

NIAGARA PENINSULA CONSERVATION AUTHORITY
Board of Directors Meeting
December 13, 2024, 9:00a.m.
Carolinian Hall
3350 Merrittville Hwy., Thorold ON
AGENDA

CALL TO ORDER – ROLL CALL

The Niagara Peninsula watershed is situated within the traditional territory of the Haudenosaunee, Attiwoonderonk (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 many First Nations, Métis, and Inuit.

1. APPROVAL OF AGENDA

2. DECLARATIONS OF CONFLICT OF INTEREST

3. APPROVAL OF MINUTES

3.1. Minutes of the Full Authority Meeting dated, November 15, 2024

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**3.2. Closed Session Minutes of the Full Authority Meeting dated
November 15, 2024 (*distributed separately*)**

4. CHAIR'S UPDATE

5. CORRESPONDENCE

6. PRESENTATIONS

6.1. Watershed-based Resource Management Strategy

Presented by Senior Manager, Integrated Watershed Strategies, Geoff Verkade.

6.2. Conservation Area Strategy

Presented by Manager, Land Planning, Eric Baldin.

7. DELEGATIONS

8. CONSENT ITEMS

9. DISCUSSION ITEMS

9.1. Report No. FA-60-24 RE: Banking and Borrowing Resolution

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9.2. Report No. FA-65-24 RE: Public Advisory Committee Member Recruitment

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9.3. Report No. FA-61-24 RE: Planning and Permitting Policy Review Work Plan

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9.4. Report No. FA-62-24 RE: Watershed-based Resource Management Strategy

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9.5. Report No. FA-63-24 RE: Conservation Area Strategy

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10. COMMITTEE REPORTS

10.1. Governance Committee Minutes, dated November 15, 2024

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10.2. Public Advisory Committee Minutes, dated November 26, 2024

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10.2.1. Recommendation No. PAC-26-2024

THAT the verbal update regarding Committee Member Recruitment **BE RECEIVED;**

AND THAT pending recruitment initiatives indicate that priority will be given to candidates who can advise based on expertise in the respective areas and identify with equity-deserving groups;

AND FURTHER THAT the Public Advisory Committee request that the NPCA Board of Directors consider relaxing the sector requirements for the recruitment of the following vacant positions:

One (1) agricultural representative;
One (1) business/industry representative; and
One (1) development/building representative.

11. MOTIONS

12. NOTICES OF MOTION

13. NEW BUSINESS

13.1 Verbal update RE: Niagara Peninsula Conservation Foundation

14. CLOSED SESSION

**14.1. A proposed or pending acquisition or disposition of land by the NPCA
(Confidential Report No. FA-64-24, *distributed separately*)**

15. ADJOURNMENT

NIAGARA PENINSULA CONSERVATION AUTHORITY
Board of Directors Meeting Minutes
November 15, 2024, 9:00a.m.
Carolinian Hall
3350 Merrittville Hwy., Thorold ON

MEMBERS PRESENT: J. Metcalfe, Chair
S. Beattie, Vice Chair
B. Clark
D. Cridland
R. Foster
B. Grant
M. Seaborn
M. Tadeson
A. Witteveen

MEMBERS ABSENT: P. O'Neill

STAFF PRESENT: L. Lee-Yates, CAO/Secretary-Treasurer
E. Baldin, Manager, Land Planning
B. Buggeln, Manager, Natural Hazard Management and Resiliency
A. Christie, Director, Conservation Areas
C. Coverdale, Manager, Financial Services
J. Culp, Manager, Compliance & Enforcement
M. Davis, Manager, Office of the CAO & Board
D. Deluce, Director, Planning & Development
M. Ferrusi, Manager, People & Performance
L. Gagnon, Director, Corporate Services
E. Gervais, Manager, Corporate Support Services
N. Green, Manager, Climate Change & Special Programs
A. Powell, Manager, Conservation Areas Programs & Services
G. Shaule, Administrative Assistant
S. Zavarella, Manager, Communications & PR

The meeting was called to order at 9:05 a.m.

1. APPROVAL OF AGENDA

Resolution No. FA-112-2024

Moved by: Michelle Seaborn

Seconded by: Mark Tadeson

THAT agenda for the Full Authority Board meeting held on November 15, 2024 **BE APPROVED**

CARRIED

2. DECLARATIONS OF CONFLICT OF INTEREST

None.

3. APPROVAL OF MINUTES

Resolution No. FA-113-2024

Moved by: Donna Cridland

Seconded by: Brian Grant

THAT the Minutes of the Full Authority Meeting Minutes dated October 18, 2024 **BE APPROVED.**

CARRIED

4. CHAIR'S UPDATE

- The NPCA hosted the annual Conservation Areas Workshop from October 22-24, 2024, with over 125 attendees from 23 Conservation Authorities across Ontario. The Workshop featured a full day of de-escalation and mental health training, learning led by Indigenous artist and speaker, Lindsey Lickers, and keynote presentations by National Geographic TV star, Tori Baird, and NPCF's Director Adam Shoalts, a renowned author and explorer.
- On November 6, NPCA hosted its Volunteer Appreciation Dinner, celebrating the time contributed to conservation efforts by over 120 volunteers across the Niagara Peninsula Watershed.
- On November 8, the first phase of a Community Healing Garden at Notre Dame College School in Welland came to fruition. Initiated by students in their Peace & Politics class, with guidance from the Niagara Catholic District School Board Indigenous Team, 20 native trees were planted to commemorate Indigenous Veterans Day and provide a space for healing that will benefit future generations.

5. CORRESPONDENCE

Resolution No. FA-114-2024

Moved by: Stew Beattie

Seconded by: Michelle Seaborn

THAT the following correspondence **BE RECEIVED:**

- Correspondence dated October 18, 2024 from North Bay – Mattawa Conservation Authority RE: Recommended phase-out of free well water testing in 2023 Auditor General's Report;
- Notice of Public Information Centre: Lyons Creek East Sediment Management Planning, Tuesday, November 19, 2024;
- Correspondence dated November 7, 2024 from the City of Hamilton RE: 2025 Budget Submissions for the Niagara Peninsula Conservation Authority; and
- Correspondence dated November 13, 2024 from the Niagara Peninsula Conservation Foundation RE: 2024 Directors Challenge.

CARRIED

6. PRESENTATIONS

6.1. Ball's Falls Thanksgiving Festival 50th Anniversary Recap

Presentation provided by Manager, Conservation Areas Programs & Services, Alicia Powell. Discussion ensued.

Resolution No. FA-115-2024

Moved by: Stew Beattie

Seconded by: Robert Foster

THAT the presentation RE: Ball's Falls Thanksgiving Festival 50th Anniversary Recap **BE RECEIVED**.

CARRIED

7. DELEGATIONS

7.1. Directors Challenge – Barbara Greenwood, Chair, NPCF

Discussion ensued regarding the impact of a unified commitment to support quality of life in the Niagara Peninsula watershed.

Resolution No. FA-116-2024

Moved by: Donna Cridland

Seconded by: Stew Beattie

THAT the delegation from NPCF Chair Barbara Greenwood RE: Directors' Challenge **BE RECEIVED**.

CARRIED

8. CONSENT ITEMS

Resolution No. FA-117-2024

Moved by: Brian Grant

Seconded by: Robert Foster

THAT the following items **BE RECEIVED**:

8.1. Report No. FA-55-24 RE: Compliance and Enforcement Q3 Statistics

8.2. Report No. FA-53-24 RE: NPCA Insurance Coverage

CARRIED

9. DISCUSSION ITEMS

9.1. Report No. FA-54-24 RE: 2025 Fee Schedule

Director, Corporate Services, Lise Gagnon, provided a brief overview. Discussion ensued.

Resolution No. FA-118-2024

Moved by: Brad Clark

Seconded by: Mark Tadeson

THAT Report No. FA-54-24 RE: 2025 Fees Schedule **BE RECEIVED**;

AND THAT the 2025 Fees Schedule outlined in Appendix 1 of Report No. FA-54-24 **BE APPROVED**, with an effective date of January 1, 2025;

AND FURTHER THAT the 2025 Fees Schedule **BE MADE PUBLICALLY AVAILABLE** on the NPCA website.

CARRIED

9.2. Report No. FA-58-24 RE: Financial Report – Q3 – 2024

Director, Corporate Services, Lise Gagnon, provided an overview of the report and answered questions regarding expectations as year-end nears.

Resolution No. FA-119-2024

Moved by: Donna Cridland

Seconded by: Robert Foster

THAT Report No. FA-58-24 RE: Financial Report – Q3 – 2024 **BE RECEIVED** for information.

CARRIED

9.3. Report No. FA-57-24 RE: Agreement of Services between the Corporation of the Town of Niagara-on-the-Lake and Niagara Peninsula Conservation Authority

Director, Conservation Areas, Adam Christie provided an overview of the above noted report. Discussion ensued regarding the unique situation with irrigation infrastructure on NPCA property.

Resolution No. FA-120-2024

Moved by: Mark Tadeson

Seconded by: Brian Grant

THAT Report No. FA-57-24 RE: Agreement of Services between the Corporation of the Town of Niagara-on-the-Lake and Niagara Peninsula Conservation Authority **BE RECEIVED**;

AND THAT the Agreement of Services between the Corporation of the Town of Niagara-on-the-Lake and Niagara Peninsula Conservation Authority **BE APPROVED**;

AND THAT the CAO/Secretary – Treasurer and NPCA Chair **BE AUTHORIZED** to sign required documents to execute said agreement;

AND FURTHER THAT the final executed Agreement of Service between the Corporation of the Town of Niagara-on-the-Lake and Niagara Peninsula

Conservation Authority **BE MADE PUBLICLY AVAILABLE** on NPCA's website.

CARRIED

9.4. Report No. FA-56-24 RE: 2025 Meeting Schedule

Manager, Office of the CAO & Board, Melanie Davis provided an overview of the 2025 Meeting Schedule. Discussion ensued.

Resolution No. FA-121-2024

Moved by: Michelle Seaborn

Seconded by: Donna Cridland

THAT Report No. FA-56-24 RE: Board of Directors' 2025 Meeting Schedule **BE RECEIVED;**

AND THAT Appendix 1 to Report No. FA-56-24 RE: Board of Directors' 2024 Meeting Schedule **BE APPROVED;**

AND THAT the meeting schedule **BE PUBLISHED** on NPCA's website for public information;

AND FURTHER THAT the meeting schedule **BE CIRCULATED** to participating and local area municipalities.

CARRIED

10. COMMITTEE REPORTS

None.

11. MOTIONS

None.

12. NOTICES OF MOTION

None.

13. NEW BUSINESS

13.1. Verbal update RE: Niagara Peninsula Conservation Foundation

- Womenchant Winter Solstice Concert is scheduled for December 19, 2024 at Ball's Falls. Information on silent auction and more can be found online.

14. CLOSED SESSION

Resolution No. FA-122-2024

Moved by: Stew Beattie

Seconded by: Mark Tadeson

THAT the Full Authority Meeting on November 15, 2024 **PROCEED INTO CLOSED SESSION** at 9:45a.m.

CARRIED

Resolution No. FA-123-2024

Moved by: Brian Grant

Seconded by: Robert Foster

THAT the Full Authority Meeting on November 15, 2024 **PROCEED INTO OPEN SESSION** at 10:35a.m.

CARRIED

Resolution No. FA-124-2024

Moved by: Stew Beattie

Seconded by: Brian Grant

THAT staff **PROCEED AS DIRECTED** in closed session regarding Report No. FA-49-24.

CARRIED

14. ADJOURNMENT

Chair Metcalfe adjourned the meeting at 10:36 a.m.

Report To: Board of Directors

Subject: Bank Borrowing Resolution

Report No: FA-60-24

Date: December 13, 2024

Recommendation:

WHEREAS Section 3 (5) of the *Conservation Authorities Act* authorizes Conservation Authorities, for its purposes, to borrow on the promissory note of the authority such money as may be required until payment to the authority of any grants and of sums to be paid to the authority by the participating municipalities,

WHEREAS the Niagara Peninsula Conservation Authority deems it appropriate to borrow such sums, with the total borrowed amount not to exceed \$1,000,000 at any one time to meet approved administration, maintenance and capital expenditures;

BE IT RESOLVED THAT Report No. FA-60-24 RE: Bank Borrowing Resolution **BE RECEIVED;**

AND THAT the Niagara Peninsula Conservation Authority **BE AUTHORIZED** to borrow from time to time from the Toronto Dominion Bank by way of a Demand Operating Facility Agreement executed and signed by the Chair, Vice-Chair, CAO/Secretary-Treasurer and Director of Corporate Services with the total amount not exceeding \$1,000,000 at any one time to meet approved administration, maintenance and capital expenditures;

AND FURTHER THAT the Board of Directors **AUTHORIZE** the Chair, Vice-Chair, CAO/Secretary-Treasurer and the Director of Corporate Services to execute the required agreements and documents.

Purpose:

The purpose of this report is to seek Board direction on the execution of a Demand Operating Facility Agreement. To ensure adequate cash flow for operational needs, including funding short-term expenditures during periods of revenue timing gaps, it is necessary to secure a demand operating facility. This financial tool will enhance the NPCA's ability to manage temporary cash flow requirements efficiently.

Background:

On January 18, 2017, the Board of Directors approved a borrowing resolution for an amount not exceeding \$800,000 by way of an overdraft agreement.

Since May of 2019, this borrowing facility has not been utilized with the exception of a 3-year letter of credit required by the City of Hamilton for a capital project in that jurisdiction. The last installment for this instrument will be released by Dec. 31, 2024.

Discussion:

The proposed demand operating facility will provide flexible, short-term financing to bridge gaps between expenditure timing and revenue receipt, particularly during seasonal variances in funding flows from municipal levies, grants, or program revenues.

Staff are recommending an increase to the historical levels of borrowing capacity to recognize the (potential) increased need for borrowing capacity given the 74% growth in annual budgets since 2020. The borrowing limit proposed is up to \$1,000,000 at any one time with a prime interest rate.

The borrowing falls within the authority's statutory borrowing limits under the *Conservation Authorities Act* and aligns with the following sections of NPCA's administrative by-laws:

Section 2.2 – Functions of the Board

Pass a borrowing resolution for a specified amount for the purposes of the Authority and authorizing the appointed signing officers to sign notes as required to implement this borrowing

Section 9 – Borrowing Resolution

If required, the Board of Directors shall establish a borrowing resolution and such resolution shall be in force until it is superseded by another borrowing resolution.

Financial Implications:

There are no immediate financial implications pertaining to the recommendations outlined within this report. Interest costs will be incurred only on the amount drawn on against the facility, should use be required.

Any use of the facility will be reported quarterly to the Board as part of financial updates.

Links To Policy/Strategic Plan:

Goal 5.2: Improve internal operations and processes

Goal 6.1: Ensure responsible, sustainable, and sound fiscal practices

Related Reports and Appendices:

Available upon request:

- NPCA Administrative By-law
- *Conservation Authorities Act*

Authored by:

Original Signed by:

Lise Gagnon, CPA, CGA
Director, Corporate Services

Reviewed and Submitted by:

Original Signed by:

Leilani Lee-Yates, BES, MSPL.RPD MCIP, RPP
Chief Administrative Officer/Secretary-Treasurer

Report To: Board of Directors

Subject: Public Advisory Committee Member Recruitment

Report No: FA-65-24

Date: December 13, 2024

Recommendation:

THAT Report No. FA-65-24 RE: Public Advisory Committee Member Recruitment **BE RECEIVED**;

AND THAT staff **BE DIRECTED** to proceed with Public Advisory Committee member recruitment as outlined herein;

AND FURTHER THAT Report No. FA-65-24 and the Public Advisory Committee Terms of Reference **BE CIRCULATED** to partner and local area municipalities to support committee member recruitment.

Purpose:

To advise the Board of Directors about three vacancies on the Public Advisory Committee and seek approval to proceed with recruitment initiatives.

Background:

The *Conservation Authorities Act* includes a provision that enables the NPCA to establish advisory boards as it considers appropriate (s.18 (2)). In accordance with the NPCA Administrative By-Law, each established advisory committee must have Board-approved Terms of Reference appended to the By-Law.

The NPCA's Public Advisory Committee (PAC) was established in 2014 and consists of citizen representatives from various watershed sectors to provide collaborative, local sector-based perspectives on specific projects and programs, and other conservation authority matters, as determined by the NPCA. The voluntary group of PAC members has been instrumental in providing valuable input to NPCA staff and the Board of Directors.

In 2022, Public Advisory Committee members provided feedback on the structure, composition, and role of the PAC which resulted in an updated Terms of Reference approved by the Board at the February 17, 2023, Full Authority meeting.

The key changes included the addition of a Vice-Chair, clarification of Staff and Board roles, extension of the Members' terms to align with the Board, and the addition of specific representatives.

At the Public Advisory Committee meeting held on September 17, 2024, Members discussed the decline in attendance that puts a quorum at risk. The Terms of Reference stipulate that three (3) missed meetings may result in termination.

Discussion:

Staff connected with committee members to discuss attendance, scheduling conflicts, and alternative solutions resulting in vacancies identified in the following roles on the PAC:

- One (1) business/industry representative;
- One (1) development/building representative; and
- One (1) agricultural representative.

To ensure diverse perspectives and holistic feedback in Committee discussions, it is recommended that recruitment initiatives launch to appoint new members to the Public Advisory Committee vacant positions by March 2025.

Committee Member Recruitment

The Terms of Reference outlines a member recruitment process for the Committee. A working group, comprised of NPCA staff, will be formed to evaluate applications and provide recommendations that will be brought forward to the Board for approval.

Staff will solicit applications using a variety of mediums such as: newsletters, local newspapers, community groups, social media and the NPCA Get Involved online engagement platform.

Before being assigned to the Committee, candidates will be required to pass a police background check and abide by NPCA policies (i.e., Code of Conduct) and protocols applicable to volunteers. A timeline for the recruitment process is provided in Table 1 below.

Table 1. PAC Member Recruitment Timeline

Dates	Action Items
December 16-20	Establishment of Recruitment Working Group Review/revision of evaluation matrix Communication assets development
January 6-10	Communication assets finalized Circulate vacancies to municipal partners and First Nations communities
January 20 - February 2	Public engagement begins Application portal opens
February 2	Application portal closes
February 3-14	Recruitment Working Group evaluations
February 16-27	Notification to recommended applicants Completion of background checks
March 21	Recommended Committee appointments brought forward for Board Approval

Financial Implications:

There are no financial implications identified upon approval of recommendations included.

Links to Policy/Strategic Plan:

Goal 4.2: Foster relationships with the community, non-government organizations, businesses, agriculture, industry, and academic institutions for collective outcomes and impact

Goal 4.3: Improving engagement with local First Nations, Métis and Inuit peoples that supports shared stewardship

Goal 5.3: Providing high standards of customer service

Related Reports and Appendices:

Report No. FA-04-23 RE: Updated Public Advisory Committee Terms of Reference

Report No. FA-15-23 RE: PAC Member Recruitment and Appointment

Authored by:

Original Signed by:

Melanie Davis, M.A.
Manager, Office of the CAO & Board

Reviewed by:

Original Signed by:

Natalie Green, M.Sc, PMP
Director, Watershed Strategies & Climate Change

Submitted by:

Original Signed by:

Leilani Lee-Yates, BES, MSPL.RPD, MCIP, RPP
Chief Administrative Officer/Secretary-Treasurer

Report To: Board of Directors

Subject: Planning and Permitting Policy Review Work Plan

Report No: FA-61-24

Date: December 13, 2024

Recommendation:

THAT Report No. FA-61-24 RE: Planning and Permitting Policy Review Work Plan **BE RECEIVED**;

AND THAT the proposed Planning and Permitting Policy Review Work Plan, as outlined in Appendix 1, **BE APPROVED**;

AND FURTHER THAT the proposed Permitting Procedure Manual Review Work Plan, as outlined in Appendix 2, **BE RECEIVED** for information.

Purpose:

The purpose of this report is to provide the Board with a proposed work plan for the review of the NPCA Planning and Permitting Policy Document (Policy Document) and the NPCA Planning and Permitting Procedure Manual (Procedure Manual) in 2025.

Background:

During 2022, the NPCA undertook a major review and update of its Policy Document and established a Procedure Manual. The Policy Document review essentially resulted in a new document, approved by the Board of Directors through Resolution No. FA-104-2022 in November 2022.

On April 1, 2024, the province enacted Ontario Regulation (O. Reg.) 41/24 under the *Conservation Authorities Act*, replacing the NPCA's previous Section 28 Regulation 155/06. In response to the new Regulation, staff undertook a housekeeping amendment to the Policy Document to bring it into conformity with the new Regulation (FA-09-24). This consisted mainly of small text changes such as references to the new Regulation, revised sections of the *Conservation*

Authorities Act, and the revised work permit “tests” in O. Reg. 41/24. The housekeeping amendment was to be followed by a more thorough review of the Policy Document in 2025, to address any issues that may have arisen from implementing the new Regulation and to incorporate any necessary updates resulting from the new Provincial Planning Statement 2024 (PPS), which took effect October 20, 2024.

The Procedure Manual was established in November 2022 and assists landowners, developers, consultants, NPCA staff and other interested parties in clarifying NPCA procedures for Plan Review and Permitting. The manual has not yet been updated to reflect the new Regulation or PPS.

Discussion:

With a major review completed in recent years, and having completed an initial amendment to conform with O. Reg. 41/24, the Policy Document review proposed for 2025 will focus on amendments to provide further clarification or address gaps in light of O. Reg. 41/24, the new PPS and associated provincial guidelines.

Planning and Permitting Policy Review

The 2025 Policy Review will be conducted in two phases. Phase 1 will consist of a gap analysis of the current Policy Document. This will involve review by NPCA staff and consultation with external interest groups (members of the public, Indigenous partners, development community, agricultural community, municipal partners) to determine where constraints may exist. During Phase 1, staff will consult with other conservation authorities to identify any common challenges that have arisen with the implementation of Regulation 41/24. A workshop with the NPCA Governance Committee to go over the current Policy Document is proposed for March 2025. Phase 1 will conclude with presenting the results of the gap analysis to the Board.

Phase 2 will involve making any changes to the Policy Document based on the findings of Phase 1. Staff will present the draft changes to the public and interested parties for feedback and make further revisions as needed. Once this is completed, staff will bring the final draft changes to the Board for approval. The entire project is spread throughout 2025. A project timeline is included as Appendix 1.

Public engagement will be an important component of the 2025 Policy Review. A comprehensive engagement plan will be developed to ensure that there is ample opportunity for interest groups and the general public to participate in Phase 1 and Phase 2 of the work.

Staff have considered potential risks to the 2025 Policy Review and have contingencies in place to address potential risks. The main risks include changing

provincial policy/legislative/regulatory framework, changing provincial technical guidelines and internal resources. Where there is a change in provincial policies, legislation, regulations or technical guidelines throughout the 2025 Policy Review, staff will determine whether the changes can be accommodated or if they should be part of a separate housekeeping update (dependant on timing) and proceed accordingly. The 2025 Policy Review will be undertaken in house with NPCA subject matter experts. The operating budget supports the resource needs.

Planning and Permitting Procedural Manual Review

The Procedure Manual review will follow a similar process from the Policy Review but will span a longer timeframe. Since updates to the Procedure Manual do not require Board approval, staff will publish updates as key milestones are completed.

The most time-sensitive component of the Procedure Manual update will be completed in Phase 1 (correcting references to O. Reg. 41/24 and similar housekeeping items) by April 2025.

The remaining Phases will focus on the various NPCA Guidelines that form the Appendices of the Procedure Manual. These will take longer to update given the technical nature of the guidelines. A work plan for the Procedure Manual update is provided in Appendix 2 for information. Engagement with interested parties will be included for each of the guidelines. The work plan for the Procedure Manual update is intended to be flexible in that some phases may be switched in order to complete certain components ahead of others, if needed.

Financial Implications:

There are no financial implications to this report. All work from this project will be completed by NPCA staff and project costs were accounted for in the 2025 Operating Budget.

Links to Policy/Strategic Plan:

The upkeep of key Planning and Permitting documents such as the Policy Document and Procedure Manual are in keeping with the following strategic priorities:

- Goal 1.2 Protect people and properties from natural hazards and climate impacts
- Goal 2.1 Maintain a high standard of client services, tools and procedures for planning review and permits.
- Goal 5.2 Improve internal operations and processes.
- Goal 5.3 Provide high standards of customer service.

Related Reports and Appendices:

Appendix 1: 2025 Policy Review Work Plan
Appendix 2: Procedure Manual Review Work Plan

Authored by:

Original Signed by:

David Deluce, MCIP, RPP
Director, Planning & Development

Reviewed and Submitted by:

Original Signed by:

Leilani Lee-Yates, BES, MSPL.RPD, MCIP, RPP
Chief Administrative Officer/Secretary-Treasurer

	Report No. FA-61-24 Appendix 1: NPCA 2025 Policy Review Work Plan												
	Task	January	February	March	April	May	June	July	August	September	October	November	December
1.1	Jurisdictional scan of other policies												
1.2	Internal Review of existing policy document												
1.3	Consultations with key interest groups:												
1.4	NPCA Governance Committee Workshop												
1.5	Public Engagement Checkpoint												
1.6	Summarize key findings												
1.7	Report to NPCA Board of Directors - Key findings, next steps												
2.1	Draft amendments to policy document												
2.2	Present draft amendments to internal stakeholders												
2.3	Present draft amendments to key interest groups (same as Step 1.3)												
2.4	Public Engagement Checkpoint												
2.5	Make any necessary changes based on feedback												
2.6	Report to NPCA Governance Committee to adopt proposed amendments												
2.7	Report to NPCA Board to adopt proposed amendments												
2.8	Publish updated Policy Document (post to website, advise all interest groups of effective date)												

Report No. FA-61-24 Appendix 2: NPCA Procedural Manual 2025-2026 Update

	Task	January	February	March	April	May	June	July	August	September	October	November	December	Jan-26	Feb-26	Mar-26
1.1	Internal Review of existing procedure manual for housekeeping updates															
1.2	Review/update Procedure Manual Appendices that do not involve extensive changes															
1.3	Publish updated Procedure Manual (post to website, advise all interest groups of effective date)															
2.1	Review/Update NPCA Client Service Standards (Appendix to Procedure Manual)															
2.2	Publish updated Procedure Manual (post to website, advise all interest groups of effective date)															
3.1	Review/update NPCA EIS Guidelines (Appendix to Procedure Manual)															
3.2	Publish updated Procedure Manual (post to website, advise all interest groups of effective date)															
4.1	Review/update wetland procedure document (Appendix to Procedure Manual)															
4.2	Publish updated Procedure Manual (post to website, advise all interest groups of effective date)															
4.1	Review/update headwater drainage feature guidelines (Appendix to Procedure Manual)															
4.2	Publish updated Procedure Manual (post to website, advise all interest groups of effective date)															
5.1	Review/update wetland water balance risk evaluation and monitoring protocol (Appendix to Procedure Manual)															
5.2	Publish updated Procedure Manual (post to website, advise all interest groups of effective date)															

Report To: Board of Directors

Subject: Watershed-based Resource Management Strategy

Report No: FA-62-24

Date: December 13, 2024

Recommendation:

THAT Report No. FA-62-24 RE: Watershed-based Resource Management Strategy **BE RECEIVED**;

AND THAT the Watershed-based Resource Management Strategy, as presented in Appendix 1, **BE APPROVED**;

AND THAT staff **BE AUTHORIZED** to publish the Watershed Strategy on the NPCA website;

AND FURTHER THAT the Watershed Strategy **BE CIRCULATED** to upper-tier, single-tier, and local area municipalities within the Niagara Peninsula Watershed;

Purpose:

To seek NPCA Board of Directors' approval of the Watershed-based Resources Management Strategy (Watershed Strategy) required under the Conservation Authorities Act and recommend that the Watershed Strategy be made publicly available through the NPCA's website and distributed directly to municipal partners.

Background:

The Watershed Strategy is being developed in response to Ontario Regulation 686/21: Mandatory Programs and Services, which is made under section 21.1(1)2 of the *Conservation Authorities Act*. This regulation outlines the specific programs and services that all Conservation Authorities must provide within their jurisdiction, including the development of a Watershed-based Resource Management Strategy.

The Watershed-based Resource Management Strategy must include the following components:

- Guiding principles and objectives that inform the design and delivery of the programs and services that the Conservation Authority is required to provide under section 21.1 of the *Conservation Authorities Act* (i.e., mandatory programs and services).
- A summary of existing technical studies, monitoring programs and other information on the natural resources the authority relies on within its area of jurisdiction or in specific watersheds that directly inform and support the delivery of programs and services under section 21.1 of the Act.
- A review of the authority's programs and services provided under section 21.1 of the Act for the purposes of:
 - Determining if the programs and services comply with the regulations made under clause 40 (1) (b) of the Act (e.g., mandatory programs and services, and review of applications under prescribed Acts);
 - Identifying and analyzing issues and risks that limit the effective delivery of these programs and services; and
 - Identifying actions to address the issues and mitigate the risks identified by the review and providing a cost estimate for the implementation of those actions.
- A process for the periodic review and updating of the Watershed-based Resource Management Strategy by the authority that includes procedures to ensure stakeholders, and the public are consulted during the review and update process.

The purpose of the Watershed Strategy is to assist NPCA with evolving or enhancing the delivery of its programs and services and improve efficiencies and their effectiveness in supporting mandatory programs of the Conservation Authorities Act. The Watershed Strategy will effectively guide the NPCA in managing watershed resources sustainably.

At the October 18, 2024 Full Authority meeting, the Board endorsed the draft Watershed Strategy, and further directed staff to post the draft Strategy for public comment and bring forward the proposed final Watershed Strategy on or before December 13, 2024.

As outlined in O. Reg. 686/21 under the *Conservation Authorities Act*, the Watershed Strategy must be completed by December 31, 2024.

Discussion:

The NPCA Watershed Strategy incorporates guiding principles and objectives from NPCA's 10-year Strategic Plan that shape the design and delivery of mandatory programs and services. Key objectives include enhancing watershed health through integrated watershed management, promoting climate resilience, and incorporating stakeholder input. The Watershed Strategy supports NPCA's

commitment to protecting the Niagara Peninsula's unique watershed and promoting community engagement, and preserves NPCA's inherent Integrated Watershed Management (IWM) approach to conservation that recognizes water is a valuable resource that should be managed sustainably in conjunction with natural resources like fisheries, wildlife, and land.

One significant component of the Watershed Strategy focuses on identifying potential issues and risks that could hinder the effective delivery of mandatory programs and services, along with targeted actions to mitigate these challenges.

Five prominent issues and challenges forecasted through the development of the Strategy include:

1. Climate variability and change

Climate change impacts have the potential to be wide-reaching, affecting ecosystems, agriculture, infrastructure, water supply, energy, transportation systems, tourism and recreation, human health and well-being, and ultimately the economy.

Adaptation efforts minimize the level of damage, hazard and risks associated with climate change while also recognizing new opportunities presented with the changing climate. Such adaptation efforts include flood management programs, ecosystem enhancements, water quality and quantity monitoring, municipal plan review and input, local climate change monitoring and modelling, information management, and green infrastructure and stormwater management.

Mitigation efforts are focused on reducing greenhouse gas emissions and other causes that adversely and rapidly influence weather patterns and climatic conditions. They include green building technologies and retrofits (e.g., LEED), energy conservation, renewable energy, reforestation, carbon sequestration (e.g., wetlands), and low impact development.

2. Increasing growth pressures on watersheds

As communities grow and change, and as the need for housing increases, more marginal land may be considered for development. Areas that are susceptible to erosion or flooding may be identified to accommodate innovative forms of infill development and face greater development pressure.

3. Loss of biodiversity, species at risk, habitat and natural cover

The loss of habitat, increased numbers of species at risk, and an ongoing decrease in biodiversity continue to be major threats to the function and health of natural areas and the local ecosystem in the Niagara Peninsula watershed.

4. Invasive species

Invasive species are a major threat in Ontario and the Niagara Peninsula watershed as they become more abundant and widespread. These species outcompete native species and impact the watershed's existing natural heritage system and features. Devastation of local woodlots and forest patches due to impacts caused by the emerald ash borer are evident throughout NPCA's jurisdiction. Other prevalent species such as Common Reed (*Phragmites australis*) have invaded local natural areas across the Niagara Peninsula watershed while new invasive species are reported ever more frequently.

5. Impacts on water quality

Watershed health is strongly influenced by water quality indicators. Impacts are well known in the Niagara Peninsula watershed, as documents through NPCA's ambient Water Quality Monitoring Program. Annual Results continue to indicate that many of NPCA's watersheds have marginal to poor water quality.

Mitigation strategies identified through the development of the Strategy include:

1. Enhance our Integrated Watershed Management Approach

Through its Integrated Watershed Management (IWM) approach, NPCA's foundational watershed management activities readily support its mandatory programs and services and those complementary to them. Significant investment in this approach is the primary vehicle with which to mitigate issues and challenges faced by the Niagara Peninsula watershed.

These management activities fundamentally include:

- Watershed scale monitoring, data collection and management as well as modelling;
- Watershed scale studies, plans, assessments, and/or strategies; and
- Watershed wide actions including stewardship, communication, outreach, and education.

Revitalizing formal watershed planning is critical to support the adaptive management cycle at the watershed scale, ensuring continuous progress toward specific management recommendations for both the watershed and subwatershed levels.

2. Enhancement of Restoration, Stewardship, Monitoring, Education and Outreach Programs

Enhancement of existing programs and services to assist with delivery of the Watershed Strategy has already begun through the implementation of the Strategic Plan. Restoration and Stewardship, Watershed Monitoring and

Reporting, and Education and Outreach are evolving into a refreshed suite of programs grounded in IWM principles and practices. These efforts complement mandatory programs and services.

3. Enhance Partnerships and Collaboration

The NPCA will continue to strengthen existing partnerships and actively pursue new ones within the communities that it serves, to ensure the preservation, maintenance, sustainability, restoration, and enhancement of the natural environment. These partnerships include those with the federal and provincial governments, municipalities, Indigenous communities and individuals, the NPCA Board of Directors and staff, agricultural organizations and societies, conservation clubs, service groups, private landowners, conservation area neighbours, adjacent conservation authorities, and the Niagara Peninsula Conservation Foundation (NPCF).

NPCA will develop new approaches to improve conservation efforts and streamline program delivery with these partners. Additionally, the NPCA deeply values and supports its dedicated volunteer base, which actively collaborates with staff to address watershed issues and challenges through initiatives like community tree plantings. Volunteers also play a vital role in the success of key NPCA projects, including the heritage village at Ball's Falls Conservation Area.

4. Broaden Sources of Financial Support

Being able to continue to advance its programs and services will require the NPCA to continue to broaden the sources of financial support to mitigate the risks associated with reliance on municipal levy. NPCA continues to find success in seeking external funding sources, and self-generated revenue activities such as user fees to support the implementation of its strategic plan and programs and services.

While opportunities to contend for available government grants are plentiful at present, NPCA continues to nurture diverse funding strategies that include working closely with the Niagara Peninsula Conservation Foundation (NPCF) to empower its abilities to draw donations in support of NPCA programs and services.

Engagement Summary

NPCA took a comprehensive approach to internal and external engagement to develop the Strategy, including both in-person and online engagement opportunities to ensure accessibility for diverse audiences and broad participation.

Key outreach and engagement efforts included a Public Information Centre (PIC), meetings, direct emails, and targeted social media campaigns to reach members of the public, local area municipalities, staff, Board Members, Indigenous

communities, and other interested parties. The Get Involved online engagement portal was utilized to solicit feedback through a survey and comment submission. Throughout the public engagement period, the Get Involved portal received 1,400 web visits and garnered 23 survey responses.

The analysis of the survey responses, comments, feedback, and discussions led to key findings, including the following:

- 70 per cent of the issues and risks identified in the Strategy significantly impact NPCA's ability to maintain effective service delivery; the remaining 30 per cent will moderately impact service delivery.
- Common themes surrounding issues and risks from survey respondents align with those outlined in the Draft Watershed Strategy. These themes include issues and risks pertaining to climate change and adaptation, funding constraints, changing legislation, urban development, and its impacts on natural features, including the loss of, and impacts to water quality; and
- Recommendations for improvement also surrounded common themes. These include better communication including public education on our watershed, focused land acquisition that includes preservation of vulnerable areas, enhancing biodiversity and stricter legislation to preserve natural features.

Feedback received through internal and external engagement was thoroughly reviewed by the project team and has been considered and added to the strategy where applicable.

Review Cycle

The Watershed Strategy is to be read as a living document. NPCA will commit to assess the need for a fulsome review of the Watershed Strategy on a five-year cycle. Impacting factors (i.e. technological advances, socioeconomic changes, arising political and environmental issues) will be analyzed to determine the level of review required. Should there be exceptional circumstances that would warrant an earlier update to the Watershed Strategy (e.g., legislative changes), staff will seek direction to update the Strategy to ensure compliance and alignment with governing legislation, where required.

An engagement plan will be developed for each update to the Watershed Strategy to ensure NPCA's watershed partners, communities, Indigenous communities, and interested parties are appropriately consulted. Further, a workplan identifying key tasks and general timelines will be presented to the NPCA Board of Directors upon initiation of an update to the Watershed Strategy.

This framework for the Watershed Strategy provides a structured approach for periodically reviewing NPCA's Inventory of Programs and Services, ensuring that program descriptions and language remain consistent across all NPCA initiatives. By doing so, the strategy will help pinpoint opportunities to enhance or sustain watershed health, enabling NPCA to continuously adapt its efforts to meet evolving resource management needs within the Niagara Peninsula.

Financial Implications:

The development of the Watershed-based Resource Management Strategy is funded through the operating budget. Implementation of the Strategy will be prioritized through annual workplans and approved budgets.

Links to Policy/Strategic Plan:

Goal 1.1: Support evidence-based decision-making for climate-resilient watersheds and shorelines.

Goal 2.2: Lead an integrated watershed management approach to support planning and policy for protection and enhancing watersheds.

Goal 4.2: Foster relationships with the community, non-government organizations, businesses, agriculture, industry, and academic institutions for collective outcomes and impact.

Related Reports and Appendices:

Appendix 1: Watershed-based Resource Management Strategy

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WATERSHED-BASED RESOURCE MANAGEMENT STRATEGY

December 2024

Land Acknowledgement

The Niagara Peninsula watershed is situated within the traditional territory of the Haudenosaunee, Attiwoonderonk (Neutral), and the Anishinaabeg, including the Mississaugas of the Credit. Today, the watershed is home to many First Nations peoples, Métis citizens, and Inuit.

The 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—a formal treaty that represents a well-known teaching to ensure conservation of shared lands and natural resources. The “dish” is the generosity and bounty of the land that provides the gifts of food, resources, and water from which we are all nourished. However, these gifts are not infinite, and the bowl must be shared and kept clean, taking only what we need and leaving enough for the next person. The lesson also teaches that the “spoon” is round and does not have sharp edges like a fork or a knife, meaning the dish is to be shared peacefully and shared by everyone who uses the bowl. No one gets a bigger or smaller spoon, symbolizing the spirit of cooperation and equity.

This teaching has been kindly shared by Indigenous partners and community members through conversations with NPCA staff. It is an excellent reminder that the gifts of the earth are to be shared and cared for by each of us in a reciprocal relationship with the land. Our health as people is directly and intricately tied to the health of the watershed.

Through this Watershed Strategy, the NPCA reconfirms its commitment to shared stewardship of natural resources and a deep appreciation of Indigenous culture, knowledge systems, and history in the watershed.

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1.0 INTRODUCTION

1.1 About Niagara Peninsula Conservation Authority

The [Niagara Peninsula Conservation Authority](#) (NPCA) is a community-based natural resource management agency that protects, enhances, and sustains healthy watersheds that was established in 1959 pursuant to the [Conservation Authorities Act](#). With 65 years of experience, NPCA offers watershed programs and services that focus on flood and hazard management, source water protection, species protection, ecosystem restoration, community stewardship, and land management.

A watershed is the land that drains into a particular watercourse such as a stream, river, or lake. Gravity and the land's topography (the high and low areas) move water, rain, and snowmelt across the landscape from one area to another. Figure 1 below provides a simple illustration showing the different elements within a watershed.

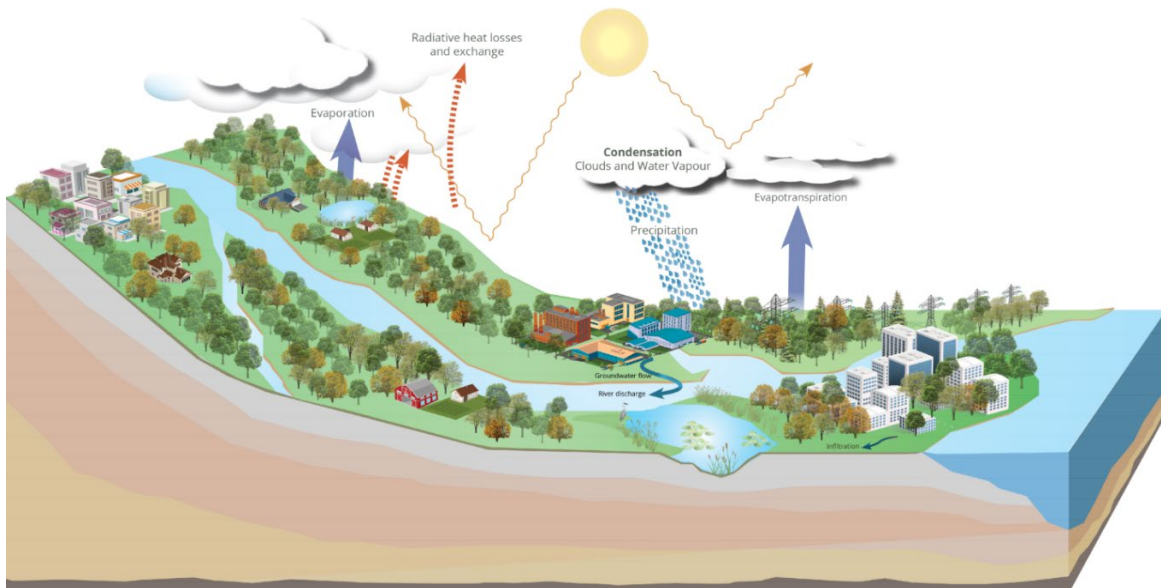


Figure 1 – Watershed Diagram

The Niagara Peninsula watershed encompasses 2,424 square kilometres, and includes the Niagara Region, portions of the City of Hamilton (21%), and Haldimand County (25%). Since time immemorial, this area has been the home to Indigenous peoples—a place for sharing, trading, hunting, gathering, stewardship, and friendship. Currently, the watershed supports a population of approximately 520,000 people. Figure 2 shows the limits of the Niagara Peninsula watershed.

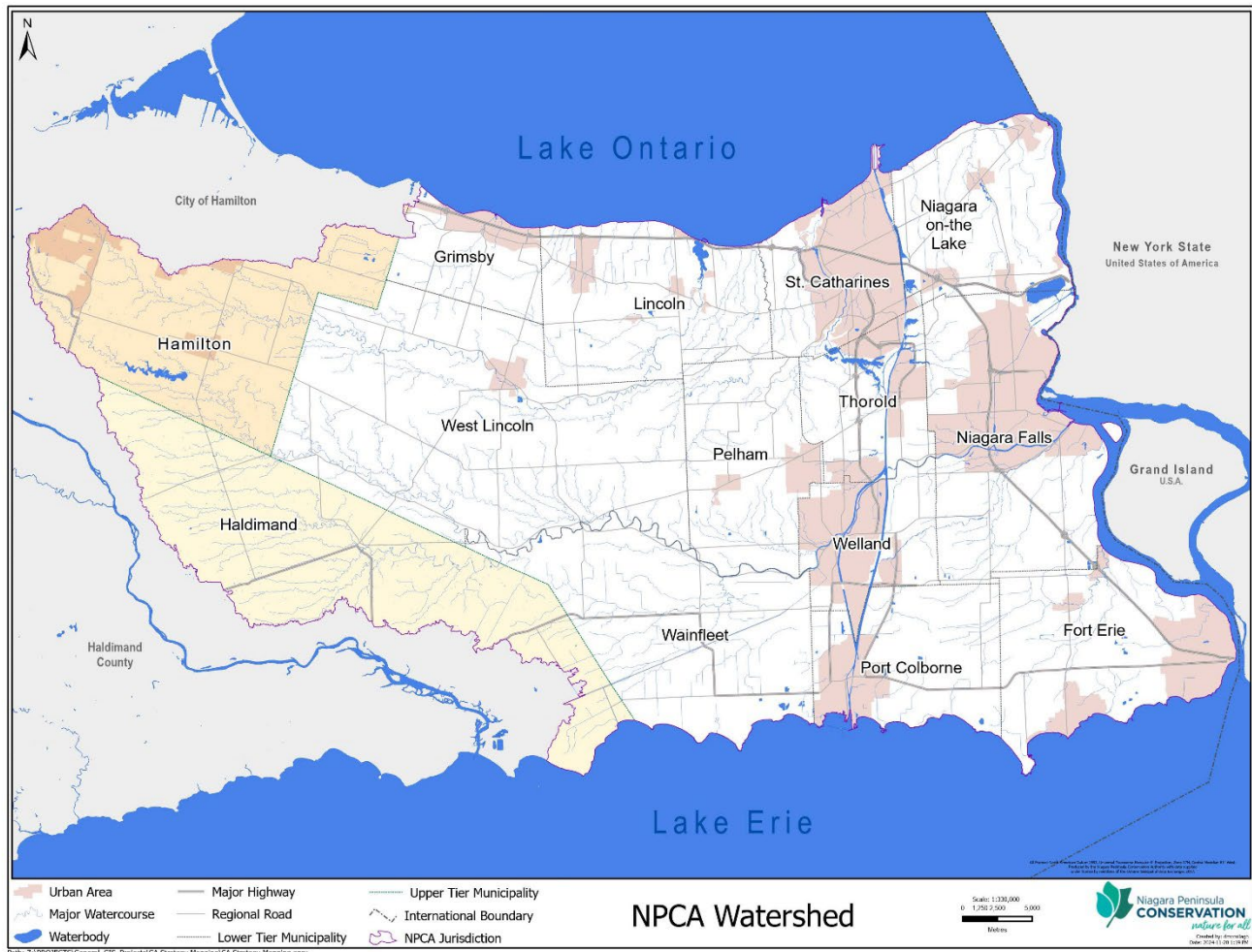


Figure 2 – NPCA Watershed

The watershed is uniquely situated between two Great Lakes, with the Niagara River as a boundary shared with the United States of America. As a result, the watershed area includes several notable natural features such as the Niagara Escarpment Biosphere Reserve, the Niagara Falls, Wainfleet Bog, Ball's Falls, Willoughby Marsh, and other significant landforms such as the Fonthill Kame ice contact-delta complex. The unique microclimate created by the Niagara Escarpment and rich soils supports one of Ontario's most productive agriculture systems, including vineyards, tender fruit orchards, livestock, and various specialty crops (greenhouses for flowers, vegetables, sod farms, and mushroom farms). These important watershed features provide life-sustaining benefits for all and many opportunities to discover nature and culture.

1.2 Watershed Characterization

1.2.1 Topography

The Niagara Peninsula watershed is a unique geographic region situated between Lake Ontario to the north, Lake Erie to the south and the Niagara River forming the eastern boundary, flowing from Lake Erie to Lake Ontario. The topography is defined by rolling hills, flat lands toward the lake shores and the remarkable Niagara Escarpment, the most prominent feature extending east to west across the peninsula. The escarpment creates cliffs and ridges, most famously forming the backdrop for Niagara Falls where the Niagara River plunges over the edge of the escarpment.

1.2.2 Physiography

The Niagara Peninsula watershed contains several key physiographic areas, including the Iroquois Plain, Haldimand Clay Plain, and the Niagara Escarpment.

The Iroquois Plain is located between the Niagara Escarpment and Lake Ontario, and consists of lacustrine deposits of sand, silt, and clay associated with the glacial Lake Iroquois. The Iroquois Plain deposits overlie Halton Till.

The Niagara Escarpment contains a relatively hard dolostone bedrock cap, which is underlain by softer shales and sandstones of the Clinton, Cataract and Queenston bedrock groups. The escarpment was formed by erosion of the softer bedrock materials below the dolostone cap.

The relatively flat lands of the Haldimand Clay Plain extend from the Niagara Escarpment to Lake Erie. The Haldimand Clay Plain was submerged by glacial Lake Warren and much of it is covered by lacustrine clay deposits. Key physiographic features located in the Haldimand Clay Plain include the Dunnville Sand Plain, Onondaga Escarpment, Fonthill Kame-Delta Complex, and several moraines.

The Dunnville Sand Plain is a flat, sandy area formed by glacial outwash located in the southwestern region of the peninsula and is characterized by well-drained, sandy soils. The terrain is relatively flat, with few elevation changes, and its porous soil helps with groundwater recharge.

The east-west trending Onondaga Escarpment is of relatively low topographical relief just north of Lake Erie and rises only a few meters above the surrounding lands. Overburden soils overlie portions of the Onondaga Escarpment near NPCA's western boundary.

The steep-sided Fonthill Kame-Delta Complex was formed when sediment was deposited by melting glaciers, leaving behind a prominent hill that rises roughly 80 metres above the surrounding land and covers an area approximately six kilometres in diameter. Groundwater from the Fonthill Kame-Delta

Complex discharges to the north into Twelve Mile Creek, to produce the only cold-water stream and cold-water fish habitat in the Niagara Peninsula watershed.

Other landforms and physiographic features found within the watershed include moraines, eskers, and drumlins.

1.2.3 Geology and Groundwater System

The Niagara Peninsula watershed is unique with respect to an abundance of water resource availability being situated between two Great Lakes, having two bedrock escarpments and three overburden deposits. All the municipal drinking water within NPCA's jurisdiction is derived from surface water sources with groundwater mainly making up rural agricultural, commercial, and private residential uses.

When it comes to groundwater in the Niagara Peninsula watershed, there are four main aquifer types that are typically drawn from, these include the surficial overburden, the Guelph/Lockport formations, the Onondaga/Bois Blanc formations, and the "Contact-Zone" aquifer.

The surficial overburden aquifers consist of coarse-grained deposits of sediments classified as unconfined aquifers and are known as the Fonthill Kame-Delta Complex, the Dunnville Sand Plain and the Iroquois Sand Plain.

The Guelph/Lockport formations refer to the bedrock formations consisting mainly of dolostone with some limestone that form the prominent features of the Niagara Escarpment, running the width of the northern portion of the Niagara Peninsula. These formations can be heavily fractured or weathered and can be considered unconfined or confined depending on the abundance of overlying material.

The Onondaga/Bois Blanc formations refer to the bedrock formations consisting mainly of dolostone and limestone that form the prominent features of the Onondaga Escarpment, running the width of the southern portion of the Niagara Peninsula. These formations can also be heavily fractured or weathered and can be considered unconfined or confined depending on the abundance of overlying material.

The "Contact-Zone" aquifer is an overburden/bedrock aquifer that covers more than 60 per cent of the NPCA jurisdiction. The term "Contact-Zone" refers to the bedrock-overburden contact where granular overburden material is overlying fractured bedrock. This aquifer is usually overlain by thick deposits of clay from the Haldimand Clay Plain and is generally considered confined.

With respect to groundwater movement across the Niagara Peninsula watershed, groundwater generally moves from the west to the east interior and then to either of the Great Lakes, the Niagara River or the Welland River, with localized areas of groundwater discharge along the escarpments and wetlands. There

is also large-scale permanent dewatering activities associated with the Welland Canal tunnels that have an impact on the movement of groundwater within the Niagara Peninsula watershed.

1.2.4 Surface Water System

Nearly 5,000 kilometres of watercourses in NPCA's watershed jurisdiction encompasses a rich variety of surface water features that are part of three major drainage basins: Lake Ontario, Lake Erie, and the Niagara River. Numerous streams, rivers, and creeks, such as Twelve Mile Creek and Twenty Mile Creek, flow into Lake Ontario, while the Welland River and other tributaries drain into the Niagara River, a critical waterway connecting the two Great Lakes. The Lake Erie basin includes the southern portion of the watershed, with its own network of smaller streams and wetlands. These surface water features, including significant wetlands, play a key role in maintaining and supporting biodiversity, mitigating flooding, and providing water resources for both human use and natural habitats. Together, these interconnected water systems form the hydrological foundation of NPCA's jurisdiction.

1.2.5 Natural Heritage System

The Niagara Peninsula is located within the northernmost range of the deciduous forest region in North America, also referred to as the Carolinian Life Zone. It has the warmest average annual temperatures, the longest frost-free growing season, and the mildest winters in Canada. This zone represents one per cent of Canada's land and it has more species of plants and animals than any other ecosystem in the country (Carolinian Canada website).

The Niagara Peninsula watershed includes nearly 68,000 hectares of natural features such as wetlands, forests, and meadows, covering almost 30 per cent of its land base and providing habitats for more than 2,200 species of plants and animals. Unfortunately, nearly 10 per cent of these species are considered to be rare or at risk due to habitat loss, invasive species, pollution, and climate change.

The Niagara Escarpment, a UNESCO World Biosphere Reserve, features dramatic cliffs, forests, and rare species while offering stunning views and geological formations. The Niagara Glen Nature Reserve along the Niagara River is a lush, forested area with deep ravines, limestone outcrops, and unique Carolinian forests.

Other key areas include the Wainfleet Bog, one of the largest remaining bogs in southern Ontario, and Short Hills Provincial Park, which preserves forested valleys and rolling hills. These areas are vital for supporting conservation efforts while providing habitats for species at risk and offering recreational opportunities like hiking and wildlife observation, enhancing the Niagara Peninsula watershed's appeal as a destination for nature enthusiasts.

1.2.6 NPCA Conservation Area System

NPCA owns nearly 3,000 hectares of land within our watershed and across 41 conservation areas held in public trust for recreation, heritage preservation, conservation, and education. These areas represent a wide range of ecosystem types and protect some of the most significant ecological features in the watershed. NPCA stewards important sections of shoreline along Lake Erie and Lake Ontario, migratory bird habitat, provincially significant wetlands (PSWs), Areas of Natural and Scientific Interest (ANSI), important cultural heritage sites, and large sections of the Niagara Escarpment. Together, these conservation areas represent an essential part of the natural treasures and significant ecosystems in the Carolinian Life Zone. In southern Ontario, and especially in the Niagara Peninsula watershed, growing pressures on the landscape are due to increased urbanization, land use changes, and changing climatic conditions. In addition, there is a well-documented increasing demand for access to greenspace for the health and well-being of the growing population. NPCA conservation areas play a vital role in supporting and enhancing local communities, agriculture, recreation, health, tourism, and natural heritage, serving as indispensable outdoor recreation areas for more than half a million residents and visitors of the watershed.

1.2.7 Climate

The climate of the Niagara Peninsula is influenced heavily by its proximity to Lake Ontario and Lake Erie, resulting in a moderate humid continental climate. The lakes function as natural temperature buffers, making winters milder and summers cooler than more inland regions creating a longer growing season, crucial for the region's renowned vineyards and orchards. Precipitation is evenly distributed throughout the year, with moderate rainfall and occasional lake-effect snow in the winter. The Niagara Escarpment and the Great Lakes contribute to microclimates that vary across the peninsula, supporting diverse agricultural activities, including the production of tender fruits and wine.

According to the Climate Projections for Niagara Region (TRCA, December 2021), the Niagara peninsula is projected to experience significant warming over the next 30 years, with average air temperatures rising by 2 C. Winter and fall will see the largest increases in daily mean temperatures (2 C and 2.2 C), while summer and spring will rise by 2 C and 1.6 C respectively. Minimum temperatures in the winter are expected to rise from -7.1 C to around -5 C, reducing the number of days below 0 C from 125 to 105.7 days annually. Warmer winters will likely shift precipitation from snow to rain, increasing flood risks and impacting winter tourism.

Heat-related impacts are also expected, with the number of days above 30 C projected to more than double from 10.4 to 23.9 days annually. Days exceeding 25 C will increase by 24.2, and tropical nights (minimum temperatures above 20 C) will rise dramatically from 9.4 to 46.2 days, increasing cooling demands. Conversely, extremely cold days (below -20 C and -15 C) will decrease.

Total annual precipitation is projected to rise by 5 per cent, with the largest seasonal increases in winter and spring. Extreme precipitation events, such as heavy one-day rainfall, are also expected to increase. However, there is variability in model projections, highlighting the need for adaptive strategies. Freeze-thaw cycles will decrease, reflecting milder winters, while dry conditions remain stable.

The growing season is expected to lengthen by eight days on average, due to earlier growing season start days and later end dates, though temperature fluctuations may affect crop hardiness. Warmer conditions will support both plant growth and the lifecycle of pests.

1.2.8 Land Use

Land use on the Niagara Peninsula watershed is diverse, shaped by its fertile soils, unique microclimate, proximity to the Great Lakes, and strategic position as an industrial centre and border region, leading to the demands of competing land uses. The Welland Canal, which connects Lake Ontario and Lake Erie, is a major infrastructure feature in the watershed, facilitating shipping and influencing land use along its route.

The combination of climate, physiography, soils, and location make the area one of the most productive agricultural areas in Canada. The physical distinctiveness of the region is what has enabled a unique agricultural industry to develop. The wine industry is particularly prominent, with many vineyards and wineries scattered throughout the watershed.

Urban development on the Niagara Peninsula is ongoing with key cities such as Hamilton, St. Catharines, Niagara Falls, and Welland, where residential, commercial, and industrial growth is ongoing. These urban centres have expanded significantly due to their strategic location near the U.S. border, the Great Lakes, and major transportation routes like the Queen Elizabeth Way (QEW) highway and the Welland Canal. Smaller yet rapidly growing urban areas, including Binbrook, Smithville, Grimsby, Thorold, Port Colborne, Fort Erie, and Niagara-on-the-Lake, are experiencing continued expansion in residential, commercial, and industrial developments. Suburban expansion is also growing as population increases and demands for housing rise.

Efforts to balance agricultural productivity, urban growth, and environmental protection are key in managing land use within the Niagara Peninsula watershed. This balance is critical to protecting water resources, preserving biodiversity, and ensuring the long-term sustainability of local terrestrial and aquatic systems.

1.3 Integrated Watershed Management

The NPCA has adopted an Integrated Watershed Management (IWM) approach to watershed planning. The IWM approach recognizes that water is a valuable resource which should be managed in a sustainable manner in perspective with the balance of natural resources (fisheries, wildlife, and lands).

IWM is the process of managing human activities and natural resources in an area defined by watershed boundaries. It is an evolving and continuous process through which decisions are made for the sustainable use, development, restoration and protection of ecosystem features, functions, and linkages. IWM serves to assess watershed functions and the potential impacts from change to ensure sustainability. Through adaptive management practices the watershed unit provides an ideal context with which we can understand how impacts are felt and how they can accumulate.

For NPCA, this means adopting the IWM lens when carrying out its programs and services. IWM helps us focus on priorities and link strategies and actions leading to smarter, science-based decisions that ensure a long and healthy future.

1.4 Purpose and Regulatory Framework

1.4.1 Purpose of the Watershed Strategy

The purpose of the Watershed Strategy is to assist the NPCA with evolving or enhancing the delivery of programs and services and improve efficiency and effectiveness in supporting mandatory Category 1 programs.

Figure 3 illustrates the framework that has been utilized for developing the Watershed Strategy. As part of this strategy, the NPCA will incorporate guiding principles and objectives from its 10-year strategic plan to shape the design of its programs and services. This approach will summarize the key information underpinning NPCA's program and service delivery, identify potential issues and risks that could impact the effective delivery of Category 1 programs and services, and outline actions to mitigate these risks. It provides a mechanism to update the programs and services inventory and will help identify where opportunities exist for improving and/or maintaining watershed health.

The NPCA's Watershed Strategy has been developed in accordance with NPCA's current Inventory of Programs and Services for consistent language and program descriptions.

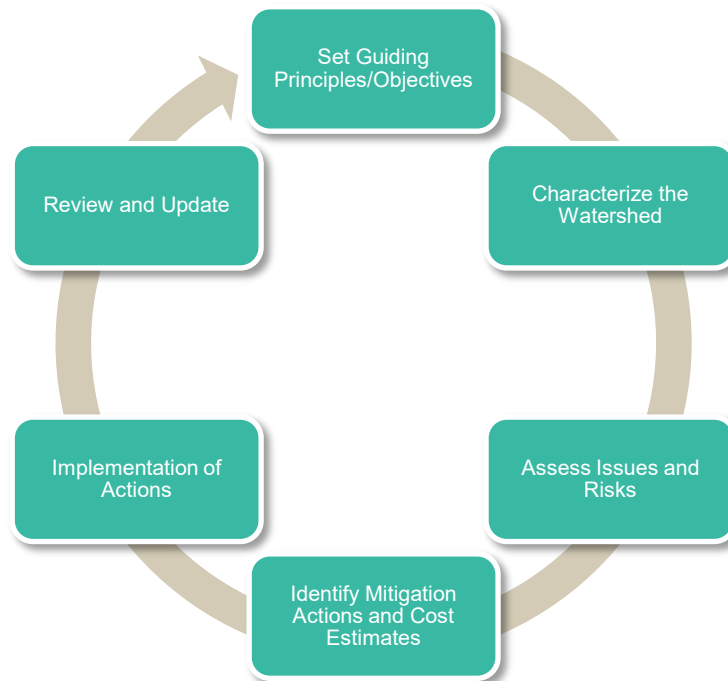


Figure 3 – Watershed-based Resource Management Strategy Framework

1.4.2 Legislative Context

Ontario Regulation. (O. Reg.) 686/21: Mandatory Programs and Services, is a regulation made under s. 21.1(1)2 of the *Conservation Authorities Act* that prescribes programs and services that a conservation authority must provide within its area of jurisdiction.

Conservation authorities are required to prepare an Inventory of Programs and Services to identify:

- **Category 1:** Mandatory Programs and Services, such as natural hazard management;
- **Category 2:** Municipal Programs and Services at the request of a Municipality, such as tree planting services, and technical research to help inform decision-making; and
- **Category 3:** Other Programs and Services determined by the Conservation Authority to further the purposes of the *Conservation Authorities Act*, such as restoration and stewardship, and watershed monitoring.

NPCA's programs and services are funded either through municipal levies, municipal cost apportionments requiring agreements for service, service fees, or external funding such as grants.

Table 1: Conservation Authorities Act Funding Mechanisms for NPCA's Programs and Services

Category 1 Mandatory Programs and Services (O.Reg.686/21)	Category 2 Municipal Programs and Services	Category 3 Other Programs and Services
<ul style="list-style-type: none"> Programs and services which all CAs must provide in their jurisdiction Eligible for costs to be apportioned to participating municipalities (levy) without an agreement Funded through municipal levy, user fees, and/or grants 	<ul style="list-style-type: none"> Programs and services which a CAs agrees to provide on behalf of municipality Eligible for costs to be apportioned to participating municipalities if there is an MOU or other agreement Funded through municipal levy, user fees, and/or grants; MOU/service agreement 	<ul style="list-style-type: none"> Programs and services which a CA determines are advisable to further the purpose of the Act Eligible to be apportioned wholly or partially to municipalities through a cost apportioning agreement Funded through municipal levy, user fees, and/or grants; MOU/service agreement required for use of municipal funding

O. Reg. 686/21: Mandatory Programs and Services also requires conservation authorities to prepare a "Watershed-based Resource Management Strategy".

The Watershed-based Resource Management Strategy must include the following components:

- Guiding principles and objectives that inform the design and delivery of the programs and services that the Conservation Authority is required to provide under section 21.1 of the *Conservation Authorities Act* (i.e., mandatory programs and services).
- A summary of existing technical studies, monitoring programs and other information on the natural resources the authority relies on within its area of jurisdiction or in specific watersheds that directly inform and support the delivery of programs and services under section 21.1 of the Act.
- A review of the authority's programs and services provided under section 21.1 of the Act for the purposes of:
 - Determining if the programs and services comply with the regulations made under clause 40 (1) (b) of the Act (e.g., mandatory programs and services, and review of applications under prescribed Acts);

- Identifying and analyzing issues and risks that limit the effective delivery of these programs and services; and
 - Identifying actions to address the issues and mitigate the risks identified by the review and providing a cost estimate for the implementation of those actions.
- A process for the periodic review and updating of the Watershed-based Resource Management Strategy by the authority that includes procedures to ensure stakeholders, and the public are consulted during the review and update process.

2.0 STRATEGIC DIRECTION

2.1 NPCA Strategic Plan

The 2021-2031 NPCA Strategic Plan, is a guiding document that reaffirms our commitment to the mandate of conservation authorities and charts the course for the next generation of work to address the evolving issues of climate change, growth, and the need for green infrastructure. The strategic plan is guided by principles based on a conservation-first and ecosystem philosophy, collaboration ethics, and the importance of innovation rooted in science.

Strategic Plan Vision: Nature for all

We envision a healthy and vibrant environment with shared greenspace and clean water that sustains life for future generations.

Strategic Plan Mission

To create common ground for conservation-inspired action and accountability to nature.

2.2 Watershed-based Resource Management Guiding Principles

The NPCA Strategic Plan: Nature for All, establishes four Guiding Principles that guide the delivery of NPCA's programs and services.

2.2.1 Watersheds Transcend Municipal Boundaries

We are committed to working with the watershed community to support and create climate-resilient and connected natural systems. Integrated watershed management is our approach to managing local natural resources in partnership with our member municipalities.

2.2.2 Natural Green Infrastructure is Critical to Life

Our day-to-day work conserves and restores our communities' integral ecological, socio-economic, public safety, and health services. Watershed resources are green infrastructure and natural assets.

2.2.3 Diverse Experiences and Ideas Lead to Better and Stronger Collective Impact and Outcomes

We seek to exemplify inclusion and equity through meaningful engagement and collaboration.

2.2.4 Innovation Requires Learning from Each Other and the Past

As a result, we are progressive, resilient, adaptable, and strive for continuous improvement to remain a trusted and valued partner.

2.3 Watershed-based Resource Management Guiding Goals and Actions

Collectively, the strategic priorities identified in the Strategic Plan guide our actions toward a vision of the Niagara Peninsula watershed with robust nature, thriving agriculture, and resilient urban areas vital to the health and well-being of our residents. Each strategic priority includes specific goals and actions for NPCA to undertake with its partners and communities to achieve a thriving environment that sustains life for future generations. The strategic priorities and the goals and actions taken from NPCA's 10-year Strategic Plan that guide the design and delivery of NPCA's Category 1 Mandatory Programs and Services provided under s. 21.1 of the *Conservation Authorities Act*, are summarized below. The goal numbering shown below is as listed in the plan.

2.3.1 Healthy and Climate Resilient Watersheds

Improving nature for the betterment of all life across the watershed.

- Goal 1.1 Support evidence-based decision-making for climate-resilient watersheds and shorelines.
 - 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 NPCA's 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.
 - Implement the Source Protection Program as mandated by the *Conservation Authorities Act* and *Clean Water Act*.

- Goal 1.2 Protect people and properties from natural hazards and climate impacts.
 - Implement permitting and regulations under section 28 of the *Conservation Authorities Act*.
 - Deliver accurate, real-time information for flood forecasting, messaging, and warning using state-of-the-art technology and communication tools.
 - Complete and maintain updated floodplain and regulation mapping within the watershed.
 - Develop a watershed-based resource management strategy as mandated by the *Conservation Authorities Act*.
 - Update shoreline management plans with a climate resilience lens.
- Goal 1.4 Manage NPCA lands to increase biodiversity, habitat connectivity, and natural cover.
 - Develop and update management plans for NPCA properties.
 - Develop plans to manage invasive species and enhance biodiversity at NPCA properties (e.g., forest management plan).
 - Complete and implement the NPCA land acquisition strategy.
 - Implement regulations under section 29 of the *Conservation Authorities Act*.

2.3.2 Supporting Sustainable Growth

Helping to create resilient communities through land-use planning and the use of sustainable technologies to prepare for a changing climate and related environmental challenges.

- Goal 2.1 Maintain a high standard of client services, tools, and procedures for planning review and permits.
 - Continuously improve by implementing NPCA Client Services Standard for Plan and Permit Review protocol to support streamlining, efficiency, and transparency.
 - Refine decision-support tools for efficient application management and review.
 - Enhance customer service feedback mechanisms to support performance evaluation and reporting.
 - Communicate the role and responsibilities of NPCA in planning review and permitting.
- Goal 2.2 Lead an integrated watershed management approach to support planning and policy for protecting and enhancing watersheds.
 - Implement a proactive subwatershed work program to complement and inform the quaternary and subwatershed planning for growth areas in the NPCA jurisdiction within Niagara Region.
 - Lead a proactive research agenda to determine cumulative watershed impacts and applied solutions from extreme weather and land-use changes.
- Goal 2.3 Lead the implementation of sustainable technologies and green infrastructure best practices for climate resilience and sustainability.

- Advance the implementation of green infrastructure best practices in future development proposals and through NPCA's demonstration projects to minimize impacts to the watershed.
- Engage municipalities, the development community, and other private landowners in implementing green infrastructure and sustainability best practices and actions.
- Identify opportunities for brownfields to enhance green infrastructure or innovative planning for in-fill development.
- Develop education materials and programs to inform the public about sustainable best practices.

2.3.3 Connecting People to Nature

Improving access to and connections with nature for the health and well-being of all people.

- Goal 3.1 Create equitable access to greenspace for the health and well-being of people.
 - Identify and remove socio-economic barriers to accessing NPCA properties and programs.
 - Proactively seek opportunities to enhance trail connections with active transportation routes.
 - Highlight and promote recreation (e.g., cycling, hiking, walking, birdwatching) opportunities at NPCA properties.
 - Improve services and visitor experiences at NPCA properties (e.g., buildings, trail maps, wayfinding, and accessibility, where possible).
- Goal 3.3 Improve cultural connections and heritage appreciation.
 - Maintain and honour heritage buildings at NPCA properties, including St. John's, Cave Springs, Ball's Falls, and Rockway conservation areas.
 - Examine opportunities to expand cultural connections and heritage programming at all conservation areas.
 - Work with municipalities on heritage listing and designation of NPCA buildings and properties.

2.3.4 Partner of Choice

Strengthening our relationships with stakeholders, partners, the watershed community, and Indigenous peoples.

- Goal 4.1 Strengthen government relations toward collective outcomes and impact.
 - Develop a government relations strategy.

- Execute Memorandums of Understanding (MOUs) and Service-Level Agreements (SLAs) with Niagara's lower-tier municipalities.
- Establish the NPCA as an environmental service provider to municipal partners with co-management and delivery of programs and projects of mutual interest.
- Partner with government agencies to advance mutual goals.
- Goal 4.2 Foster relationships with the community, non-government organizations, businesses, agriculture, industry, and academic institutions for collective outcomes and impact.
 - Provide technical expertise to support our partners and their work through agreements.

2.3.5 Organizational Excellence

Striving for excellence through high service delivery standards and accountability to the environment and its people.

- Goal 5.1 Attract, retain, and invest in high caliber, diverse talent to deliver superior outcomes.
 - Ensure adequate staff capacity and resources required to deliver on superior outcomes.
 - Implement health and safety and corporate wellness programs for staff well-being.
 - Modernize human resource policies and practices to encourage a healthy work environment.
- Goal 5.2 Improve internal operations and processes.
 - Enhance tools and procedures for program and project management, planning, reporting.
 - Modernize and invest in digital technology to enhance internal processes (e.g., administrative record management, customer relationship management system).
 - Deploy tools for efficient internal and external information sharing (e.g., online open data hub).
 - Provide staff training on new technologies as they are deployed.
- Goal 5.3 Provide high standards of customer service.
 - Develop customer service guidelines and improve customer service feedback mechanisms.
 - Implement a client management system that facilitates overall governance and relevant information sharing.
 - Provide equitable access to information (e.g., AODA standards).
 - Utilize various communication tools & tactics to facilitate engagement.

2.3.6 Financial Sustainability

Ensuring a financially stable and sustainable organization and continued service-delivery through innovative business models, diverse funding sources, and best practices.

- Goal 6.1 Ensure responsible, sustainable, and sound fiscal practices.
 - Consistently review and update fee schedules to retain the accurate cost of services.
 - Demonstrate the value of NPCA programs and services to stakeholders and municipal partners.
- Goal 6.2 Optimize self-generating revenue using innovative approaches.
 - Broaden opportunities for potential revenue streams at conservation areas taking a balanced approach.
 - Explore varied funding sources and innovative partnerships to diversify funding.

3.0 MANDATORY PROGRAMS AND SERVICES

As required by O. Reg. 687/21: Transition Plans and Agreements for Programs and Services under Section 21.1.2 of the Act, the NPCA has prepared an Inventory of Programs and Services that lists all the programs and services provides that it provides under each category (i.e., Category 1, 2, and 3).

The NPCA Inventory of Programs and Services identifies five Key Service Areas:

- Natural Hazard Management
- Watershed Resource Management and Climate Change
- Other Watershed-Related Programs
- Conservation Authority Lands and Conservation Areas
- Enabling Services

3.1 Natural Hazard Management

The NPCA provides programs and services that protect people and properties from flood, erosion, and other natural hazards. Ontario's long-term prosperity, environmental health and social well-being depend on reducing the potential for public cost or risk to Ontario's residents from natural hazards. Natural hazards include dynamic beach hazard, erosion hazard, flooding hazard, hazardous lands, hazardous sites and low water or drought conditions. The NPCA provides mandatory natural hazard management programs and services to develop an awareness of the areas that are important for the management of natural hazards, such as wetlands and river valleys, understand the risks related to natural hazards and how these risks may be affected by climate change, manage risks including preventing or mitigating those risks, and promote public awareness of the risks related to natural hazards.

Natural Hazard Management Programs and Services include:

- Flood and Erosion Management

- Flood Forecast and Warning
- Water Resources Engineering
- Shoreline Hazard Management
- Environmental Planning and Policy
- Planning and Permitting
- Compliance and Enforcement
- Planning Ecology

3.2 Watershed Resource Management and Climate Change, and Other Programs

The NPCA provides programs and services that apply research and science to understand the current watershed conditions, cumulative impacts, and risks to watershed. This evidence-based science is used for developing strategies and measures to protect, enhance, and restore watersheds toward creating healthy and climate-resilient watersheds.

Watershed Resource Management and Climate Change Programs and Services include:

- Integrated Watershed Monitoring and Reporting (Water and Terrestrial Monitoring)
- Community Engagement and Ecological Restoration
- Technical Studies to inform Regulatory Mapping Updates
- Natural Asset Management
- Special Projects (e.g., groundwater monitoring)
- Climate Change Resilience
- Watershed and Subwatershed Resources Planning
- Other Watershed Related Programs (e.g., Drinking Source Water Protection, and the Niagara River Remedial Action Plan)
- Other Projects and Programs (supported by partnerships and external funding)

3.3 Conservation Authority Lands and Conservation Areas

The NPCA is responsible for the management of approximately 3,000 hectares of land, including 41 conservation areas essential to watershed management, environmental protection, cultural heritage, and recreation.

Conservation Authority Lands and Conservation Areas Programs and Services include:

- Land Acquisition and Disposition

- Land Management Planning
- Active Recreation Programs
- Camping
- Weddings, Facility Rentals and Special Events
- Education Programs
- Day Camps
- Nature School
- Heritage Programs
- Education Events
- Land Care Program (management of conservation areas)
- Section 29 Enforcement and Compliance
- Land Lease and Agreement Management

3.4 Enabling Services

Various Enabling Services are critical for supporting NPCA programs, the Board of Directors, member municipalities, and the public to enable NPCA to operate in an accountable, transparent, efficient, and effective manner.

Enabling Services include:

- Corporate Services (e.g., Finance and Accounting, Facilities' Management, Risk Management and Administrative Support)
- Financial Services (e.g., Capital Budgeting, Capital Asset Management, Financing Planning and Forecasting, Reporting and Analysis)
- People and Performance (e.g., Talent Acquisition, Employee and Labour Relations, Training and Development, Health and Safety)
- Information Management and Technology and GIS
- Communications, Marketing and Public Relations
- Corporate Administration and Governance
- Corporate Support (e.g., Procurement, Contract Management)
- Asset Management, Capital Projects, and Land Asset Coordinator
- Vehicles and Equipment

Appendix 1 includes a summary of technical studies, monitoring programs and other information on the natural resources the NPCA relies on within its area of jurisdiction or in specific watersheds that directly

inform and support the delivery of Category 1 Mandatory Programs and Services under s. 21.1 of the *Conservation Authorities Act*.

4.0 WATERSHED ISSUES AND CHALLENGES

4.1 Issues and Challenges

A component of assessing the effectiveness of the delivery of Category 1 Programs and Services requires the NPCA to identify issues, risks, or gaps that limit the effectiveness of program delivery. Issues and risks can be assessed at both the watershed and program scales. This assessment provides an opportunity for NPCA to evaluate the need for additional actions and support to strengthen the delivery of Category 1 Programs and Services.

Through public engagement, moderate impacts centered around NPCA conservation areas were identified. Both increasing use and public accessibility were identified and are being addressed in the complementary Conservation Area Strategy also required under the *Conservation Authorities Act*.

An increasing demand for environmental education was also identified by the public as a moderate impact. This feedback suggests an increased responsibility for the NPCA to improve knowledge sharing to enhance the public's understanding of watershed issues and solutions, and the roles and responsibilities of the NPCA in delivering mandated and supporting programs and services to address these issues.

Feedback from both the public and staff during the development of the Watershed Strategy highlighted significant administrative risks and challenges. Key concerns include the instability caused by the frequent legislative changes affecting natural resource management and the difficulty in securing adequate funding to fulfill responsibilities effectively. Additional high-impact watershed issues and challenges are outlined below.

4.1.1 Climate Variability and Change

Climate change refers to changes in long-term weather patterns caused by natural phenomena and human activities that alter the chemical composition of the atmosphere through the build-up of greenhouse gases which trap heat and reflect it back to the earth's surface. Climate change impacts have the potential to be wide-reaching, affecting ecosystems, agriculture, infrastructure, water supply, energy, transportation systems, tourism and recreation, human health and well-being, and ultimately the economy.

Adaptation efforts minimize the level of damage, hazard and risks associated with climate change, while also recognizing new opportunities presented with the changing climate. Such adaptation efforts include flood management programs, ecosystem enhancements, water quality and quantity monitoring,

municipal plan review and input, local climate change monitoring and modelling, information management, and green infrastructure and stormwater management.

Mitigation efforts are focused on reducing greenhouse gas emissions and other causes that adversely and rapidly influence weather patterns and climatic conditions. They include green building technologies and retrofits (e.g., LEED), energy conservation, renewable energy, reforestation, carbon sequestration (e.g., wetlands), and low impact development.

Several of NPCA's current policies and programs related to natural hazard management, and watershed strategies help to mitigate the impacts of climate change and assist with adaptation. The NPCA will continue to undertake programs and initiatives that assist with adaptation and mitigation, and participate, coordinate, and collaborate with municipal partners and other agencies in addressing the impacts of climate change.

4.1.2 Increasing Growth Pressures on Watersheds

As communities grow and change, and as the need for housing increases, more marginal land may be considered for development. Areas that are susceptible to erosion or flooding may be identified to accommodate innovative forms of infill development and face greater development pressure. NPCA has a significant role to play not only in supporting its watershed municipalities to uphold key provincial interests but also in assessing plan review and permit applications for development in areas that are subject to natural hazards and hazardous lands. Maintaining up-to-date and accessible planning and permitting policies and regulation mapping will also assist municipalities and development proponents in understanding where development may be prohibited or limited, and therefore, direct development away from those areas.

4.1.3 Loss of Biodiversity, Species at Risk, Habitat and Natural Cover

Watershed residents understand conservation as the intentional preservation of flora and fauna to ensure the longevity of environmental systems and associated services. The loss of habitat, increased numbers of species at risk, and an ongoing decrease in biodiversity continue to be major threats to the function and health of natural areas and the local ecosystem in the Niagara Peninsula watershed.

Forests and wetlands in the watershed help to clean the air and water, store, and release water, and provide habitat for a wide variety of plants and animals. However, the watershed has changed dramatically over the past 200 years and most of the forests and wetlands have been cleared. Forest cover in the Niagara Peninsula watershed is generally poor, as evident by the [2023 Watershed Report Card](#), especially in urban areas and productive farmlands. Many wetlands and woodlots are small and isolated but remain important for wildlife, water storage, and nutrient removal. Smaller natural areas may be more vulnerable

to adjacent land uses and development pressure. Habitat loss and fragmentation prevents the movement of animals and plants, which become less abundant and more geographically restricted.

The Niagara Peninsula watershed is highly representative of the Carolinian Life Zone, the most biodiverse and threatened ecoregion in all of Canada. Research recommends that the existing natural infrastructure in this landscape be at least doubled through the restoration of natural cover and increased protection of land through securement, to guard more than 40 per cent of Canada's species and stabilize more than 150 species at risk.

The NPCA has a legacy of applying systematic conservation planning and assessment techniques as part of its Integrated Watershed Management (IWM) approach which determined that the Niagara Peninsula watershed only contributes 56 per cent towards what science and conservation literature recommend as the minimum to be considered a somewhat healthy and sustainable landscape. As such, the NPCA has previously collaborated with the Regional Municipality of Niagara, the City of Hamilton, and Haldimand County to conduct a Natural Areas Inventory. However, this inventory requires updates to reflect current data, both from a temporal perspective and in terms of modernizing data structure and accessibility. Of particular concern is the absence of a clearly defined reserve system for greenspaces, buffers, and ecological linkages. Such a system is crucial to objectively guide and coordinate the use of protection, restoration, and resource management tools across the Niagara Peninsula watershed—a shared responsibility among those managing this critical landscape. Engaging in this landscape level analysis with watershed partners is beneficial to develop common watershed-based resource management goals, objectives and tools that create resiliency to respond not only to impacts of climate change and growth pressures, but also potential changes to guiding principles, policies, and plans.

Further, much work has yet to be considered with respect to fine scale habitat considerations for multiple species, at risk or not, throughout the watershed. There is no better demonstration of this need than the example of the native Brook Trout populations at risk due to the declining cold water reaches of the upper Twelve Mile Creek Subwatershed.

The NPCA strives to strengthen its role as a trusted science broker through the ongoing transformation of its programs and services to meet its strategic goals associated with healthy and climate resilient watersheds and being a partner of choice. Watershed-based resource management recommendations derived from comprehensive watershed inventories and assessments that are supported by field activities (e.g., ground truthing mapping, monitoring and field verifications) should be proactively available to support partners who have specific management responsibilities (e.g., natural heritage protection and stormwater management). The availability of highly credible scientific environmental data, analysis and strategies will help inform the development and updating of decision-making tools such as environmental policies, technical guidelines and stormwater specifications.

4.1.4 Invasive Species

Invasive species are a major threat in Ontario and the Niagara Peninsula watershed as they become more abundant and widespread. These species outcompete native species and impact the watershed's existing natural heritage system and features. Devastation of local woodlots and forest patches from the emerald ash borer are evident throughout NPCA's jurisdiction. Phragmites invade the Niagara Peninsula watershed as well, while many other invasive species are present in local natural areas, and new invasive species are reported ever more frequently.

The Niagara Peninsula watershed currently does not have a comprehensive invasive species strategy despite regularly encountering invasive species issues. A strategy would offer guidance on managing invasive species within the broader framework of watershed-based resource management through adaptive integrated watershed management. Key outcomes would include identifying and validating service gaps in addressing invasive species, systematically recognizing cross-functional dependencies, and identifying capacity-building opportunities within existing NPCA programs, services, and partner initiatives. These recommendations would form the foundation for an invasive species strategy and related programming.

4.1.5 Impacts on Water Quality

There is an adage that states that what we do on the land is reflected in the water. Watershed health is strongly influenced by water quality indicators. Impacts are well known in the Niagara Peninsula watershed, as documents through NPCA's ambient Water Quality Monitoring Program. Annual Results continue to indicate that many of NPCA's watersheds have marginal to poor water quality. Agricultural non-point sources continue to be the predominant cause of impairment, however, point sources related to urban stormwater management contribute as well. These issues are compounded by the concentration of nutrients and chlorides through capture and temporary containment in facilities. Poorly designed systems, combined with increasingly intense weather conditions, can exacerbate outflow rates, negatively impacting surface water flow regimes. This, in turn, leads to increased erosion and elevated suspended solids in our local creeks.

Groundwater quality regularly exceeds aesthetic objectives within the Ontario Drinking Water Standards. Aquifer vulnerabilities due to land-based activities, including urban development and management practices, do persist in parts of the watershed as well.

The NPCA's inherent IWM approach to conservation—managing human activities and natural resources within watershed boundaries through adaptive practices—lends itself ideally to addressing water quality issues. Many of NPCA's current programs and services, including the Enhanced Watershed Monitoring and Reporting Program and Enhanced Watershed Restoration and Stewardship services, are being

systematically redesigned through the strategic plan. This redesign aims to proactively mitigate water quality impacts more effectively. The NPCA will continue to implement programs and initiatives aimed at systematically addressing the ongoing water quality concerns within the Niagara Peninsula watershed until measurable improvements are achieved.

4.2 Actions to Mitigate Issues and Challenges

4.2.1 Enhance our Integrated Watershed Management Approach

Through its Integrated Watershed Management (IWM) approach, NPCA's foundational watershed management activities readily support its mandatory programs and services and those complementary to them. Significant investment in this approach is the primary vehicle with which to mitigate issues and challenges faced by the Niagara Peninsula watershed.

These management activities fundamentally include:

- Watershed scale monitoring, data collection and management as well as modelling;
- Watershed scale studies, plans, assessments, and/or strategies; and
- Watershed wide actions including stewardship, communication, outreach, and education.

Revitalizing formal watershed planning is critical to support the adaptive management cycle at the watershed scale, ensuring continuous progress toward specific management recommendations for both the watershed and subwatershed levels. Watershed planning and management play a crucial role in addressing the impacts of climate change, and NPCA is committed to integrating climate action into its approach. A key strategy is flood mitigation, where NPCA leverages natural infrastructure like wetlands to absorb stormwater and reduce flooding risks. Carbon sequestration is also a priority, with a focus on protecting and restoring forests that capture and store carbon, helping to mitigate greenhouse gas emissions. Enhancing ecosystem resilience improves habitat connectivity and biodiversity, and helps natural systems adapt to the variability brought by changing climate conditions.

As more activities are carried out in the watershed to address its urgent issues and challenges, effective coordination and communication become essential. Engaging the public and interested parties to enhance education and transparency around daily resource management initiatives will improve access to information, supporting better decision-making and fostering collective action.

4.2.2 Enhancement of Restoration, Stewardship, Monitoring, Education and Outreach Programs

Enhancement of existing programs and services to assist with delivery of the Watershed Strategy has already begun through the implementation of the Strategic Plan. Restoration and Stewardship, Watershed

Monitoring and Reporting, and Education and Outreach are evolving into a refreshed suite of programs grounded in IWM principles and practices. These efforts complement mandatory programs and services.

Restoration programming is being refined to take a more targeted, objective approach, moving away from a broad-brush method. The target of planting one million trees by 2031 has been set to aggressively restore forested habitat, increase canopy cover, enhance water quality, improve biodiversity, and enhance climate resilience across the watershed. A renewed focus on targeted restoration strategies for the Twelve Mile Creek and Four Mile Creek watersheds highlights the prioritization of sensitive areas with diverse resource management concerns. Ideally, these efforts will transition from identifying specific resource management needs to implementing recommended actions outlined in updated watershed plans.

The NPCA remains committed to reintroducing cost sharing services and partnerships to assist and offer support to farmers and the agricultural community to put nature back on marginal and environmentally sensitive arable lands. Addressing invasive species, as well as species at risk and other specific habitat requirements, are also future considerations under the intentional approach of NPCA's enhanced watershed restoration and stewardship services.

4.2.3 Enhance Partnerships and Collaboration

In the past, partnerships such as the one between NPCA, the Regional Municipality of Niagara, and the Ministry of the Environment, Conservation and Parks, which formed the Niagara Water Strategy (initially known as the Niagara Waters Quality Protection Strategy), were born locally in response to the Walkerton tragedy and tremendously advanced the IWM approach within the Niagara Peninsula watershed. More recently, our collaborations with municipal partners, such as the City of Hamilton's Biodiversity Action Plan, have mutually reinforced our shared goals of protecting the natural environment and advancing resource management objectives. The NPCA will continue to strengthen existing partnerships and actively pursue new ones within the communities that it serves, to ensure the preservation, maintenance, sustainability, restoration, and enhancement of the natural environment. These partnerships include those with the federal and provincial governments, municipalities, Indigenous communities and individuals, the NPCA Board of Directors and staff, agricultural organizations and societies, conservation clubs, service groups, private landowners, conservation area neighbours, adjacent conservation authorities, and the NPCF. We will develop new approaches to improve conservation efforts and streamline program delivery with these partners. Additionally, the NPCA deeply values and supports its dedicated volunteer base, which actively collaborates with staff to address watershed issues and challenges through initiatives like community tree plantings. Volunteers also play a vital role in the success of key NPCA projects, including the heritage village at Ball's Falls Conservation Area.

Through its 10-year strategic plan, the NPCA is also guided by the principle that diverse experiences and ideas lead to better and stronger collective impact and outcomes. As such, it seeks to exemplify inclusion and equity through meaningful engagement and collaboration with communities and partners.

4.2.4 Broaden Sources of Financial Support

Being able to continue to advance its programs and services forward will require the NPCA to continue to broaden the sources of financial support to mitigate the risks associated with reliance on municipal levy. The NPCA continues to find success in seeking external funding sources, and self-generated revenue activities such as user fees to support the implementation of its strategic plan and programs and services. While opportunities to contend for available government grants are plentiful at present, NPCA continues to nurture diverse funding strategies that include working closely with the [Niagara Peninsula Conservation Foundation](#) (NPCF) to empower its abilities to draw donations in support of NPCA programs and services. Other strategies may include corporate stewardship programming that generates revenue, conservation impact bonds, or participating in emerging research collaboratives in which partners collectively seek to leverage funding sources.

4.2.5 Cost Estimates to Implement Actions to Mitigate Issues and Challenges

As required by O. Reg. 686/21, costs related to NPCA's enhanced restoration and stewardship, enhanced integrated watershed monitoring, watershed planning and studies, and education and outreach that compliment and support NPCA's natural hazard management mandate, as identified through the 2024 NPCA budget, are shown in Appendix II. The ongoing prioritization of operating and capital costs to support these programs and services will be determined through annual budget processes.

5.0 IMPLEMENTATION AND REVIEW

Under O. Reg. 686/21: Mandatory Programs and Services, the NPCA is required to establish a process for the periodic review and updating of the Watershed Strategy, including procedures to ensure that interested parties and the public are consulted.

The Watershed Strategy will be treated as a living document, with NPCA committing to assess the need for a comprehensive review on a five-year cycle. Various influencing factors—such as technological advances, socioeconomic changes, emerging political and environmental issues—will be analyzed to determine the appropriate level of review. In cases of exceptional circumstances, such as legislative changes, the NPCA may undertake an earlier update to ensure the strategy remains compliant and aligned with governing legislation, where required. Staff will seek direction from the NPCA Board of Directors to proceed with such updates as necessary.

For each update, NPCA will develop an engagement plan to involve watershed residents and partners, Indigenous communities, and other interested parties. A workplan outlining key tasks and general timelines will also be presented to the NPCA Board of Directors at the initiation of any updates, ensuring transparency and accountability throughout the process.

6.0 COMMUNICATIONS AND ENGAGEMENT

The development of the Watershed Strategy was guided by a collaborative process that emphasized the importance of engagement with a wide range of interested parties. Through active engagement for a concentrated period of 30 days, staff gathered diverse perspectives to ensure the strategy reflects the priorities and values of the communities we serve. This collaborative approach helped ensure that the strategy addresses the needs of the watershed while promoting sustainable resource management, community involvement, and a shared vision for the future of this vital ecosystem.

Through an intentional communications and engagement strategy, staff employed a multi-channel approach to meet our communities where they are. With accessibility and inclusivity as guiding principles, we leveraged a combination of traditional and digital methods to inform and engage a wide range of internal and external audiences.

NPCA employed best efforts to engage with Indigenous partners and peoples, partner municipalities and government agencies, residents, conservation area users, volunteers, local interest groups, environmental groups and non-government organizations, technical experts like engineers and consultants, members of the agriculture, environment, planning, development, eco-tourism, and education sectors, and the public within the Niagara Region, Haldimand County, and the City of Hamilton.

Key outreach efforts included a Public Information Centre (PIC), sector-specific stakeholder meetings, direct emails, and targeted social media campaigns. The use of both in-person and online engagement opportunities helped ensure accessibility for diverse audiences and broad participation.

NPCA staff, Board of Directors, Public Advisory Committee (PAC), and the Niagara Peninsula Conservation Foundation played an essential role in shaping the Watershed-Based Resource Management Strategy. Staff, as the experts on the ground, had opportunities to share their insights and feedback through meetings, emails, and discussions. Their daily experience and expertise served as a vital sounding board for the project. The Board and PAC were provided updates, and offered valuable input, with PAC members also helping to share information and encourage feedback within their communities and networks.

The NPCA's online engagement platform, [Get Involved NPCA](#), served as the hub for the Watershed Strategy project, keeping the community informed with up-to-date information. Among the various tools was a 10-

minute survey designed to gather feedback on how NPCA's programs and services benefit the local community and to identify any issues or risks that may impact their effectiveness.

Key Tools & Tactics	Results
Get Involved NPCA	1,400 web visits
On-line Survey	23 responses
Hybrid Public Information Centre + video	27 registrations 6 attended virtually 4 attended in-person 58 video views
Organic and Paid Social Media	86,582 reach 2.05% engagement rate

Preliminary analysis of the survey responses, comments, feedback, and discussions showed that the NPCA programs and services the public was most familiar with were flooding and erosion management, planning and permitting, watershed studies, restoration, community engagement and education, and conservation area services and amenities such as camping, day-use, and events.

Staff identified 10 key issues or risks that could impact the effectiveness of NPCA's programs and services. These were presented to survey participants, who evaluated their level of impact as high, moderate, slight, or no impact. The results strongly validated staff concerns, with approximately 70 per cent of the issues and risks identified as having a significant (high) impact on NPCA's ability to maintain effective service delivery. The remaining 30 per cent were deemed to have a moderate impact, further reinforcing their importance.

Level of Impact	Issues or risks
High Impact	Increased growth pressures on the watersheds
	Securing additional funding sources
	Impacts on water quality
	Potential changes to legislation affecting conservation authorities

Level of Impact	Issues or risks
	Loss of natural vegetation cover
	Climate variability and change
	Invasive species
Moderate Impact	Increasing use of NPCA conservation areas
	Increasing demand for environmental education
	Public accessibility to NPCA conservation areas

This alignment between staff insights and community feedback highlights shared priorities and the importance of focusing NPCA's programs, services, and conservation efforts on addressing these challenges to ensure continued effectiveness and success.

Members of the community provided additional input pertaining to other issues or risks that NPCA should consider, as well as suggestions associated with these. They were consistent with those previously identified by staff, **which served as confirmation that NPCA's Watershed Strategy aligns with the needs of the community it serves.**

- **Climate Adaptation Funding Constraints:** the importance of securing funding for climate adaptation due to recent extreme weather events impacting watersheds, shorelines, and natural assets.
- **Biodiversity Loss and Misuse of Natural Areas:** the overuse of natural areas, including overfishing, unsustainable foraging (e.g., mushrooms), and the loss of protected wetlands due to policy changes and landowner actions.
- **Development Pressures:** the expansion of buildings and development in response to community growth, particularly regarding its impact on natural habitats and agricultural land.

The detailed and thoughtful feedback from approximately 50 per cent of survey respondents demonstrated a highly engaged audience eager to participate in the development of the Watershed Strategy. The survey responses reflect diverse perspectives, ranging from positive observations, specific operational suggestions to broader environmental concerns. This level of participation indicates that the participants are deeply connected to their local environment and invested in NPCA's success. These are summarized in the following reoccurring themes:

- **Leadership and Collaboration:** improvements in NPCA's programs and services, citing strong leadership, collaboration with municipalities, and the positive working relationships fostered by NPCA's senior management.
- **Conservation and Land Protection:** the need for NPCA to prioritize acquiring and protecting vulnerable lands, particularly wetlands and biodiversity-rich areas within urban boundaries. Concerns about the impact of development on creeks, streams, and the surrounding ecosystems.
- **Legislative and Policy Concerns:** stricter laws to protect creeks, waterways, and natural forests, as well as measures to limit industrial access to rural lands and ensure that new developments prioritize green spaces, trees, and natural ecosystems.
- **Improving Watershed Health and Protecting Endangered Species:** the importance of educating the public on the significance of ecosystems and biodiversity in maintaining a healthy environment. This also tied to suggestions around increased communication between NPCA and residents, especially on conservation matters such as restoration efforts.
- **Increased Collaboration and Focus on Better Data Management:** stronger partnerships with local communities and other stakeholders in relation to data management and integration would help to address ongoing environmental challenges.
- **Desire for Expansion of Conservation Areas and Increased Restoration:** the community sees these areas as vital for preserving biodiversity and providing accessible spaces for recreation and education.

The responses from this survey, as well as all other forms of engagement, show increased interest from the community. Not only did respondents provide detailed feedback on specific projects, but they also offered constructive suggestions for improving NPCA's programs and services. The variety of topics covered, from biodiversity to community engagement, shows that respondents are not only concerned about immediate issues but are also thinking long-term about the health and sustainability of the Niagara Peninsula watershed. This level of engagement reflects a committed and proactive community that is willing to collaborate with the NPCA for the betterment of the environment.

Feedback received through internal and external engagement was thoroughly reviewed by the project team and was considered in the development of this Watershed Strategy where applicable.

APPENDIX 1: CATEGORY 1 MANDATORY PROGRAMS AND SERVICES

A summary of existing technical studies, monitoring programs and other Information that guide NPCA's Mandatory Programs and Services

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
Natural Hazard Management	Protecting people and properties from flood, erosion, and other natural hazards.		
Flood Forecast and Warning	<p>Delivery of accurate, real-time information for flood forecasting, warning, and messaging. Issue flood warnings</p> <p>Water quantity monitoring specific to flood forecasting and warning: Collect and maintain data from dams, streamflow gauges, rainfall gauges, and snow courses, as well as collect weather forecasts from various sources</p> <p>Climate Monitoring</p>	<ul style="list-style-type: none"> • Data on precipitation, river flows, reservoir, and Great Lake water levels taken from 21 rain gauge stations, 15 stream gauge stations, 3 Great Lakes gauge stations, and 7 snow course stations • Observed flood elevations and data gathered in the field • Flood messages issued by the Alertable mobile app system 	1.2, 2.2, 2.3, 4.2
Flood and Erosion Management	<p>Management and monitoring of riverine erosion across the watershed jurisdiction.</p> <p>Ice management</p> <p>Floodplain mapping</p> <p>Flood and erosion risk and mitigation studies</p>	<ul style="list-style-type: none"> • Digital elevation models and other geospatial data • Watercourse floodplain mapping. • Hydrologic and hydraulic models • Ontario Ministry of Natural Resources Flooding Hazard Technical Guidelines • Natural Hazard Infrastructure Operational Plans • Natural Hazard Infrastructure Asset Management Plans 	1.2, 2.2, 2.3, 4.2

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
	<p>Operation and maintenance of NPCA flood and erosion control Infrastructures</p> <p>Flood and erosion hazard mitigation projects</p>		
Shoreline Hazard Management	<p>Shoreline management plans</p> <p>Integration of natural hazard management with overall shoreline climate resiliency and watershed resource management to respond to climate change risk and vulnerability</p> <p>Flood and erosion hazard mitigation projects</p>	<ul style="list-style-type: none"> NPCA Lake Erie and Lake Ontario Shoreline Management Plans Digital elevation models and other geospatial data Ontario Ministry of Natural Resources Great Lakes Hazards Technical Guidelines 	1.2, 2.2
Environmental Planning and Policy	<p>Review and comment on proposals, applications, or other matters under the Federal and Provincial Environmental Assessment Acts related to s. 28 and natural hazards</p> <p>Review and process s. 28 permit applications related to public infrastructure (e.g., Hydro One, Enbridge, Bell, municipal, DART protocol)</p>	<ul style="list-style-type: none"> Conservation Authorities Act and related regulations, including O. Reg. 41/24 Ontario Environmental Assessment Act Municipal Class Environmental Assessment Drainage Act; DART Protocol 2021 Update on Conservation Authority Exceptions for the Drainage Community Further to the Release of Ontario Regulation 41/24: 	1.2, 2.1, 5.3

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
	Review and comment on municipal Official Plan Reviews and Updates as well as supporting technical studies relating to natural hazards	<p>Prohibited Activities, Exemptions and Permits under the Conservation Authorities Act, March 28, 2024</p> <ul style="list-style-type: none"> • MOU between Conservation Ontario and Hydro One Networks Inc. • Planning Act • NPCA Policy Document: Policies for Planning and Development in the Watershed of the NPCA • NPCA Procedural Manual • Mapping of natural hazards (e.g., watercourses, wetlands, unstable soil or bedrock, shoreline areas affected by flooding, erosion of dynamic beach hazards) and regulated areas and other geospatial data • Various MNR Technical Guidelines for Natural Hazards e.g., Erosion and Flooding • Recent and historical orthoimagery 	
Planning and Permitting	<p>Review and comment on proposals, applications, or other matters under the Planning Act, Niagara Escarpment Act, and Aggregates Resources Act related to s. 28 and natural hazards</p> <p>Review and process s. 28 permits (not related to public infrastructure)</p>	<ul style="list-style-type: none"> • Conservation Authorities Act • Ontario Regulation 41/24 • Niagara Escarpment Planning and Development Act • The Planning Act • NPCA Policy Document: Policies for Planning and Development in the Watershed of the NPCA 	1.2, 2.1, 5.3

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
		<ul style="list-style-type: none"> NPCA Planning and Procedural Manual Shoreline Management Plans for Lake Erie and Lake Ontario Twelve Mile Creek Slope Stability Study MNR Technical Guide-River and Streams Systems: Erosion Hazard Limit and Flood Hazard Limit Mapping of natural hazards (e.g., watercourses, wetlands, unstable soil or bedrock, shoreline areas affected by flooding, erosion of dynamic beach hazards) and regulated areas and other geospatial data Recent and historical orthoimagery 	
Section 28 Compliance and Enforcement	<ul style="list-style-type: none"> Investigate complaints and contraventions of Section 28 of the CA Act. Conduct compliance inspections of issued NPCA Section 28 permits Gain compliance with the CA Act and associated regulations for contraventions and violations Initiate and support court proceedings where compliance is unsuccessful Enforce court orders and settlements as required. 	<ul style="list-style-type: none"> Conservation Authorities Act Ontario Regulation 41/24 Provincial Offences Act and associated Regulations NPCA Section 28 Compliance and Enforcement Procedural Manual, 2022 Conservation Ontario/NPCA Section 28 Enforcement Guidelines, 2011 NPCA Internal Standard Operating Procedures for Compliance and Enforcement 	1.2, 2.1, 2.2, 4.1, 5.2, 5.3

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
	<ul style="list-style-type: none"> Provide client and public education on compliance and enforcement role of the NPCA 	<ul style="list-style-type: none"> NPCA Policies for Planning and Development in the Watershed, 2022 NPCA Planning and Permitting Procedure Manual, 2022 Digital elevation models and other geospatial data Recent and historical orthoimagery 	
Watershed Management and Climate Change	Programs and services to understand the current conditions, cumulative impacts, and risks to watersheds. Strategies and measures to protect, enhance, and restore watersheds toward creating healthy and climate-resilient watersheds.		
Watershed-based Resource Management Strategy	Implementation, review, and update to the strategy, including compiling existing resource, management, plans, watershed plans, studies, and data	<ul style="list-style-type: none"> Digital elevation models and other geospatial data Recent and historical orthoimagery Watershed Report Cards Natural Heritage System assessments (i.e., Nature for Niagara's Future) NPCA Watershed Natural Asset Analysis and Valuation study 	1.1, 1.2, 2.2, 4.1, 4.2
Watershed and Subwatershed Planning	<p>Updates to NPCA watershed plans</p> <p>Subwatershed-level assessments and analyses (e.g., water budgets, catchment assessment, non-point source modelling, groundwater modelling, and systematic conservation monitoring)</p>	<ul style="list-style-type: none"> O. Reg 686/21 Data collected under the Provincial Water Quality Monitoring Network and the Provincial Groundwater Monitoring Network and associated reporting Planning applications SWAT non-point source modelling for the Welland River watershed 	1.1, 2.2, 4.1

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
	<p>Determine the cumulative watershed impacts from natural resource inventory and resource assessment studies</p> <p>Develop and maintain recommendations and guidelines to assist in the management of watershed natural resources</p>	<ul style="list-style-type: none"> Source Water Protection Assessment and related reports Natural Areas Inventory geospatial data and reports NPCA Watershed Natural Asset Analysis and Valuation study Floodplain Mapping and hydrologic modelling output and associated reports Geospatial data such as Natural Areas Inventory, Hydrography, etc. Digital elevation models, recent and historical orthoimagery 	
Water Monitoring (surface and groundwater)	Complete field sampling and maintenance of program infrastructure in support of the Provincial Water Quality Monitoring Network (PWQMN) and Provincial Groundwater Monitoring Network (PGMN).	<ul style="list-style-type: none"> Ontario Regulation 686/21- Other Program and Services PWQMN and the PGMN Watershed-based Resource Management Strategy NPCA Enhanced Integrated Watershed Monitoring Program 	1.1, 1.4, 2.2
Ecological Monitoring	Ecological monitoring on NPCA-owned lands in support of land management plans	<ul style="list-style-type: none"> Conservation Areas Strategy NPCA Enhanced Integrated Watershed Monitoring Program 	1.1, 1.4, 2.2
Ecological Restoration	<p>Internal restoration services related to conservation area land management plans</p> <p>Internal restoration services to support NPCA programs and services (e.g.,</p>	<ul style="list-style-type: none"> Natural Areas Inventory geospatial data and reports NPCA Watershed Natural Asset Analysis and Valuation study 	1.3, 1.4, 4.1, 4.2

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
	review of s. 28 permit applications and compliance and enforcement, informing land securement strategy implementation)	<ul style="list-style-type: none"> Floodplain Mapping and hydrologic modelling output and associated reports Geospatial data such as Natural Areas Inventory, Hydrography, etc. Digital elevation models, recent and historical orthoimagery Various MNR Technical Guidelines for Natural Hazards e.g., Erosion and Flooding 	
Section 28 Regulatory Mapping Technical Studies	Technical studies to support NPCA hazard management functions (e.g., Ecological land classification mapping; S.28 regulation mapping of wetlands, watercourses, and karst; Digital terrain elevation model)	<ul style="list-style-type: none"> Various MNR Technical Guidelines for Natural Hazards e.g., Erosion and Flooding Conservation Ontario/MNR Guidelines for Developing Schedules of Regulated Areas (October 2005) Conservation Ontario Procedure for Updating Section 28 Mapping (2018) MNR Ecological Land Classification for Southern Ontario (Lee et al. 1998) Geospatial data, DEM, and orthoimagery 	1.1, 1.2, 1.3, 2.2, 5.2
Climate Change Resilience	Climate change research to support climate change forecasting, watershed vulnerability and risk assessments, and watershed impact assessment and mitigation strategies	<ul style="list-style-type: none"> Climate Projections for Niagara Region (TRCA, December 2021) Niagara Peninsula Watershed Natural Asset Analysis and 	1.1, 1.2, 2.3

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
		Valuation Report (Green Analytics, 2024)	
Drinking Water Source Protection	<p>Acts as the local watershed-level agency, known as the legislated role of Source Protection Authority (SPA) under the Clean Water Act, 2006, and are required to:</p> <ul style="list-style-type: none"> • Establish and maintain the Source Protection Committee (SPC) • Provide program, administrative, technical, and scientific support to the SPC • Carry out locally initiated amendments to the Assessment Report and Source Protection Plan for the inclusion of new or changing municipal residential drinking water systems • Maintain and make accessible source protection program data to inform local decision making • Monitor Source Protection Plan implementation • Prepare annual progress reports to report on local progress. • Support municipalities and local implementors in fulfilling 	<ul style="list-style-type: none"> • Clean Water Act, 2006 and associated regulations • Safe Drinking Water Act, 2002 and associated regulations • 2021 technical rules under the Clean Water Act, 2006 • Niagara Peninsula Assessment Report • Niagara Peninsula Source Protection Plan • Niagara Peninsula Explanatory Document • Geospatial Data, DEM, and orthoimagery 	1.1, 4.1

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
	their Source Protection Plan implementation responsibilities		
Conservation Authority Lands and Conservation Areas	Manage approximately 3,000 ha of lands, including 41 conservation areas essential to watershed management, environmental protection, cultural heritage, and recreation.		
Section 29 Compliance and Enforcement	<ul style="list-style-type: none"> • Conduct compliance inspections for issued NPCA Section 29 permits and/or associated works • Investigate complaints and contraventions of Section 29 of the CA Act • Conduct routine enforcement inspections of NPCA owned properties for unauthorized use, hunting, trespass and/or encroachment • Initiate and support enforcements actions (notices and tickets), and court proceedings where compliance is unsuccessful • Enforce court orders and settlements as required • Provide client and public education on compliance and enforcement role on CA owned lands 	<ul style="list-style-type: none"> • Conservation Authorities Act • Ontario Regulation 688/21 • Provincial Offences Act and associated Regulations • NPCA Internal Standard Operating Procedures for Compliance and Enforcement • Geospatial Data, DEM, and orthoimagery 	1.2, 1.4, 2.1, 5.2, 5.3
Land Care Program (conservation areas)	Management and maintenance of conservation areas (e.g., gates, fencing,	<ul style="list-style-type: none"> • Conservation Areas Strategy 	1.4, 3.1, 3.3

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
	signage, landscaping, pedestrian bridges, trails, parking lots, and roadways) Passive recreation Risk Management Hazard tree management Maintenance of heritage buildings Forest Management	<ul style="list-style-type: none"> NPCA management and master plans NPCA Internal Standard Operating Procedure Geospatial Data, DEM, and orthoimagery 	
Land Acquisition and Disposition	Strategic acquisition of properties related to mitigating the risk of natural hazards in accordance with NPCA Land Securement Strategy	<ul style="list-style-type: none"> Geospatial Data, DEM, and orthoimagery 	1.4, 3.1
Land Management Planning	Conservation Area Land Inventory and Conservation Area Strategy Conservation Area Management Planning	<ul style="list-style-type: none"> Geospatial Data, DEM, and orthoimagery 	1.4
Enabling Services			
Support for all CA departments, the Board of Directors, member municipalities and the general public enables NPCA to operate in an accountable, transparent, efficient, and effective manner.			
Corporate Services	Administrative support Human resources (incl health and safety)	<ul style="list-style-type: none"> CPA Canada Standards and Guidance Collection CPA Canada Standards and Guidance Collection 	5.1, 5.2, 5.3, 6.1, 6.2

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
	<p>Property taxes and occupancy costs</p> <p>Oversight of programs and policies</p> <p>Operating costs not related to any specific program or service (e.g., overhead)</p> <p>Records management</p> <p>Grant management</p>	<ul style="list-style-type: none"> • CPA Canada Standards and Guidance Collection • Employment Standards Act • Collective Agreement – OPSEU L212 • Labour Relations Act • Occupational Health & Safety Act • Workplace Safety & Insurance Act • Public Health • NPCA – Human Resources Policies • NPCA – Health & Safety Policies 	
Financial Services	<p>Annual budget</p> <p>Accounts payable and receivable</p> <p>Procurement</p> <p>Payroll</p> <p>Financial analytics and reporting Audit</p> <p>Administration of reserves and investments</p>	<ul style="list-style-type: none"> • Budget Assumptions & Timetable • CPA Canada Standards and Guidance Collection • Employment Standards Act • Collective Agreement - OPSEU L212 • CPA Canada Standards and Guidance Collection • NPCA – Reserves Policy • NPCA – Investment Policy 	5.2, 5.3, 6.1, 6.2
Information Management and Technology	Digital technology, licensing fees, data/voice services	<ul style="list-style-type: none"> • GO-ITS 43 Web Metadata Standard • GO-ITS 46 Common Metadata Elements Standard 	1.1, 1.2, 1.3, 2.2, 5.2, 5.3

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals
	<p>Management and integration of data for geographic information system (GIS)</p> <p>Support open data portal and science</p> <p>Mapping and GIS support for watershed resources planning and natural hazards management</p> <p>Support development and implementation of watershed-based resource management strategy</p>	<ul style="list-style-type: none"> • Data Capture Specifications for Medium-Scale Hydrographic Features • NPCA's Digital Transformation Strategy • Bill 194 - Enhancing Digital Security and Trust Act • CA Act • Clean Water Act 	
Governance and Corporate Administration	<p>Support to governance and corporate administration</p> <p>Board governance</p> <p>Public Advisory Committee and ad-hoc committees</p> <p>Strategic planning/ reporting and CAO oversight</p>	<ul style="list-style-type: none"> • Conservation Authorities Act • Municipal Conflict of Interest Act • Municipal Freedom of Information and Protection of Privacy Act and R.R.O 1990, Regulation 823 under the Act • NPCA 2021-31 Strategic Plan 	5.2, 5.3
Asset Management	<p>Capital costs for flood infrastructure</p> <p>Capital costs for conservation land infrastructure</p>	<ul style="list-style-type: none"> • CPA Canada Standards and Guidance Collection • NPCA – TCA Policy • CPA Canada Standards and Guidance Collection • NPCA – TCA Policy 	1.2, 1.4, 6.3

Category 1 Program or Service	Description	Program Guidance	Strategic Plan Goals

APPENDIX 2: 2024 NPCA BUDGET – INVENTORY OF PROGRAMS AND SERVICES FORMAT

Niagara Peninsula Conservation Authority										
2024 Budgets and Municipal Levies (Budget by Programs and Services)										
Appendix 4 - Report No. FA-41-23			Levy				Non-Levy			TOTAL BUDGET
Dept	Description	Category	Niagara	Hamilton	Haldimand	Total Levy	Provincial	Federal	Self-Generated	
General Levy - Category 1 and 2										
Natural Hazard Management										
301	Flood Forecasting and Warning	1	177,431	48,729	4,378	230,538	31,000			261,538
157	Flood and Erosion Management	1	43,554	11,961	1,075	56,590	5,200			61,790
323	Water Resources	1	79,522	21,840	1,962	103,324				103,324
329	Shoreline Hazard Management	1	18,772	5,155	463	24,390				24,390
345	Environmental Planning and Policy	1 & 2	210,237	57,738	5,187	273,162			153,000	426,162
361	Planning and Permitting	1 & 2	262,711	72,149	6,482	341,342	38,600		576,000	955,942
371	Compliance and Enforcement	1	450,929	123,841	11,126	585,895			40,800	626,695
391	Planning Ecology	1 & 2	80,852	22,205	1,995	105,052				105,052
TOTAL			1,324,008	363,618	32,667	1,720,293	74,800	-	769,800	2,564,893
Watershed Resource Management and Climate Change										
New	Watershed-based Resource Management Strategy	1	-	-	-	-	-	-	-	-
265	Watershed Monitoring and Reporting	1	251,576	69,091	6,207	326,874			12,000	338,874
217	Special Projects (groundwater sampling)	1	12,699	3,488	313	16,500				16,500
125	Regulatory Mapping Technical Studies	1	43,820	12,035	1,081	56,936				56,936
303	Climate Change Resilience	1	94,555	25,968	2,333	122,856		29,323		152,179
TOTAL			402,650	110,582	9,934	523,166	-	29,323	12,000	564,489
Other Watershed Related Programs										
205	Drinking Source Water Protection	1				-	155,909			155,909
TOTAL			-	-	-	-	155,909	-	-	155,909
Conservation Authority Lands and Conservation Areas										
489	Section 29 Enforcement and Compliance	1	52,418	14,396	1,293	68,107				68,107
427	Land Care Program	1	98,333	27,006	2,426	127,765			862,306	990,071
357	Land Management Planning	1	205,205	56,356	5,063	266,624			85,000	351,624
119	Ecology	1	108,058	29,676	2,666	140,400				140,400
TOTAL			464,013	127,434	11,448	602,896	-	-	947,306	1,550,202
Enabling Services										
101/107/127	Corporate Services (incl HR, Corp Sup, AM)	1	820,734	225,402	20,250	1,066,386	27,646	25,000	665,144	1,784,176
105	Financial Services	1	243,464	66,864	6,007	316,334				316,334
109/131	Information Management and Technology	1	584,157	160,430	14,413	758,999	9,900			768,899
103/150	Governance and Corporate Administration	1	412,284	113,228	10,172	535,684	32,377			568,061
111	Communications, Marketing and Public Relations	1	265,876	73,019	6,560	345,455				345,455
801	Vehicles and Equipment	1	201,338	55,294	4,968	261,600				261,600
153/155	Asset Management	1	15,544	4,269	384	20,197			189,966	210,163
TOTAL			2,543,398	698,505	62,752	3,304,655	69,923	25,000	855,110	4,254,688
TOTAL GENERAL LEVY			4,734,069	1,300,139	116,802	6,151,010	300,632	54,323	2,584,216	9,090,181

Niagara Peninsula Conservation Authority										
2024 Budgets and Municipal Levies (Budget by Programs and Services)										
Appendix 4 - Report No. FA-41-23			Levy				Non-Levy			TOTAL
Dept	Description	Category	Niagara	Hamilton	Haldimand	Total Levy	Provincial	Federal	Self-Generated	BUDGET
General Levy - Category 3 - Cost Apportionment MOU										
Watershed Resource Management and Climate Change										
227	Restoration	3	258,495	70,992	6,378	335,864			202,553	538,417
123	Community Engagement and Stewardship	3	224,042	61,530	5,528	291,100				291,100
343	Integrated Watershed Planning	3	202,348	55,572	4,992	262,912				262,912
TOTAL			684,885	188,093	16,898	889,876	-	-	202,553	1,092,429
TOTAL GENERAL LEVY - CATEGORY 3			684,885	188,093	16,898	889,876	-	-	202,553	1,092,429
Special Levy										
TDB	Capital and Special Projects	1	1,601,271	263,309	14,679	1,879,259			425,952	2,305,211
TDB	Land Securement	2	250,000	148,039	13,252	411,291				411,291
TOTAL SPECIAL LEVY			1,851,271	411,348	27,931	2,290,550	-	-	425,952	2,716,502
Fee for Service - Schedule A										
265	Watershed Monitoring and Reporting						-	-	178,500	178,500
TOTAL FEE FOR SERVICE - SCHEDULE A			-	-	-	-	-	-	178,500	178,500
Provincial, Federal, Authority Generated										
Other Watershed Related Programs										-
241	Niagara River Remedial Action Plan	3					240,028	158,000		398,028
TBD	Other (new projects/programs - i.e. 2BT)	3					-			-
TOTAL							240,028	158,000	-	398,028
Conservation Authority Lands and Conservation Areas										-
395/401/403/405	Active Recreation Programs	3							2,104,031	2,104,031
407/411										
413	Educational Programming	3							440,000	440,000
New	Land Management, Other Agencies	3					-			-
TOTAL							-	-	2,544,031	2,544,031
TOTAL PROVINCIAL, FEDERAL, AUTHORITY GENERATED							240,028	158,000	2,544,031	2,942,059
										-
GRAND TOTAL			7,270,226	1,899,580	161,630	9,331,436	540,660	212,323	5,935,252	16,019,671

SUMMARY									
Operating			5,418,955	1,488,232	133,699	7,040,886	540,660	212,323	13,303,169
Capital			1,601,271	263,309	14,679	1,879,259	-	-	2,305,211
Land Securement			250,000	148,039	13,252	411,291	-	-	411,291
TOTAL			7,270,226	1,899,580	161,630	9,331,436	540,660	212,323	16,019,671

Report To: Board of Directors

Subject: Conservation Area Strategy

Report No: FA-63-24

Date: December 13, 2024

Recommendation:

THAT Report No. FA-63-24 RE: Conservation Area Strategy **BE RECEIVED;**

AND THAT the Conservation Area Strategy, as presented in Appendix 1, **BE APPROVED;**

AND THAT staff **BE AUTHORIZED** to publish the Conservation Area Strategy on the NPCA website;

AND FURTHER THAT the Conservation Area Strategy **BE CIRCULATED** to the NPCA watershed upper-tier, single-tier and local municipalities;

Purpose:

To seek NPCA Board of Directors approval of the Conservation Area Strategy required under the *Conservation Authorities Act* and recommend the Conservation Area Strategy be made publicly available through the website and be distributed directly to our municipal partners.

Background:

Ontario Regulation (O. Reg.) 686/21: Mandatory Programs and Services requires all conservation authorities to complete a Land Inventory and Conservation Area Strategy (CA Strategy) by December 31, 2024.

The Land Inventory and Conservation Area Strategy specifically address NPCA land holdings. NPCA has been working with Conservation Ontario and fellow Conservation Authorities to develop a consistent approach to Strategy development based on local customized needs of each conservation authority. O. Reg. 686/21 sets out specific requirements for the Strategy such as:

- Objectives established by the authority that will inform the authority's decision-making related to the lands it owns and controls, including decisions related to policies governing the acquisition and disposition of such lands.
- Identification of the mandatory and non-mandatory programs and services that are provided on land owned and controlled by the authority, including the sources of financing for these programs and services.
- Where the authority considers it advisable to achieve the objectives, an assessment of how the lands owned and controlled by the authority may,
 - Augment any natural heritage located within the authority's area of jurisdiction; and
 - Integrate with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction.
- The establishment of land use categories for the purpose of classifying lands in the NPCA's land inventory based on the types of activities on each parcel of land or other matters of significance related to the parcel.
- A process for the periodic review and updating of the conservation area strategy by the authority, including procedures to ensure stakeholders and the public are consulted during the review and update process.

The regulation also stipulates that the conservation authority shall ensure interested parties and the public are consulted during the preparation of the Strategy and that the Strategy be made publicly available.

Discussion:

The CA Strategy is designed to provide high level guidance and direction for planning and management of NPCA conservation areas. Specific goals and objectives provide direction for management and long-term planning for our conservation areas. Details on programs and services and the land use classifications will inform the general purpose for each conservation area. The CA Strategy also explores how NPCA's conservation area system augments local or regional natural heritage features and how they connect to local public lands.

The Strategy is not intended to provide specific direction for daily management or planning of conservation areas. Addressing priorities such as invasive species management, greenspace accessibility, or capital development will come through action plans to be developed in conjunction with annual work plans and Board priorities starting in 2025. Budgeting for capital projects will be informed by the Asset Management Plan.

Much of the site-specific priority work will be addressed in management plans that will be developed for each NPCA conservation area. These plans may include

projects such as trail development, restoration projects, invasive species removal, and capital development. Examples of other watershed-wide actionable priorities could include an Invasive Species Strategy, Indigenous Placemaking Strategy, Watershed Trail Strategy, or a Greenspace Accessibility Plan.

Each management plan or watershed-wide strategy or plan will be supported with additional, extensive engagement activities including Board review and approval. Key components of the Conservation Area Strategy and engagement results are summarized below with the full CA Strategy included as Appendix 1.

Engagement Summary

NPCA took a comprehensive approach to internal and external engagement to develop the Strategy, including both in-person and online engagement opportunities to ensure accessibility for diverse audiences and broad participation.

Key outreach and engagement efforts included a Public Information Centre (PIC), direct emails, and targeted social media campaigns to reach members of the public, local area municipalities, staff, Board Members, Indigenous communities and other interested parties. The [Get Involved](#) online engagement portal was used as the main landing page for the project which also included a survey, discussion paper, and draft CA Strategy to allow for fulsome participation in shaping the CA Strategy. Over 1,400 people visited the Get Involved project page, and 64 people completed the survey.

Key findings from the review of feedback, survey responses, and staff input are:

- People visit NPCA conservation areas to enjoy nature, exercise, and improve mental health.
- People value conservation areas because they can connect with nature, enjoy passive recreation, and because these areas support biodiversity and habitat for plants and wildlife.
- Common themes included biodiversity protection, managing users/access, enforcement against non-permitted uses, invasive species concerns, increasing natural corridors and acquisitions, partnerships/collaboration, climate change, and signage/education.

All feedback received through internal and external engagement was thoroughly reviewed by the project team and helped refine the Strategy's goals and objectives, land use categories, and augmenting natural heritage reflected in the final CA Strategy.

Goals and Objectives

The CA Strategy includes four goals that support the priorities identified in NPCA's Strategic Plan 2021-2031 that were informed by valuable feedback received through the engagement activities. Each of the goals are aligned with NPCA's

inventory of programs and services with a focus on Category 1 mandatory services while also providing justification and support for potential Category 2 and 3 programs and services at NPCA conservation areas.

The four goals are:

1. Protect and Restore
2. Connect and Enhance
3. Adapt and Sustain
4. Inspire and Engage

Supporting objectives developed for each goal will inform an action plan to guide current and future priorities that are easily actionable and measurable for specific NPCA conservation areas or for watershed-wide performance indicators.

Conservation Area Classification

Through the CA Strategy, NPCA staff have also classified each conservation area into one of three land use categories as informed with expertise from a Conservation Ontario working group and advice from NPCA staff. Original Conservation Ontario guidance proposed four categories, recognizing that adjustments would be necessary given differences between conservation areas and authorities. NPCA conservation areas were categorized into one of three categories:

1. Conservation Area – Active Recreation
2. Conservation Area – Passive Recreation
3. Natural Heritage & Hazard Lands

These broad categories are meant to identify the general purpose of each conservation area, not specific programs or activities for a conservation area. Conservation area management plans will provide opportunities to further refine these classifications to allocate programs and activities to specific zones within the property, with consideration to the staff and budgetary resources. It is also important to note that land use classifications are not fixed. Classifications may change over time as conservation areas are influenced by aspects such as increased visitation, a changing climate, or strategic directions. Any changes to land use classifications would be documented in updates to the Conservation Area Strategy and management plans.

Four (4) conservation areas are classified as Active Recreation; sixteen (16) as Passive Recreation; twenty-one (21) as Natural Heritage & Hazard Lands.

Augmenting Natural Heritage

The CA Strategy assesses how NPCA conservation areas augment natural heritage and integrate with other Provincially or municipally owned lands and other publicly accessible lands and trails in the watershed.

By examining how NPCA's conservation areas align within the significant natural heritage areas and features, including the Niagara Escarpment Parks and Open Spaces System (NEPOSS), and local and Provincial natural heritage systems, the Strategy demonstrates that NPCA conservation areas are important natural areas for residents and visitors that could be better connected to local parks, and other conserved areas through strategic land acquisitions and collaboration. There are many opportunities for connections between NPCA conservation areas and local trails and parks. These opportunities are supported by the goals and objectives of the CA Strategy, the Land Securement Strategy, and the NPCA's Strategic Plan.

Financial Implications:

The development of the Conservation Area Strategy is funded through the Operating Budget. Implementation of the Strategy will be prioritized through annual workplans and budgets.

Links to Policy/Strategic Plan:

Goal 1.1: Support evidence-based decision-making for climate-resilient watersheds and shorelines.

Goal 1.3: Restore and enhance natural habitat, water resources, and forest cover.

Goal 1.4: Manage NPCA lands to increase biodiversity, habitat connectivity, and natural cover.

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 3.3: Improve cultural connections and heritage appreciation.

Goal 4.1: Strengthen government relations toward collective outcomes and impact

Goal 4.2: Foster relationships with the community, non-government organizations, businesses, agriculture, industry, and academic institutions for collective outcomes and impact.

Goal 4.3: Improve engagement with local First Nations, Métis, and Inuit peoples that supports shared stewardship.

Goal 5.4 Demonstrate leadership in addressing climate change and sustainable practices through NPCA lands and operations

Related Reports and Appendices:

Appendix 1: NPCA Conservation Area Strategy

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CONSERVATION AREA STRATEGY

December 2024

Land Acknowledgement

The Niagara Peninsula watershed is situated within the traditional territory of the Haudenosaunee, Attiawonderonk (Neutral), and the Anishinaabeg, including the Mississaugas of the Credit. Today, the watershed is home to many First Nations peoples, Métis citizens, and Inuit.

The 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—a formal treaty that represents a well-known teaching to ensure conservation of shared lands and natural resources. The “dish” is the generosity and bounty of the land that provides the gifts of food, resources, and water from which we are all nourished. However, these gifts are not infinite, and the bowl must be shared and kept clean, taking only what we need and leaving enough for the next person. The lesson also teaches that the “spoon” is round and does not have sharp edges like a fork or a knife, meaning the dish is to be shared peacefully and shared by everyone who uses the bowl. No one gets a bigger or smaller spoon, symbolizing the spirit of cooperation and equity.

This teaching has been kindly shared by Indigenous partners and community members through conversations with NPCA staff. It is an excellent reminder that the gifts of the earth are to be shared and cared for by each of us in a reciprocal relationship with the land. Our health as people is directly and intricately tied to the health of the watershed. This Dish with One Spoon teaching also underscores the importance of NPCA’s commitment to shared stewardship of natural resources and deep appreciation of Indigenous culture, knowledge systems, and history in the watershed.

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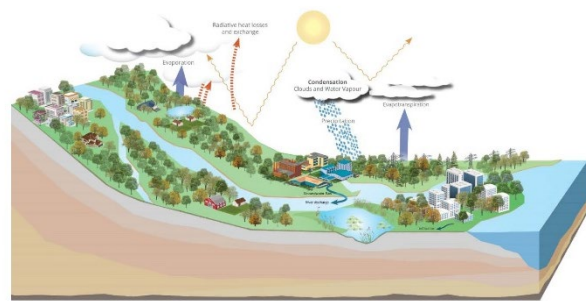
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1.0 INTRODUCTION

1.1 About Niagara Peninsula Conservation Authority

The [Niagara Peninsula Conservation Authority](#) (NPCA) is a community-based natural resource management agency that protects, enhances, and sustains healthy watersheds that was established in 1959 pursuant to the [Conservation Authorities Act](#). With 65 years of experience, NPCA offers watershed programs and services that focus on flood and hazard management, source water protection, species protection, ecosystem restoration, community stewardship, and land management.

NPCA's watershed area encompasses 2,424 square kilometres, and includes the Niagara Region, portions of the City of Hamilton (21%), and Haldimand County (25%). Since time immemorial, this area has been the home to Indigenous peoples—a place for sharing, trading, hunting, gathering, stewardship, and friendship. Currently, the watershed population is approximately 520,000 people.



A watershed is the land that drains into a particular watercourse such as a stream, river, or lake. Gravity and the land's topography (the high and low areas) move water, rain, and snowmelt across the landscape from one area to another.

Situated between two Great Lakes, with the Niagara River as a boundary shared with the United States of America, the Niagara Peninsula watershed is a natural treasure of distinct cultural, geological, hydrological, and biological aspects not found elsewhere in North America. It is part of the Carolinian life zone—Canada's most biodiverse and threatened ecoregion. The Niagara Peninsula watershed boasts approximately 30 per cent natural cover that provides critical habitat such as forested woodlots, slough forests, alvars, and coastal wetlands that support rich biodiversity, including rare plants and animals. The watershed also includes several other notable natural features such as the Niagara Escarpment Biosphere Reserve, Niagara Falls, the Wainfleet Bog, Ball's Falls, Willoughby Marsh, and landforms such as the Fonthill Kame ice-contact delta complex.

1.2 Conservation Area System

NPCA owns more than 3,000 hectares of land within its watershed, across 41 conservation areas held in public trust for recreation, heritage preservation, conservation, and education. These areas represent a wide range of ecosystem types and protect some of the watershed's most significant ecological features.

Map 1: NPCA Watershed Jurisdiction



NPCA stewards important sections of shoreline along Lake Erie and Lake Ontario, migratory bird habitat, Provincially Significant Wetlands (PSW), Areas of Natural and Scientific Interest (ANSI), important cultural heritage sites, and large sections of the Niagara Escarpment—a UNESCO Biosphere Reserve. Together, these conservation areas represent an essential part of the natural treasures and significant ecosystems within the Carolinian Life Zone. In southern Ontario, and especially in the Niagara Peninsula watershed, growing pressures on the landscape are due to increased urbanization, land use changes, and changing climatic conditions. In addition, there is a well-documented increasing demand for access to green space for the health and well-being of the growing population. NPCA conservation areas play a vital role in supporting and enhancing local communities, agriculture, recreation, health, tourism, and natural heritage, serving as indispensable outdoor recreation areas for more than half a million residents and visitors of the watershed.

In 2023, NPCA saw a 45 per cent increase in visitors at its four most popular conservation areas—Ball’s Falls, Binbrook, Chippawa, and Long Beach—with 160,000 paid day-use visitors, and more than 500,000 visitors to the other 37 conservation areas. Visitation increases align with similar increases seen at other conservation areas in the Greater Golden Horseshoe area. NPCA also attracted 30,000 visitors to its signature events, hosted 32 seasonal campers, and engaged 11,300 students in outdoor education camps and programs. While the increase in paid use supports programs and services as self-generated revenue, they are not without consequences. The effects of increased use on sensitive environments, trails, and other infrastructure include compaction of soil, erosion susceptibility, increased presence of invasive species, destruction of areas outside of trails, non-permitted uses, littering and dumping, and impacts on native species and biodiversity. Careful consideration through conservation area management planning can help ensure that proper programs, maintenance, infrastructure, and signage are in place to reduce or mitigate negative impacts that result from increased use.

1.3 Purpose and Regulatory Framework

NPCA is developing a Conservation Area Strategy (CA Strategy) to outline broad objectives for conservation areas and related programs and services as outlined in the [Conservation Authorities Act](#) (CA Act) and [Ontario Regulation 686/21: Mandatory Programs and Services](#). The CA Strategy will guide the management and operation of NPCA conservation areas. The Regulation requires that the CA Strategy contains the following:

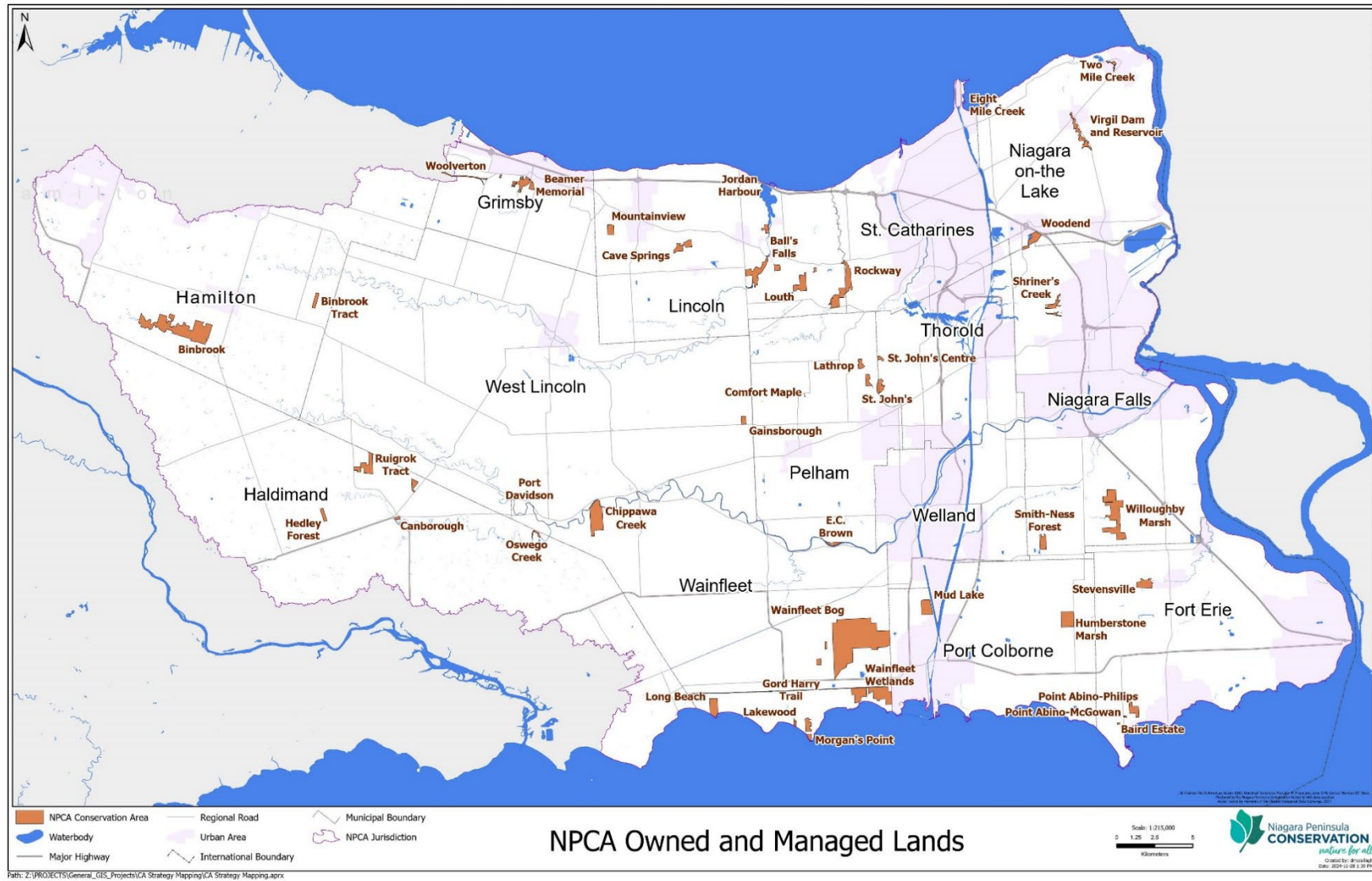
1. Objectives established by the Conservation Authority that will inform the authority’s decision-making related to the lands it owns and controls, including decisions related to policies governing the acquisition and disposition of such lands.

2. Identification of the mandatory and non-mandatory programs and services that are provided on land owned and controlled by the Conservation Authority, including the sources of financing for these programs and services.
3. Where the Conservation Authority considers it advisable to achieve the objectives referred to in paragraph 1 above, an assessment of how the lands owned and controlled by the Authority may:
 - a. Augment any natural heritage located within the Conservation Authority's area of jurisdiction; and
 - b. Integrate with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction.
4. The establishment of land use categories for the purpose of classifying lands in NPCA's land inventory based on the types of activities on each parcel of land or other matters of significance related to the parcel.
5. A process for the periodic review and updating of the CA Strategy by the Authority, including procedures to ensure stakeholders and the public are consulted during the review and update.

In addition to these provincial requirements, it is important to note that while the CA Strategy is an overarching and guiding document applicable to all conservation areas owned by NPCA, plans and details that are specific to any one conservation area will not be detailed here. Property-specific directions or watershed-level details and priorities will be developed through other strategies, actions, and management plans that represent the importance of specific conservation areas or watershed priorities of NPCA, member municipalities, partners, and interested parties. Examples of items that will not be represented in the CA Strategy include:

- Invasive species management plan
- Permitted uses for individual conservation areas
- Programs and services for individual conservation areas
- Access points, gates, and parking lots
- Restoration plans
- Climate action plan
- Trail management and standards plan
- Wayfinding and signage plan

Map 2: NPCA Conservation Areas



2.0 GUIDING PRINCIPLES

The CA Strategy is developed within the context of [NPCA's Strategic Plan](#) which sets the overall vision, mission, and goals for the authority from 2021-2031. Nested underneath are, or will be, several supporting strategies and plans developed to help achieve the strategic plan and a thriving environment that will sustain life within the watershed for future generations. The CA Strategy builds on NPCA's overall vision and mission to establish goals, objectives and actions designed to deliver the programs and services that residents and visitors expect from conservation areas.

2.1 Strategic Plan

The [2021-2031 Strategic Plan](#) is a guiding document that reaffirms NPCA's commitment to the mandate of conservation authorities and charts the course for the next generation of conservation work to address the evolving issues of climate change, growth, and the need for green infrastructure. The plan is guided by principles based on a conservation-first and ecosystem philosophy, collaboration ethics, and the importance of innovation rooted in science. NPCA consulted broadly with its Board of Directors, Public Advisory Committee, staff, Indigenous groups, partners, members of the public, and other local stakeholders to develop the strategic plan. Collectively, the six overarching priorities outlined below (Figure 2) guide our actions toward a vision of the Niagara Peninsula watershed with robust nature, thriving agriculture, and resilient urban areas vital to the health and well-being of those who call it home or visit.



Figure 2: Strategic Priorities, NPCA Strategic Plan 2021-2031

2.2 Climate Change Action Plan

Climate change is a critical issue affecting individuals and systems around the world; however, the impacts are noticeable on a local scale. Recent climate projections indicate that the Niagara Peninsula is expected to experience significant local impacts due to climate change. For example, increased flooding and erosion due to warmer winters and more intense rainfall events, decreased survivability of temperature-sensitive species (e.g., Brook Trout), and decreased biodiversity and habitat suitability, among others.

Responsibility to act is collective and requires immediate on-the-ground action at all levels (i.e., personal, organizational, government, etc.). NPCA, with its role in watershed-based natural resource management, 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, and land securement.

Following NPCA's declaration of a climate change emergency through Resolution No. 174-2019 in 2019, climate change was identified as a critical priority under its strategic plan, and includes numerous actions related to climate change action and environmental sustainability practices across six strategic priorities. NPCA is developing a Climate Change Action Plan (CCAP) that will integrate relevant strategic plan actions and aims to achieve the following three objectives:

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

Through implementation of the CCAP, and the CA Strategy, NPCA will achieve outcomes that build a business case for nature, address future watershed challenges faced by growth and extreme climate impacts, as well as guide efforts to enable climate action within the community.

2.3 Land Securement Strategy

Natural heritage and natural green infrastructure such as forests, wetlands, rain gardens, and bioswales provide critical services and benefits that sustain life for people and wildlife—clean air and water, protection from flooding and erosion, and a source of food and habitats for wildlife species. In the Niagara Peninsula watershed, there are growing pressures on the landscape due to increased urbanization, land use changes, and changing climatic conditions that continue to threaten and impact the integrity of these natural features. In addition, there is an increasing demand for access to green space for the health and

well-being of people. NPCA's [Natural Areas Inventory](#) and [Nature for Niagara's Future](#) projects found that the Niagara Peninsula watershed achieves 56 per cent of what science suggests is needed on the landscape for healthy and sustainable watersheds and habitats. Together, these issues have highlighted the critical need to secure more natural areas to improve the environment, mitigate the impacts of climate change, and provide more opportunities for people to enjoy the outdoors.

NPCA has an increasingly significant role in land acquisition for conservation and restoration of natural areas. The CA Act provides guidance on the governance and purpose of conservation authorities, including the powers to "acquire by purchase, lease or otherwise any land that it may require, and, subject to subsection (2), to sell, lease or otherwise dispose of land so acquired" (Sec. 21 (1)(c)). As part of the CA Act Regulation O. Reg 686/21, there are only certain types of mandatory programs and services that can be provided in relation to the conservation and management of lands including (but not limited to) the development of one or more policies governing land acquisitions and land dispositions (Sec. 9 (2)(vi)).

As noted in Section 2.1, NPCA's Strategic Plan aims to achieve its vision of '*Nature for all*' to ensure a healthy and vibrant environment with shared greenspace and clean water that sustains life for future generations. Notably, the plan called for the development and implementation of a land acquisition strategy to achieve Goal 1.4: "*Manage lands to increase biodiversity, habitat connectivity, and natural cover.*" Implementing the land securement strategy will also directly support Goal 3.1 "*Create equitable access to greenspace for the health and well-being of people*" as well as several other strategic goals and performance measures related to natural hazard protection, ecosystem improvements, and building relationships with partners, stakeholders, and Indigenous peoples.

With the changes to the CA Act and a new strategic plan, updates to NPCA's land securement efforts were necessary. NPCA undertook a comprehensive process that resulted in the 2022-2032 Land Securement Strategy (LSS). This document guides land securement in the watershed for environmental, natural hazard protection, and societal (recreation, culture, health) benefits. This includes a clear set of criteria, targets, and objectives that govern decisions related to the securement of lands. In general, objectives include:

- Secure public greenspace in the Niagara Peninsula watershed, using clear and concise decision-making.
- Collaborate with municipal partners, land trusts, stakeholders, and Indigenous communities on mutual land securement goals.
- Implement sustainable and innovative financial models that support land securement and stewardship.

2.4 Inventory of Programs and Services

Conservation authorities (CAs) are required by regulation to prepare an Inventory of Programs and Services to identify:

Category 1: Mandatory Programs and Services, such as natural hazard management;

Category 2: Municipal Programs and Services at the request of a Municipality, such as tree planting services, and technical research to help inform decision-making; and

Category 3: Other Programs and Services determined by the Conservation Authority to further the purposes of the *Conservation Authorities Act*, such as restoration and stewardship, and watershed monitoring.

NPCA's programs and services are funded either through municipal levies, municipal cost apportionments requiring agreements for service, service fees, or external funding such as grants.

Table 1: Conservation Authorities Act Funding Mechanisms for NPCA's Programs and Services

Category 1 Mandatory Programs and Services (O.Reg.686/21)	Category 2 Municipal Programs and Services	Category 3 Other Programs and Services
<ul style="list-style-type: none"> Programs and services which all CAs must provide in their jurisdiction Eligible for costs to be apportioned to participating municipalities (levy) without an agreement Funded through municipal levy, user fees, and/or grants 	<ul style="list-style-type: none"> Programs and services which a CAs agrees to provide on behalf of municipality Eligible for costs to be apportioned to participating municipalities if there is an MOU or other agreement Funded through municipal levy, user fees, and/or grants; MOU/service agreement 	<ul style="list-style-type: none"> Programs and services which a CA determines are advisable to further the purpose of the Act Eligible to be apportioned wholly or partially to municipalities through a cost apportioning agreement Funded through municipal levy, user fees, and/or grants; MOU/service agreement required for use of municipal funding

NPCA has prepared an Inventory of Programs and Services that lists all the programs and services it provides under each category (i.e., Category 1, 2, and 3). Drawing from the Inventory of Programs and

Services, NPCA must also provide the identification of mandatory and non-mandatory programs and services that are provided on land owned and controlled by the authority, including the sources of financing for these programs and services. Section 4.1 provides a more focused description of program areas and services related to NPCA conservation areas.

3.0 GOALS AND OBJECTIVES

With guidance from its [2021-2031 Strategic Plan](#), four goals and a series of supporting objectives were developed to inform decision-making related to the lands NPCA owns and manages. They are also consistent with NPCA's mandate, CCAP, and Land Securement Strategy while informing land planning and management, land acquisition, and other programs and services offered at NPCA conservation areas. Goals are designed to be simple and concise to clearly identify a long-term achievable result. Objectives support each goal with measurable targets that define what we aim to accomplish. An action plan will be developed to inform annual budgets and work plans as resources are allocated to each category of programs and services. These actions will describe the steps or deliverables required to achieve the goals and objectives. These actions may range from very short-term projects that are implemented daily to longer-term, collaborative projects that take months or years to complete and implement (e.g., management plans).

3.1 Goal #1: Protect & Restore

This goal is designed to address common conservation area land management themes such as protecting biodiversity, monitoring, connectivity, restoration, Indigenous knowledge, enforcement, and monitoring.

Objective 1: Permanently protect lands and increase ecosystem connectivity through strategic land acquisition, securement, and partnerships.

Objective 2: Monitor, assess, and restore conservation areas to improve and enhance natural features and functions.

Objective 3: Develop conservation area management plans that align with NPCA strategic priorities.

Objective 4: Safeguard conservation areas against current and future risks while protecting people and property from natural hazards.

Objective 5: Enforce conservation area rules and regulations against non-permitted uses to protect nature, minimize negative impacts, and increase public safety.

Objective 6: Integrate diverse views, Indigenous ways of knowing, and local perspectives into conservation land planning, restoration, and monitoring.

3.2 Goal #2: Connect & Experience

Conservation areas provide important, local access to natural spaces that are highly valued by residents and visitors. Connecting these spaces to other public lands and trails and providing safe nature-based experiences in the watershed is critical to the health and well-being of people.

Objective 1: Cultivate strong partnerships to expand connections to urban areas, other public lands, and trail systems to improve access to conservation areas.

Objective 2: Provide safe, inclusive, and welcoming nature-based experiences while preserving natural and cultural features.

Objective 3: Enhance visitor experiences by improving informational and educational signage and wayfinding.

Objective 4: Remove barriers at conservation areas for people with disabilities, where feasible, through innovative and environmentally appropriate maintenance and design.

Objective 5: Work with the community to improve access to conservation areas for Indigenous people for gathering, ceremony, teaching, and cultural practices.

3.3 Goal #3: Adapt & Sustain

Protection, restoration, and connectivity are not achievable without the ability to innovate through green infrastructure, low impact development, climate readiness, and fiscal responsibility.

Objective 1: Adapt programs, services, and asset management to address changing climate conditions, build resilience, and improve ecosystem health.

Objective 2: Ensure programs, services, and plans include environmental sustainability principles to maintain resources for future generations.

Objective 3: Incorporate sustainable water management, green infrastructure, and low impact development options into new infrastructure projects.

Objective 4: Achieve fiscal resiliency in conservation area enhancements and management through diversified funding sources, grants, and partnerships.

3.4 Goal #4: Inspire & Engage

Education, stewardship, volunteerism, and collaboration are essential human connections to the organization and the environment we are charged with protecting. Programs that foster these connections are critical to inspire present and future generations.

Objective 1: Lead experiential nature-based education and recreation programs that inspire conservation champions of all ages.

Objective 2: Create conservation-inspired action through stewardship, volunteerism, community science, and collaboration.

Objective 3: Explore opportunities to expand cultural connections and heritage programming.

Objective 4: Coordinate education and outreach programs and conservation areas programs and services with partners.

Objective 5: Incorporate Indigenous knowledge and perspectives into conservation area programming and land management.

Objective 6: Expand Indigenous programming, storytelling, placemaking, and recognition at conservation areas.

4.0 CONSERVATION AREAS

4.1 Service Areas and Programs

NPCA conservation areas encompass a diverse range of ecosystem types and protect some of the most critical ecological features within the Niagara Peninsula watershed. These areas include important shoreline properties along Lake Erie and Lake Ontario (e.g., Morgan's Point, Long Beach, Lakewood), migratory bird habitats (e.g., Point Abino, Jordan Harbour, Beamer), Provincially Significant Wetlands (PSWs) such as Willoughby Marsh, Wainfleet Bog, and Humberstone Marsh, and Areas of Natural and Scientific Interest (ANSIs) like Ruigrok, and Eight Mile Creek. NPCA also manages sites of significant cultural heritage (e.g., Ball's Falls, St. Johns Centre) and large parcels of the Niagara Escarpment (e.g., Rockway, Woodend, Louth, Cave Springs, Mountainview).

Together, these conservation areas capture the unique natural treasures and ecosystems characteristic of the Carolinian life zone found in the Niagara Peninsula. They play a vital role in supporting local communities, agriculture, recreation, health, tourism, and natural heritage. With more than a half million

residents and visitors in the watershed, these areas provide vital opportunities to connect with nature and a wide range of ecosystem services that benefit everyone.

Conservation area programs and services are primarily categorized as mandatory (Category 1 services), with some activities such as education and recreation programs classified under Category 2 or 3 services. These programs are integral to NPCA's operations and align with its strategic goals. Table 2 shows the program areas related to conservation areas and their respective CA Act categories.

Table 2: NPCA Conservation area programs and services with CA Act funding category.

Program or Service	Description	Category
Section 29 Enforcement and Compliance	Conservation areas regulations enforcement and compliance	1
Active recreation programs (conservation areas)	Day use and other services (wedding, event, facility rentals)	3
Education programs	Education programs and camps, heritage programs	2,3
Land Management—other agencies	Land and facilities management, maintenance, and operations for other agencies (federal, provincial, regional, local)	2,3
Land Care Program (conservation areas)	Management and maintenance of NPCA conservation areas—passive recreation, heritage buildings, tree management, hazard, and risk management	1
Land acquisition and disposition	Acquisition to mitigate natural hazard risk	1
	Acquisition cost-shared with municipal partners or agencies	2
	Acquisition in accordance with NPCA land securement strategy	3
Land Management Planning	Conservation Area Land Inventory	1
	Conservation Area Strategy	1
	Conservation Area Management Planning	1

4.1.1 Conservation Area Operations and Programming

NPCA manages 41 conservation areas, with active recreation currently offered at four sites: Ball's Falls, Binbrook, Chippawa Creek, and Long Beach. Active recreation services vary by location and may include:

- Camping - Both seasonal and transient options.
- Weddings, Facility Rentals, and Special Events - Available at pavilions, picnic areas, and indoor and outdoor spaces.

- Education Programs - Field trips and overnight programs designed to engage students and visitors.
- Heritage Programs - Featuring field trips, special events, and demonstration days that celebrate cultural heritage.
- Nature School - A BSID-designated (Board School Identification Database) part-time school program focusing on outdoor education.
- Day Camps - Outdoor adventure camps tailored to youth.
- Volunteering –Opportunities for people of all ages to support the delivery of heritage, education, events, and day camps.

All conservation areas are maintained by NPCA's Land Care Program, which focuses on preserving, enhancing, and sustaining the natural beauty, recreational opportunities, and overall usability of these sites. Maintenance activities include:

- Horticulture, forestry, and grass cutting.
- Trail maintenance and hazard removal.
- Inspection and repair of park amenities.
- Signage installation and maintenance of washroom facilities and heritage buildings.

In addition to ongoing maintenance, NPCA enforces regulations under Section 29 of the CA Act to ensure environmental protection and visitor safety. Key areas of focus include:

- Enforcement of open fire rules.
- Regulation of access times.
- Prohibition of non-permitted uses, such as all-terrain vehicle activities.
- Enforcement against littering and improper waste disposal.

4.1.2 Land Acquisition and Disposition

NPCA plays a crucial role in acquiring and securing land to protect and restore natural areas and greenspaces for future generations. Since the late 1950s, NPCA has acquired 41 properties encompassing more than 3,000 hectares. These lands contribute to natural heritage conservation and provide essential services, such as access to greenspace, clean air and water, and protection from natural hazards like flooding and erosion. As noted in Section 2.3, the LSS was developed to set land securement criteria and targets, and though it is uncommon, best practices for any land dispositions that would be recommended. Building from criteria and targets that guide related decisions, NPCA is also developing procedures for land securement and disposition that will be aligned with the recommendation of the LSS, Strategic Priorities,

and the CA Strategy. The LSS sets a target to secure 180 hectares of land by 2031, and NPCA has already achieved 30 per cent of this target.

4.1.3 Land Planning and Management

NPCA's 41 conservation areas are made up of diverse ecosystem and vegetative community types, including forests, PSWs, ANSIs, recreational lands, cultural sites, and areas designated for flood and erosion control. Each property requires a tailored management plan to guide permitted uses, access levels, enhancements, programs, services, and risk management to ensure visitor safety.

Land planning directs the overall design of each conservation area, while land management focuses on the sustainable use and enjoyment of these areas by the public. All NPCA current and future management plans are guided by the CA Strategy, which establishes goals and objectives that align with NPCA's vision, mission, and priorities for the conservation area system that are consistent with the strategic plan. Conservation area management plans will aim to increase access to greenspace where appropriate, connect people to nature, and ensure the long-term sustainability of the watershed.

NPCA's land planning program collaborates with other programs and departments, including planning and development, land care, restoration, enforcement, and capital projects, through coordinated internal working groups and teams, enhancing overall program effectiveness and alignment.

For properties located within the Niagara Escarpment Plan Area, NPCA consults with the Niagara Escarpment Commission. The *Niagara Escarpment Planning and Development Act* (NEPDA) provides for the maintenance and protection of the Niagara Escarpment and ensures all development that occurs is compatible with the environment. The [Niagara Escarpment Plan](#) provides the Niagara Escarpment Parks and Open Space System Planning (NEPOSS) framework, which outlines the process for developing management or master plans as well as guidelines for escarpment properties.

5.0 CONSERVATION AREA ASSESSMENT

[O. Reg. 686/21](#) notes that a conservation authority may include, within their Conservation Area Strategy, an assessment of how lands owned and controlled by the authority:

- i. may augment any natural heritage located within the authority's area of jurisdiction; and
- ii. integrate with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction.

Section 5.1 below outlines how NPCA conservation areas augment natural heritage within the watershed context while Section 5.2 outlines how the lands are integrated with other provincially, municipally owned lands or other publicly accessible lands and trails within the Niagara Peninsula watershed.

5.1 Augmenting Natural Heritage

The Niagara Peninsula watershed is a natural treasure of distinct cultural, geological, hydrological, and biological aspects not found elsewhere in North America. It boasts approximately 30 per cent natural cover that provides critical habitat such as forested woodlots, slough forests, alvars, and coastal wetlands that support rich biodiversity, including rare plants and animals. The watershed is uniquely situated between two Great Lakes, with the Niagara River as a boundary shared with the United States of America. The landscape in the Niagara Peninsula watershed today “is the result of numerous depositional and erosional events and processes spanning over 500 million years, resting on a foundation established much, much earlier” (Niagara Geology, Niagara Geopark). As a result of these processes, the watershed includes several notable natural features including the Niagara Escarpment, Horseshoe Falls and Niagara Glen, Wainfleet Bog, Ball’s Falls, Willoughby Marsh, and other significant landforms such as the Fonthill Delta-Kame complex, large parcels of slough forest, and PSWs. Unique microclimates created by the Niagara Escarpment and rich soils support one of Ontario’s most productive agriculture systems, including vineyards, tender fruit orchards, livestock, and various specialty crops. The geology of this area includes a sequence of shales, sandstones, limestones, and dolostones. These notable features provide life-sustaining benefits for all and many opportunities to discover nature and culture.

Over a decade ago, NPCA worked with several municipal and community partners to undertake the [Natural Areas Inventory project](#), to identify, classify, and map natural areas in the Niagara Peninsula watershed. The goal of the project was to use industry standards and scientifically defensible protocols to inventory the natural areas in the jurisdiction. Following the work of the NAI, the Nature for Niagara’s Future (NFnF) study assessed the natural features identified during the NAI and their contributions towards a healthy and sustainable system. This study found the watershed’s natural cover is approximately 30 per cent, two thirds of which is mature forest, with nearly half of the forests being swamp-type wetland communities. Additionally, the NFnF study found that the Niagara Peninsula watershed currently achieves only 56 per cent of what science suggests is needed on the landscape for healthy and sustainable ecosystem functions, habitats and natural resilience. Planning for natural heritage is necessary for the maintenance and enhancement of biodiversity, protection of species at risk, mitigation of climate change, protection and improvement of water quality, and the fulfillment of public values. A healthy natural environment is important for a thriving economy and rich cultural heritage. NPCA used a consolidated layer of its regulated features, the Niagara Region Natural Environment System, Haldimand Natural Environment Area,

Hamilton Core Natural Areas, and Provincial Natural Heritage System (NHS) and linkages from the [Greenbelt](#) and [Niagara Escarpment Plan](#), to assess how NPCA conservation areas augment or enhance the natural heritage in the Niagara Peninsula watershed.

Map 3 shows NPCA conservation areas and how these lands fit within the natural heritage features and areas in the watershed. All NPCA conservation areas, except for the Comfort Maple, are located within the natural features boundaries and represent significant parcels of land that enhance the ecosystem services, biodiversity, and overall connectivity of a variety of habitat types thus playing a critical role in creating a healthy natural environment landscape in the Niagara Peninsula watershed. Even the few conservation areas that are outside of provincial or municipal natural heritage features include sections of NPCA regulated features (e.g., floodplain, wetland, valleyland, shoreline) and therefore they augment the system simply by virtue of being protected natural hazards and offering opportunities to improve features through restoration and enhancement. Table 3 identifies the natural heritage features or significance of each NPCA conservation area.

5.1.1 Greenbelt and Niagara Escarpment

Within the Niagara Peninsula watershed, 11 conservation areas are found along the Niagara Escarpment, which holds local and international significance as a United Nations Education, Scientific and Cultural Organization (UNESCO) designated Biosphere Reserve. The Niagara Escarpment extends from Queenston, a small hamlet in the Town of Niagara-on-the-Lake, to Tobermory in the Bruce Peninsula and represents the largest continuous forested area in south-central Ontario. All conservation areas and parks within the Niagara Escarpment are connected by the [Niagara Escarpment Parks and Opens Space System](#) (NEPOSS), and the Bruce Trail, a natural hiking trail managed and stewarded by the Bruce Trail Conservancy. As required in Part 3 of the [Niagara Escarpment Plan](#) (NEP), each conservation area within the NEPOSS must create a management plan to guide permitted activities and identify “zones” within the conservation area using the NEPOSS classification system, underlying NEP land use designations, and identifying the cultural, natural, and recreational features of the site. NPCA will develop management plans for all conservation areas within the NEPOSS and seek approval and endorsement from the NEC and the Ministry of Natural Resources and Forestry (MNR) to ensure compatibility and collaborative protection of this important natural heritage area.

Map 3: NPCA Conservation Areas and Watershed Natural Features

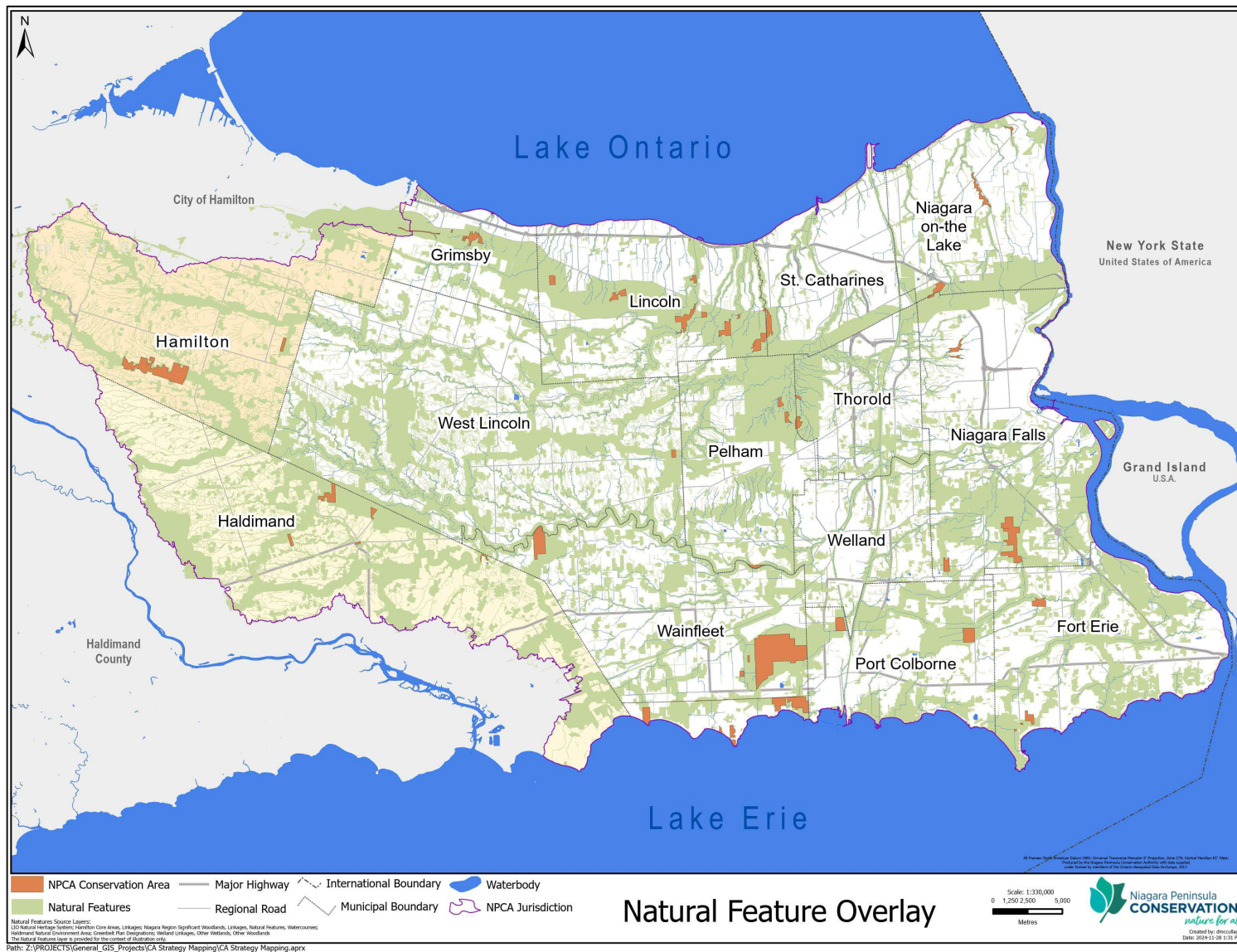


Table 3: NPCA Conservation Area Natural Features and Significance

NPCA Conservation Area	NPCA Reg.	Prov. NHS	Mun. Nat.	GBP P.Count.	Niagara Escarp.	Wetland	Water-course	Shoreline	CCC Sig. Site	T3 P. Area	Geosite	Trails
Baird Estate	*	*	*			*			*			
Ball's Falls	*	*	*	*	*	*	*		*		*	*
Beamer Memorial	*	*	*		*		*		*	*	*	*
Binbrook	*	*	*	*		*	*					*
Binbrook Tract	*	*	*	*								
Canborough	*		*				*		*			
Cave Springs	*	*	*		*					*	*	*
Chippawa Creek	*	*	*			*	*					*
Comfort Maple				*								
E.C. Brown	*	*	*			*	*					*
Eight Mile Creek	*	*	*	*		*	*					
Gainsborough	*	*	*			*						
Gord Harry Memorial Trail	*	*	*			*						*
Hedley Forest	*					*						*
Humberstone Marsh	*	*	*			*				*		
Jordan Harbour	*	*	*			*	*	*	*			
Lakewood	*		*					*				
Lathrop	*	*	*		*	*	*		*	*		
Long Beach	*	*	*			*		*				*
Louth	*	*	*		*		*			*	*	*
Morgan's Point	*		*			*		*		*	*	*
Mountainview	*	*	*		*	*				*	*	*
Mud Lake	*	*	*			*	*			*		*
Oswego Creek	*		*			*	*					
Point Abino-McGowan	*	*	*						*			
Point Abino-Philips	*	*	*			*			*			
Port Davidson	*	*	*				*					
Rockway	*	*	*		*		*				*	*
Ruigrok Tract	*		*			*			*			*
Shriner's Creek	*		*			*	*					
Smith-Ness Forest	*	*	*			*	*					
St. Johns	*	*	*		*	*	*		*		*	*
St. Johns Centre	*	*	*		*	*	*		*			*
Stevensville	*	*	*			*	*					*
Two Mile Creek	*	*	*	*		*	*					*
Virgil Dam and Reservoir	*	*	*	*		*	*					*
Wainfleet Bog	*	*	*			*	*			*	*	*
Wainfleet Wetlands	*	*	*			*				*	*	*
Willoughby Marsh	*	*	*			*	*		*	*		
Woodend	*	*	*	*	*		*				*	*
Woolverton	*	*	*		*					*		*

The 11 conservation areas in NEPOSS (Map 4) augment and enhance the network of protected areas along the Niagara Escarpment owned by other conservation authorities, municipalities, Bruce Trail Conservancy, Escarpment Biosphere Conservancy, land trusts, and private landowners. This connected fabric of protected lands helps to mitigate and improve resilience to climate change, support green infrastructure, capture and store carbon, recharge aquifers, and protect biodiversity and sensitive areas to achieve the shared goal of beautiful, sustainable, and healthy landscapes in Ontario. All NPCA conservation areas within the NEPOSS not only offer endless environmental benefits, but they also support the culture, recreation, tourism, climate change, natural resources, and environmental protection goals of the Greenbelt Plan, NEPOSS council, and the Niagara Escarpment Biosphere Network.

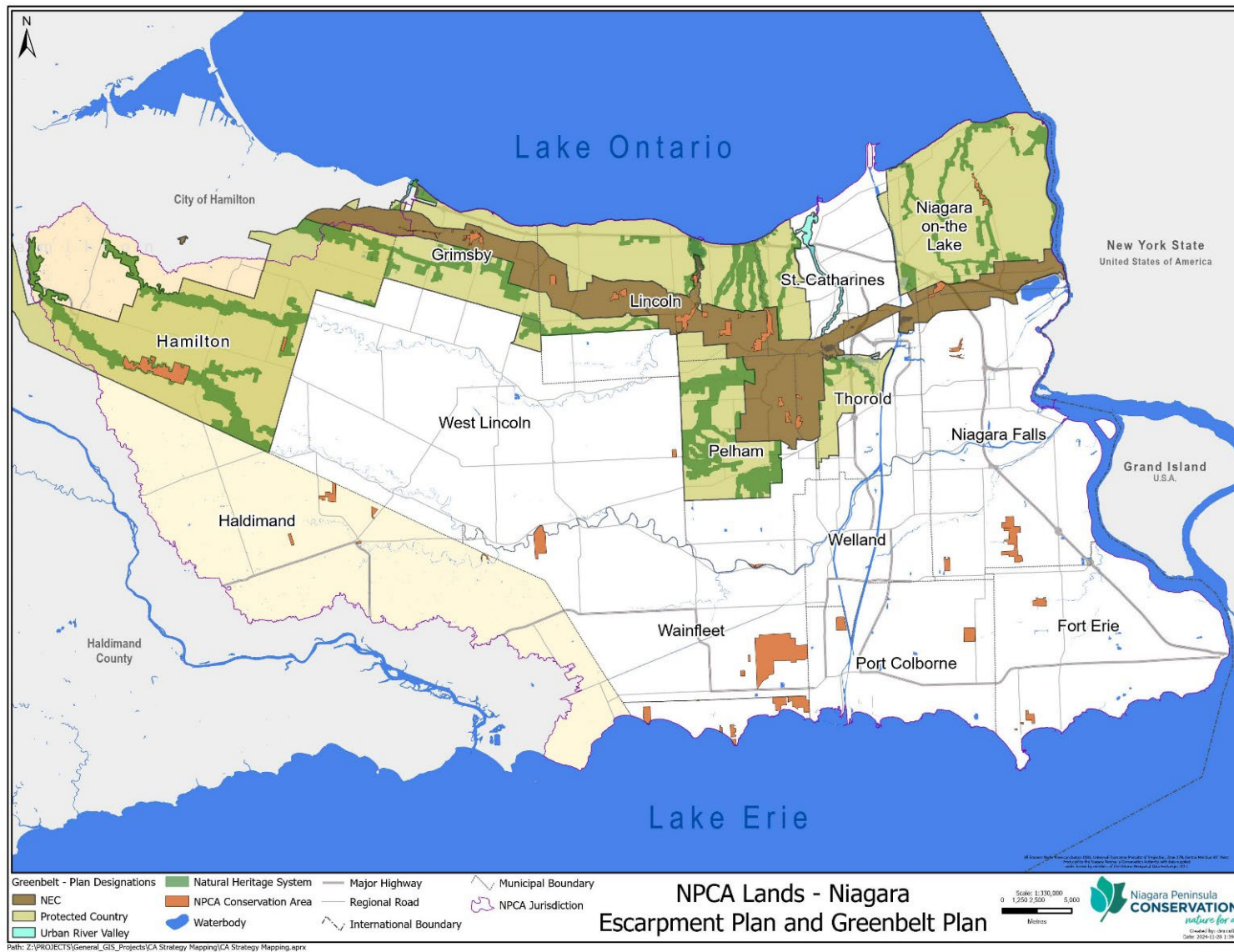
5.1.1.1 Niagara (Aspiring UNESCO Global) Geopark

Cultural and heritage connections are strengthened through collaboration and partnerships with multiple organizations and levels of government. NPCA is a partner of the [Niagara Geopark](#), and a member of their Board of Directors. The Niagara Geopark is an organization that aims to achieve the UNESCO Global Geopark designation for the entire Niagara Region using a sustainable tourism-oriented model and building on its 500-million-year rich geological history. Most recently, Plenty Canada, an Indigenous non-government organization devoted to the protection of Mother Earth, partnered with the Niagara Escarpment Biosphere Network ([NEBN](#)) and the Niagara Geopark to support the integration of Indigenous linguistic, artistic, cultural, and historical elements within the Niagara Geopark Trail Network and Plenty Canada's Great Niagara Escarpment Indigenous Cultural Map—further demonstrating that NPCA conservation areas support culture, recreation, Indigenous leadership, and tourism in addition to environmental protection. The Niagara Geopark Geosite Map highlights at least 11 NPCA conservation areas that contribute to this designation due to their significance as both cultural and natural heritage locations.

5.1.2 Wetlands

Wetland ecosystems are a very important part of the natural landscape and historically dominated a significant percentage of the Niagara Peninsula watershed, particularly in the southern portion. This once dominant ecosystem type is evident when studying local geology, hydrogeology, soils, and aerial photography where remnants of these wetlands can still be seen in present-day agricultural fields as darker sinuous lines representing the former sloughs. The State of Ontario's Biodiversity report (2024) highlights that less than 30 per cent of the original wetlands remain in Southern Ontario. NPCA's 2023 Watershed Report Card identified that only approximately 14 per cent of the land base in the Niagara Peninsula watershed is wetland cover. The creation of a series of Wetland Shipping Canals beginning in the mid-19th century significantly altered the drainage patterns of the landscape, lowering the water table in some areas and draining some of these wetland ecosystems in the process. Other wetlands were drained to support development and the creation of a fabric of agricultural lands in this area.

Map 4: NPCA Conservation Areas in the Provincial Natural Heritage System



A large portion of the forest cover in the Niagara Peninsula watershed is mature swamp forest, sometimes called slough forest which is a swamp, or tree-dominated wetland, with rolling topography that features linear shallow channels and narrow upland ridges between them. Sloughs are easily seen in air photos as darker features between more upland sections of the swamp. The channels, or sloughs, will have water seasonally (ephemeral) and will be dry during the summer months, thus this area contains both upland and wetland species. Slough forests are unique and diverse landscapes that are part of a healthy ecosystem, typically home to high biodiversity and unique species. They are especially important for food, shelter, and habitat for various wildlife and the general hydrological function of the surrounding ecosystem. The sloughs can hold and slowly release water during rain events, an important feature of wetlands, especially in urban areas which typically have a large amount of hard or impervious surfaces where water cannot seep into the ground. Even small isolated seasonal pools which contain standing water for only a short period in the spring and summer can provide vital habitat for rare and specialized species such as frogs, toads and salamanders which rely on fish-free sources of water to survive and are not typically found in other wetland types. NPCA conservation areas that are dominated by swamp slough forests include Willoughby Marsh, Humberstone Marsh, Point Abino, and Smith Ness Forest.

The Niagara Peninsula watershed includes a lesser-known escarpment feature, the Onondaga Escarpment, one of the most noticeable geologic features in the southern portion of the watershed that forms a discontinuous ridge a few metres in height from Fort Erie to beyond Dunnville. In the area immediately north of the Onondaga Escarpment, the remnants of glacial retreat became an extensive bog ecosystem now known as the Wainfleet Bog and Humberstone Marsh, large sections of which are owned by NPCA, the Nature Conservancy of Canada and the Province of Ontario, in addition to many sections that are still privately owned. The Wainfleet Bog Conservation Area is federally, provincially, regionally, and locally significant as the largest remaining bog in southern Ontario, and the only bog in the watershed. It has been identified as a Key Biodiversity Area (KBA) by Birds Canada, recognizing it as one of the most important remaining places for biodiversity. The Wainfleet Bog is one of the six Landowner Outreach Areas (LOA) established in the Land Securement Strategy for more concentrated effort in the next 10 years to expand the conservation area and protect additional lands in that community.

Of the 41 NPCA conservation areas, 29 represent one of the three different wetland types found in the Niagara Peninsula watershed—swamp, marsh, bog—making these areas significantly important to the natural heritage, the flood storage capacity, groundwater recharge and watercourse baseflows in the watershed. While a few have small pockets or pieces that are wetland, many have significant sections of the conservation area in swamp, marsh, or bog.

5.1.3 Watercourses

There are several significant water courses in the Niagara Peninsula watershed, including the bi-national Niagara River, the Welland River, and Twelve Mile Creek—the only cold-water stream in the watershed.

Niagara Parks owns and maintains more than 1,300 hectares of parkland along the entire length of the Niagara River from Fort Erie to Niagara-on-the-Lake, including lands along the Horseshoe Falls and the Niagara Gorge, therefore NPCA does not own any lands on this important stretch of land. NPCA owns parcels along the Welland River, Black Creek, Twenty Mile Creek, Four Mile Creek, Twelve Mile Creek, and many other watercourses which help to conserve the floodplain functions, reduce erosion, improve water quality, mitigate flooding, protect headwaters, and contribute to habitat for local species. Twelve Mile Creek is the only cold-water stream in the Niagara Peninsula watershed and the only one capable of supporting a population of native Brook Trout.

5.1.4 Great Lakes Shoreline

The Niagara Peninsula watershed is uniquely situated between two Great Lakes (i.e., Lakes Erie and Ontario) with the Niagara River as a boundary with the United States of America. As the interface between the land and water, the Great Lakes' shoreline and nearshore areas are critical in supporting several ecosystem functions such as providing habitat for fish and wildlife, a source of drinking water, recreational opportunities, and protection from erosion and flooding. Despite these important benefits, some areas of shoreline have been altered or hardened over time. For example, it is estimated that approximately 75 per cent of the historic coastal wetlands along Niagara River (Canadian) shoreline have been lost due to past land use practices.

Several NPCA conservation areas have Great Lakes shorelines in their boundaries and further protect and enhance the remaining natural shoreline ecosystems. NPCA owns four conservation areas along the north shore of Lake Erie, and one along the south shore of Lake Ontario. Conservation areas along the Great Lakes include important ecosystem types that are regionally and provincially rare, including sand dunes, beach/bar, alvar, and tallgrass prairie, each of these home to significant flora and fauna species. In fact, most of the Lake Ontario shoreline in the Niagara Peninsula watershed has been identified as a Key Biodiversity Area (KBA) by Birds Canada, further establishing the importance of conservation efforts to local biodiversity and vulnerable species.

5.1.5 Carolinian Life Zone

The far south portion of Ontario is known as the Carolinian life zone, stretching from Toronto to Windsor and widely believed to be one of the most biodiverse and threatened ecosystems in Canada. The entire Niagara Peninsula watershed is within this zone. According to Carolinian Canada Coalition, this zone is home to one-quarter of Canadians, yet it represents only 0.25 per cent of the landmass.

Due to the increasing growth pressures in the zone, it also has more rare and endangered wildlife than any other life zone in Canada. Starting in 1984 and culminating in 2005 with the Carolinian Canada Signature Sites guide, Carolinian Canada collaborated with leading ecologists in Ontario as well as local

organizations, landowners, and community groups to identify the most critical unprotected natural areas in the Carolinian life zone. Today, many of the 38 Signature Sites identified are protected or partially protected. NPCA owns 12 conservation areas that help protect all six Carolinian Canada Signature Sites found within the Niagara Peninsula watershed, including the Point Abino Peninsula Sandland Forest, Fonthill Sandhill Valley, Willoughby Clay Plain, and Caistor Canborough Slough Forest.

5.1.6 Federal 30x30 Target

In 2022, the federal government set the goal of conserving 30 per cent of Canada's land and water by 2030 to tackle biodiversity loss and climate change, alongside more than 190 countries at the United Nations Conference of the Parties (COP15) to the Convention on Biological Diversity becoming a target of the Kunming-Montreal Global Biodiversity Framework and marking the biggest international conservation commitment to date. The Federal Department of Environment and Climate Change Canada has been tracking progress to meet this target, and in July 2024 they released Canada's 2030 Nature Strategy to "establish a shared vision and roadmap for halting and reversing biodiversity loss in Canada" to meet the goals and targets established by the Kunming-Montreal Global Biodiversity Framework.

The third target (T3) within this strategy—Canadian Protected and Conserved Lands 30 x 30—specifically outlines the status and next steps to achieve the 30 per cent protection goal, noting that it will be tracked by the Canadian Protected and Conserved Areas Database (CPCAD) and submitted to the World Database of Protected Areas annually. They note that the Federal government only manages about six per cent of the lands and freshwater in the country. Canada acknowledges that to meet T3, they will need to collaborate with many organizations and levels of government. To date, 12 NPCA conservation areas have met the required criteria to be counted towards T3 for a total of 1,622 hectares, and 16 additional conservation areas have been assessed and submitted for consideration. The 12 approved properties, evaluated in partnership with Ontario Nature, are all accessible to the public, except for Lathrop, and were assessed for their unique ecological characteristics and diverse ecosystems and determined to meet the strict national standards for biodiversity protection, qualifying them as Protected Areas. Not only do these areas contribute to local and provincial natural heritage and biodiversity conservation, but they are recognized as federally important for climate change mitigation and protection of species, habitats, ecosystem services, and people. Internationally, these lands also represent a collective effort towards global biodiversity conservation and a shared goal to combat the impacts of climate change.

As seen through the unique landscape in the Niagara Peninsula watershed—its important natural and cultural heritage areas, the Niagara and Onondaga Escarpments, several watercourses, wetlands, the bi-national Niagara River, and the shorelines for two Great Lakes—NPCA conservation areas augment and protect natural heritage, and natural hazards within its jurisdiction, while contributing to provincial, federal, and international conservation goals and targets.

5.2 Making Connections

NPCA is committed to making connections and integrating conservation areas with provincial, municipal, and other publicly accessible lands located within the Niagara Peninsula watershed. Map 5 provides an overview of lands owned by the province, local municipalities, and other publicly accessible lands within NPCA's jurisdiction to demonstrate how NPCA lands integrate and connect with these areas to support conservation and trail systems. It should be noted that the St. Lawrence Seaway lands (federally owned), as well as Ontario Power Generation lands (provincially owned) are not mapped for security and safety reasons, though they are included in the write-up below as they are often connected natural corridors or contribute to natural heritage but not available for public access.

5.2.1 Municipal Lands

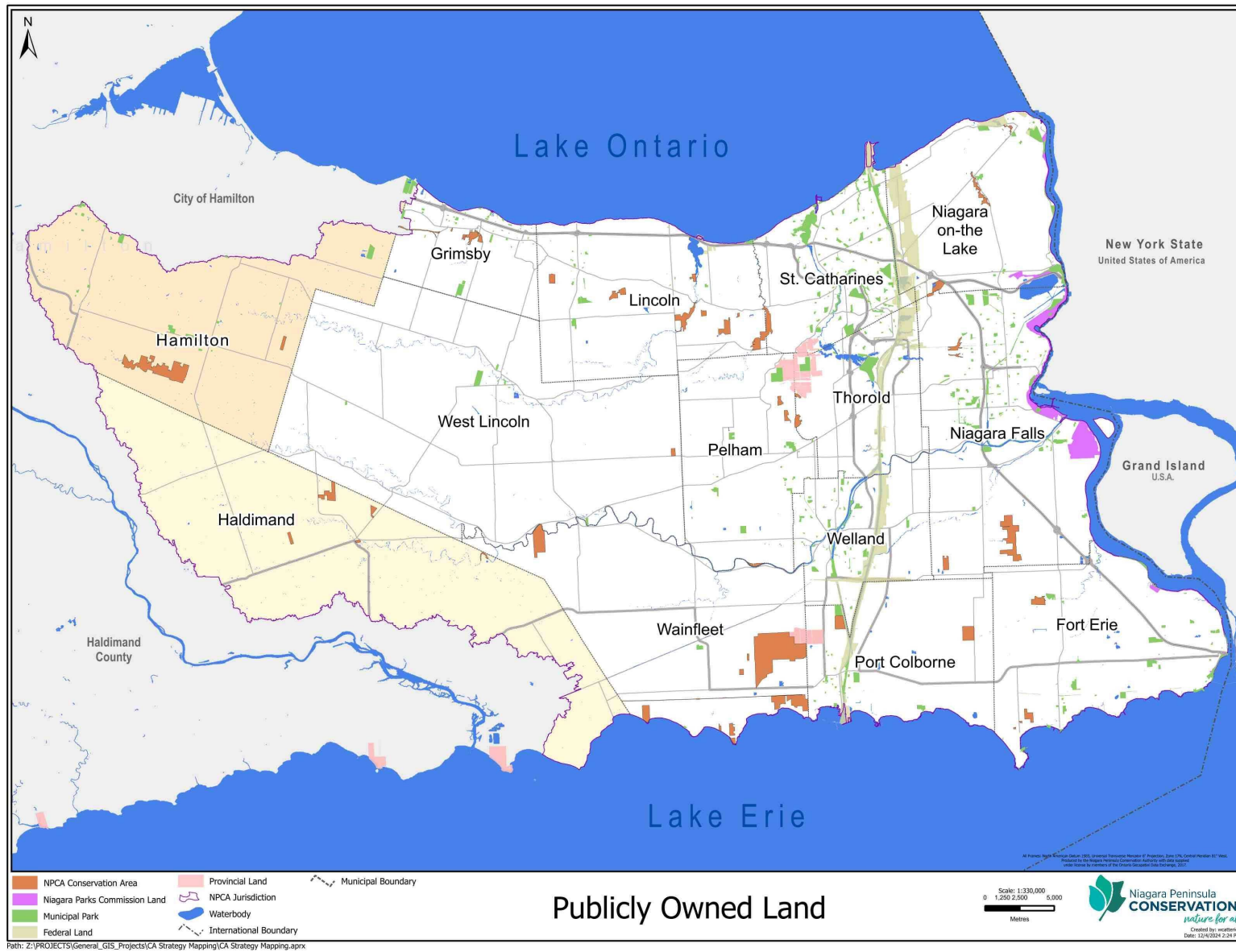
There are two single-tier, one upper-tier and 12 lower-tier municipalities in the Niagara Peninsula watershed that own or manage publicly accessible lands. Most city-owned lands are open park areas with fewer natural features compared to NPCA conservation areas but provide accessible greenspace for residents, and sometimes act as linkages between natural areas and active transportation routes.

Some notable lands owned by local municipalities in the Niagara Peninsula watershed include DeCew Falls and Morningstar Mill, Malcolmson Eco-Park, Fireman's Park, Fairview Cemetery, Port Robinson Eco-Park, Burgoyne Woods, and many more. Burgoyne Woods is an example of a larger municipal park, approximately 50 hectares, which includes both open space for picnics and activities, natural forested areas with walking trails, and a leash-free dog park.

In recent years, NPCA has launched the Trees for All program aimed at increasing the canopy cover in the Niagara Peninsula watershed through tree planting efforts with local municipalities and private landowners. Through this program, NPCA has collaborated with interested municipalities to identify significant sections of their lands that have the potential for restoration and naturalization efforts, to work towards collective efforts and shared goals for increasing biodiversity, mitigating the impacts of climate change, reducing urban heat island effects, increasing natural cover, and improving the overall health of the watershed. This program exemplifies NPCA's commitment to working with other levels of government for the shared stewardship of the watershed ecosystem.

Based on the information in NPCA's Land Securement Strategy, the above-noted programs, and the map of municipal lands in the Niagara Peninsula watershed jurisdiction, there is a clear desire for municipal partners and NPCA to work together to secure and protect additional lands that support the area's natural heritage system.

Map 5: Map of Publicly Owned Lands



5.2.2 Provincial Lands

Within NPCA's jurisdiction, there are two provincially protected properties—Short Hills Provincial Park and Wainfleet Bog Conservation Reserve—in addition to lands owned by Ontario Power Generation and Niagara Parks. The Ontario Heritage Trust (OHT) has also conserved several natural heritage properties within the Niagara Peninsula watershed.

5.2.2.1 Short Hills Provincial Park

Short Hills Provincial Park (Short Hills) is a 688-hectare natural environment class park on the southwest edge of St. Catharines, in the Niagara Region. The park provides protection for provincially significant life science and earth science features, notably the Niagara Escarpment and Carolinian forests. Short Hills is also a Nodal Park in the NEPOSS, which are parks intended to serve as key staging areas, interpretive centres for each section of the escarpment, and major starting places for exploring other nearby parks.

Short Hills currently provides five scenic nature trails that are accessible for the public to enjoy, though it is designated as a non-operating park due to the limited visitor amenities. The park is adjacent to the 34-hectare Camp Wetaskiwin, owned and operated by Scouts Canada, and near the 20-hectare Short Hills Nature Sanctuary, owned by the Hamilton Naturalists' Club. It is further augmented by NPCA's St. Johns Centre and connected through forested natural features to Lathrop and St. Johns conservation areas. NPCA conservation areas augments this provincial park by increasing the amount of protected area, widening the buffer and interior habitats, preserving important headwaters of Twelve Mile Creek, and maintaining forest cover to prevent erosion in this unique cold-water subwatershed.

5.2.2.2 Wainfleet Bog Conservation Reserve

The Wainfleet Bog Conservation Reserve is a 230-hectare property that makes up part of the larger Wainfleet Bog PSW complex, the largest peatland area remaining within the Carolinian region of Ontario. "The ANSI portion of the reserve provides habitat for approximately 283 species of vascular plants. A total of 52 species of birds have been observed recently within the reserve or in the immediate vicinity, of which 30 species are believed to be breeding. Among the vascular plants, 11 species are provincially significant. It is also habitat for three provincially significant species of reptiles (eastern massasauga rattlesnake, spotted turtle, and black rat snake) and five provincially significant birds (yellow-breasted chat, least bittern, tufted titmouse, short-eared owl, and white-eyed vireo)." (Ontario website: <https://www.ontario.ca/page/wainfleet-bog-conservation-reserve-management-statement>)

The Wainfleet Bog Conservation Reserve is an integral part of the larger Wainfleet bog protected area owned and managed by NPCA and the Nature Conservancy of Canada. Together, these lands protect and manage an especially important natural feature that holds provincial, federal, and local significance, and support the international biodiversity and climate change goals agreed to at COP15.

5.2.2.3 Niagara Parks

Niagara Parks (formally known as The Niagara Parks Commission) is a self-financed agency of the Provincial Ministry of Tourism, Culture, and Gaming. This agency is the steward of approximately 1,325 hectares of land (with at least one-third maintained as natural) along a 56-kilometre stretch of the Niagara River that links Lake Erie and Lake Ontario, including the Niagara Gorge, the Horseshoe Falls, and Dufferin Islands. Since 1996, the Niagara River corridor has been recognized as an Important Bird and Biodiversity Area due to its important migratory, seasonal, and permanent habitat for many native bird species.

Since the early 1990s, NPCA and Niagara Parks have collaborated on improving the Niagara River's habitat and overall ecosystem health, as part of the Niagara River Remedial Action Plan (NRRAP) program. Through the Niagara River Remedial Action Plan (NRRAP), Niagara Parks and its partners, including NPCA, have created seven coastal wetlands, enhancing 8.5 hectares of habitat and restoring nearly two kilometres of shoreline along the Niagara River. Niagara Parks recently pledged to increase native shoreline vegetation along the river from 35 per cent to 75 per cent coverage and to expand tree canopy cover to 35 per cent. These efforts aim to protect the shoreline and enhance biodiversity on their lands. Such initiatives highlight the value of collaboration in preserving and improving shared natural resources, including public greenspaces.

5.2.2.4 Ontario Power Generation

The Province of Ontario owns Ontario Power Generation (OPG). OPG lands, often situated along watercourses and canals, are also vital natural areas. While most are not accessible to the public due to safety and security considerations, OPG has collaborated with NPCA and other partners to restore and manage select sections, enhancing habitat and biodiversity within these areas. One property is adjacent to DeCew Falls—Morningstar Mill which is owned by the City of St. Catharines and adjacent to Short Hills Provincial Park. OPG lands, though they do not typically augment public access to natural areas, still contribute to the natural cover, habitat value, and biodiversity goals of other organizations and agencies.

5.2.3 Federal Lands

There are a few parcels of federally owned land in NPCA's jurisdiction, most notable from a natural heritage perspective are lands known as Lakeshore properties or Niagara Shores, along the shoreline of Lake Ontario east of Four Mile Pond, in the Town of Niagara-on-the-Lake administered by Parks Canada. This area is accessible to the public for natural and heritage appreciation and is designated a National Historic Site. Within the Niagara Peninsula watershed, small parcels of federally owned land primarily consist of historic heritage sites, such as the Fort George National Historic Site, which are tied to the War of 1812. Additionally, there are federal lands owned by the St. Lawrence Seaway Authority that contribute to natural heritage, biodiversity, and habitat locally, though most are not publicly accessible for safety and security reasons, except for a few sanctioned trails and walking paths.

5.2.4 Land Trusts

The Nature Conservancy of Canada (NCC) owns one parcel of land called the Lathrop Nature Preserve, located in the Town of Pelham at the headwaters of Twelve Mile Creek—the only cold-water stream in the Niagara Peninsula watershed, home to the only self-sustaining population of native Brook Trout in Niagara. More than 100 years ago, a railway bisected the property creating a dam in Twelve Mile Creek and two artificial ponds on the property. Today, the former railway berm is a publicly accessible trail, connecting the Lathrop property to Marlene Stewart Streit Park, owned by the Town of Pelham, and the downtown core of Fonthill. The NCC Lathrop property is less than two kilometres from NPCA’s St. Johns Conservation Area and one of the two parcels that make up NPCA’s Lathrop Conservation Area. There are many opportunities in this area to connect and create linkages between the NCC Lathrop property, NPCA’s Lathrop parcels, Short Hills Provincial Park, and two other NPCA conservation areas—St. Johns and St. Johns Valley Centre.

Most land trusts are primarily focused on securing natural heritage lands to protect significant ecological features; therefore, it is important for NPCA to continue collaborating with land trusts to further its conservation goals through land securement. Several land trusts operate within the watershed jurisdiction of the NPCA, including the Bruce Trail Conservancy (BTC), Niagara Land Trust (NLT), NCC, Ontario Heritage Trust (OHT), Head-of-the-Lake Land Trust (HLLT), managed by Hamilton Naturalists’ Club, and Ontario Nature. Other land trusts that NPCA could work with to further augment protected areas in the watershed include Ducks Unlimited Canada, Niagara Escarpment Biosphere Conservancy, and Ontario Farmland Trust. To date, land trusts have secured more than 240 hectares within NPCA’s jurisdiction.

5.2.5 Trail Systems

Trails have been a defining feature of the Niagara Peninsula landscape since time immemorial and there is a significant network of trails throughout NPCA’s jurisdiction that are owned and managed by municipalities, regional government, Bruce Trail Conservancy, or other organizations and agencies. National trends overwhelmingly indicate a growing demand for trails and in addition to the large network of sanctioned trails, there is likely a sizeable network of unsanctioned and unmanaged trails made by people who want additional opportunities to walk, hike, or bike in their community or neighbourhood.

The Bruce Trail stretches over 890 kilometres along the Niagara Escarpment, with an additional 400 kilometres of side trails. Extending from the Niagara River to Tobermory, it is managed and protected by the Bruce Trail Conservancy (BTC). There are two sections of their extensive trail network in the Niagara Peninsula watershed, the Niagara Section, and the Iroquoia Section. The very first blaze of what was to become the Bruce Trail was placed on the farm of Derby Bucknall by members of the Niagara Escarpment Trail Council in 1962, which is now part of NPCA’s Cave Springs Conservation Area. Many sections of the Bruce Trail run through NPCA conservation areas or connect to its hiking trails, while others are on private land or part of other protected areas like Short Hills Provincial Park. Since 2017, Plenty Canada, along with a network of allies, has worked on the Great Niagara Escarpment Indigenous Cultural Map and the

Greenbelt Indigenous Botanical Survey. Both include NPCA escarpment conservation areas and serve to document, celebrate, and safeguard important Indigenous heritage resources along the Bruce Trail.

Other significant trails in the Niagara Peninsula watershed include the Niagara River Recreational Trail owned and managed by Niagara Parks, the Great Lakes Waterfront Trail (Waterfront Trail), Trans Canada Trail, Welland Canals Parkway, the Friendship Trail, the Greenbelt Loop, Laura Secord Legacy Trail, Upper Canada Heritage Trail, and the Short Hills Provincial Park trail system. The Chippawa Trail, part of Trans Canada Trail, connects Niagara to Haldimand, Hamilton, and beyond.

The Welland Canals Parkway is an important connecting route between the south and north ends of the Niagara Peninsula, running between Port Colborne and St. Catharines, with the Friendship Trail connecting the Welland Canals Trail to the Niagara River Recreational Trail.

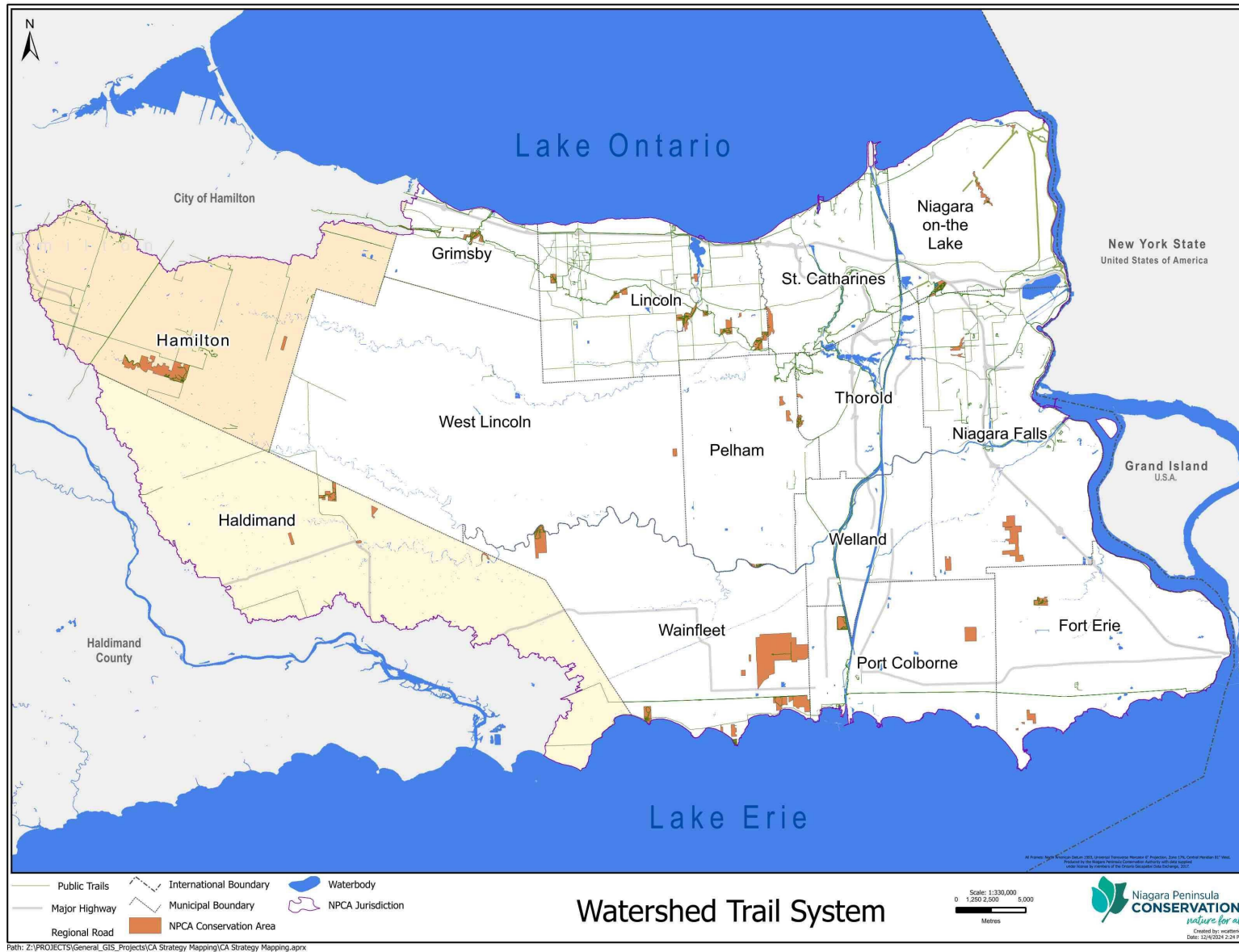
Several important local trails are managed and maintained by local municipalities and provide important recreational opportunities for local community members and visitors to enjoy. Some are shorter local trails while others are important arteries to larger trail networks like Bruce Trail or the Waterfront Trail or can be connections between neighbouring municipalities like the Friendship Trail between Fort Erie and Port Colborne, or the Steve Bauer Trail between Welland and Pelham.

Based on the assessment, it is evident that there is an extensive network of trails in the Niagara Peninsula watershed (Map 6), with potential for additional connections and linkages that could be supported by NPCA's Land Securement Strategy, Strategic Plan, and CA Strategy, and partnerships with local municipalities, land trusts, conservation groups, and the Bruce Trail Conservancy.

5.2.6 NPCA Trails

NPCA owns and manages more than 200 kilometres of trails on 24 properties. These trails are one of the most important ways NPCA connects the community to natural and cultural heritage—providing opportunities for recreation, active transportation, healthy living, education, community science, and nature appreciation.

Map 6: NPCA Watershed Trail System



Some of NPCA conservation areas provide direct connections to other existing trail networks in the watershed. For example, the Trans Canada Trail includes a section of NPCA's Gord Harry Trail which connects to Wainfleet Wetlands Conservation Area, and overlaps with the Laura Secord Legacy Trail, Friendship Trail, and the Niagara River Recreational Trail. The Waterfront Trail section in NPCA's jurisdiction runs along the north shore of Lake Erie, up the Niagara River via the Niagara River Recreational Trail, and across the southern shore of Lake Ontario, including a loop through Jordan Harbour and Ball's Falls conservation areas. There are NPCA conservation areas located near or along the Waterfront Trail including Wainfleet Wetlands, Morgan's Point, Gord Harry Trail, Long Beach, and the Wainfleet Bog.

Additionally, the Bruce Trail links several NPCA trails along the Niagara Escarpment and connects NPCA conservation areas to other notable trails in Short Hills Provincial Park, as well as DeCew Falls and Morningstar Mill, and Mel Stewart Park in Thorold, as well as areas outside of the watershed.

The CA Strategy trail connection and potential linkages assessment highlights numerous opportunities for enhancing connections between NPCA conservation areas and local trails and parks. These opportunities align with the goals and objectives of the CA Strategy, the Land Securement Strategy, and NPCA's Strategic Plan.

6.0 CONSERVATION AREA LAND USE CATEGORIES

Section 10 (1) 4. of O. Reg 686/21 requires all conservation authorities to establish land use categories to classify their lands based on the types of activities carried out on each parcel of land or other matters of significance related to them.

Land use classification for public land management can be approached from several broad perspectives. National and provincial park agencies often use classifications based on academic frameworks and industry best practices. While this approach can be valuable, conservation areas serve a distinct role compared to national or provincial parks. Park classifications designed for large, national, or regional areas may not be suitable for smaller, local conservation areas connected to municipal parks. Additionally, planning and policy-based definitions may not always provide clear guidance on permitted uses, programs, or services offered.

Alternatively, an administrative approach can be implemented, classifying lands based directly on their operational purpose. This approach offers a nuanced, straightforward method for managing and allocating resources while providing clear public messaging. This approach is easily adaptable within a municipal setting. As a result, NPCA has adopted land use categories (developed with guidance from Conservation Ontario) that recognize that not all conservation areas are the same. One of three primary land use categories has been assigned to each NPCA conservation area. Where needed, secondary or tertiary

categories will be added through management plans and work in tandem with conservation area zoning to appropriately allocate programs and services within the conservation area.

It should be noted that while there are different land use categories, the overall goal for all NPCA conservation areas is protection and management. Active or passive recreation should be considered complementary to this overarching purpose and should not negatively impact the natural functions, biodiversity, or protection of these areas. It is equally important to note that land use classifications are not fixed. Classifications may change over time as conservation areas are influenced by aspects such as increased visitation, a changing climate, or strategic direction. A summary of the land use classification is included in Table 4.

6.1 Conservation Area – Active Recreation

NPCA conservation areas offering active recreation have historically been referred to as flagship parks. These conservation areas offer a wide range of recreational opportunities and programs and therefore, they experience the highest usage and most intense visitor activity. They feature gated access, with entry fees required, and staffed gates for daily operations. Operational seasons may vary, ranging from year-round to season-specific, depending on the recreational and program offerings at each site. Passive recreational activities, such as hiking and nature viewing, are also available. While providing opportunities for recreation, natural heritage protection remains a priority and is still present throughout most of the conservation area.

Currently, NPCA has four conservation areas in this category: Ball's Falls, Binbrook, Long Beach, and Chippawa (Table 4).

6.2 Conservation Area – Passive Recreation

NPCA conservation areas offering passive recreation have historically been referred to as passive parks. These experience low to high visitation levels focused on passive trail-based activities like hiking and are open to the public or permitted users with limited operating seasons. Access is generally through a single entry-point, which may include a gate, and entry fees could apply. Education programs and other permit-based activities, such as weddings, hunting, and academic research, may also take place. Some programs and services are offered by third-party operators or lease or license holders. NPCA operational and land care staff are present only as needed. Natural heritage protection is a primary focus at these conservation areas, with potential for resource management and restoration activities.

Currently, NPCA has 16 conservation areas in this category (Table 4).

6.3 Natural Heritage and Hazard Lands

Natural Heritage and Hazard Lands are generally not open to the public or have limited infrastructure to support visitation (e.g., Comfort Maple). Access is usually limited to a single entry-point that may include a gate for safety and enforcement purposes. Education and other permit-based programs, such as hunting and academic research, may also take place. NPCA operational and land care staff are present only as needed. Natural heritage protection and hazard management are priorities in these conservation areas, with potential for resource management and restoration activities.

Currently, NPCA has 21 conservation areas in this category (Table 4).

Table 4: Summary of NPCA Conservation Areas by Land Use Category

LAND USE CATEGORY	TOTAL	CONSERVATION AREAS IN THIS CATEGORY	
Conservation Area - Active Recreation	4	Ball's Falls Binbrook	Chippawa Creek Long Beach
Conservation Area - Passive Recreation	16	Beamer Memorial Cave Springs E.C. Brown Gord Harry Mem. Trail Hedley Forest Jordan Harbour Louth Morgan's Point	Mountainview Mud Lake Rockway Ruigrok Tract St. Johns Stevensville Wainfleet Wetlands Woodend
Natural Heritage & Hazard Lands	21	Baird Estate Binbrook Tract Canborough Comfort Maple Eight Mile Creek Gainsborough Humberstone Marsh Lakewood Lathrop Oswego Creek	Point Abino-McGowan Point Abino-Philips Port Davidson Shriner's Creek Smith-Ness Forest St. Johns Centre Two Mile Creek Virgil Dam and Reservoir Wainfleet Bog Willoughby Marsh Woolverton

6.4. Conservation Area Zoning

While a classification model helps guide the overall intent of each property within NPCA's conservation area system, it is often used alongside site-specific zoning to balance greenspace access with protection.

Like a municipal Official Plan supported by a zoning by-law, zoning within conservation areas designates specific activities, uses, and programs that are suitable to the areas. This approach enables the simultaneous protection of natural features and functions while facilitating the development of recreational programs and activities.

Zone types may vary from development or recreation to nature reserves and resource management. Application of zone types is designed to support both the overall conservation area classification as well as goals and objectives specific to the area. Land use categories and supporting zoning will be refined within each conservation area management plan.

7.0 COMMUNICATIONS & ENGAGEMENT

The development of the Conservation Area Strategy was guided by a collaborative process that emphasized the importance of engagement with a wide range of interested parties. Through active engagement for a concentrated period of 30 days, staff gathered diverse perspectives to ensure the strategy reflects the priorities and values of the communities we serve. Staff also gained valuable insights into the community's understanding of the needs of the Niagara Peninsula watershed. This engagement approach fostered a deeper understanding of the natural, cultural, and recreational priorities that will shape the future of NPCA conservation areas.

Through an intentional communications and engagement strategy, staff employed a multi-channel approach to meet our communities where they are. With accessibility and inclusivity as guiding principles, we leveraged a combination of traditional and digital methods to inform and engage a wide range of internal and external audiences.

NPCA employed best-efforts to engage Indigenous partners and peoples, partner municipalities and government agencies, residents, conservation area users, volunteers, local interest groups, environmental groups and non-government organizations, business owners, members of the agriculture, environment, planning, development, tourism, and education sectors, and the public within Niagara Region, Haldimand County, and the City of Hamilton.

Key outreach efforts included a Public Information Centre (PIC), sector-specific stakeholder meetings, direct emails, and targeted social media campaigns. The use of both in-person and online engagement opportunities helped ensure accessibility for diverse audiences and broad participation.

NPCA staff, Board of Directors, Public Advisory Committee (PAC), and the Niagara Peninsula Conservation Foundation played an essential role in shaping the Conservation Area Strategy. Staff, as the experts on the ground, had opportunities to share their insights and feedback through meetings, emails, and discussions. Their daily experience and expertise served as a vital sounding board for the project. The Board and PAC

were provided updates, and offered valuable input, with PAC members also helping to share information and encourage feedback within their communities and networks.

NPCA’s online engagement platform, [Get Involved NPCA](#), served as the hub for the CA Strategy project, keeping the community informed with up-to-date information. Among the various tools was a 10-minute survey designed to gather community input on the proposed goals and objectives developed by NPCA staff.

Table 5: Public Engagement Results

Key Tools & Tactics	Results
Get Involved NPCA	1,800 web visits
On-line Survey	62 responses
Hybrid Public Information Centre + video	23 registrations 9 attended virtually 4 attended in person 99 video views
Organic and Paid Social Media	97,227 reach 1.51% engagement rate

Preliminary analysis of the survey responses, comments, feedback, and discussions led to the following key findings related to how the community engages with NPCA conservation areas:

- The majority of respondents visit NPCA conservation areas a few times per month to enjoy nature, exercise, and improve their mental health.
- They value conservation areas because they offer opportunities to connect with nature, enjoy passive recreation, and they support biodiversity and habitat for plants and wildlife.

Survey results show strong public support for the draft goals as per below:

Table 6: Survey results for agreement level and ranking of draft goals

Goal <i>Agreement Level</i>	<i>Rank</i>	
Protection and Management	97%	1
Greenspace Access and Connectivity	90%	3

Goal Agreement Level	Rank	
Sustainability and Enhancement	94%	2
Climate Change Adaptation and Mitigation	87%	4
Engagement and Collaboration	90%	5

Approximately 60 per cent of survey respondents provided additional detailed and thoughtful feedback. This demonstrates a highly engaged audience eager to participate in the development of the CA Strategy. The survey responses reflect diverse perspectives, ranging from specific operational suggestions to broader environmental concerns. This level of participation highlights the community's deep connection to conservation areas and their desire to see these spaces protected and managed effectively.

Common themes in survey comments included:

- Biodiversity protection, managing access, enforcement against non-permitted uses, invasive species concerns, increasing natural corridors and acquisitions, partnerships and collaboration, climate change, and signage and education.
- Climate change considerations, such as flood mitigation, tree canopy targets, and invasive species management, were mentioned frequently. Respondents prioritized actions to anticipate and mitigate environmental impacts.
- Accessibility improvements and enhanced recreational opportunities were highlighted, with mixed feedback on balancing public access and conservation. Concerns included maintaining natural spaces while allowing controlled public use.
- Respondents stressed the need for better enforcement against non-permitted activities, such as pollution, overuse, and misuse of conservation areas. They also called for more active management, including invasive species control and maintenance improvements.
- Respondents highlighted the importance of public education about conservation and engaging with partners to achieve shared goals. There was a desire for NPCA to involve diverse communities, including newcomers and local municipalities, in its outreach and planning.

The survey responses provide a clear roadmap for aligning NPCA's strategies with public priorities. While challenges such as funding limitations, enforcement needs, and balancing access with conservation are noted, the feedback offers actionable insights and reinforces the shared value of preserving the Niagara

Peninsula watershed's natural heritage. By addressing these themes, NPCA can strengthen its role as a steward of the environment and a partner to the community.

The feedback received through internal and external engagement was thoroughly reviewed by the project team and helped to refine the goals and objectives, land use categories, and other aspects of the CA Strategy. The project team integrated the common themes by adding climate change as a guiding principle for the document, as noted in Section 2.2, rather than a goal. This change emphasizes that the CA Strategy will apply a climate change lens for all future projects, plans, and strategies related to conservation areas. Internal and external engagement themes showing clear priorities noted above helped to further refine the goals and objectives in Section 3 by focusing on four rather than five goals and establish clear objectives that would help achieve these goals through future action plans with measurable targets.

8.0 PERIODIC REVIEW

Under O. Reg. 686/21: Mandatory Programs and Services, the NPCA is required to establish a process for the periodic review and updating of the CA Strategy, including procedures to ensure that stakeholders and the public are consulted.

The CA Strategy will be treated as a living document, with NPCA committing to assess the need for a comprehensive review on a five-year cycle. Various influencing factors—such as technological advances, socioeconomic changes, emerging political and environmental issues—will be analyzed to determine the appropriate level of review. In cases of exceptional circumstances, such as legislative changes, the NPCA may undertake an earlier update to ensure the strategy remains compliant and aligned with governing legislation, where required. Staff will seek direction from the NPCA Board of Directors to proceed with such updates, as necessary.

For each update, NPCA will develop an engagement plan to involve watershed residents and partners, Indigenous communities, local stakeholders, and other interested parties. A workplan outlining key tasks and general timelines will also be presented to the NPCA Board of Directors at the initiation of any updates, ensuring transparency and accountability throughout the process.

9.0 FUTURE CONSIDERATIONS

NPCA is an important environmental resource management organization dedicated to preserving and enhancing local natural heritage. It provides access to breathtaking natural areas, delivers impactful educational and stewardship programs, and serves as a trusted source of scientific expertise for partners and the community. By safeguarding people and property from natural hazards, protecting drinking water

sources, and restoring the watershed, NPCA ensures the long-term health and resilience of the environment for the benefit of all who call this region home.

NPCA recognizes that as an organization, it must remain flexible and adaptable to change over the next decade. We continue to navigate and respond to changes to the *Conservation Authorities Act*, prioritizing the transition and legislative requirements as we continue to revitalize the organization. Furthermore, we understand that the Niagara Peninsula watershed will experience growth, intensification, and extreme weather impacts, as well as a tremendous need for greenspace. We look forward to continuing to collaborate with our communities, partner municipalities, conservation heroes, and our Board of Directors and staff to operationalize and implement the goals and objectives of the CA Strategy.

Collectively, NPCA's Strategic Plan, Land Securement Strategy, Climate Action Plan, and CA Strategy will guide our actions for accomplishing the goals and objectives outlined in this document while working toward our vision of *Nature for all*. Our mission to create a common ground for conservation-inspired action and accountability to nature is exemplified through our work every day as we develop management plans, action plans, and workplans to operationalize the CA Strategy.

Assessment of NPCA conservation areas in the context of the watershed natural heritage features, and the network of trails, has highlighted the opportunities that exist to augment and create linkages between natural areas, trails, and other publicly accessible lands. These opportunities are supported and aligned with the NPCA's Strategic Plan, Land Securement Strategy and the goals and objectives found in Section 3.0 of this strategy. As NPCA moves towards the development and implementation of property-specific plans (e.g., invasive species strategy and restoration plans), these items will be prioritized based on future workplans and budgets and will be aligned with relevant internal plans and policies (e.g., asset management plan). Development of management plans for each of the 41 conservation areas will take years to complete, but each will be guided by the goals and objectives of the CA Strategy. Each management plan will have its own engagement plan throughout the design and implementation stages to ensure that there is community involvement, support, and understanding for each conservation area plan.

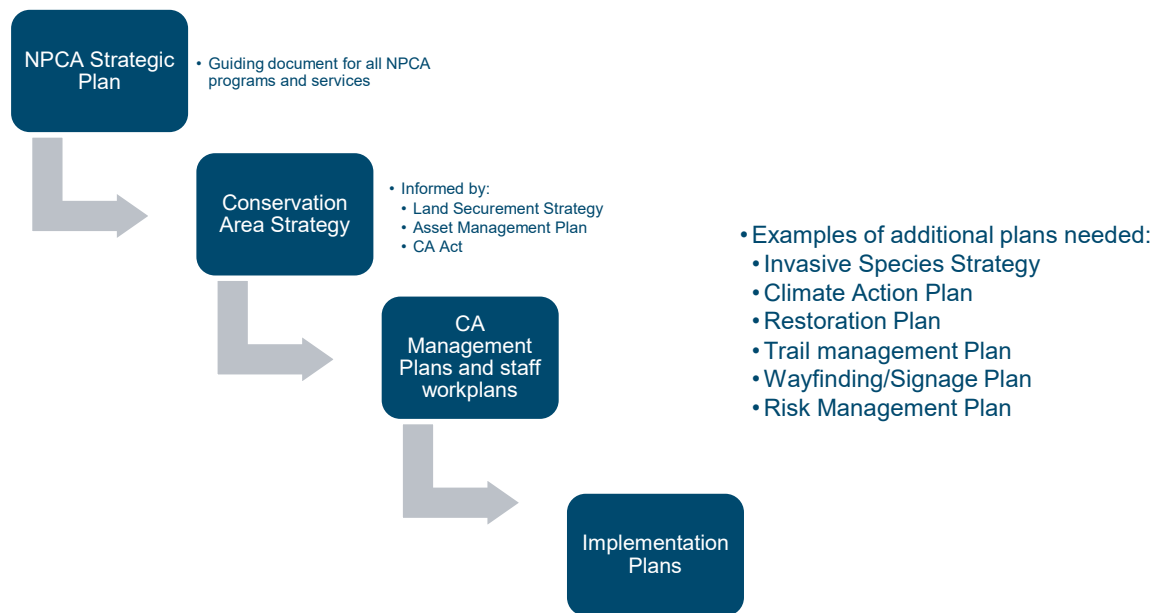


Figure 3: NPCA Strategic Planning Context

Continued commitment and support of the NPCA Board of Directors, staff, and our partners in conservation will help to move us forward into the future to ensure a resilient watershed for future generations, and for those who may not always have a voice at the table but deserve biodiverse and healthy natural areas to call home (plants, animals, insects). NPCA is thankful for the continued friendship and collaboration with landowners, municipal partners, friends of groups, conservation clubs, watershed residents, volunteers, Indigenous partners, conservation area users, local businesses, farmers, and school boards for working with us, being stewards of nature and the environment, and for their passion and deep appreciation for the beautiful Niagara Peninsula watershed—the life source for all who live here.

10.0 RESOURCES

Bruce Trail Conservancy - <https://brucetrail.org/>

Canadian Protected and Conserved Areas Database - <https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/protected-conserved-areas-database.html>

Conservation Authorities Act <https://www.ontario.ca/laws/statute/90c27>

Conservation Ontario Guidance on the Conservation Authority Mandatory Conservation Area Strategy, 2022. (Document)

Conservation Ontario <https://conservationontario.ca/>

Escarpment Biosphere Conservancy <https://escarpment.ca/>

Great Lakes Waterfront Trail - <https://waterfronttrail.org/>

Greenbelt Plan - <https://files.ontario.ca/greenbelt-plan-2017-en.pdf>

Mississauga of the Credit First Nation - <https://mncfn.ca/>

Niagara Agriculture Profile report (Sept 2023) -<https://pub-niagararegion.escribemeetings.com/filestream.ashx?DocumentId=33077>

Niagara Escarpment Biosphere Network <https://nebnetwork.org/>

Niagara Escarpment Plan - https://files.ontario.ca/appendix_-_niagara_escarpment_plan_2017_-_oc-10262017.pdf

Niagara Geopark <https://www.niagarageopark.com/>

Niagara Parks <https://www.niagaraparks.com>

NPCA Land Securement Strategy 2022-2032 (Document)

NPCA Strategic Plan 2021-2031 https://npca.ca/images/uploads/common/Strat_Plan_-_2021-31_Web.pdf

NPCA Watershed Report Card https://npca.ca/images/uploads/common/WRC_NPCA_2023_-_CO.pdf

Ontario Biodiversity Council, 2024, State of Ontario's Biodiversity <https://sobr.ca/>

Six Nations of the Grand River First Nation - <https://www.sixnations.ca/>

Trans Canada Trail <https://tctrail.ca>

Governance Committee
November 15, 2024
Carolinian Hall
3350 Merrittville Hwy., Thorold ON
MEETING MINUTES

MEMBERS PRESENT: S. Beattie
B. Clark
D. Cridland
R. Foster
J. Metcalfe
M. Seaborn, Chair

STAFF PRESENT: L. Lee-Yates, CAO/Secretary–Treasurer
M. Davis, Manager, Office of the CAO & Board

The meeting was called to order at 10:48 a.m.

1. APPROVAL OF AGENDA

Resolution No. GC-11-2024
Moved by: Donna Cridland
Seconded by: Stew Beattie

THAT the Agenda for the Governance Committee Meeting held on November 15, 2024 **BE APPROVED**.

CARRIED

2. DECLARATIONS OF CONFLICT OF INTEREST

None.

3. APPROVAL OF THE MINUTES

Resolution No. GC-12-2024
Moved by: John Metcalfe
Seconded by: Donna Cridland

THAT the Minutes of the Governance Committee Meeting, dated May 17, 2024 **BE APPROVED**.

CARRIED

4. CORRESPONDENCE

None.

5. PRESENTATIONS

None.

6. DELEGATIONS

None.

7. CONSENT ITEMS

None.

8. DISCUSSION ITEMS

8.1. Report No. GC-06-24 RE: Administrative By-Law Revisions

Manager, Office of the CAO & Board, Melanie Davis, provided an overview of the above noted report. Discussion ensued regarding revision of appendices and next steps.

Resolution GC-13-24:

Moved by: Stew Beattie

Seconded by: John Metcalfe

THAT Report No. GC-06-24 RE: Administrative By-Law Review **BE RECEIVED**;

AND THAT the *DRAFT* Niagara Peninsula Conservation Authority Administrative By-Law **BE ENDORSED**;

AND FURTHER THAT the updated Administrative By-Law and associated Appendices be brought forward **FOR FULL AUTHORITY APPROVAL** on or before February 21, 2025.

CARRIED

9. NEW BUSINESS

None.

10. CLOSED SESSION

None.

11. ADJOURNMENT

The meeting was adjourned at 10:58 a.m.

**PUBLIC ADVISORY COMMITTEE
MEETING MINUTES
Tuesday, November 26, 2024
5:00 PM**

MEMBERS PRESENT: David Cribbs, Vice Chair
Julia Baird
Philip Beale
Lennie Aarts
George McKibbin
Naheed Qureshi
William Rapley

MEMBERS ABSENT: Tracy Boese
Lageera Chatheechan
Cindilee Ecker-Flagg
John Metcalfe, ex-officio
David Wylie

STAFF PRESENT: Melanie Davis, Manager, Office of the CAO & Board
Natalie Green, Manager, Climate Change & Special
Programs
Sofia Zavarella, Manager, Communications & Public
Relations

The meeting was called to order at 5:12 p.m.

1. OPENING WELCOME

2. APPROVAL OF AGENDA

Recommendation No. PAC-20-24

Moved by: Philip Beale

Seconded by: Lennie Aarts

THAT agenda for the Public Advisory Committee meeting held on
November 26, 2024 **BE APPROVED.**

CARRIED

3. DECLARATIONS OF CONFLICT OF INTEREST

None.

4. APPOINTMENT OF OFFICERS

Manager, Office of the CAO & Board, Melanie Davis, assumed the role of Chair to conduct the election of Officers.

4.1. Appointment of Chair

The Committee was informed of the process outlined in the Terms of Reference to appoint the Vice Chair as the Chair, should the Chair become vacant. The Committee was informed of the opportunity to nominate other members, if interested.

Recommendation No. PAC-21-2024

Moved by: Julia Baird

Seconded by: Philip Beale

THAT David Cribbs **BE APPOINTED** as Chair of the Public Advisory Committee for the remainder of the 2023-2026 term.

CARRIED

4.2. Appointment of Vice Chair

Recommendation No. PAC-22-24

Moved by: George McKibbin

Seconded by: Lennie Aarts

THAT Philip Beale **BE APPOINTED** as Vice Chair of the Public Advisory Committee for the remainder of the 2023-2026 term.

CARRIED

5. APPROVAL OF MINUTES

5.1. Public Advisory Committee meeting dated May 25, 2024.

Recommendation No. PAC-23-24

Moved by: Philip Beale

Seconded by: Julia Baird

THAT the Minutes of the Public Advisory Committee meeting dated September 17, 2024 **BE APPROVED**.

CARRIED

6. CORRESPONDENCE

6.1. Correspondence from NPCA RE: Board of Directors 2025 Meeting Schedule

Recommendation No. PAC-24-24

Moved by: George McKibbin

Seconded by: William Rapley

THAT the Correspondence from NPCA RE: Board of Directors 2025 Meeting Schedule **BE RECEIVED.**

CARRIED

7. PRESENTATIONS

7.1. Lyons Creek East – Project Update

Manager, Climate Change & Special Programs, Natalie Green, provided a presentation regarding the initiative noted above. Discussion regarding recommended clean-up in identified zones and NPCA's role in the next phases ensued.

Recommendation No. PAC-25-24

Moved by: Philip Beale

Seconded by: William Rapley

THAT the Presentation regarding Lyons Creek East – Project Update **BE RECEIVED.**

CARRIED

8. DELEGATIONS

None.

9. CONSENT ITEMS

9.1. Committee Member Recruitment – Verbal Update

Manager, Office of the CAO & Board, Melanie Davis, provided a verbal update regarding three representative vacancies on the Public Advisory Committee. Staff informed the Committee that a forthcoming report will outline timelines for Full Authority Board approval.

Discussion ensued regarding considering relaxing the requirements while prioritizing candidates aligned with sectors that are not currently represented ensued.

Recommendation No. PAC-26-24

Moved by: George McKibbin

Seconded by: Lennie Aarts

THAT the verbal update regarding Committee Member Recruitment **BE RECEIVED;**

AND THAT pending recruitment initiatives indicate that priority will be given to candidates who can advise based on expertise in the respective areas and identify with equity-deserving groups;

AND FURTHER THAT the Public Advisory Committee request that the NPCA Board of Directors consider relaxing the sector requirements for the recruitment of the following vacant positions:

- One (1) agricultural representative;
- One (1) business/industry representative; and
- One (1) development/building representative.

CARRIED

10. DISCUSSION ITEMS

None.

11. COMMITTEE REPORTS

None.

12. NEW BUSINESS

12.1. Members' Updates

- Chair Cribbs thanked NPCA staff for stepping in and providing leadership on the 12 Mile Creek restoration project.
- Member Baird shared that recruitment for graduate students is underway, encouraged Committee Members to share the Sustainability programs at Brock University with their networks.
- Vice Chair Beale expressed gratitude to staff for their efforts in celebrating volunteers at the annual appreciation dinner.

12.2. Roundtable for Additional Strategy Feedback

- Discussion ensued regarding modelling extreme weather events to demonstrate the impact of flooding and erosion in the watershed. Potential to explore as a research project for graduate students.

13. ADJOURNMENT

Recommendation No. PAC-27-24

Moved by: Philip Beale

Seconded by: George McKibbin

THAT the Public Advisory Committee meeting **ADJOURN** at 7:00 p.m.

CARRIED