of each since 1998 and the NPCA generates a separate report annually for the HIA for their exclusive information and use.

#### **2.2.3 Data storage**

The NPCA's Surface Water Quality Monitoring Program produces a large volume of data that includes stream water chemistry, benthic macroinvertebrate, geomorphological, and time series data through various water quality logger technology. The NPCA utilized several database options to manage these data. The NPCA uses an internal Microsoft Access database to store stream water chemistry data and Excel Database to store logger files. In addition, this program also uses KiWQM and KiECO, which are database management tools from KISTERS which stores both stream benthic macroinvertebrate and water chemistry data. NPCA staff can access the PWQMN data through MECP's Lab Online portal. The public can access PWQMN through the province's Open Data portal (<https://data.ontario.ca/dataset/provincial-stream-water-quality-monitoring-network>).

#### **2.2.4 Reporting**

The reporting of surface water quality is a mandated component of the NPCA's water quality monitoring program. The reporting component of the surface water quality data is implemented through the NPCA's water quality monitoring report that is published on an annual basis. This annual reporting uses both Provincial and Federal environmental thresholds such as the Provincial Water Quality Objectives (OMOE 1994) and Canadian Water Quality Guidelines (CCME 2011) and summarizes water chemistry data using the Canadian Water Quality Index (CCME 2001) and the Hilsenhoff Family Biotic Index (Hilsenhoff 1987). In addition, the annual reporting includes the NPCA's expanded surface monitoring programs such as in-situ water quality monitoring by data logger technologies and monitoring results of contaminants of concern. This product is published onto the NPCA webpage (<https://npca.ca/watershed-health#water-quality-monitoring>). The NPCA also participates with Conservation Ontario's Watershed Report Initiative and a portion of data from this program summarized

as part of Watershed Report Card (Conservation Ontario 2022) every 5 years (<https://npca.ca/watershed-health#report-cards>).

## 2.3 NPCA Groundwater Monitoring Program

### 2.3.1 Overview

The NPCA Groundwater Monitoring Network comprises of two parts. The first part is the Provincial Groundwater Monitoring Network (PGMN) which is a partnership between the MECP and the Conservation Authorities of Ontario. The PGMN was initiated in 2001 and is a province-wide groundwater monitoring program designed to collect long-term baseline data on groundwater quantity and quality in special areas of interest. The PGMN program has allowed for an accurate assessment of current groundwater conditions and provides information for making sound land use planning decisions. The information collected through the PGMN serves the critical need for baseline groundwater data in the NPCA watershed. Groundwater is monitored through a network of 15 PGMN monitoring wells located throughout the NPCA watershed in locally significant hydrogeological areas. The PGMN program allows for an accurate assessment of current groundwater conditions. It provides an early warning system for changes in water levels or in water quality and provides information for making sound land use planning decisions. The information collected serves the critical need for baseline groundwater data in the region. In 2014 and 2015, the NPCA expanded its groundwater monitoring through a partnership with the Ontario Geological Survey (OGS). Thirty-one monitoring wells were installed at 23 different locations across the NPCA watershed at the top of bedrock in an aquifer zone commonly known as the Contact-Zone Aquifer (**Figure 4**). Three of 23 locations have a set of nested monitoring wells installed at various depths within the overburden sediments. The NPCA Groundwater Quality Program is summarized in **Table 3**.

### 2.3.2 Monitoring Components

#### **Groundwater Levels**

The NPCA's Groundwater Monitoring Network measures groundwater levels in the major aquifers within the NPCA watershed. Groundwater monitoring wells are instrumented with Solinst Levelloggers which are water level dataloggers that use an absolute pressure sensor to detect the depth (or pressure) of water above the logger. These data loggers record groundwater levels hourly and are downloaded by staff 2 to 4 times per year. Groundwater level data files are corrected for barometric pressure from Solinst barologger. In addition, manual static water level measures are also taken to verify and correct water level data. These data assist the NPCA with characterizing the ambient groundwater conditions across the NPCA watershed.

## **Groundwater Chemistry**

Since 2002, the NPCA has been collecting groundwater samples annually in the fall for PGMN monitoring wells. In 2022, sampling was expanded to include the sampling of overburden wells in the spring. NPCA staff use a variety of groundwater pump technologies to collect water samples that follow the MECP sampling protocol. Groundwater samples are submitted and analyzed at the MECP laboratory for general chemistry, nutrients, and metals. For the NPCA's expanded groundwater monitoring network, samples are collected annually in the fall using a protocol developed by the NPCA hydrogeology staff. Groundwater samples collected from these wells are sent to a lab for analysis.

### **2.3.3 Data storage**

The NPCA's Groundwater Monitoring Program produces a large volume of data that includes hourly groundwater level data and water chemistry data. The NPCA utilized several database options to manage these data. For PGMN, the MECP has uses WISKI, a database management tool from KISTERS which stores both groundwater level and water chemistry data. NPCA staff can access the PGMN data through the province's ONE KEY portal. In addition, PGMN data can also be accessed by the public through a website (<https://www.ontario.ca/page/map-provincial-groundwater-monitoring-network>). The NPCA also stores the PGMN water chemistry data with an internal Microsoft Office Access database. The NPCA stores non-PGMN groundwater data that includes groundwater levels and water chemistry data on an NPCA KISTERS WISKI database.

### **2.3.4 Reporting**

The reporting of groundwater data is a mandated component of the NPCA's water quality monitoring program. The reporting component of the groundwater data is implemented through the NPCA's annual water quality monitoring reports. The annual report presents groundwater data using charts that show groundwater level data for the entire time record for each monitoring well in the program. In addition, groundwater chemistry data compared against Ontario Drinking Water Standards (MOE 2003) and is summarized in the NPCA's annual report (NPCA 2024). This product is published onto the NPCA webpage (<https://npca.ca/watershed-health#water-quality-monitoring>). The NPCA also participates with Conservation Ontario's Watershed Report Initiative and a portion of data from this program summarized as part of Watershed Report Card every 5 years (<https://npca.ca/watershed-health#report-cards>).



**Table 3: Summary of NPCA Groundwater Quality Monitoring Program**

NPCA Monitoring Program	Monitoring Components	Support Programs	Program Purpose
<p><b>Groundwater Monitoring Program (2002-present)</b></p>	<ul style="list-style-type: none"> <li>➤ Groundwater Chemistry (36 Stations)</li> <li>➤ Groundwater Levels (46 Stations)</li> </ul>	<p>Ministry of Environment, Conservation and Parks (MECP)-Provincial Groundwater Monitoring Program (PGMN)</p>	<ol style="list-style-type: none"> <li>1) Watershed Management</li> <li>2) Ontario Low Water Program (groundwater)</li> <li>3) Ambient Watershed Ground Water Quality</li> <li>4) Ambient Watershed Ground Water Quantity</li> <li>5) Climate Change Monitoring</li> <li>6) Water Budgets and Resource Assessment</li> </ol>



## 2.4 NPCA Ecological Monitoring Program

### 2.4.1 Overview

The NPCA manages 41 Conservation Areas (**Figure 3**) within the Niagara Peninsula watershed and includes forests, wetlands, areas of natural and scientific interest, recreational lands, natural heritage, and cultural sites, as well as land for flood and erosion control. The forests, wetlands, and other natural features and ecosystems found within the NPCA's Conservation Areas protect and improve water quality and quantity, reduce flooding, act as drinking water sources, and provide habitats for a wide range of wildlife, fish, and birds. Ecological monitoring of NPCA's Conservation Areas informs our ecological restoration efforts, helps to identify areas that require management activities, and assists with maintaining biodiversity on our NPCA properties, which can help to prevent and reduce the harmful impacts of climate change. The NPCA has developed several ecological monitoring programs for its Conservation Areas to assess a variety of management areas.

### 2.4.2 Monitoring Components

The Ecological Monitoring Program consists of a variety of flora, fauna, ecosystem, and groundwater components established throughout the NPCA's 41 Conservation Areas. These programs are summarized in **Table 4**.

### 2.4.3 Data storage

The NPCA's Ecological Monitoring Program's datasets are complex and contain a variety of species lists, population, and observation data. This program also generates large volumes of logger data associated with groundwater monitoring and bat monitoring files. For data storage and maintenance staff use Microsoft Excel databases. Staff have also developed a data dictionary ensuring information can be accessed by all staff. Data can be accessed by partners and the public through data requests to NPCA staff.

### 2.4.4 Reporting

The NPCA's Ecological Monitoring Program produces technical ecological reports and summaries related to Conservation Area land management and monitoring programs as required. These reports are not currently published publicly, however, data can be requested through NPCA staff. Monitoring and inventory results may also be used to support watershed and subwatershed planning and research initiatives.

**Table 4: Summary of NPCA Conservation Areas Ecological Monitoring Program**

NPCA Monitoring Program	Monitoring Components	Support Programs	Program Purpose
<p><b>Conservation Areas Ecological Monitoring Program (1998-present)</b></p>	<ul style="list-style-type: none"> <li>➤ Fish Communities</li> <li>➤ Wildlife Communities</li> <li>➤ Forest Vegetation</li> <li>➤ Benthic Macroinvertebrate Communities</li> <li>➤ Wetland Vegetation</li> <li>➤ Tree Health</li> </ul>	<p>Ontario Ministry of Natural Resources and Forestry</p>	<ol style="list-style-type: none"> <li>1) Conservation Area Land Management</li> <li>2) Gypsy Moth Population Monitoring</li> <li>3) Wainfleet Bog Groundwater Level Monitoring</li> <li>4) Conservation Area Restoration Projects</li> <li>5) Species at Risk Monitoring</li> <li>6) Old Growth Monitoring</li> <li>7) Red Mulberry Propagate Monitoring</li> <li>8) Bat Monitoring</li> <li>9) Mud Lake and Wainfleet Wetlands Monitoring</li> <li>10) Invasive Species Monitoring</li> <li>11) Conservation Area Resource Inventory</li> <li>12) St. Johns Pond Monitoring</li> <li>13) Climate Change Monitoring</li> </ol>

## 2.5 NPCA Restoration Program Monitoring

### 2.5.1 Overview

The NPCA’s Restoration Monitoring Program was developed in 2021 to allow staff to track project progression after implementation, provide a quality control mechanism and measure project success. The data from this program is used for adaptive management to guide decision-making, inform on future project plans and budgets, and develop more efficient management strategies for future projects.

### 2.5.2 Monitoring Components

This program monitors a variety of components including survival rates for planting sites (tree and shrub sites) and general growth/progress of other restoration projects (herbaceous ground cover and water retention for wetland projects, erosion and cover for instream projects or grassed waterways). Qualitative data such as photo monitoring points, landowner surveys and quantitative data are collected through circle plots, survival assessments, and GIS project points/lines/polygons. Project monitoring is initiated in year 1, and continues to year 4, and year 10 after project implementation and completion. The Restoration Monitoring Programs is summarized in **Table 5**.

<b>Table 5: Summary of NPCA Restoration Monitoring Program</b>		
<b>NPCA Monitoring Program</b>	<b>Monitoring Components</b>	<b>Program Purpose</b>
<b>Restoration Monitoring Program (2022-present)</b>	➤ <b>Forest and Wetland Vegetative Communities</b>	<b>1) Watershed Management</b> <b>2) Restoration Program Adaptive Management</b>

### 2.5.3 Data storage

The Restoration Monitoring Program uses an ArcGIS Survey 123 App developed in-house by NPCA GIS staff for monitoring surveys accessible to staff through a web browser in tables and dashboards. This program also uses ArcGIS Pro and Field Maps for all circle plot points and project points/lines/polygons. Photo monitoring data created in Field Maps are saved in ArcGIS Pro webservice and backed up in ArcGIS Pro geodatabases. Additional data and photos are stored in Microsoft SharePoint in Excel spreadsheets, Microsoft Word documents, and photo folders.

### 2.5.4 Reporting

The Restoration Division Staff create reports summarizing monitoring efforts including key findings, notes about relevant sites, and a list of projects that require follow-up work. Where required, projects are stamped by a professional forester and submitted to funding agencies with invoices to receive external funding.

## 2.6 Environmental Permissions

### 2.6.1 Overview

MECP and Public Health Units require the NPCA to have monitoring programs in place to support a variety of environmental permissions related to Conservation Area services and infrastructure. These include Environmental Certificate Approvals, Public Health Directives and Permit-to-Take Water. These monitoring programs are summarized in **Table 6**.

<b>Table 6: Summary of NPCA Environmental Permissions</b>		
<b>NPCA Monitoring Program</b>	<b>Monitoring Components</b>	<b>Program Purpose</b>
<b>MECP Environmental Permissions</b>	<ul style="list-style-type: none"> <li>➤ <b>Water Chemistry (3 Sewage Sites &amp; 4 Drinking Water Systems Sites)</b></li> <li>➤ <b>Surface Water Levels (2 Sites)</b></li> </ul>	<ol style="list-style-type: none"> <li><b>1) Environmental Compliance Approval for Septic Systems and Sewage Lagoons Monitoring Program.</b></li> <li><b>2) Public Health Directive for Small Drinking Water Systems</b></li> <li><b>3) Permit to Take Water Reporting Requirement</b></li> </ol>

### 2.6.2 Monitoring Components

#### ***Environmental Compliance Approvals***

The NPCA currently operates 3 on-site sewage treatment facilities that require a MECP Environmental Compliance Approval (ECA). These facilities include:

- 1) Balls Falls Centre for Conservation
- 2) Balls Falls Field Centre, Event Barn, and Washrooms building.
- 3) Long Beach Sewage Lagoons

The MECP requires through ECAs that all these facilities to be monitored to ensure the effectiveness of the Works through the collection of samples. For the Balls Falls Centre for Conservation, monthly samples of treated effluent are required. For the Balls Falls Field Centre facilities triannual (spring, summer, and fall) samples from two groundwater monitoring wells (two wells down-gradient from the Field Centre system Type A Dispersal Bed) and triannual samples from two surface water stations on Twenty Mile Creek (one upstream and one downstream of the Works) is required. The ECA for Long Beach Sewage Lagoon facility requires spring sampling of lagoon samples in Cell 1, Cell 2, and the

receiving ditch. NPCA is required to collect samples until the MECP effluent limits are met. For discharge of the sewage lagoon the NPCA is also required collect 1 sample from the receiving ditch during the release, and after the release.

### ***Small Drinking Water Systems***

The NPCA's Small Drinking Water Systems are located at Balls Falls, Binbrook, Chippawa Creek, Long Beach and Balls Falls Conservation Areas (**Figure 3**). The NPCA is required by the Health Protection and Promotion Act, Ontario Regulation 319/08: Small Drinking Water Systems to sample, test, monitor and report on the water quality of the small drinking water systems. Public health inspectors have been mandated to conduct a site-specific risk assessment on small drinking water systems in the province.

### ***Permit to Take Water***

As a requirement of the MECP's Permit to Take Water (PTTW), the NPCA monitors water levels at Binbrook Reservoir and Virgil Dams (**Figure 3**). At the Virgil Dams, water levels are monitored using data loggers. These sensors collect data at specific logging intervals at designated locations as per the requirement of the PTTW. In the case of the Binbrook Reservoir, estimates of dam discharges for the PTTW based on engineered rating curves determined by NPCA hired consultants.

#### 2.6.3 Data storage

Data collected through the Environmental Permissions Monitoring Programs are stored and maintained by staff using Microsoft Excel databases.

#### 2.6.4 Reporting

There is a different reporting requirement for each of the environmental permissions.

### ***Environmental Compliance Approvals (ECAs)***

The ECA requires that a performance report for all these facilities be completed within 90 days following the end of each operational season. NPCA generates a separate report for the MECP for their exclusive information and use.

### ***Small Drinking Water Systems***

To ensure there the NPCA provides safe drinking water, the public health units have required the NPCA to collect bacteria samples. The NPCA is subject to health unit inspections, required to maintain sampling records and report any adverse results of small drinking water systems.

### ***Permit to Take Water***

The NPCA provides the MECP with annual reporting for the PTTW for the Binbrook Reservoir and Virgil Dams. The NPCA generates a separate report for the MECP for their exclusive information and use.

## 2.7 Stewardship and Community Science Monitoring

### 2.7.1 Overview

The NPCA's stewardship and community science monitoring program are interconnected approaches that involve community engagement and active participation in the protection and understanding of the environment. The stewardship component emphasizes responsible resource management, while the community science monitoring component harnesses the collective power of community members to contribute to scientific research and environmental monitoring. The data from this program is used for adaptive management to guide decision-making based around stewardship and community science monitoring.

### 2.7.2 Monitoring Components

The NPCA's Stewardship and Community Service Monitoring program include the following:

- 1) The NPCA's Community Stewardship Monitoring tracks volunteer statistics such as number of volunteers, number of planting days and number of projects as a tool to assess community engagement and management decisions.
- 2) The NPCA's Bluebird Box Community Science Monitoring Program is led by the NPCA but implemented by volunteers. The monitoring site locations include Ball's Falls, Binbrook and the St. John's Valley Centre. Volunteers for this program monitor the boxes and report on the species nest types, number of eggs, number of fledglings and predation. Volunteers also clean the boxes out in the spring each year to make room for new nests.
- 3) The NPCA is a regional coordinator of the Birds Canada Marsh Monitoring Program. With this program, volunteers are required to select a sample station from a designated list and visit the same station 3 times throughout spring to summer and record either amphibian or bird species that are calling. The protocol used for this program is from Birds Canada.
- 4) The NPCA's Turtle Tally program uses volunteers to monitor specific road crossings daily between spring and fall to record turtle deaths and sightings at those crossings and locations.
- 5) The NPCA Trail Ambassadors allows volunteers to use NPCA-created Apps to report incidents, issues, and concerns on NPCA trails to trigger reports that are managed by NPCA staff.

### 2.6.3 Data storage

The NPCA's Stewardship and Community Service Monitoring datasets are stored and maintained by staff using Microsoft Excel databases. Data can be accessed by partners and the public through data requests to NPCA staff.

### 2.6.4 Reporting

There is no formal reporting component to this program, however data is shared with partner agencies upon request and statistics are used in NPCA social media and the corporate NPCA Annual Report.

## 3.0 INTEGRATED WATERSHED MONITORING PROGRAM

### 3.1 Background: Integrated Watershed Monitoring

Integrated watershed monitoring is defined as a comprehensive and systematic approach to collecting, analyzing, and interpreting data related to the various components of a watershed. Integrated watershed monitoring programs aim to assess and understand the ecological, hydrological, and environmental conditions over time and space within a watershed to support effective management and conservation efforts. Watershed ecosystems and their components are linked, and implementing an integrated approach provides an understanding of these relationships. This is critical for the NPCA watershed as there are anthropogenic stressors threatening our ecosystems. The key components of integrated watershed monitoring include Water Quality Monitoring, Hydrometric Monitoring, Ecological Monitoring, Land Use and Land Cover Monitoring, Socioeconomic Data, Geospatial Data and Community Engagement. The integration of data from these various components provides a holistic understanding of the watershed's functions, allowing stakeholders to make informed decisions about resource management, environmental protection, and land use planning.

Integrated watershed monitoring programs are often long-term initiatives, as they aim to capture the dynamics and changes occurring within the watershed over time. The data collected through these programs contribute to sustainable watershed management, conservation of biodiversity, and the protection of valuable ecosystem services.

### 3.2 The Rationale for an NPCA Integrated Watershed Monitoring Program

The NPCA 10-year (2021-2031) Strategic Plan has identified an Integrated Watershed Monitoring Program (IWMP) as a critical priority to help achieve several strategic goals and actions related to Healthy and Climate Resilient Watersheds (Goals 1.1, 1.2, 1.3 and 1.4), Supporting Sustainable Growth (Goals 2.2 and 2.3), Connecting People to Nature (Goals 3.1 and 3.2), Partner of Choice (Goals 4.1 and 4.3), Organizational Excellence (Goal 5.2) and Financial Sustainability (Goal 6.2). The program supports NPCA's vision of "Nature for all" that envisions a healthy and vibrant environment with shared greenspace and clean water that sustains life for future generations.

The NPCA is well-positioned to transition and implement an IWMP as part of its core service delivery. The NPCA has conducted a watershed monitoring gap analysis (**Table 7**) to assess the strengths and weaknesses of an existing watershed monitoring program. This analysis was designed to identify gaps

or deficiencies in the current monitoring efforts to help improve the overall effectiveness of data collection and analysis within a watershed to address those data gaps.

<b>Table 7: Key Identified Gaps in NPCA Monitoring</b>	
<b>Monitoring Gaps</b>	
<b>Hydrometric Monitoring</b>	<ul style="list-style-type: none"> <li>➤ Baseflow / Low-Flow Surveys</li> <li>➤ Watershed Discharge Data</li> <li>➤ Expanded Watershed Coverage of Stream Flow Network</li> </ul>
<b>Surface Water Monitoring</b>	<ul style="list-style-type: none"> <li>➤ Wet Weather or Event-Based Monitoring</li> <li>➤ Winter Water Quality Monitoring</li> <li>➤ Fisheries (Fish Communities and Fish Habitat)</li> <li>➤ Stream Fluvial Geomorphology and Erosion Monitoring</li> <li>➤ Coastal/Shoreline Ecosystem Monitoring</li> </ul>
<b>Groundwater Water Monitoring</b>	<ul style="list-style-type: none"> <li>➤ Wetland Hydrology-Groundwater-Surface Water Interaction</li> </ul>
<b>Terrestrial Monitoring Program</b>	<ul style="list-style-type: none"> <li>➤ Watershed Forest Community and Health Monitoring</li> <li>➤ Watershed Wetland Community Monitoring</li> <li>➤ Wildlife (Birds and Amphibians)</li> <li>➤ Coastal/Shoreline Ecosystem Monitoring</li> </ul>

In addition, the NPCA's existing monitoring programs will provide the baseline infrastructure to implement and build a new IWMP. This infrastructure includes existing monitoring program staff, equipment, reporting intervals, database management systems, GIS capacity, web-based tools, and recognition across the watershed. Opportunities to expand the IWMP will be further explored to provide additional internal and external services to meet the watershed resource management needs of the NPCA and our partners. The NPCA's current monitoring programs were designed to be highly flexible for expansion to incorporate additional monitoring components to identify and understand watershed stressors. This is demonstrated with expansion of monitoring components within the NPCA's Water Quality Monitoring Program from 2001 to 2023 (**Figure 5**).



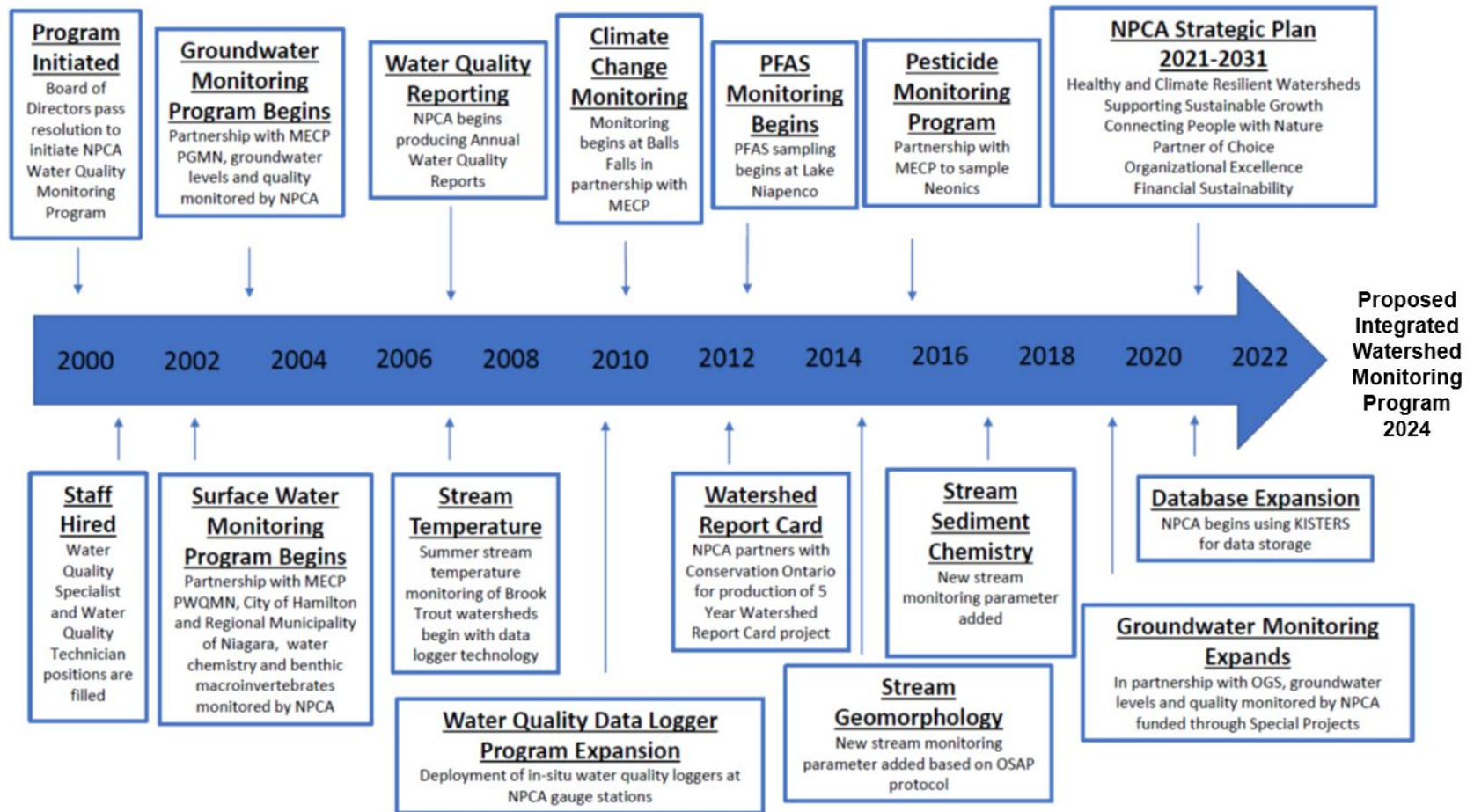


Figure 5. NPCA Water Quality Monitoring Program evolution

The NPCA's Integrated Watershed Monitoring Program (IWMP) will be designed to systematically collect and analyze data on various aspects of a watershed's environment, including its water quality, water quantity, land use, natural hazard risks, and ecological health. The rationale for the NPCA implementing such a program is grounded in several key considerations:

- 1) **Comprehensive Understanding:** The NPCA watersheds are complex and interconnected systems where various natural and human-induced factors can influence water quality, quantity, natural hazards, and overall health. An integrated monitoring program provides a comprehensive understanding of these interrelations, allowing for a more holistic view of watershed dynamics.
- 2) **Identifying Trends and Changes:** Long-term monitoring helps identify trends and changes within a watershed over time. This information is critical for distinguishing between natural variability and anthropogenic impacts, enabling timely and effective management responses to emerging issues.
- 3) **Early Detection of Issues:** Integrated monitoring allows for the early detection of potential problems such as pollution, habitat degradation, or changes in water flow patterns. Early identification provides an opportunity for proactive management interventions, helping to prevent or mitigate negative impacts.
- 4) **Effective Decision-Making:** Allow the NPCA to rely on accurate and up-to-date information to make informed decisions about land use, resource management, natural hazard management and environmental protection. An integrated monitoring program contributes to evidence-based decision-making.
- 5) **Sustainable Resource Management:** Watersheds are essential for providing various ecosystem services, including clean water, habitat for wildlife, and recreational opportunities. Monitoring helps ensure the sustainable management of these resources by providing information on water quality, biodiversity, and ecosystem health.
- 6) **Climate Change Adaptation:** As climate change continues to impact weather patterns and hydrological cycles, an integrated monitoring program is essential for assessing the effects on watersheds, including natural hazards. This information is crucial for developing adaptive strategies to address changing conditions and mitigate potential risks.
- 7) **Community Engagement and Education:** An integrated monitoring program fosters community engagement by involving the public, schools, and organizations in data collection and interpretation. This engagement enhances public awareness and understanding of watershed issues, leading to more informed and environmentally conscious communities.
- 8) **Regulatory Compliance:** There are regulations and standards which governing water quality and environmental protection in Ontario and Canada. An integrated monitoring program helps ensure compliance with these regulations by providing the necessary data for reporting and assessment.

- 9) **Research and Innovation:** Integrated watershed monitoring programs contribute valuable data for scientific research and innovation. The NPCA’s data can be used researchers to study ecological processes, develop models, and advance our understanding of complex environmental systems and adaptive management approaches.
- 10) **Continuous Improvement:** Regular monitoring allows for the continuous improvement of adaptive management strategies. By assessing the effectiveness of implemented measures, the NPCA can adjust management plans and strategies based on real-world data and outcomes.

In summary, the rationale for an integrated watershed monitoring program revolves around the need for a comprehensive understanding of watershed dynamics, early detection of issues, informed decision-making, and the sustainable management of water resources, natural hazards and ecosystems.

### 3.3 Integrated Watershed Monitoring Program Advisory Group

The development of a comprehensive IWMP required a collaborative approach across divisions and departments of the NPCA. The NPCA formed an Internal Integrated Watershed Monitoring Program Advisory Group (**Table 8**) which met to scope the program, prioritize monitoring components, and assess NPCA resources to identify in-house technical experts.

<b>Table 8. Internal Integrated Watershed Monitoring Program Advisory Group</b>	
<b>Committee Members</b>	<b>Expertise</b>
<b>Director, Watershed Strategies and Climate Change</b>	Corporate Director
<b>Manager Watershed Monitoring and Reporting</b>	Program Administrator
<b>Water Quality Specialist</b>	Water Quality and Aquatic Ecology
<b>Ecologist</b>	Terrestrial Ecology
<b>Manager Ecological Planning</b>	Ecology Principles Applied through Planning and Permit Applications
<b>Manager of Conservation Area Land Planning</b>	Conservation Area Management Plans
<b>Hydrogeology Specialist</b>	Groundwater
<b>Restoration Specialist</b>	Restoration Ecology
<b>Program Coordinator, Watershed Strategies and Climate Research</b>	Climate Change Research and Innovation, and GIS Landscape Analysis
<b>Senior Manager Integrated Watershed Strategies</b>	Integrated Watershed Management

<b>Flood Risk Management Officer</b>	Water Quantity and Climate Data
<b>Conservation Areas Programs &amp; Services</b>	Conservation Area Compliance Monitoring
<b>Water Resources Engineer</b>	Stormwater Management

Upon completion of the NPCA Integrated Watershed Monitoring Program (IWMP), the Advisory Group will transition to a Working Group that will ensure that this program meets the strategic goals and actions of NPCA 2021-2031 Strategic Plan and lays the groundwork for a long-term sustainable program. Working group members will collaborate on program implementation and maintenance, the analysis and synthesis of monitoring results, reporting requirements, review monitoring program requirements/priorities/plans, identify stakeholders and partners, assess staff and equipment resources, and identify potential funding sources. The Working Group will be an integral part of the adaptive management framework of the IWMP where the Working Group can learn to track the program’s performance and impacts of actions and to inform refinement and new action.

In addition, as the IWMP becomes resourced and implemented, the NPCA will begin collaborating external stakeholders such as municipalities, other governmental agencies, academic institutions, and environmental groups to assess their monitoring needs for data and exchange of expertise. This will also be critical to shaping the Monitoring Areas of the NPCA’s IWMP.

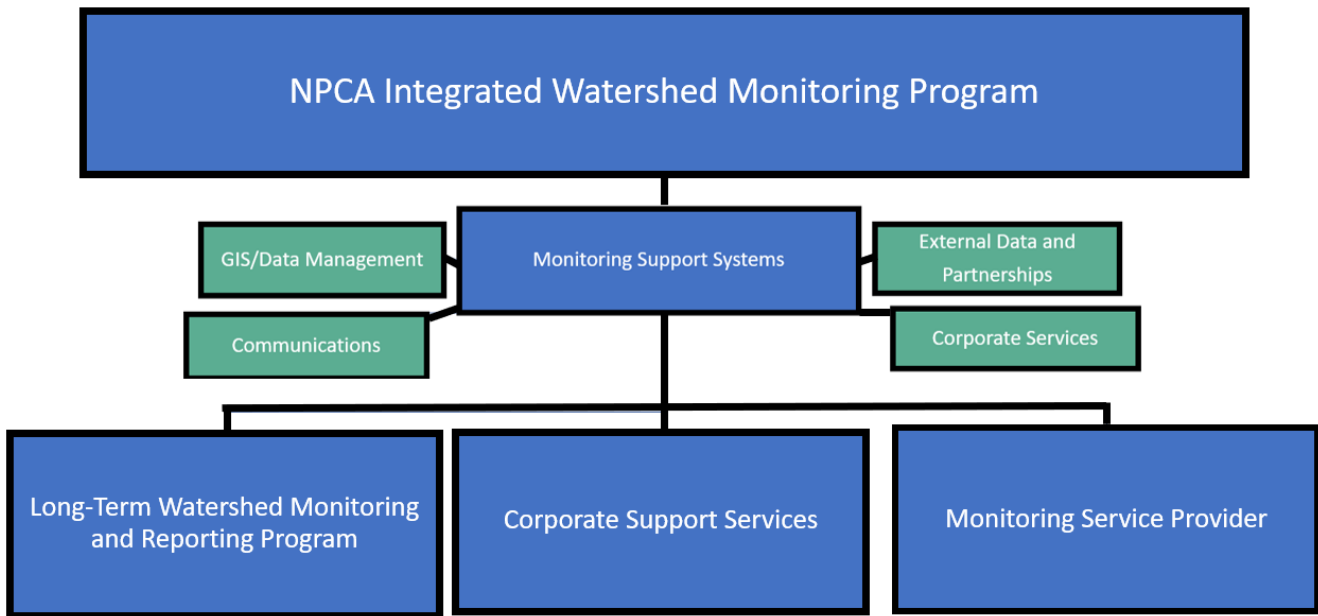
### 3.4 Overview of NPCA’s Integrated Watershed Monitoring Program

The NPCA’s Integrated Watershed Monitoring Program (IWMP) has the following high-level goal to achieve the strategic targets and actions of NPCA 2021-2031 Strategic Plan and build a long-term sustainable program. To support this program's goal, a conceptual model has been developed that identifies three key Watershed Monitoring Program Areas and four key Monitoring Support Systems necessary to achieve its goal.

The goal of the NPCA Integrated Watershed Monitoring Program is to comprehensively assess the ecological health and resilience of the watershed through monitoring initiatives, to inform evidence-based conservation and management strategies for the NPCA watershed.

This conceptual model was developed in collaboration with the Internal Integrated Watershed Monitoring Program Advisory Group. The three Monitoring Program Areas are Long-Term Watershed Monitoring, Corporate Support Services, and Monitoring Service Provider. The four Monitoring Support Systems include Data Management, GIS, Communications and External Partnerships and External

Data. This model is shown in **Figure 6**. Further refined goals have been developed for the specific program areas.



**Figure 6.** NPCA Integrated Watershed Monitoring Program Model

### 3.4.1 Monitoring Support Systems

Corporate Services, Geographic Information Systems (GIS) and Data Management, Communications, and external resources (partnerships and data) are crucial monitoring support systems for the NPCA IWMP. GIS provides spatial analysis and visualization capabilities, allowing the NPCA to map, monitor, and manage natural resources accurately. Communications systems facilitate the timely dissemination of information, ensuring that stakeholders are informed and responsive to environmental changes. Robust data management ensures the collection, storage, and analysis of vast amounts of environmental data across the agency, making it accessible and useful for decision-making. External partnerships enhance the reach and impact of the NPCA’s IWMP by pooling data, resources, and knowledge from various organizations. Collectively, these elements enable a comprehensive approach support to the IWMP.

## 4.0 NPCA LONG-TERM MONITORING AND REPORTING PROGRAM

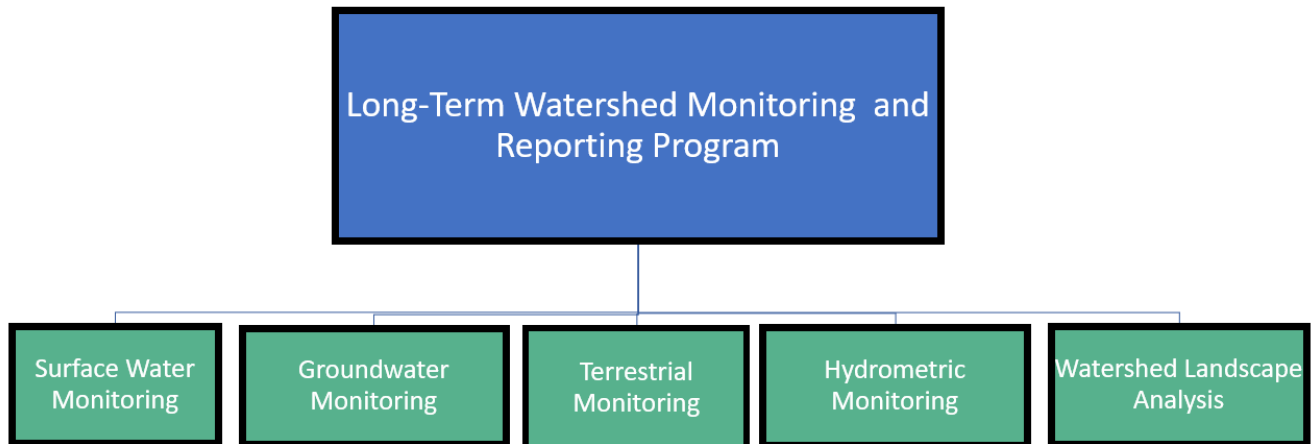
Long-Term Watershed Monitoring is a priority program for the NPCA's Integrated Watershed Monitoring Program. This program is identified as holding significant value for understanding and managing natural hazards and ecosystems with the NPCA watershed. In addition, this program will provide a foundation for scientific research, conservation initiatives, and informed decision-making. It will contribute to the NPCA's ability to sustainably manage and protect ecosystems, ensuring their resilience in the face of ongoing environmental changes. Here are several key aspects highlighting this program's importance:

- 1) **Baseline Data:** Long-term monitoring provides a baseline of watershed conditions, offering a reference point against which changes can be measured. This baseline is essential for distinguishing natural variability from anthropogenic influences.
- 2) **Detecting Trends and Changes:** Natural systems are dynamic and can undergo gradual or sudden changes. Long-term monitoring will the NPCA to detect trends and changes over time, providing insights into the factors driving ecological shifts.
- 3) **Ecosystem Health Assessment:** By continuously monitoring various ecological parameters, the NPCA will be able to assess the overall health of ecosystems. This includes tracking changes in biodiversity, ecosystem structure, and the abundance of key species, which are crucial indicators of ecosystem health.
- 4) **Early Warning for Disturbances:** Long-term monitoring can serve as an early warning system for ecological disturbances such as disease outbreaks, invasive species introductions, or habitat degradation. Rapid detection enables timely responses to mitigate negative impacts.
- 5) **Climate Change Impacts:** Long-term ecological monitoring plays a crucial role in understanding and documenting the impacts of climate change on natural hazards and ecosystems. Changes in temperature, precipitation, and other climate variables can be tracked, aiding in the assessment of adaptive responses and mitigation options.
- 6) **Conservation Planning and Management:** The data collected through long-term monitoring contributes to evidence-based conservation planning and management. This information helps identify priority areas for conservation, assess the effectiveness of conservation strategies, and guide adaptive management practices.
- 7) **Research and Scientific Understanding:** Long-term data sets are valuable for scientific research, enabling researchers to investigate natural processes within the watershed, test hypotheses, and develop and refine models. This contributes to a deeper understanding of the complex interactions within watersheds and ecosystems.
- 8) **Ecosystem Services Assessment:** Long-term monitoring helps quantify and assess the various ecosystem services provided by natural environments, such as water purification,

pollination, and carbon sequestration. This information is critical for making informed decisions about sustainable resource use.

- 9) **Policy Development and Decision-Making:** Policymakers rely on long-term watershed monitoring data to formulate environmental policies. Informed decision-making is essential for addressing emerging ecological challenges and ensuring the sustainable use of natural resources and management of natural hazards.
- 10) **Public Awareness and Education:** Long-term monitoring results can be communicated to the public, raising awareness about environmental issues, and fostering a sense of stewardship in the NPCA watershed. Education based on real-world watershed data enhances public understanding and support for conservation efforts.

The NPCA Long-Term Watershed Monitoring and Reporting Program will consist of five monitoring units. These include Surface Water Monitoring, Groundwater Monitoring, Terrestrial Monitoring, Hydrometric Monitoring and Watershed Landscape Analysis **Figure 7**. These units are further specialized and consist of a combination of the existing NPCA programs and new monitoring components that are integrated into a comprehensive network providing a holistic understanding of the NPCA natural resources.



**Figure 7.** NPCA Long-Term Integrated Watershed Monitoring and Reporting Program.

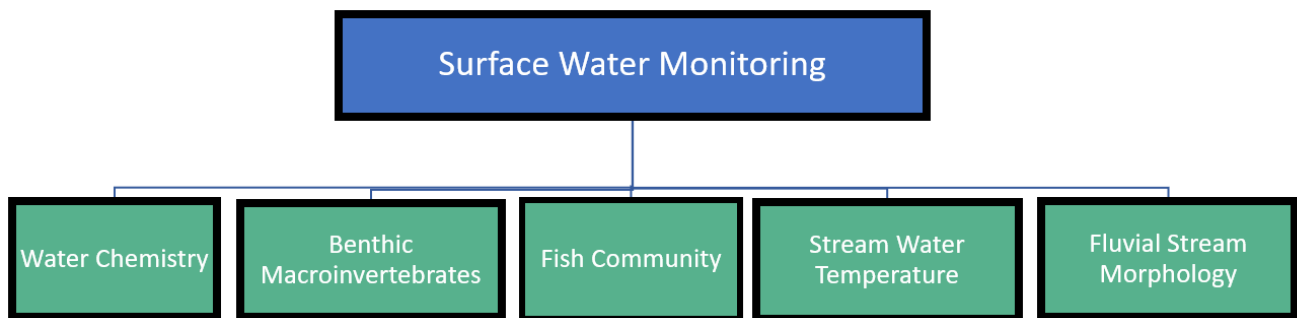
## 4.1 Program Goal

The goals of the NPCA Long-Term Integrated Monitoring and Reporting Program are:

- To establish baseline conditions by understanding natural variability and ecological thresholds within the NPCA watershed
- To assess the temporal and spatial conditions of aquatic and terrestrial resources at various locations across the watershed compared to established baselines
- To identify potential stressors and emerging threats that could be addressed through other programs

### 4.1.1 Surface Water Monitoring

The NPCA’s proposed Surface Water Monitoring Program will consist of five monitoring components which include the existing NPCA’s water chemistry, stream benthic macroinvertebrates and stream temperature monitoring components and new NPCA monitoring initiatives such as fish communities and fluvial geomorphology **Figure 8**.



**Figure 8.** NPCA Long-Term Integrated Surface Water Monitoring Program.

#### **Water Chemistry**

The NPCA’s Integrated Long-Term Watershed Monitoring Program surface water chemistry monitoring component will consist of the previous Ambient Watershed Surface Water Chemistry and Conservation Areas Surface Water Quality Monitoring Programs as well as the In-Situ Stream Monitoring Program. The sampling network, protocols and equipment maintenance methodologies will remain unchanged, ensuring consistency and reliability in the collected data. This continuation guarantees the program’s ability to track long-term trends and assess the health of water bodies in the NPCA watershed. This will ensure the program can provide accurate and actionable assessments into surface water quality chemistry, facilitating informed decision-making and environmental management efforts. The Surface Water Chemistry monitoring component is summarized in **Table 9**.



**Table 9: Water Chemistry Monitoring Components**

Total Number of Stations	Sample	Frequency of Sampling	Sampling Protocol
83	Grab Sample	8 Times Monthly (ice-free season)	Provincial Water Quality Monitoring Protocol
8	Grab Sample	2 Times (Jan-Mar)	
6	Continuous Deployed Water Quality Sensor and Logger	Winter PWQMN stations only	NPCA Protocol and YSI Inc.

**Benthic Macroinvertebrates**

The NPCA’s Integrated Long-Term Watershed Monitoring Program benthic macroinvertebrate monitoring component will continue in its existing form, maintaining its essential role in assessing the health and ecological integrity of aquatic ecosystems. This established program utilizing the Ontario Benthos Biomonitoring Network Program (OBBN) protocol focuses on the systematic collection and analysis of benthic macroinvertebrate organisms. By continuing in its current framework, the program ensures consistency and reliability in monitoring these sensitive indicators of water quality. Benthic macroinvertebrates are highly responsive to changes in their environment, making them valuable indicators of stream health. The NPCA’s continued use of the program’s existing structure underscores its effectiveness in providing critical insights into water quality conditions, detecting environmental changes, and informing targeted conservation and restoration efforts. This approach ensures the program’s continued contribution to maintaining the biodiversity and ecological balance of stream ecosystems. The Benthic Invertebrate monitoring component is summarized in **Table 10**.

**Table 10: Benthic Invertebrate Monitoring Component**

Total Number of Stations	Frequency of Sampling	Sampling Protocol
65	Once- Spring Season 20-25 Stations each year 3 Year Rotation	OBBN

## ***Fish Communities***

The inclusion of a fish communities monitoring component into the NPCA’s Integrated Long-Term Watershed Monitoring Program is imperative for a comprehensive understanding of aquatic ecosystems, as fish communities serve as ecological indicators of environmental health and providing critical insights into the overall balance and sustainability of aquatic environments. The monitoring of fish populations and their habitats offers a powerful tool through which the NPCA can assess the impacts of human activities, climate change, and pollution on aquatic ecosystems. In this context, the integration of fish-focused monitoring initiatives contributes significantly to the broader goals of environmental stewardship, resource management, and the preservation of biodiversity.

Fish communities is a new monitoring component for the NPCA and as resources become available, the implementation of this program will commence. To facilitate implementation, NPCA monitoring staff will be provided with training to ensure consistency and accuracy among field staff in data collection and species identification. NPCA staff have identified existing monitoring protocols (Stanfield 2017) used by Conservation Authorities in Ontario that can be utilized for this component. It is intended that regular field surveys will be conducted throughout the NPCA’s monitoring network over specified time intervals to track changes in fish abundance, diversity, and distribution. The Fish Communities monitoring component is summarized in **Table 11**.

<b>Table 11: Fish Community Monitoring Component</b>		
<b>Total Number of Stations</b>	<b>Frequency of Sampling</b>	<b>Sampling Protocol</b>
65	To be determined	Ontario Stream Assessment Protocol Section 3 Module 1

## ***Fluvial Geomorphology***

The inclusion of a fluvial geomorphology monitoring component into the NPCA’s Integrated Long-Term Watershed Monitoring and Reporting Program will offer crucial insights into the dynamic interactions between water, sediment, and landforms within streams, which directly influence channel morphology, sediment transport, and habitat diversity ensuring additional understanding and managing of the NPCA’s riverine ecosystems. The NPCA will have a comprehensive understanding of how natural and human-induced changes impact stream stability, hydrology, and ecological health over time. Assessing fluvial geomorphology provides valuable information for designing effective river restoration projects, mitigating erosion and sedimentation issues, and preserving aquatic habitats. Ultimately, including stream fluvial geomorphology enhances the monitoring program’s ability to holistically evaluate the condition and resilience of stream ecosystems, leading to informed management decisions aimed at promoting their long-term sustainability.

Fluvial geomorphology is a new monitoring component, and upon resource availability, this program's implementation will begin. To streamline the process, NPCA monitoring personnel will undergo training to maintain consistency and accuracy in data collection methods. Drawing from existing monitoring protocols utilized by Conservation Authorities in Ontario, NPCA staff have identified protocols (MOE 2003, Stanfield 2017) that can be used for this program. The intention is to conduct routine field surveys across the NPCA's monitoring network at predetermined intervals to monitor fluctuations in fluvial geomorphological processes. The Fluvial Geomorphology monitoring component is summarized in **Table 12**.

**Table 12: Fluvial Geomorphology Monitoring Component**

Total Number of Stations	Frequency of Sampling	Sampling Protocol
50	To be determined	Ontario Stream Assessment Protocol Section 4 Module 2 or Rapid Geomorphic Assessments (RGA)

### **Stream Water Temperature**

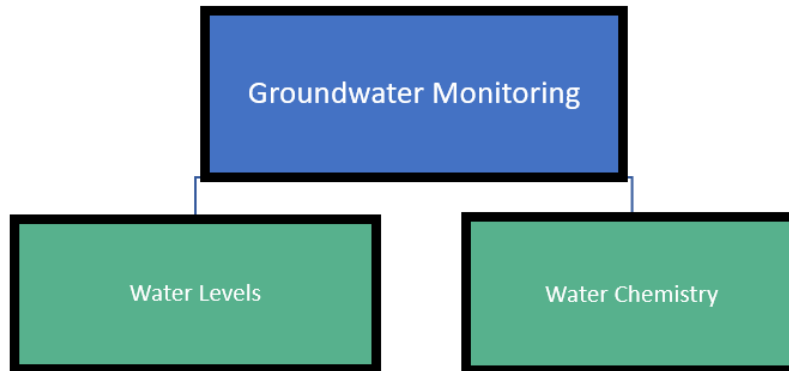
The NPCA's stream water temperature program will continue in its current form maintaining its focus on the remaining identified and suspected coldwater watersheds. This program will continue to assess the health of coldwater habitats, identifying potential stressors such as climate change or anthropogenic disturbances, and informing targeted conservation and management strategies aimed at preserving the unique ecological characteristics of these watersheds. Continuity in the program ensures the consistent collection of data essential for understanding temperature fluctuations in coldwater streams and their impact on sensitive aquatic ecosystems. By retaining existing protocols, including regular sampling and advanced data analysis techniques the NPCA program can accurately monitor changes in stream temperature over time with precision. This ongoing effort is crucial for NPCA's partners, who can rely on the program's unchanged operation to provide reliable information crucial for safeguarding these valuable aquatic resources for future generations. The Stream Temperature monitoring component is summarized in **Table 13**.

**Table 13: Stream Water Temperature Monitoring Component**

Total Number of Stations	Frequency of Sampling	Sampling Protocol
Minium of 9	Continuous hourly May to Nov Deployment	NPCA Protocol and Onset

#### 4.1.2 Groundwater Water Monitoring

The NPCA’s Integrated Long-Term Watershed Monitoring and Reporting Program will incorporate the existing Groundwater Monitoring in its current form. This program will maintain its systematic observation and assessment of groundwater chemistry and water levels of significant regional and local aquifers as shown in **Figure 9**.



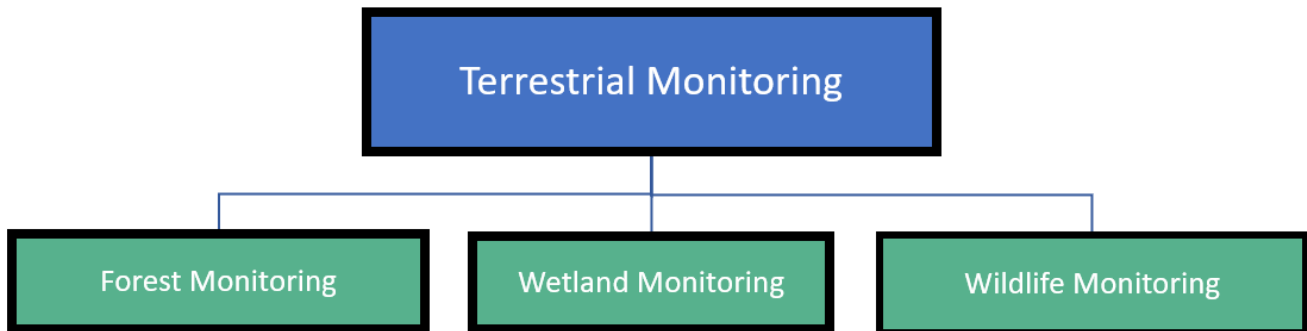
**Figure 9.** NPCA Groundwater Monitoring Components

The NPCA will continue to work with MECP as it pertains to the PGMN and its other partners to maintain, evaluate and adjust this program as required. This established program plays a crucial role in tracking the quality and quantity of groundwater resources, providing valuable data for informed decision-making. By continuing in its existing framework, the program ensures consistency and reliability in monitoring essential parameters such as chemical composition and water levels. This continuity is key for comprehensively understanding groundwater dynamics, detecting potential changes over time, and addressing emerging environmental concerns in the NPCA watershed. Utilizing the existing structure underscores its effectiveness in contributing to sustainable water management practices and the protection of vital groundwater resources. The Groundwater monitoring component is summarized in **Table 14**.

<b>Table 14: Groundwater Monitoring Component</b>		
<b>Total Number of Stations</b>	<b>Frequency of Sampling</b>	<b>Sampling Protocol</b>
46	Yearly Grab Sample Continuous Hourly Water Level Data Logger	Provincial Groundwater Monitoring Network Program (PGMN)

### 4.1.3 Terrestrial Monitoring

The NPCA's Integrated Long-Term Watershed Monitoring and Reporting Program is initiating the development of a new Terrestrial Monitoring Program. This initiative addresses a significant data gap in the NPCA's monitoring efforts and it recognizes the immense value of long-term terrestrial monitoring in providing insights into ecosystem dynamics and changes over extended periods. This program is crucial for resource management, as it helps assess the health of species and ecosystems, identify threats, and enable effective management within the NPCA watershed. The inclusion of long-term terrestrial monitoring is indispensable for informed decision-making, conservation efforts, and advancing the NPCA's understanding of the complex interactions within the watershed. It provides a foundational integrated framework for addressing environmental challenges and promoting sustainable practices. The NPCA's proposed Terrestrial Monitoring Program will consist of three monitoring components which include Forest Monitoring, Wetland Monitoring and Wildlife Monitoring **Figure 10**.



**Figure 10.** NPCA Terrestrial Monitoring Components

#### ***Forest Monitoring***

The forest ecosystems in the NPCA watershed play a vital role in supporting rich biodiversity and offering a variety of ecosystem goods and services that are essential for human well-being, including carbon storage, nutrient cycling, and air purification. Healthy forests exhibit greater resilience against various disturbances, including the impacts of climate change. However, the health of forests can be compromised by a range of factors such as disease and invasive species. Moreover, alterations in land use patterns surrounding forests, stemming from urbanization, aggregate extraction, natural succession, and events like ice storms, can significantly impact forest health and the diverse organisms they harbor. Conversely, positive initiatives such as ecosystem restoration projects can contribute positively to forest health and resilience.

For the Forest Monitoring component, the NPCA proposes to use the Ecological Monitoring and Assessment Network (EMAN) monitoring protocols (Roberts-Pichette & Gillespie. 1999) also used by various Conservation Authorities. By implementing the same monitoring protocols as other agencies, a larger data set is available for comparison which could strengthen data analysis for certain applications.

The NPCA’s proposed Forest Monitoring is shown in **Table 15**. The size and sample frequency of this program will be determined by NPCA resources through a watershed statistical analysis that is being completed in 2024.

**Table 15: Forest Monitoring Component**

Indicator	Total Number of Stations	Frequency of Sampling	Sampling Protocol
Tree Health	To be determined		Ecological Monitoring and Assessment Network Program (EMAN)
Shrub and Tree Regeneration			
Ground Vegetation			

**Wetland Monitoring**

The NPCA wetlands ecosystems provide habitat for many species, both common and rare. Wetlands provide many valuable ecological services such as regulating water movement, controlling sedimentation and filtering pollutants such as fertilizers from the surrounding water and land. The NPCA recognizes it is critical to monitor wetland ecosystems, because potentially significant changes in hydrology, soils, species composition and structure can be detected, and therefore, allow issues to be identified and addressed.

The NPCA is proposing to use monitoring protocols developed by the Toronto and Region Conservation Authority (TRCA 2019) and Credit Valley Conservation (CVC) for the wetland monitoring component. These can include monitoring wetland hydrology and vegetative communities. By implementing the same monitoring protocols as other agencies, a larger data set is available for comparison which could strengthen data analysis for certain applications. The NPCA’s proposed Wetland Monitoring is shown in **Table 16**. The size and sample frequency of this program will be determined by NPCA resources through a watershed statistical analysis that is being completed in 2024.

**Table 16: Wetland Monitoring Component**

Indicator	Total Number of Stations	Frequency of Sampling	Sampling Protocol
Physical Environment	To be determined		Toronto and Region Conservation Authority (TRCA) and Credit Valley (CVC)
Tree Counts			
Shrub and Tree Regeneration			
Ground Vegetation			
Wetland Hydrology			

**Wildlife Monitoring**

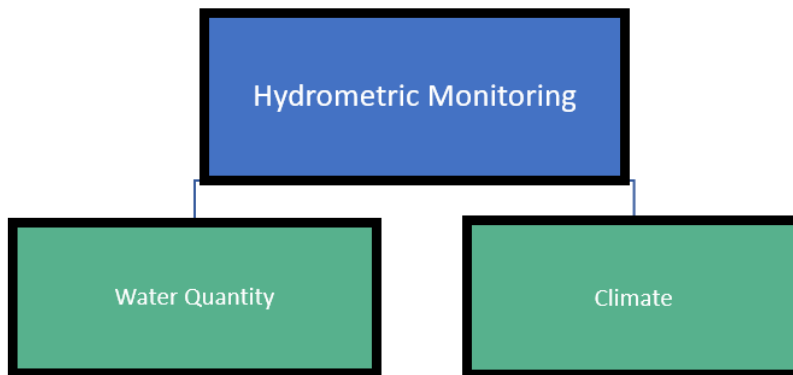
The NPCA recognizes the need to implement long-term monitoring of bird and amphibian communities in forest and wetland ecosystems within the watershed. Birds and amphibians serve as vital indicators of ecosystem health due to their sensitivity to environmental changes. By tracking population trends, species diversity, and distribution patterns over extended periods, and its possible to gain valuable insights into the overall ecological dynamics of forest and wetland ecosystems. Long-term monitoring allows for detecting subtle shifts in community composition and identifying potential threats such as habitat degradation, pollution, and climate change. Furthermore, these monitoring efforts provide essential data for informing conservation strategies and management practices aimed at preserving critical habitats and safeguarding the intricate web of life supported by forest and wetland ecosystems. The NPCA intends to design a terrestrial monitoring network where regular field surveys will be conducted over specified time intervals to track changes in their abundance, diversity, and distribution. The NPCA’s proposed Wildlife Monitoring Program is shown in **Table 17**. The size and sample frequency of this program will be determined by NPCA resources through a watershed statistical analysis that is being completed in 2024.

**Table 17: Wildlife Monitoring Component**

Indicator	Total Number of Stations	Frequency of Sampling	Sampling Protocol
Forest and Wetland Birds	To be determined		Ontario Forest Bird Monitoring Program and Marsh Monitoring Program (BSC 2006a and 2006b)
Wetland Amphibians			
Forest Plethodontid			

#### 4.1.4 Hydrometric Monitoring

The NPCA’s Integrated Long-Term Watershed Monitoring Program’s will incorporate the Hydrometric Monitoring program in its current form, maintaining its crucial role in extensively assessing surface water quantity and climate conditions (**Figure 11**). This program is dedicated to the comprehensive observation of hydrological parameters, providing invaluable data for understanding water dynamics and climate impacts. By continuing in its existing framework, the program ensures the ongoing collection of accurate and reliable information on stream water levels, flow rates, and meteorological factors. This continuity is essential for tracking changes over time, detecting trends, and informing effective water resource management strategies. The program’s commitment to its existing structure facilitates the NPCA’s understanding of hydrological patterns and their interconnectedness with climate variables, contributing to informed decision-making and sustainable environmental practices. The Hydrometric Monitoring component is summarized in **Table 18**.



**Figure 11.** Hydrometric Monitoring Components



**Table 18: Water Quantity and Climate Monitoring Components**

Total Number of Stations	Sample	Frequency of Sampling	Sampling Protocol
21	Water Level	Continuous 5 to 15 minutes readings	NPCA and Water Surveys Canada
7	Water Flow	Continuous 5 to 15 minutes readings	
7	Snow	10 sampling points per Site November to April	Ontario Snow Surveying Manual
11	Precipitation	Continuous 5 to 15 minutes readings	NPCA
7	Wind	Continuous 5 to 15 minutes readings	

In addition, the NPCA must provide programs and services to support the functions and responsibilities related to Flood Forecasting and Warning in its watershed jurisdiction as required under the *Conservation Authorities Act* and O. Reg. 686/21: Mandatory Programs and Services. The NPCA is responsible for forecasting where and when flooding is likely to occur and for issuing appropriate flood messages. The NPCA issues flood messages to municipal emergency management officials and the media if flooding is possible or imminent. The municipal officials then warn watershed residents and allow municipalities and other government agencies to implement emergency response plans and, if necessary, evacuate communities. The NPCA’s Flood Forecasting and Flood Warning is directly supported by the NPCA’s Hydrometric Monitoring Program that assesses surface water quantity and climate conditions within the watershed

#### 4.1.5 Watershed Landscape Analysis

The Watershed Landscape Analysis unit of the Long-Term Integrated Watershed Monitoring Program is another tool that the NPCA will be continuing to use to characterize the human, aquatic and terrestrial features, conditions, processes, and interactions within a watershed. This program provides a systematic way to understand and organize ecosystem information. In so doing, watershed landscape analysis enhances the NPCA’s ability to estimate direct, indirect, and cumulative effects of our management activities and guide the general type, location, and sequence of appropriate management activities within a watershed. The Watershed Landscape Analysis Program currently has two programs, and these are shown in **Table 19**.

**Table 19: Watershed Landscape Analysis Programs**

Watershed Landscape Analysis Programs	Program Description	Recommended Analysis Intervals
<p><b>Watershed Natural Areas Inventory (NAI) Program</b></p>	<ul style="list-style-type: none"> <li>This program identifies, classifies, and maps natural heritage areas in the NPCA watershed jurisdiction. The resulting data provides a representation of the natural cover and features of the Niagara watershed using the Ecological Land Classification (ELC), a standard in Ontario to classify natural areas. The NPCA intends to conduct NAI inventories at determined intervals as a tool to assess changes in the watershed.</li> </ul>	<p>10 years</p>
<p><b>Watershed Natural Asset Assessment &amp; Carbon Sequestration Program</b></p>	<ul style="list-style-type: none"> <li>Baseline inventory of carbon sequestering forest, wetlands, and meadow</li> <li>Natural assets analysis that provides the valuation of ecosystem services, such as flood attenuation, and stormwater regulation.</li> </ul>	<p>10 years</p>

## 4.2 Data Management

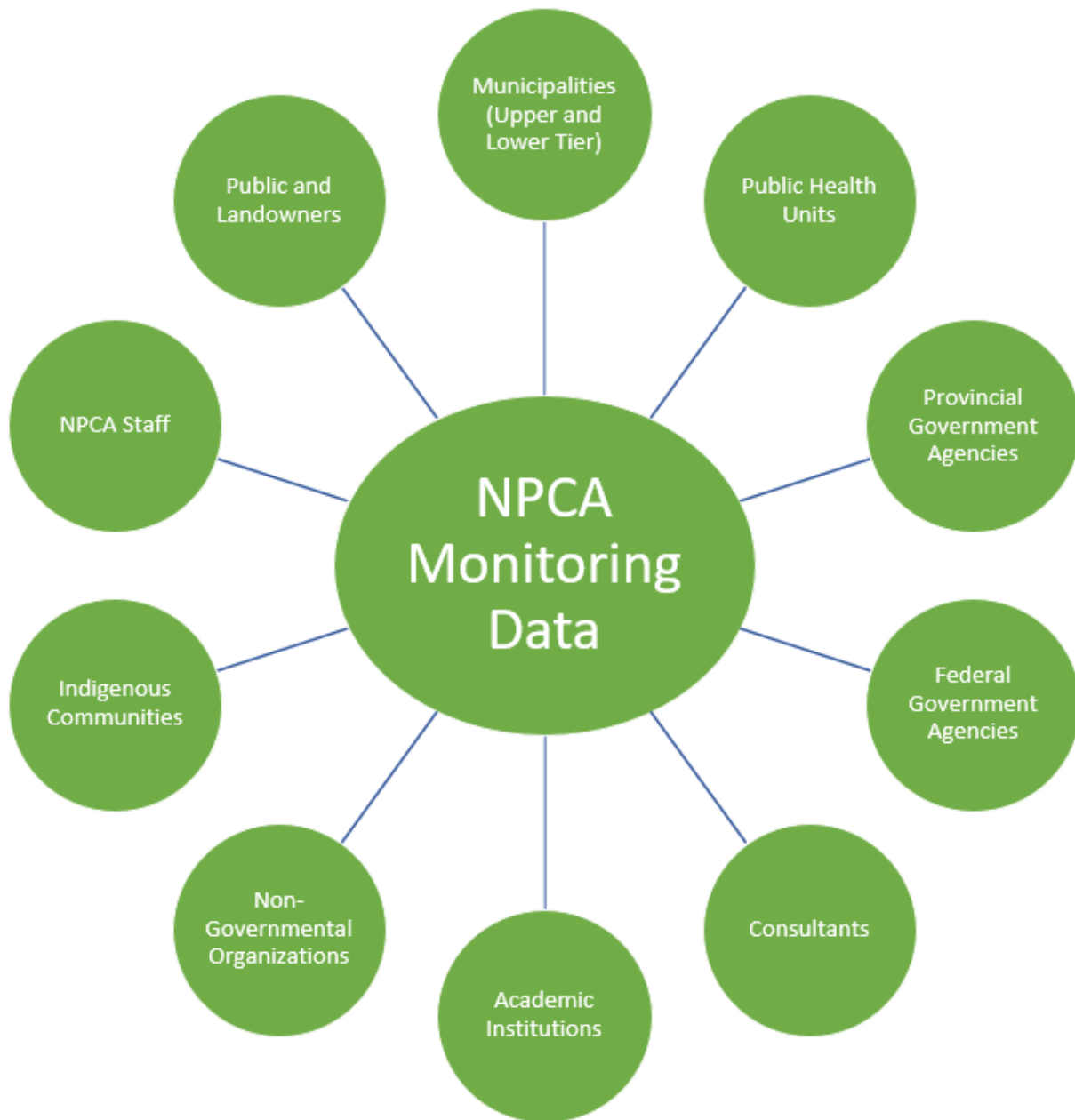
Data management is a key part of the NPCA’s long-term monitoring program. The long-term monitoring program collects from a wide range of sources depending on the program unit and these data include time series, discrete data, taxonomic and GIS datasets. By building upon the databases that NPCA currently utilizes (KISTERS, Microsoft Office, SQL server and internal data systems), and work with the NPCA’s Information Technology (IT) and GIS divisions to establish a centralized database to store and manage all collected data. This will allow the NPCA to work towards implementing an efficient data management system that ensures data consistency, security, integrity, and accessibility.

### 4.2.1 NPCA Data Users

The NPCA long-term monitoring programs will and currently generate a large wealth of scientific data that has a diverse range of users spanning various sectors as shown in **Figure 12**. Here are some key user groups that frequently utilize the NPCA environmental monitoring data:

- 1) **Federal and Provincial Agencies:** Environmental protection agencies and regulatory bodies such as ECCC and the MECP use the NPCA's monitoring data as background watershed conditions.
- 2) **Public Health Unit:** Monitoring data related to water quality is vital for the NPCA's public health agencies partners to assess potential health risks associated with environmental factors such as E.coli monitoring of beaches and outlet tributaries. This information can inform public health policies and interventions.
- 3) **Research Institutions and Education:** Scientists and researchers in environmental science, ecology, climatology, and related fields use the NPCA's monitoring data to conduct studies, develop models, and advance the understanding of environmental processes. Academic institutions may also use this data for teaching and training purposes. In addition, local elementary and secondary schools use the NPCA's environmental monitoring data for educational purposes, exposing students to real-world environmental challenges and encouraging the development of environmental stewardship.
- 4) **Municipalities:** Municipal partners can use the NPCA's extensive long-term monitoring datasets as background watershed conditions to inform municipal water and wastewater infrastructure projects. Municipalities may also use monitoring data to assess the impact of urbanization on ecosystems, plan for sustainable development, and address issues related to pollution, waste management, and green spaces.
- 5) **Industry:** Various industries, especially those with potential environmental impacts, may use the NPCA's monitoring data to ensure compliance with environmental regulations and implement sustainable practices.
- 6) **Non-Governmental Organizations (NGOs):** Environmental NGOs often use the NPCA's monitoring data to advocate for environmental conservation and raise awareness about specific issues. NGOs may also conduct their monitoring or collaborate with other organizations.
- 7) **Community Science:** The NPCA does engage with community science initiatives that contribute to environmental monitoring by collecting data within the watershed. This grassroots approach helps increase the spatial coverage of monitoring efforts and fosters public awareness and engagement.
- 8) **Emergency Responders:** The NPCA's environmental monitoring data, especially in real-time, can be crucial for emergency responders during events like natural disasters such as flooding, industrial accidents, or pollution incidents. This data aids in decision-making and emergency response coordination.

The NPCA acknowledges that these data user groups collectively contribute to a comprehensive understanding of environmental conditions, help identify emerging trends and challenges, and play a crucial role in shaping policies and practices that promote environmental sustainability. It is key that the NPCA have effective communication and collaboration among these stakeholders to maximize the impact of the NPCA's environmental monitoring data.



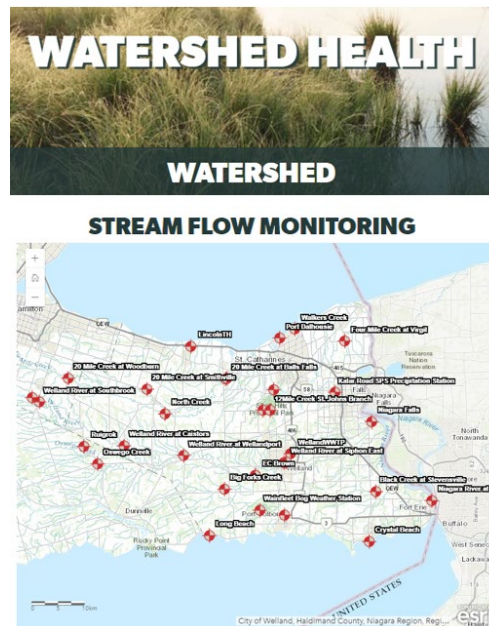
**Figure 12.** NPCA Data Sharing

### 4.3 Long-Term Monitoring Reporting

The reporting of results from the NPCA Long-Term Monitoring Program is essential for updating watershed partners and stakeholders, identifying emerging issues, informing management decisions and policy development, initiating actions, and advancing scientific knowledges. It is key that NPCA prioritize reporting and data sharing as it provides a valuable service to its stakeholders and funding agencies. In addition, the NPCA will determine the most effective method of communication to make watershed reporting accessible and informative for the target audience. Target audiences can range from scientific requests seeking raw data and detailed technical reports, to non-scientific audiences like Non-Governmental Organizations (NGOs), policymakers, and NPCA Board Members that may prefer synthesized reports with high-level messaging and graphical representations of key findings. Consequently, watershed reporting and disseminating data to a wide audience is a key priority for the IWMP program, and the NPCA will continue to use and develop the following reporting initiatives.

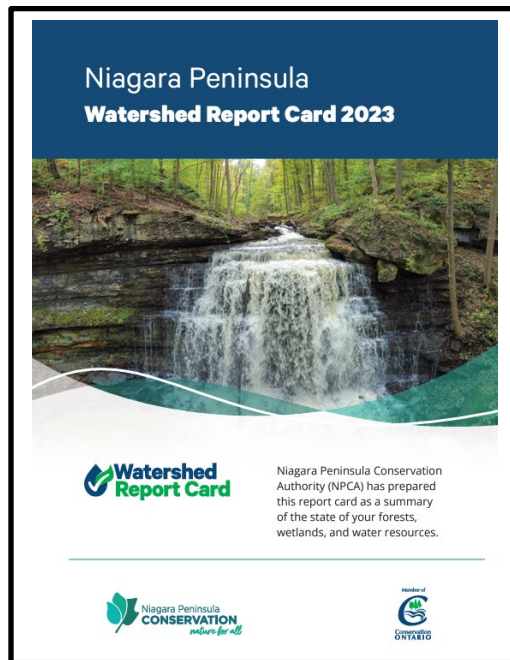
#### 1) Hydrometric Reporting

The NPCA Hydrometric Monitoring Program will continue providing near real-time data stream flow, rainfall, and other meteorological information at locations across the watershed to the public by posting to NPCA website (<https://npca.ca/watershed-health#flooding-stream-flow-monitoring>).



## 2) Watershed Report Cards

The NPCA will continue with the Watershed Report Card project in partnership with Conservation Ontario. This is an important initiative that contributes to both local and broader watershed reporting across the province. Watershed report cards provide information on surface water, groundwater, forest, and wetland conditions within subwatersheds to promote an understanding of local health and emerging trends as a basis for setting environmental management priorities and inspiring local environmental action (Conservation Ontario 2011).



[https://npca.ca/images/uploads/common/WRC\\_NPC\\_A\\_2023\\_-\\_CO.pdf](https://npca.ca/images/uploads/common/WRC_NPC_A_2023_-_CO.pdf)

## 3) Watershed Monitoring and Reporting Annual Reporting

The NPCA Integrated Watershed Monitoring Program will continue its annual reporting (NPCA 2024) and will expand its reporting to incorporate information, data, and monitoring results from the enhanced long-term monitoring program. This comprehensive approach will include detailed insights into water quality, terrestrial monitoring, and groundwater. By integrating these expanded datasets, the program aims to provide a more holistic view of watershed health, facilitating better-informed decision-making and more effective environmental management strategies.

#### **4) Open Data Portals and Communications**

The NPCA Integrated Watershed Monitoring Program will expand its use of ArcGIS to begin utilizing data visualization consisting of a dynamic dashboard, storyboard maps as well as data reporting that will be expanded on the NPCA's web services. These visually descriptive and user-friendly tools are intended to become the main communication instrument for the NPCA's Long-Term Monitoring Program results.



## 5.0 CORPORATE SUPPORT SERVICES

NPCA's Integrated Watershed Monitoring Program includes a Corporate Support Services Area that is comprised of several programs that will service the NPCA with crucial monitoring data to inform operational activities across multiple NPCA departments and divisions. Many components in this area have already been implemented previously, however their inclusion in this monitoring area better defines the scope of these programs at the NPCA and continues to allow for integration across NPCA monitoring areas. Therefore, internal monitoring components will be fully identified to facilitate improved collaboration and potentially allow for additional resources to meet program capacity. The type and number of Corporate Support Services that the NPCA implements is dynamic and driven by NPCA program and project needs.

### 5.1 Program Goal

- The goal of the NPCA Corporate Support Service area is to provide monitoring services and expert advice for NPCA's internal department programs and projects.

#### 5.1.1 Environmental Permissions

The NPCA will continue to maintain the Environmental Permissions monitoring program as described in **Section 2.6**, which is a requirement of MECP and Public Health Units to support a variety of environmental permissions that are related to NPCA's Conservation Area services and infrastructure. These include MECP Environmental Certificate Approvals (ECAs), MECP Permit-to-Take-Water and Small Drinking Systems Public Health Directives. The Environmental Permissions monitoring programs are summarized in **Table 20** with corresponding Department leads and Department Integration for implementation.



**Table 21: Summary of NPCA Environmental Permissions**

Environmental Permissions	Department Lead(s)	Department Integration
<b>MECP Environmental Certificate Approvals</b> <i>Sewage Works-Balls Falls and Long Beach Conservation Areas</i>	Conservation Areas Department and Environmental Planning and Policy Division	Watershed Monitoring and Reporting Division
<b>MECP Permit-to-Take-Water</b> <i>Binbrook and Virgil Conservation Areas</i>	Flood Risk Management Division	Conservation Areas Department
<b>Public Health Directives</b> <b>Small Drinking Water Systems</b> <i>Binbrook and Virgil Conservation Areas</i>	Conservation Areas Department	Watershed Monitoring and Reporting Division

#### 5.1.2 Conservation Areas Beach Monitoring Program

The NPCA will continue Conservation Areas Beach Monitoring Program as described in **Section 2.3.2**. Samples will continue to be collected at Long beach Conservation and Chippawa Creek Conservation Areas and analyzed for E. coli during the regular beach season. Data will continue to be posted on the NPCA webpage and be used to determine long-term trends in the water quality at NPCA swimming areas over time. This program will not be used to identify public health risks when swimming in natural water bodies. The Conservation Areas Department will continue as departmental lead with the program integration occurring where Watershed Monitoring and Reporting staff will be conducting the field program and potentially providing internal data analysis as requested. The Conservation Areas Beach Monitoring Program is summarized in **Table 21** with corresponding Department leads and department integration for implementation.

**Table 21: Summary of NPCA Conservation Beach Monitoring Program**

Program	Monitoring Component	Department Lead	Department Integration
<b>Conservation Areas Beach Monitoring-</b> <i>Long Beach Conservation Area</i> <i>Chippawa Creek Conservation Area</i>	<i>E. coli</i> sample collections Weekly (June to early September)	Conservation Areas Department	Watershed Monitoring and Reporting Division

### 5.1.3 Restoration Monitoring Program

The NPCA will continue to utilize the existing restoration monitoring program described in **Section 2.5**. This program will continue to allow NPCA staff to track restoration project progression after implementation and to guide decision-making by adaptive management. This program will continue to provide the Integrated Watershed Strategies and Restoration Division with data and analysis that will inform future restoration project plans and budgets within this program area. The Integrated Watershed Strategies and Restoration will continue as the lead, with the program integration occurring where Watershed Monitoring and Reporting staff provide long-term data analysis as requested. The Restoration Monitoring Program is summarized in **Table 22** with Department leads and Department Integration for implementation.

**Table 22: Summary of NPCA Restoration Monitoring Program**

Program	Monitoring Component	Department Lead	Department Integration
<b>Restoration Project Monitoring Program</b>	➤ Forest and Wetland Vegetative Communities	Integrated Watershed Strategies Department and Restoration Division	Watershed Monitoring and Reporting Division

### 5.1.4 Conservation Management Plans Program

The NPCA 10-year 2021-2031 Strategic Plan relies on Conservation Area Management Plans to achieve its goal of managing NPCA lands in part to increase biodiversity, habitat connectivity, and natural cover. Conservation Area Management plans are practical tools that outline the goals and strategies for natural areas. These plans provide a clear direction for managing the land towards these goals, guiding day-to-day decisions, and addressing complex challenges. Management plans involve input from various stakeholders to ensure that decisions are based on up-to-date science. The NPCA Corporate Support Services Monitoring area intends to support the preparation of NPCA Conservation Management Plans by providing environmental monitoring and inventory resources. These could include a range of environmental studies to establish baseline data to inform management plan decisions. **Table 23** summarizes a list of monitoring components that can be made available.

**Table 23: Summary of NPCA Conservation Management Plans Program**

Program	Monitoring Component	Department Lead	Department Integration
<b>Conservation Area Management Plan Program</b>	<ul style="list-style-type: none"> <li>➤ Hydrometric Surveys</li> <li>➤ Groundwater Characterization</li> <li>➤ Terrestrial Monitoring and Inventories</li> <li>➤ Aquatic Monitoring and Inventories</li> </ul>	Land Planning Division and Conservation Area	Watershed Monitoring and Reporting Division Conservation Areas Department Flood Risk Management Division

### 5.1.5 Conservation Lands Ecological Monitoring

The Conservation Lands Ecological Monitoring Program will continue in a modified format to allow the NPCA to conduct specialized ecological monitoring programs that fall outside the scope of NPCA’s Long-Term Monitoring area. This program is flexible and can be expanded to include specialized monitoring components customized for a specific purpose within NPCA Conservation Areas and owned lands. This program will continue to provide the NPCA with data and analysis that will inform Conservation Area ecological management. The Conservation Lands Ecological Monitoring Program is summarized in **Table 24** with corresponding department integration for implementation.

**Table 24: Summary of NPCA Conservation Lands Ecological Program**

Program	Monitoring Component	Department Lead	Department Integration
<b>Conservation Lands Ecological Monitoring</b>	<ul style="list-style-type: none"> <li>➤ Hydrometric Surveys</li> <li>➤ Groundwater Characterization</li> <li>➤ Terrestrial Monitoring and Inventories</li> <li>➤ Aquatic Monitoring and Inventories</li> </ul>	Land Planning Division and Conservation Area	Watershed Monitoring and Reporting Division Conservation Areas Department Flood Risk Management Division

### 5.1.6 Climate Change

Recognizing the increased importance of climate change as a driver for watershed health and quality of life in the NPCA watershed, the NPCA’s 2021-2031 Strategic Plan includes numerous climate-related actions across several strategic priorities. These actions will be implemented to guide the NPCA’s

efforts to address local climate impacts through on-the-ground projects. Monitoring data will form the basis of climate-related projects and initiatives to retain and promote climate resiliency. This monitoring area will also demonstrate the NPCA’s leadership with its watershed partners and the public. As the NPCA continues to develop and expand its climate change initiatives, the NPCA’s IWMP Long-Term Monitoring Program Area will play a critical role in supporting these initiatives as noted in **Table 25**.

**Table 25: Climate Change Monitoring Supporting Programs**

Program	Monitoring Component	Department Lead	Department Integration
<b>Climate Change</b>	<ul style="list-style-type: none"> <li>➤ Water Quantity</li> <li>➤ Groundwater Quantity</li> <li>➤ Surface Water Quality</li> <li>➤ Surface Water Ecology</li> <li>➤ Terrestrial Ecology</li> </ul>	Land Planning Division and Conservation Area	Watershed Monitoring and Reporting Division Conservation Areas Department Flood Risk Management Division

#### 5.1.7 Low Impact Development Monitoring

The NPCA has begun incorporating Low Impact Development (LID) projects into its own property infrastructure to address stormwater runoff that could result in erosion, sedimentation, and pollution. The NPCA’s IWMP will play a pivotal role in supporting the environmental monitoring of the NPCA’s LID projects by leveraging internal expertise and resources. The IWMP can oversee comprehensive monitoring programs that track the effectiveness of LID measures, such as permeable pavements, infiltration trenches, bioswales, and rain gardens, in reducing runoff and improving water quality. Depending on the LID project, data can be collected and analyzed on various environmental parameters, including water quality, water levels, and biodiversity, to assess the impact of LID projects. The LID Monitoring Program is summarized in **Table 26**. This program will help to ensure that LID strategies are effectively contributing to the resilience and health of local ecosystems by providing assessment data.

**Table 26: LID Monitoring Supporting Programs**

Program	Monitoring Component	Department Lead	Department Integration
<b>LID Monitoring</b>	<ul style="list-style-type: none"> <li>➤ Water Quantity</li> <li>➤ Groundwater Quantity</li> <li>➤ Surface Water Quality</li> <li>➤ Surface Water Ecology</li> <li>➤ Terrestrial Ecology</li> </ul>	Conservation Areas Department	Watershed Monitoring and Reporting Division Infrastructure Engineering and Asset Management Division

### 5.1.8 Community Science Monitoring

The NPCA Community Outreach and Engagement team will continue to implement the Community Science Monitoring program described in **Section 2.7**. This program partners with citizens and NGOs to actively participate in the protection and preservation of local ecosystems. This program can inform NPCA with developing training sessions and providing resources for members of our watershed community to collect data on various aspects of the environment, such as climate monitoring, water quality, wildlife populations, and habitat health. This approach can generate valuable scientific data and foster a sense of stewardship and connection to the watershed among participants. Depending on the type of community science monitoring projects, the IWMP is flexible to utilize supporting departments, and these are shown in **Table 27**.

**Table 27: Community Science Monitoring Supporting Program**

Program	Monitoring Component	Department Lead	Department Integration
<b>Community Science Monitoring</b>	<ul style="list-style-type: none"> <li>➤ Water Quantity</li> <li>➤ Groundwater Quantity</li> <li>➤ Surface Water Quality</li> </ul>	Watershed Strategies and Climate Change Department	Watershed Monitoring and Reporting Division
	<ul style="list-style-type: none"> <li>➤ Surface Water Ecology</li> <li>➤ Terrestrial Ecology</li> </ul>	Climate Change and Special Projects Division	Flood Risk Management Division

### 5.1.9 Special Projects

The NPCA IWMP is structured to incorporate internal monitoring special projects that emerge outside of defined programs. The flexibility of the IWMP allows the program to address specific environmental concerns or emerging issues by leveraging internal resources and expertise. By integrating these special internal monitoring projects, the IWMP enhances NPCA's ability to deliver precise, actionable insights and support adaptive management strategies, ensuring the sustainable management of watershed resources.

## 6.0 MONITORING SERVICE PROVIDER

The IWMP includes a Monitoring Service Provider Area with the intent of highlighting the NPCA's potential as an environmental monitoring service provider to its watershed partners such as municipalities, provincial and federal agencies as well as private companies. The NPCA has a dedicated team of experts specializing in hydrometric, groundwater, surface water, and terrestrial monitoring programs. Utilizing state-of-the-art technologies, monitoring protocols, and data analyses, the NPCA is equipped to offer small-scale monitoring services. Through strategic communication with partners and planning, NPCA's monitoring, and inventory services can be expanded with additional resources (equipment and training) and staff to enhance data collection, analysis, and reporting capabilities for larger-scale projects.

### 6.1 Program Goal

- The goal of the NPCA Monitoring Service Provider Area is to provide environmental monitoring services to external partners within the NPCA watershed.



## 6.2 Monitoring Provider Services Project Intake Process

The NPCA currently has three Service Provider monitoring services, and these are summarized in **Table 28**.

<b>Table 28: Existing Monitoring Provider Services</b>	
<b>Current Monitoring Services Provided</b>	<b>Program Details</b>
<b>Municipal Environmental Monitoring</b>	<p><i>Glanbrook Landfill Biomonitoring Program</i></p> <p>The City of Hamilton contracts the NPCA biennially to monitor benthic macroinvertebrates upstream and downstream of the Glanbrook Landfill to assess any landfill impacts to the adjacent watercourses. NPCA generates a separate report to the City of Hamilton for their exclusive information and use.</p>
<b>Municipal Environmental Monitoring</b>	<p><i>Regional Water Quality Monitoring</i></p> <p>The NPCA receives funding to monitor ambient water quality of streams and rivers throughout the Niagara Region’s municipal jurisdiction. The data collected through this program is shared with the municipality and the NPCA generates an annual report summarizing water quality exceedances and overall trends.</p>
<b>Private Environmental Monitoring Services</b>	<p><i>Hamilton Airport Biomonitoring Program</i></p> <p>The Hamilton International Airport (HIA) contracts the NPCA to monitor macroinvertebrates to determine if stormwater runoff and de-icing fluids are impacting surface water quality in two headwater tributaries of the Welland River. NPCA generates a separate report to the HIA for their exclusive information and use.</p>

In addition to the current service provider programs, it has been anticipated that the NPCA watershed partners, such as the municipalities, may wish to utilize the NPCA’s environmental monitoring services for a variety of areas and these include.

- 1) Secondary Plans-Subwatershed Studies: Characterization and Pre and Post Construction Monitoring
- 2) Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) Applications for Stormwater Management Systems: Performance Monitoring
- 3) Municipal Greening Targets: Environmental Inventories
- 4) Low Impact Development: Performance Monitoring

5) Long-Term Environmental Monitoring in Growth Areas: Environmental Inventories

The NPCA has formed a project intake team which has designed an intake process for Monitoring Service Provider projects which involves several systematic steps to ensure potential projects are well-defined, feasible, and aligns with the NPCA’s organization goals and regulatory requirements. The detailed steps required for the IWMP’s Monitoring Service Provider Project Intake Process are as follows in **Table 29**:

<b>Table 29: Monitoring Service Provider Project Intake Process</b>	
<b>Intake Process Step</b>	<b>Program Details</b>
<b>1. Initial Consultation</b>	<ul style="list-style-type: none"> <li>• Stakeholder Engagement: Engage with stakeholders to understand their needs, concerns, and objectives.</li> <li>• Define Objectives: Clearly define the goals of the monitoring project (e.g., water quality assessments, ecological inventories, water quantity).</li> <li>• Data Requirements: Identify the types of data required (e.g., physical, chemical, biological parameters).</li> <li>• Regulatory Compliance: Review relevant environmental regulations and guidelines to ensure compliance.</li> </ul>
<b>2. Project Proposal Development</b>	<ul style="list-style-type: none"> <li>• Scope Definition: Outline the scope of the project, including geographic boundaries, time frame, and specific parameters to be monitored.</li> <li>• Methodology: Develop a detailed methodology for data collection, analysis, and reporting.</li> <li>• Budget Estimation: Estimate the budget required, including equipment, personnel, and other resources.</li> <li>• Risk Assessment: Identify potential risks and challenges to completing the project and propose mitigation strategies.</li> </ul>
<b>3. Feasibility Study</b>	<ul style="list-style-type: none"> <li>• Technical Feasibility: Assess the technical feasibility of the project, including the availability of necessary equipment and technology.</li> <li>• Operational Feasibility: Evaluate the operational feasibility, considering logistical aspects and the availability of skilled personnel.</li> <li>• Financial Feasibility: Ensure that the project is financially viable within the budget constraints.</li> </ul>
<b>4. Project Approval and Funding</b>	<ul style="list-style-type: none"> <li>• Proposal Submission: Submit the project proposal.</li> <li>• Review and Feedback: Address any feedback or queries from the reviewing authority.</li> <li>• Funding Approval: Secure funding and ensure financial resources are allocated appropriately.</li> </ul>



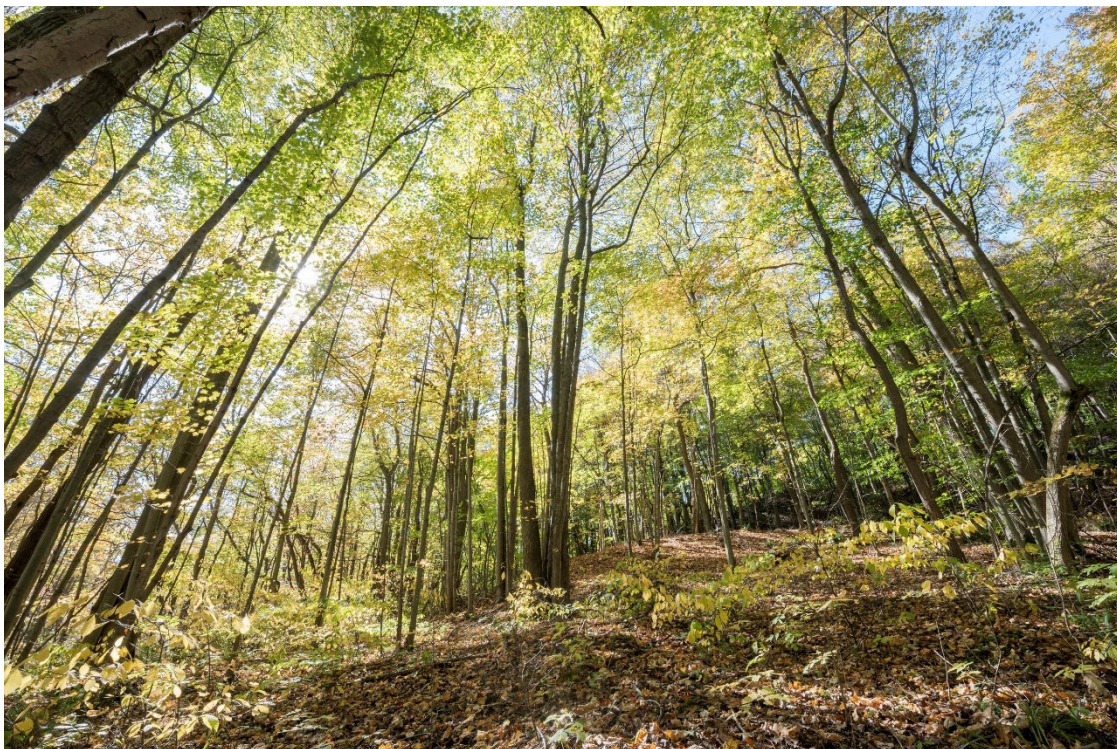


By utilizing the Monitoring Service Provider Project Intake Process the NPCA can ensure that environmental monitoring projects are thoroughly planned, effectively executed, and yield reliable data and reporting for clients.

## 7.0 Integrated Watershed Monitoring Program Implementation

The NPCA is optimally positioned to implement the IWMP as a key part of its strategic core service delivery by leveraging its existing monitoring efforts to transition to the integrated approach. The NPCA's current resources include established monitoring programs, trained monitoring staff, advanced equipment, regular reporting intervals, robust database management systems, GIS capabilities, and sophisticated web-based tools. Additionally, the NPCA's programs are already well-recognized across the watershed. Designed with flexibility, the NPCA's current monitoring programs can expand with strategic incremental investments, allowing for the integration of additional monitoring components to effectively identify and understand watershed stressors.

The NPCA's IWMP will utilize the robust Long-Term Monitoring Programs as its foundation for expanded monitoring. These anchor programs benefit from stable funding, supportive partners, and mandated roles, ensuring a reliable and consistent framework. The NPCA's extensive experience and proven track record in running these programs make it the ideal basis for developing a comprehensive, integrated monitoring system. By building on these established programs, the NPCA can support various internal and external monitoring initiatives.



## 7.1 Financial Considerations

The *Conservation Authorities Act* and O. Reg. 686/21: Mandatory Programs and Services, sets out mandatory and non-mandatory programs and services for Conservation Authorities to provide for its jurisdictional area and these are funded in different ways **Table 30**.

<b>Table 30: Conservation Authorities Program and Service Categories</b>	
<b>CA Act</b>	<b>Description</b>
<b>Category 1</b>	Mandatory programs and services as identified in Ontario Regulation 686/21 that can be funded through a municipal levy.
<b>Category 2</b>	Municipal programs and services provided at the municipality's request. These programs can be funded through government and other agency grants and/or municipal funding under a memorandum of understanding (MOU) or agreement with the municipality.
<b>Category 3</b>	Other programs and services that an Authority (Board) determines are advisable. These programs can be funded through self-generated revenue, user fees, government and other agency grants, donations, etc. Any use of municipal funding will require an agreement and would be subject to cost apportioning.

The NPCA's IWMP incorporates several programs and services designated as Category 1 that are essential for compliance with regulatory requirements and for the effective management and protection of watershed resources. These components include:

- Flood Forecasting and Hydrometric Monitoring
- Provincial Surface Water Quality Monitoring Program (PWQMN)
- Provincial Groundwater Monitoring Network (PGMN)
- Monitoring and Environmental Inventory Activities on NPCA-owned Lands to inform the management of lands

The NPCA's IWMP also incorporates several programs and services that fall under Category 2 or 3 non-mandatory program or service classifications as per the Conservation Authorities Act. These include:

- Expanded Surface Water Quality Monitoring
- Expanded Groundwater Quality Monitoring

- Stream Benthic Macroinvertebrates Monitoring
- Fish Communities Monitoring
- Watershed Landscape Analysis
- Restoration Monitoring
- Community Science Monitoring

These non-mandatory services are partially funded through service-level agreements with municipal partners or external funding sources. In accordance with the transition requirements under the Conservation Authorities Act, the NPCA has entered into Service Level Agreements with the watershed participating municipalities of Niagara Region, City of Hamilton and Haldimand County, for non-mandatory Category 2 and 3 program services, and costs associated with the programs and services are to be reviewed on an annual basis as part of the NPCA's annual budget approval process. Lower-tier municipalities in Niagara Region, which are not levied for NPCA programs and services, can also enter into agreements of services for a fee-for-service basis when a local municipality wishes to engage NPCA to provide services, such as monitoring, data analysis and reporting. Additionally, staff are proactively seeking external funding opportunities such as:

- Partnerships: working with a mix of existing and new partners to fund and complete projects that meet our shared goals.
- Grants: external funding sources, such as Federal and Provincial grant programs will be targeted to help support projects in all program areas.
- Niagara Peninsula Conservation Foundation (NPCF): collaborating with the NPCF to increase funding for IWMP initiatives through donations and giving programs.
- Fee-for-service: leveraging the NPCA's skills and expertise to increase self-generated revenue.

A Watershed-based Resource Management Strategy, to be developed by the end of 2024, as required under the Conservation Authorities Act and O. Reg. 686/21: Mandatory Programs and Services, will assist NPCA with evolving and enhancing its programs and services to address or manage local watershed triggers, issues, or risks. The Watershed-based Resource Management Strategy will include identifying Category 2 and 3 programs and services such as the IWMP, with cost estimates, that are recommended to support the delivery of mandatory programs and services. Conventional funding approaches to implement the IWMP will be combined with opportunities to seek external grants and innovative approaches to leverage various sources of funding. Future costs will be determined by the program's scope, staffing requirements and uptake and interest by partners and funders.

## 7.2 Standard Operating Procedures

The NPCA considers Standard Operating Procedures (SOPs) important for the effective implementation of the Integrated Watershed Monitoring Program. SOPs ensure consistency, reliability, and accuracy in data collection and analysis. By providing detailed, standardized guidelines for every aspect of the monitoring process, SOPs minimize variability and human error, thereby enhancing the credibility and comparability of the results over time and across different locations. SOPs facilitate training and competency for NPCA staff, ensuring that all personnel perform monitoring tasks uniformly, regardless of their experience level. Additionally, SOPs are essential for regulatory compliance, as they document that proper methodologies are followed, which is critical for meeting legal and environmental standards. The NPCA is currently developing and formalizing SOPs for its various monitoring programs.

## 7.3 Training

Proper training of IWMP staff is crucial for the program's success and effectiveness across all monitoring areas. The NPCA will survey the technical level of IWMP staff and identify training gaps to ensure that staff are well-versed in monitoring protocols, enabling consistent and standardized data collection across different sites. Additionally, thorough training on the use and maintenance of monitoring equipment is vital for obtaining accurate and reliable data. By investing in the proper training of staff, the program can ensure high-quality data collection and analysis, leading to better-informed decision-making and more effective watershed management.



## 7.4 Indigenous Knowledge

Incorporating indigenous knowledge into NPCA's IWMP environmental monitoring programs holds significant importance, as it enriches scientific understanding with centuries-old wisdom and local expertise. Indigenous communities possess invaluable insights into their ecosystems, including intricate knowledge of biodiversity, natural resource management, and the subtle signs of environmental change. Integrating this knowledge not only enhances the accuracy and effectiveness of monitoring efforts but also fosters cultural preservation and respect for traditional ways of life. By embracing indigenous perspectives, environmental monitoring programs can cultivate holistic approaches that prioritize sustainability, resilience, and the harmonious coexistence of humanity with the natural world. This collaborative approach bridges the gap between scientific methodologies and indigenous wisdom, promoting more inclusive and equitable conservation strategies that benefit both the environment and indigenous communities.

The NPCA seeks to engage with local indigenous communities and individuals through our Public Advisory Committee (PAC) and other opportunities guided by our Indigenous Engagement Guidelines that are being developed, to support the development of a more holistic approach in watershed monitoring that incorporates aspects of Indigenous Traditional Knowledge and an awareness of the watershed spirit, in addition to western science and management objectives.

## 8.0 RECOMMENDATIONS AND CONCLUSION

### 8.1 Recommendations

To achieve the NPCA 2021-2031 Strategic Plan Goal 1.1 – Support evidence-based decision-making for climate-resilient watersheds and shoreline, and the objectives of the new IWMP, the following recommendations have been developed to ensure the NPCA's readiness for implementing the program. Each recommendation is accompanied by actions to be implemented by 2031.

#### Recommendation 1

That the NPCA prioritize and enhance the Long-Term Watershed Monitoring program within the Integrated Watershed Monitoring Program, as it is essential for understanding and managing ecosystems, supporting scientific research, conservation initiatives, and inform decision-making to ensure ecosystem resilience against ongoing environmental changes.

**Action 1.1:** Continue to focus long-term monitoring efforts on provincially mandated programs such as Hydrometric, Surface Water, Groundwater, and monitoring on NPCA properties and utilize these programs as a foundation for expanded monitoring.

**Action 1.2:** Where applicable, integrate long-term monitoring efforts and stations between the Monitoring Program Areas.

**Action 1.3:** Ensure IWMP monitoring data remains up to date, addresses data gaps, is transferable and relevant to the NPCA's partners such as municipalities, governmental agencies, academia, and the public.

#### Recommendation 2:

That NPCA will continue to regularly report results of its environmental monitoring programs in an understandable and accessible format to support decision-making by the NPCA and its partners to enhance watershed health and community awareness.

**Action 2.1:** Produce watershed health reports at relevant intervals that summarize key watershed findings.

**Action 2.2:** Provide regular updates on key findings to all internal departments, watershed municipalities, Board of Directors, and other key watershed management partners.

**Action 2.3** Transition towards 'open data' to establish a platform for sharing data with making most data collected through the IWMP accessible to partners and the public through NPCA web resources.

### Recommendation 3

That NPCA ensures the IWMP has a robust Corporate Support Services Monitoring Area to incorporate internal monitoring components through collaboration, optimize resource allocation, and better define the scope and capacity of crucial monitoring programs and projects across multiple departments and divisions.

**Action 3.1:** Maintain a comprehensive inventory of internal monitoring requirements across NPCA's departments and divisions.

**Action 3.2:** Develop standardized protocols and guidelines for integrating internal monitoring components into the IWMP.

**Action 3.3:** Continue to utilize the IWMP Working Group to ensure collaboration and coordination of monitoring efforts across NPCA's departments and divisions.

### Recommendation 4

That NPCA will continue to increase the capacity of its monitoring and inventory services within the IWMP to enable NPCA to become a comprehensive environmental monitoring provider for watershed partners, including municipalities, provincial and federal agencies, and private companies.

**Action 4.1:** NPCA will establish and strengthen partnerships with municipalities, provincial and federal agencies, and private companies to collaborate on monitoring projects and share resources and expertise.

**Action 4.2:** NPCA will develop and implement training programs for staff to enhance their skills in a variety of monitoring protocols/technologies and data analysis techniques to increase NPCA's monitoring services' capacity.

**Action 4.3:** NPCA will invest in monitoring equipment, software and database management to improve data accuracy, collection efficiency, and reporting capabilities.

### Recommendation 5

That NPCA will continue to collaborate with municipal and community partners, agriculture, academia, and indigenous communities moving forward.

**Action 5.1:** NPCA will work towards building partnership agreements with municipal and community organizations, agricultural bodies, and indigenous communities as appropriate to outline roles, responsibilities, and shared goals within IWMP.



**Action 5.2:** The NPCA will organize regular meetings and workshops with municipal and community partners, agricultural representatives, academic institutions, and indigenous communities to share insights, discuss challenges, and coordinate monitoring efforts.

**Action 5.3:** NPCA will explore collaborative research projects with academic institutions and indigenous communities to leverage diverse expertise and traditional knowledge in monitoring and managing watershed health.

## Recommendation 6

The NPCA will continue to explore efficiencies and innovations to continuously improve the IWMP.

**Action 6.1:** The NPCA will establish a schedule for regular reviews and assessments of the IWMP to identify areas for improvement, incorporate innovative practices, and ensure the program remains at the forefront of environmental monitoring.

**Action 6.2:** NPCA will develop a centralized data management system within the IWMP to streamline the collection, analysis, and sharing of monitoring data, ensuring timely and effective decision-making.

**Action 6.3:** The NPCA will investigate advanced monitoring technologies and automated data collection systems, to enhance the efficiency and accuracy of environmental monitoring.

The IWMP Working Group will prioritize the implementation of the Recommendations and Actions through a program workplan supported by a long-term budget plan guided by the Watershed-based Resource Management Strategy. NPCA staff will continue to report to the NPCA Board of Directors the progress and successes of the new IWMP to support healthy and climate resilient watersheds.



## 8.2 Conclusion

In conclusion, the NPCA's Integrated Watershed Monitoring Program is a comprehensive and systematic approach essential for understanding and managing the watershed's ecological, hydrological, and environmental conditions. For the NPCA, this approach is crucial due to the anthropogenic stressors threatening our watershed. By integrating monitoring components such as water quality, hydrometric, ecological, land use and cover monitoring, geospatial data, and community science, the program provides a holistic understanding of watershed functions. This enables informed decision-making for resource management, environmental protection, natural hazard management, and land use planning. The NPCA's 10-year Strategic Plan (2021-2031) has identified an IWMP as a critical priority to achieve strategic goals related to healthy and climate-resilient watersheds, sustainable growth, connecting people to nature, partnership excellence, organizational excellence, and financial sustainability. With existing infrastructure and a completed gap analysis highlighting areas for improvement, the NPCA is well-positioned to implement and expand this program as part of its core service delivery. This will not only enhance the effectiveness of data collection and analysis but also support the NPCA's vision of a healthy and vibrant environment, ensuring the sustainability of valuable ecosystem services for future generations.

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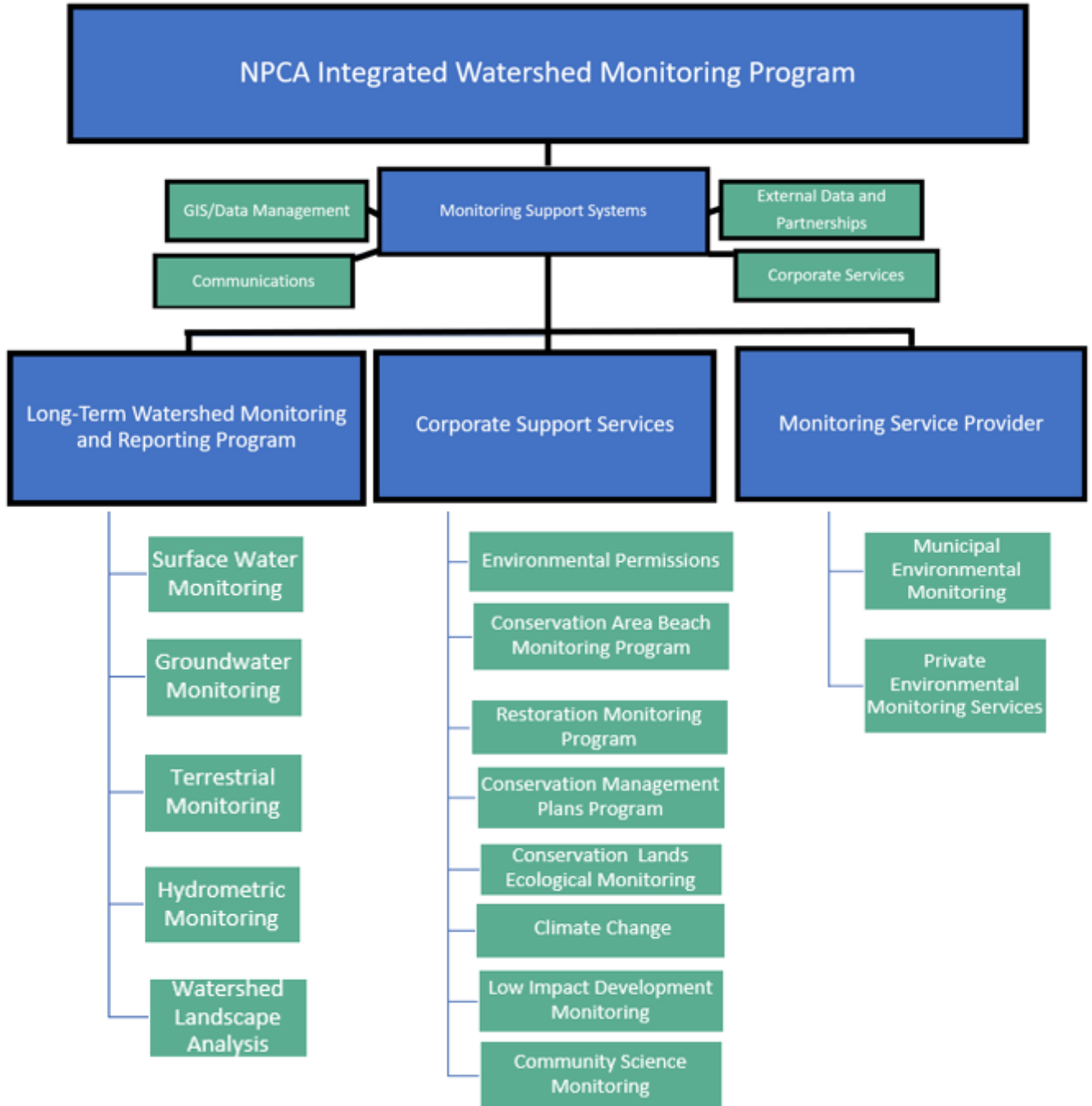
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**Niagara Peninsula Conservation Authority**

3350 Merrittville Hwy #9  
Thorold, ON L2V 4Y6  
[www.npca.ca](http://www.npca.ca)

**Appendix 2:** Niagara Peninsula Conservation Authority Enhanced Integrated Watershed Monitoring Program Conceptual Model





# *The Corporation of the Township of Otonabee-South Monaghan*

June 28, 2024

Via Email: [david.piccinico@pc.ola.org](mailto:david.piccinico@pc.ola.org)

Hon. David Piccini M.P.P.  
Minister of Labour, Immigration, Training and Skills Development  
117 Peter Street  
Port Hope, ON  
L1A 1C5

Dear Minister Piccini:

**Re: Regulations for the Importation and Safe Use of Lithium-ion Batteries**

I am writing today to bring to your attention a matter of significant importance to the Township of Otonabee-South Monaghan, regarding the importation and safe use of lithium-ion batteries.

At the June 17, 2024 Council Meeting the Fire Chief of the Township of Otonabee-South Monaghan made a presentation to Council on the dangers presented by lithium-ion batteries. The Fire Chief was reporting back from attending the Charged For Life Symposium presented by the Office of the Fire Marshal.

During the presentation, the Fire Chief stressed that the increased importation and use of non-Original Equipment Manufacturer (OEM) aftermarket batteries is presenting a significant increase in fire and explosion, putting citizens and responding personnel in danger. These after market batteries are not Underwriter Laboratories of Canada (ULC) certified but can be imported into Canada without any associated regulations.

Unlicensed persons and locations can store and modify lithium-ion batteries in our communities without regulations, providing dangerous conditions within a community. Charging these batteries within the home or multi-unit dwellings can result in larger fires with grave results.

Email: [info@osmtownship.ca](mailto:info@osmtownship.ca) Telephone: 705.295.6852 Facsimile 705.295.6405  
P.O. Box 70 20 Third St Keene, ON K0L 2G0  
Visit our website at [www.osmtownship.ca](http://www.osmtownship.ca) or follow us on Twitter @OSMTownship

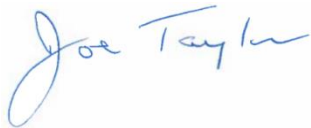
As Canada becomes more aware of Green Energy solutions, these batteries are used more often, increasing the danger to our communities. We support the Ontario Fire Marshal's program to educate citizens on the danger associated with lithium-ion batteries and encourage every municipality to actively promote safe practices for the use of lithium-ion batteries.

We also call upon all levels of government to enact regulations for the importation, sale, storage, and use of non-OEM or ULC certified lithium-ion batteries.

Thank you in advance for your attention to this very critical issue, and I look forward to your prompt consideration and support.

Please do not hesitate to contact me or our Fire Chief if you require any additional information.

Yours truly,  
Township of Otonabee-South Monaghan

A handwritten signature in blue ink that reads "Joe Taylor". The signature is written in a cursive style with a large initial "J".

Joe Taylor, Mayor

Cc: MP, Philip Lawrence  
All Ontario Municipalities





June 19, 2024

The Hon. Graydon Smith  
Minister of Natural Resources  
Whitney Block  
99 Wellesley Street West  
Toronto, Ontario  
M7A 1W3

The Hon. Nolan Quinn  
Associate Minister of Forestry  
Whitney Block  
99 Wellesley Street West  
Toronto, Ontario  
M7A 1W3

Submitted via email.

**Re: Immediate Action Needed To Support Ontario's Forest Sector**

Minister Graydon Smith and Associate Minister Nolan Quinn,

Congratulations on your recent appointments within Premier Doug Ford's Cabinet. The Ontario Forest Industries Association (OFIA) looks forward to our productive and continued work together.

Over the last six months, three of Ontario's six pulp and paper mills have permanently closed or idled. Adding to the issue was the closure of a critical softwood pulp market in Quebec. As you know, these facilities served as important consumers of solid-wood byproducts from Ontario sawmills.

The OFIA appreciates the many opportunities we have had to speak with you and senior leadership within Ontario's Ministry of Natural Resources (MNR) and Premier's Office. This includes in-person meetings with members of OFIA's Board Executive Committee on January 19<sup>th</sup>, March 19<sup>th</sup>, and May 28<sup>th</sup>, 2024. During these meetings, the OFIA presented short and long-term actions Ontario could take to address the regional chip and pulpwood market crisis endorsed by the OFIA membership (incl.).

The industry eagerly anticipates government action on this matter, as operating conditions for many have continued to worsen over the past six months. Combined with weak markets for some finished products, many companies struggle to continue their operations. We are now facing an unprecedented challenge in the sector, which could have negative and long-lasting implications for northern and rural communities across Ontario.

Without immediate action in response to OFIA recommendations and, critically, the vetting of potential solutions through the industry to ensure programs truly meet the sector's needs, we fear Ontario could face further curtailments, job losses, and lost economic opportunity.

The OFIA is ready to work with the Ontario government to set the forest products sector on a long-term and stable path towards economic development and prosperity. This includes our

vision of a *Forest Energy Directive* to develop bioheat, district heating, liquid fuels, renewable gases, biocarbon, and electricity generation projects, supporting Ontario's massive forecasted growth in non-emitting energy demands.

We urge you and your colleagues to continue supporting all measures targeting the immediate challenges the Ontario forest sector faces and look forward to future discussions with you.

Sincerely,



Ian Dunn, R.P.F.  
President & CEO  
Ontario Forest Industries Association  
Cell: 647-297-3827

Incl. March 19<sup>th</sup>, 2024 Slide Deck – Summary of Input from the Membership – OFIA Meeting with the Hon. Graydon Smith

May 28<sup>th</sup>, 2024 Slide Deck – Ontario Forest Energy Directive

CC The Hon. Caroline Mulroney, President of the Treasury Board  
The Hon. Peter Bethlenfalvy, Minister of Finance  
The Hon. Vic Fedeli, Minister of Economic Development, Job Creation and Trade  
The Hon. Greg Rickford, Minister of Northern Development and Indigenous Affairs  
The Hon. George Pirie, Minister of Mines  
The Hon. Steven Lecce, Minister of Energy and Electrification  
The Hon. Sam Oosterhoff, Associate Minister of Energy Intensive Industries  
The Hon. Todd Smith, Minister of Education  
The Hon. Paul Calandra, Minister of Municipal Affairs and Housing  
MPP John Yakabuski, Parliamentary Assistant to the Minister of Energy  
MPP Kevin Holland, Parliamentary Assistant to the Minister of Mines  
Deputy Minister Drew Vanderduim, Ministry of Natural Resources  
OFIA Membership



## **PORT COLBORNE**

### **MEETING OF THE GRANT ALLOCATION COMMITTEE Monday, July 29, 2024; second allocation of 2024**

Minutes of the Grant Allocation Committee held Monday, July 29 in Committee Room 3, City Hall

The following committee members and staff were present:

Committee members	Bea Kenny, chair Brenda Haymes Monique Aquilina Bill Steele Tim Hoyle
Recording secretary	Gail Todd

#### **CHAIR CALL TO ORDER: 4:10pm**

#### **APPROVAL OF THE AGENDA**

Moved by B. Haymes  
Seconded by T. Hoyle

#### **APPROVAL OF THE MINUTES OF THE FEB. 24, 2024 MEETING**

Moved by T. Hoyle  
Seconded by B. Steele

#### **DECLARATIONS OF CONFLICT OF INTEREST**

T. Hoyle recused himself from any discussion, debate, decision and vote regarding the application from The Wave, as he serves on its board.

**NEW BUSINESS**

None.

**APPLICATIONS REVIEW**

Members reviewed applications received by deadline June 30 from not-for-profit organizations. They discussed the merits of each application and allocated funding whether 100 per cent of the funding request or a portion thereof. An average was calculated of each member’s decision to determine the total allocation.

Moved by T. Hoyle  
Seconded by B. Haymes  
That funding requests of \$22,100  
for the second and final allocation of 2024 as follows:

Big Brothers Big Sisters	\$4000
Community Living Port Colborne Wainfleet	\$3000
Habitat for Humanity	\$2500
Port Cares Reach Out Centre	\$5000
Port Colborne and District Conservation Club	\$2600
Port Colborne Operatic Society	\$2000
Royal Canadian Legion Branch 56	\$3000

CARRIED.

Moved by M. Aquilina  
Seconded by B. Haymes  
That the funding request of \$2000 for The Wave be approved

Wave Girls Hockey Association	\$2000.
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CARRIED.

(T. Hoyle abstained)

Total funds for second allocation \$24,100.

**OTHER BUSINESS**

None.

## **CORRESPONDENCE**

Thank you letters received from Birchway Niagara executive director Amanda Braet, Mothers Against Drunk Driving, Niagara Nutrition Partners, and Lake House [Oak Centre] staff and volunteers.

## **ADJOURNMENT 5pm**

Moved by T. Hoyle  
Seconded by B. Steele

## **NEXT MEETING February 2025**

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**CHAIR**

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**SECRETARY**

The Corporation of the City of Port Colborne

By-law No.

Being a By-law to Appoint a Deputy Clerk (Jessica Beaupre) and Repeal By-law No. 7150/92/23 (Diana Vasu)

Whereas Subsection 228 (1) of the *Municipal Act, 2001* (“the Act”) provides that a municipality shall appoint a Clerk; and

Whereas Subsection 228 (2) of the Act provides that a municipality may appoint a Deputy Clerk who shall have all the powers and duties of the Clerk; and

Whereas the Council of The Corporation of the City of Port Colborne deems it expedient to appoint a Deputy Clerk and appeal by-law No. 7150/92/23;

Now therefore the Council of The Corporation of the City of Port Colborne enacts as follows:

1. That Jessica Beaupre is hereby appointed Deputy Clerk for The Corporation of the City of Port Colborne.
2. That by-law No. 7150/92/23 is repealed.
3. That this by-law shall come into force and take effect on the date of passing.

Enacted and passed this 27<sup>th</sup> day of August, 2024.

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William C. Steele  
Mayor

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Carol Schofield  
Acting City Clerk

The Corporation of the City of Port Colborne

By-law no. \_\_\_\_\_

Being a by-law to amend Zoning By-law 6575/30/18 respecting the land legally known as Part of Lots 23 and 24 Concession 1, City of Port Colborne, Regional Municipality of Niagara, municipally known as 563 Killaly Street East and vacant land to the south.

Whereas By-law 6575/30/18 is a by-law of The Corporation of the City of Port Colborne restricting the use of land and the location and use of buildings and structures; and

Whereas the Council of The Corporation of the City of Port Colborne desires to amend the said by-law.

Now therefore, and pursuant to the provisions of Section 34 of the *Planning Act, R.S.O. 1990*, The Corporation of the City of Port Colborne enacts as follows:

1. This amendment shall apply to those lands described on Schedule "A" attached to and forming part of this by-law.
2. That the Zoning Map referenced as Schedule "A6" forming part of By-law 6575/30/18 is hereby amended by changing those lands described on Schedule A from Residential Development (RD) and First Density Residential – Conversion Holding (R1-CH) to:
  - R4-83 (Site-Specific Fourth Density Residential Zone)
  - R4-84-H (Site-Specific Fourth Density Residential Zone with Holding)
3. That Section 37 entitled "Special Provisions" of Zoning By-law 6575/30/18, is hereby further amended by adding the following:

R4-83 (Site-Specific Fourth Density Residential Zone)

Notwithstanding the provisions of Residential Fourth Density Zone (R4), the following regulations shall apply:

**Dwelling, Townhouse, Block**

- |    |  |             |
|----|--|-------------|
| a. | Minimum Interior Side Yard   | 2.64 metres |
| b. | Minimum Corner Side Yard   | 2.9 metres  |
| c. | Maximum Height   | 12 metres   |
| d. | Notwithstanding the R4 zoning provisions, the first townhouse unit of the first townhouse dwelling block adjacent to Killaly Street East may be used for the following Neighbourhood Commercial Uses, provided the use meets the provisions set out in the R4-83 zone, and parking requirements in Section 3 of the Zoning By-law: <ul style="list-style-type: none"><li>i. Convenience Store;</li><li>ii. Personal Service Business; and</li><li>iii. Restaurant, Take-out</li><li>iv. Uses, structures and buildings accessory thereto</li></ul> |             |

**Dwelling, Townhouse, Street**

- |    |                            |                   |
|----|----------------------------|-------------------|
| a. | Minimum Lot Area           | 195 square metres |
| b. | Minimum Corner Side Yard   | 1.9 metres        |
| c. | Minimum Interior Side Yard | 1.4 metres        |

- d. Maximum Height 12 metres

### **Apartment Buildings**

- a. Minimum Lot Area, per unit 85 square metres  
b. Minimum Front Yard 3.9 metres  
c. Minimum Corner Side Yard 3.3 metres  
d. Minimum Rear Yard 4.9 metres  
e. Maximum Porch and Steps Encroachment 3.45 metres  
f. Minimum Parking 1 space per unit

### **Dwelling, Semi-detached**

- a. Minimum Lot Frontage 16 metres  
b. Minimum Lot Area 470 square metres

### **Definitions**

For the purposes of development within the R4-38 zone, the following definitions shall prevail over the regular definitions in Section 38:

**Lot Frontage:** means the horizontal distance between the interior side lot lines.

**Lot Line (applicable to block townhouse dwellings only):** means the boundary of a lot and for the purposes of measuring required yard setbacks, individual unit property lines of a registrable plan pursuant to the Condominium Act, and includes:

**a) Front Lot Line:** which means the lot line, not including a corner lot line, which abuts a street for the shortest distance, whether or not that line jogs or curves, and extending between the side lot lines, more or less for the full width of the lot and where more than one such lot line exists, means a lot line which abuts the same street as the front lot line of an abutting lot;

**b) Rear Lot Line:** which means the lot line furthest from and opposite the front lot line but if there is no such line, that point furthest from and opposite the front lot line; and

**c) Interior Side Lot Line:** which means the lot line other than a front lot line, a corner lot line or a rear lot line; or

**d) Corner Side Lot Line:** which means the longest line along a public road where a lot has two or more lot lines along a public road.

**Yard Setback:** means the distance required by this By-law between a lot line, not including a corner lot line, and a building, or in the case of a multi- unit development under one ownership such as condominium tenure pursuant to the Condominium Act, any devising property line between a common element feature or another unit and includes:

a) **Front Yard Setback:** which means the shortest distance between the front lot line and any part of a building, not including a projection permitted under Section 2.20.

i. Where a building has front-loaded vehicle access from a private road or laneway, the lot line of that common



element feature shall be deemed to be the front lot line;  
or

- ii. The front lot line abutting a public street supersedes an internal front lot line.

b) **Rear Yard Setback:** which means the shortest distance between the rear lot line and the nearest point of the principal building, not including a projection permitted under Section 2.20.

- i. Where a building has front-loaded vehicle access from a private road or laneway, the lot line opposite the common element feature shall be deemed to be the rear lot line; or
- ii. Where a building has vehicle access from private road or laneway and has front entry onto a common element sidewalk, the private road or laneway devising lot line providing vehicle access shall be deemed to be the rear lot line.

c) **Corner Side Yard Setback:** which means the shortest distance between the corner side lot line and any part of a building between the front and rear yards, not including a projection permitted under Section 2.20.

- i. Where a building fronts both a public street and a private road or laneway, the devising lot line of that common element feature shall be deemed to be the corner side lot line.

#### R4-84-H (Site-Specific Fourth Density Residential Zone - Holding)

Notwithstanding the provisions of Residential Fourth Density Zone (R4), the following regulations shall apply:

- a. The uses permitted in the Residential Fourth Density Zone (R4) shall not occur until the Holding (H) symbol on the R4-84-H zone is removed. The removal of the Holding (H) symbol is subject to the following condition:
  - i) Completion of a Stage 4 Archaeological Assessment and acknowledgement of the report by the Ministry of Tourism, Culture and Recreation.

4. That this by-law shall come into force and take effect on the day that it is passed by Council, subject to the provisions of the *Planning Act*.
5. The City Clerk is hereby authorized and directed to proceed with the giving of notice of the passing of this by-law, in accordance with the *Planning Act*.

Enacted and passed this 27<sup>th</sup> day of August 2024.

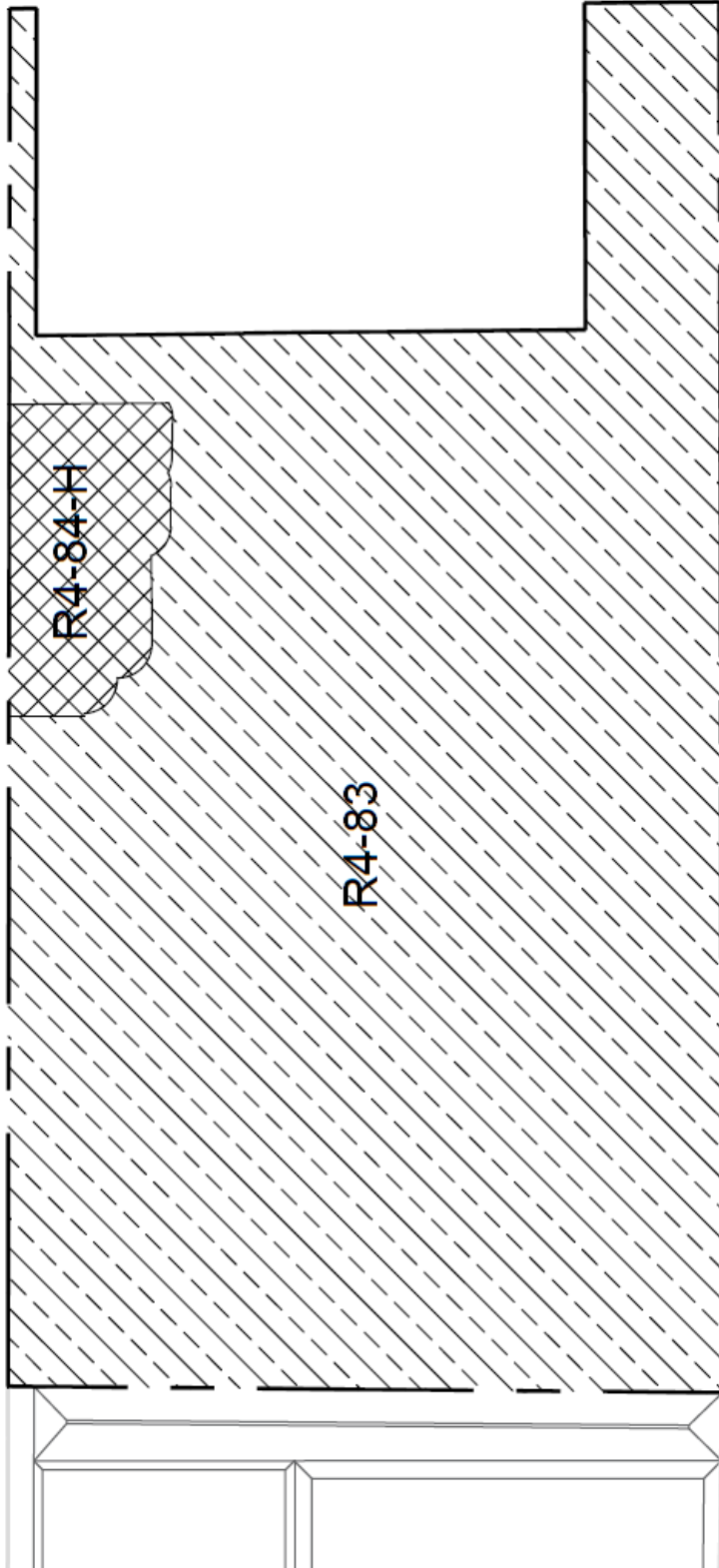
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William C Steele  
Mayor

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Carol Schofield  
Acting City Clerk

KILLALY STREET EAST



SCHEDULE "A"

To By-law No. \_\_\_\_\_

Legend

 R4-83

 R4-84-H

THIS IS SCHEDULE "A" TO BY-LAW No \_\_\_\_\_

PASSED THE \_\_\_\_\_ DAY OF \_\_\_\_\_

\_\_\_\_\_  
Mayor

62.5

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125

City of  
Port Colborne



The Corporation of the City of Port Colborne

By-law No. \_\_\_\_\_

Being a by-law to Adopt, Ratify and Confirm the proceedings of the Council of The Corporation of the City of Port Colborne at its Special Closed Meeting and Regular Meeting of August 27, 2024

Whereas Section 5(1) of the *Municipal Act, 2001*, provides that the powers of a municipality shall be exercised by its council; and

Whereas Section 5(3) of the *Municipal Act, 2001*, provides that a municipal power, including a municipality's capacity rights, powers and privileges under section 9, shall be exercised by by-law unless the municipality is specifically authorized to do otherwise; and

Whereas it is deemed expedient that the proceedings of the Council of The Corporation of the City of Port Colborne be confirmed and adopted by by-law;

Now therefore the Council of The Corporation of the City of Port Colborne enacts as follows:

1. Every action of the Council of The Corporation of the City of Port Colborne taken at its Special Closed Meeting and Regular Meeting of August 27, 2024, upon which a vote was taken and passed whether a resolution, recommendations, adoption by reference, or other means, is hereby enacted as a by-law of the City to take effect upon the passing hereof.
2. That where no individual by-law has been or is passed with respect to the taking of any action authorized in or with respect to the exercise of any powers by the Council, then this by-law is deemed for all purposes to be the by-law required for such authorization or exercise of any powers.
3. That the Mayor and Clerk are authorized to execute any documents required on behalf of the City and affix the corporate seal of the City and the Mayor and Clerk, and such other persons as the action directs, are authorized and directed to take the necessary steps to implement the action.
4. That the Clerk is authorized to affect any minor modifications, corrections, or omissions, solely of an administrative, numerical, grammatical, semantical, or descriptive nature to this by-law or its schedules after the passage of this by-law.

Enacted and passed this 27th day of August, 2024.

\_\_\_\_\_  
William C. Steele  
Mayor

\_\_\_\_\_  
Carol Schofield  
Acting City Clerk