



**The Corporation of the City of St. Catharines
GENERAL COMMITTEE AGENDA
Regular, Monday, August 10, 2020
Electronic Participation**

This Meeting of General Committee will be held through Electronic Participation in accordance with Bill 187, the Municipal Emergency Act, which was passed by the Province of Ontario on March 19, 2020.

This Meeting may be viewed online at www.stcatharines.ca/youtube

Public Comments: The public may submit comments regarding agenda matters to the Office of the City Clerk by contacting clerks@stcatharines.ca by Monday, August 10, 2020 before Noon. Comments submitted will be considered as public information and entered into public record.

Electronic Delegations: Those wishing to speak to an item on the agenda must complete the [City's Electronic Delegation Form](#) by Sunday, August 9, 2020 before 11:59 p.m. and attend a test session with City staff on Monday, August 10, 2020 at 10 a.m.

His Worship Mayor Walter Sendzik takes the Chair and opens the meeting following Items Number 5 and 8 on the Council Agenda.

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1. Motion to Move Reports on Consent

2. Consent Reports

Following Consent Reports, Council will proceed to Council Agenda Item 6 (Public Meetings Pursuant to Public Notice By-Law)

3 - 251 2.1 Legal and Clerks Services, Office of the City Clerk
Council Correspondence

3. Discussion Reports

252 - 259 3.1 Office of the Chief Administrative Officer
COVID-19 Update - August 10, 2020
[Addenda]

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- 260 - 261 3.2 Legal and Clerks Services, Office of the City Clerk
Motion regarding Body Cameras for Police Officers – comments from
Anti-Racism Advisory Committee
- Delegation by Bryan MacCulloch, Chief of Police, Niagara Regional Police Services, and Kenneth Gansel, Chair, Niagara Regional Police Services Board, will precede discussion of the report

- 262 - 273 3.3 Legal and Clerks Services, Office of the City Clerk
Options for Consideration of In-Person Council Meetings
[Addenda]

4. In-Camera Session (General Committee)

Council will meet In-Camera for the following purposes:

5. Adjournment

Following Adjournment, Council will proceed to Council Agenda Item 9 (Motions Arising from In-Camera Session).



Corporate Report City Council

Report from: Legal and Clerks Services, Office of the City Clerk

Report Date: July 31, 2020 **Meeting Date:** August 10, 2020

Report Number: LCS-114-2020 **File:** 10.12.1

Subject: Council Correspondence

Strategic Pillar:

Recommendation

That Council endorse the resolution from the Niagara Region regarding joining the Coalition of Inclusive Municipalities; and

That Council endorse the resolution from the Township of South Glengarry regarding increased funding and inspections for long-term care homes; and

That Council receive and file the items listed within the report; and

Further, that Council receive and file additional correspondence distributed for the meeting held August 10, 2020, which is available upon request. FORTHWITH

Report

The Office of the City Clerk is submitting, for the approval of Council, correspondence received during the period of July 17, 2020 to July 30, 2020.

Resolutions

1. Niagara Region – re. Declaration to Join the Coalition of Inclusive Municipalities
2. Township of South Glengarry – re. Increased Funding and Inspections for Long-Term Care Homes
3. City of Sault Ste. Marie – re. Canada / United States Border Closure

Correspondence

4. Letter from Mayor Dan Carter, City of Oshawa - re. Anti-Racism Motion to Prime Minister and Premier
5. Letter from Hon. Steve Clark, Minister of Municipal Affairs and Housing – re. Bill 184
6. AMO Watchfile – July 30, 2020
7. Letter from Ontario Barn Association – re. Advocate for changes to preserve our barns - A message about Severances from the Ontario Barn Preservation

Correspondence from the Niagara Region

8. Niagara Region 2019 Annual Financial Report
9. Affordable Housing Strategy Update. Report CLK-C 2020-169
10. Niagara Peninsula Conservation Authority Natural Environment Work Program – Phase 4: Identification and Evaluation of Options. Report CLK-C 2020-173

Reports Requested by Council

11. Outstanding Reports List – updated July 31, 2020

Prepared by

Evan McGinty
Council and Committee Coordinator

Submitted and Approved by

Bonnie Nistico-Dunk
City Clerk

Declaration to Join the Coalition of Inclusive Municipalities

Given that:

1. The Canadian Commission for UNESCO (United Nations Educational, Scientific and Cultural Organization) is calling on municipalities to join a Coalition of Inclusive Municipalities and to be part of UNESCO's international Coalition launched in 2004; and
2. The Federation of Canadian Municipalities (FCM) endorses the Call for a Coalition of Inclusive Municipalities and encourages its members to join; and

Whereas:

3. Municipal governments in Canada, along with other levels of government, have responsibilities under Canada's *Charter of Rights and Freedoms* as well as federal, provincial and territorial human rights codes, and therefore have an important role to play in combating racism and discrimination and fostering equality and respect for all citizens;

Be it resolved that:

4. The Regional Municipality of Niagara, The Corporation of the Town of Fort Erie, The Corporation of the Town of Grimsby, The Corporation of the Town of Lincoln, The Corporation of the City of Niagara Falls, The Corporation of The Town of Niagara-on-the-Lake, The Corporation of the Town of Pelham, The Corporation of the City of Port Colborne, The Corporation of the City of St. Catharines, The Corporation of the City of Thorold, The Corporation of The Township of Wainfleet, The Corporation of the City of Welland, and The Corporation of the Township of West Lincoln agree to join the Coalition of Inclusive Municipalities and, in joining the Coalition, endorses the Common Commitments (see Appendix A) and agree to develop or adapt a joint Plan of Action led by the Regional Municipality of Niagara accordingly.
5. These Common Commitments and the Municipalities' joint Plan of Action will be an integral part of the Municipalities' vision, strategies and policies.
6. In developing or adapting and implementing the joint Plan of Action toward progressive realization of the Common Commitments, the Municipalities will cooperate with other organizations and jurisdictions, including other levels of government, Indigenous peoples, public and private sector institutions, and civil society organizations, all of whom have responsibilities in the area of human rights.
7. The Municipalities will set their priorities, actions and timelines and allocate resources according to their unique circumstances, and within their means and jurisdiction. The Municipalities will exchange their expertise and share best practices with other municipalities involved in the Coalition and will report publicly on an annual basis on actions undertaken toward the realization of these Common Commitments.

The Regional Municipality of Niagara, insert date (month day, year)

His Worship, Regional Chair Jim Bradley

SIGNATURE OF THE CHAIR



The Corporation of the Town of Fort Erie, insert date (month day, year)

His Worship Wayne Redekop

SIGNATURE OF THE MAYOR

The Corporation of the Town of Grimsby, insert date (month day, year)

His Worship Jeff Jordan

SIGNATURE OF THE MAYOR

The Corporation of the Town of Lincoln, insert date (month day, year)

Her Worship Sandra Easton

SIGNATURE OF THE MAYOR

The Corporation of the City of Niagara Falls, insert date (month day, year)

His Worship Jim Diodati

SIGNATURE OF THE MAYOR

The Corporation of the Town of Niagara-on-the-Lake, insert date (month day, year)

Her Worship Betty Disero

SIGNATURE OF THE MAYOR

The Corporation of the Town on Pelham, insert date (month day, year)

His Worship Marvin Junkin

SIGNATURE OF THE MAYOR

The Corporation of the City of Port Colborne, insert date (month day, year)

His Worship Bill Steele

SIGNATURE OF THE MAYOR



The Corporation of the City of St. Catharines, insert date (month day, year)

His Worship Walter Sendzik

SIGNATURE OF THE MAYOR

The Corporation of the City of Thorold, insert date (month day, year)

His Worship Terry Ugolini

SIGNATURE OF THE MAYOR

The Corporation of the Township of Wainfleet, insert date (month day, year)

His Worship Kevin Gibson

SIGNATURE OF THE MAYOR

The Corporation of the City of Welland, insert date (month day, year)

His Worship Frank Campion

SIGNATURE OF THE MAYOR

The Corporation of the Township of West Lincoln, insert date (month day, year)

His Worship Dave Bylsma

SIGNATURE OF THE MAYOR

Appendix A: Coalition for Inclusive Municipalities, Common Commitments

The municipality as a guardian of the public interest

1. Increase vigilance against systemic and individual racism and discrimination.
2. Monitor racism and discrimination in the community more broadly as well as municipal actions taken to address racism and discrimination.
3. Inform and support individuals who experience racism and discrimination.
4. Support policing services in their efforts to be exemplary institutions in combating racism and discrimination.

The municipality as an organization in the fulfillment of human rights

5. Provide equal opportunities as a municipal employer, service provider, and contractor.
6. Support measures to promote equity in the labour market.
7. Support measures to challenge racism and discrimination and promote diversity and equal opportunity in housing.

The municipality as a community sharing responsibility for respecting and promoting human rights and diversity

8. Involve citizens by giving them a voice in anti-racism initiatives and decision-making.
9. Support measures to challenge racism and discrimination and promote diversity and equal opportunity in the education sector, and in other forms of learning
10. Promote respect, understanding and appreciation of cultural diversity and the inclusion of Aboriginal and racialized communities into the cultural fabric of the municipality.



Sub-Item 2

CORPORATION OF THE TOWNSHIP OF SOUTH GLENGARRY

MOVED BY Stephanie Jaworski

RESOLUTION NO 229-2020
 SECONDED BY Lyle Warden DATE July 20, 2020

WHEREAS the COVID-19 pandemic has disproportionately affected the vulnerable elderly population in Canada's long-term care (LTC) homes and some of Ontario's LTC homes are among those with the highest fatality rates in the country as the pandemic has exposed deplorable conditions in many LTC homes across Canada; and

WHEREAS it is the mandate of the Ministry of Long-Term Care to inspect long term care homes on an annual basis and these inspections have consistently dropped in number since 2017 with only nine completed out of 626 long term care homes in 2019; and

WHEREAS residents have been endangered by personnel moving between infection zones without adequate equipment; and

NOW THEREFORE BE IT RESOLVED THAT the Council of the Township of South Glengarry urges the Ontario government to provide funding to increase full-time positions in place of casual and part-time labour in long term care homes and requests that the Ministry of Long-term Care acts to regularly inspect all long term care homes, and sound infection control measures are put in place at all Ontario long term care homes, and that this resolution be forwarded to Premier Ford, the Minister of Long-term Care Merrilee Fullerton and all Ontario municipalities for consideration.

☒ CARRIED

☐ DEFEATED

☐ POSTPONED


Mayor Frank Prevost

Recorded Vote:	Yes	No
Mayor Prevost	—	—
Deputy Mayor Warden	—	—
Councillor Lang	—	—
Councillor Jaworski	—	—
Councillor McDonell	—	—



Sub-Item 3

CITY COUNCIL RESOLUTION

Agenda Number: 8.2
Title: Canada/United States Border Closure
Date: Monday, July 13, 2020

Moved by: Councillor C. Gardi
Seconded by: Councillor S. Hollingsworth

Whereas due to the COVID-19 pandemic Canada and the United States agreed to close their shared border on March 21, 2020 and that closure, with exceptions, has been extended to July 21, 2020; and

Whereas Canada has managed to slow the spread of COVID-19 across the country including our own community of Sault Ste. Marie and District of Algoma; and

Whereas the United States has not slowed the spread of COVID-19 and cases continue to grow in the United States at a much more significant rate than Canada; and

Whereas Canadians across the country including here in Sault Ste. Marie have made and continue to make many sacrifices to slow the spread of COVID-19 and minimize the risk to each other and our larger community; and

Whereas Mayor Provenzano has been working with his border city mayoral colleagues across Ontario to advocate for and support the continued closure of the Canada/United States border with the current terms and conditions;

Now Therefore Be It Resolved that this resolution shall serve to support the Federal Government's decision to close the Canada/US border and to request that the Federal Government maintain its current position until the risk of the COVID-19 travelling into Canada from the United States is minimized and there is objective data that indicates the growth and spread of the COVID-19 virus across the United States has slowed dramatically and is at a minimum consistent with the growth and spread of the virus in Canada;

Further Be It Resolved that this resolution shall serve to support the work that Mayor Provenzano has undertaken with his mayoral colleagues across Ontario and encourages that work to continue until Council directs otherwise.

Carried

Tied, Defeated

Defeated

Officially Read and Not

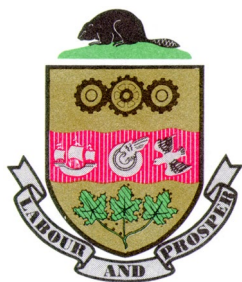
Dealt With / Postponed

RECEIVED

JUL 20 2020

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BY COUNCIL



OSHAWA
ONTARIO, CANADA

OFFICE OF THE MAYOR

CITY OF OSHAWA
50 CENTRE STREET SOUTH
OSHAWA, ONTARIO
L1H 3Z7
TELEPHONE (905) 436-5611
FAX (905) 436-5642
E-MAIL: mayor@oshawa.ca

MAYOR DAN CARTER

July 28, 2020

Honourable Justin Trudeau
Prime Minister
House of Commons
Ottawa, ON K1A 0A2

Dear Prime Minister,

The recent highly publicized interactions between members of police services and individuals in crisis in both the United States and Canada are calling for government and organizations to re-examine our systems and processes and take action.

I am writing today, on behalf of Oshawa City Council, to urge all levels of government in Canada to heed this call, and to commit to two significant actions. First, to commit to an investment of dedicated mental health units within police services and second, to establish an independent professional certification for all police personnel.

Police personnel are increasingly encountering individuals in our community dealing with complex mental health issues during their emergency calls. In fact, we are aware that police services across the country estimate that as many as a third of the calls to which police personnel respond are related in some way to a mental health issue.

Further, it is increasingly likely that police personnel are the first point of contact with individuals when arriving on scene of an incident.

Police services, such as the Durham Regional Police Service, have added dedicated personnel to respond to these types of calls, and this measure should be applauded. However, the current levels of mental health front line support to our community in our local, provincial and federal police service are woefully inadequate.

All levels of policing must commit to providing dedicated and fully funded mental health front line units who have specialized skills in mental health crisis intervention and de-escalation within their police service. This would include a team of a plain-clothes officer and mental health nurse. It is imperative that these units are available to respond to situations 24 hours a day, 7 days a week, and 365 days per year.

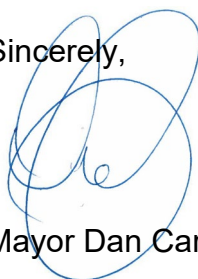
It's important to note, that this call for dedicated personnel does not replace the need for ongoing mental health awareness and de-escalation training for all personnel.

Secondly, we believe that the establishment of an independent professional certification for all police personnel, similar to certifications in other professions such as accounting and engineering, would be of benefit to police services across the country. This suggestion was brought forward through our local consultations.

This designation or accreditation could be received by individual police personnel. It is essential that the program be administered and overseen by an independent body, rather than through peers or police service organizations, to achieve greater accountability.

We believe that these two actions will have significant benefits for both our community and police personnel and will improve the accountability and effectiveness of police response in our communities.

Sincerely,



Mayor Dan Carter

cc: Hon. Doug Ford, Premier
 John Henry, Regional Chair
 MP Erin O'Toole
 MP Colin Carrie
 MPP Jennifer French
 MPP Lindsay Park
 Oshawa City Council
 Chief Paul Martin, Durham Region Police Services
 Association of Municipalities of Ontario, AMO
 Bill Karsten, President, Federation of Canadian Municipalities
 Durham Region Municipalities (Clerks)

Kevin Ashe, Durham Region Police Services Board

Norah Marsh, Acting Director of Education, Durham District School Board

Tracy Barill, Director of Education, Durham Catholic District School Board

LUMCO

MARCO

Jeff McGuire, Executive Director, Ontario Association of Chiefs of Police

Peter Cuthbert, Interim Executive Director, Canadian Association of Chiefs of Police

Oshawa Community Diversity, Equity, Inclusion Committee

Ministry of
Municipal Affairs
and Housing

Office of the Minister

777 Bay Street, 17th Floor
Toronto ON M7A 2J3
Tel.: 416 585-7000

Ministère des
Affaires municipales
et du Logement

Bureau du ministre

777, rue Bay, 17^e étage
Toronto ON M7A 2J3
Tél.: 416 585-7000



234-2020-2496

July 22, 2020

Dear Heads of Council and Chairs of District Social Services Administration Boards:

In March, our government introduced the *Protecting Tenants and Strengthening Community Housing Act, 2020* (Bill 184), which supports the government's plan to make life more affordable for Ontarians. Since that time, our government has been focussed on the health and well-being of Ontarians as we navigate through the COVID-19 outbreak.

It is with great pride that I am able to share with you the progress we have made on Bill 184. On July 22, 2020, the *Protecting Tenants and Strengthening Community Housing Act, 2020* received Royal Assent.

The Act contains amendments to the *Residential Tenancies Act, 2006*, *Housing Services Act, 2011*, *Building Code Act, 1992* and includes the *Ontario Mortgage and Housing Corporation Repeal Act, 2020*.

As I highlighted in my March 12, 2020 letter these amendments support the following priorities:

- **[More Homes, More Choice: Ontario's Housing Supply Action Plan](#)** to make it faster and easier to build housing, including rental housing, and to build the right types of homes in the right places;
- Part II of the **[Community Housing Renewal Strategy](#)** – a multi-year strategy to stabilize and grow Ontario's community housing sector; and
- **Transforming the Delivery of Building Code Services** by enabling the future creation of an administrative authority that would help deliver faster and better services to promote the safe construction of buildings in Ontario.

More details on the *Protecting Tenants and Strengthening Community Housing Act, 2020* can be found in the [official news release](#). A copy of the Act will be available on the Ontario e-Laws website shortly (www.ontario.ca/laws).

On behalf of our government, I would like to extend our thanks for your work with the ministry leading up to the passage of this Act. We look forward to continuing to work with all of our municipal partners and are committed to continuing discussions with you in the coming months.

Sincerely,

A handwritten signature in blue ink that reads "Steve Clark".

Steve Clark
Minister

Sub-Item 6



July 30, 2020

In This Issue

- COVID-19 resources.
- Changes to federal wastewater regulations.
- *Marine Liability Act* review.
- Four new interim Codes of Practice under *Fisheries Act*.
- Just a few weeks until 2020 AMO Conference!
- AMO's 2020 Exhibit Hall.
- Everything you need to know about Land Use Planning.
- LAS Blog: LAS Goes Virtual at the AMO Conference 2020!
- LAS Group Buying: Easy on your budget.
- Investments 101 Training - Available this fall.

COVID-19 Resources

AMO's [COVID-19 Resources page](#) is being updated continually so you can find critical information in one place. It now has a section on mandatory face masks bylaws/directives for municipal governments considering similar bylaws. Send any of your municipally related pandemic questions to covid19@amo.on.ca.

Federal Matters

Environment and Climate Change Canada (ECCC) is [proposing changes to the Wastewater Systems Effluent Regulations](#) (WSER) to extend the period for compliance in some cases and to expand the rules surrounding bypasses. Municipal governments are encouraged to review the proposals and provide comments to ECCC.

Transport Canada is [consulting on changes to the *Marine Liability Act*](#) and is looking for feedback on how ship source oil spills affect communities. The Act helps to clean up ship source oil spills and sets compensation rules. The comment period is open until **September 30, 2020**. Members are encouraged to provide comments.

Fisheries and Oceans Canada (DFO) has released four new interim [Codes of Practice](#) - beaver dam removal, Culvert maintenance, temporary cofferdams and diversion channels, and Temporary stream crossings. DFO plans to engage stakeholders on these Codes in the Fall and Winter. Municipalities with questions navigating the Act should [contact DFO](#).

Eye on Events

The 2020 AMO Conference will be Canada's most comprehensive gathering of government leaders since the global pandemic began. Mc'd by TVO, the conference program features more than 40 speakers, sessions and workshops. Register today!

There is still time to book a spot in the AMO Exhibit Hall. 2020, like all conferences before, offers important networking opportunities, greater flexibility, extended trade show hours and multiple points of interaction. Take advantage of this important opportunity and book your spot now. Book now!

Back by popular demand, *Land Use Planning: Beyond the Basics* is coming to you virtually. This training provides insight and tools to support your central role in implementing and managing the land use policy framework. Registration details.

LAS

The AMO Conference is coming soon! Check out the LAS Blog to learn how you can stay connected with us at the virtual trade show.

Looking to save money on common items now that restrictions are lifted? LAS is here to help. Check out the Municipal Group Buying Program where you can easily buy everything from paper to building supplies to front-end loaders. You'll be glad you did.

ONE Investment

Mark your calendars! ONE Investment will be offering online training this fall. ONE's Investment- 101 virtual course is module based and allows you to learn at your own pace. Registration information to come in the following weeks.

About AMO

AMO is a non-profit organization representing almost all of Ontario's 444 municipal governments. AMO supports strong and effective municipal government in Ontario and promotes the value of municipal government as a vital and essential component of Ontario's and Canada's political system. Follow @AMOPolicy on Twitter!

AMO Contacts

AMO Watch File Tel: 416.971.9856

Conferences/Events

Policy and Funding Programs

LAS Local Authority Services

MEPCO Municipal Employer Pension Centre of Ontario

ONE Investment

Media Inquiries Tel: 416.729.5425

Municipal Wire, Career/Employment and Council Resolution Distributions

*Disclaimer: The Association of Municipalities of Ontario (AMO) is unable to provide any warranty regarding the accuracy or completeness of third-party submissions. Distribution of these items does not imply an endorsement of the views, information or services mentioned.

Sub-Item 7

From: info@ontariobarnpreservation.com <info@ontariobarnpreservation.com>

Sent: July 21, 2020 3:14 PM

To: info@ontariobarnpreservation.com

Cc: krista@veldarchitect.com

Subject: Advocate for changes to preserve our barns -A message about Severances from the Ontario Barn Preservation

To Whom it May concern,
(Please forward to the planning department and council for consideration)

I am reaching out to you on behalf of Ontario Barn preservation. Our not-for-profit organization was formed in 2019 with the goal of conserving barns of cultural heritage significance in Ontario. In order to fulfill this goal, we have been conducting research and analysis on a variety of topics, including Planning Policy frameworks which either help or hinder the conservation of barns.

It has come to our attention that many municipalities are demolishing heritage barns during the process of severance of surplus farm dwellings. The purpose of this letter is to provide you with a brief summary of our findings regarding how existing Planning Policies at the Municipal and Provincial levels impact these cultural heritage resources. We hope that this will help to provide insight on how these policies may be managed in the future so that the conservation of significant cultural heritage resources can work in cooperation with planning for new development.

Barns have potential to be identified as significant cultural heritage resources and may be worthy of long-term conservation. We would ask you to review the letter attached and consider adjusting some of your policies to support these cultural heritage resources in your community that are already disappearing for many reasons.

Please don't hesitate to contact us if you have any questions, and we hope to hear from you in the future.

Regards,

Krista Hulshof, Vice President of Ontario Barn Preservation, architect,
Questions can be directed to Krista at 519-301-8408 or krista@veldarchitect.com



PRESERVING ONTARIO'S HISTORY, ONE BARN AT A TIME

info@ontariobarnpreservation.com

May 28, 2020

Addressed to: Planning Department

To whom it may concern

Our not-for-profit organization was formed in 2019 with the goal of conserving barns of cultural heritage significance in Ontario. In order to fulfill this goal, we have been conducting research and analysis on a variety of topics, including Planning Policy frameworks which either help or hinder the conservation of barns.

It has come to our attention that many municipalities are demolishing heritage barns during the process of severance of surplus farm dwellings. The purpose of this letter is to provide you with a brief summary of our findings regarding how existing Planning Policies at the Municipal and Provincial levels impact these cultural heritage resources. We hope that this will help to provide insight on how these policies may be managed in the future so that the conservation of significant cultural heritage resources can work in cooperation with planning for new development.

Barns have potential to be identified as significant cultural heritage resources and may be worthy of long-term conservation. According to PPS, significant cultural heritage resources shall be conserved:

2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.

Under *Ontario Regulation 9/06*, cultural heritage resources demonstrate significance related to legislated criteria including design/physical value, historical/associative value and contextual value

Although they may not have the same functionality they once did, we believe our heritage barns are an important part of Ontario's cultural history and rural landscape.

- They serve as landmarks in the countryside
- They have the potential to be reused and repurposed, sometimes into agriculture-related uses as municipalities search for value-added opportunities for farmers
- They have historic value for research of vernacular architecture and cultural history of areas and communities in Ontario
- They are a testament to the early farmers and pioneers in our province
- They convey an important sentiment and image to our urban counterparts about the hardworking farm community
- They contribute to agritourism in both a functional and an aesthetic way. Some European countries fund maintenance of rural landscape features such as buildings, hedge rows and fences for the very purpose of world-wide tourism and cultural heritage protection
- They are useful for small livestock or other small farm operations

We have recognized a growing trend in Ontario, where barns are seen as good candidates for conservation and adaptive re-use. Barns can be made new again and communicate their history while serving a new purposes. Barns can be made into single detached residences, Craft breweries, agro-tourism related destinations, and more.

In an effort to recognize the significance, historic and cultural value of these buildings, Ontario Barn Preservation was formed March 30, 2019. This not-for-profit organization is reaching out to barn owners, local and county historical societies, authorities, and the general public, to recognize the value of these amazing buildings. Often these barns are close to their original condition when they were built between the early 1800s and the early 1900s.

We understand the planning and building code regulations that municipalities enforce. There are often conflicting priorities, resources required for enforcement, and provincial goals and protection to uphold. The following provides a review of key policies of Provincial Policy Statement (PPS 2014), OMAFRA and Ontario Building Code regulations which creates difficulties in the conservation of barns. We hope these solutions from other municipalities have implemented might be considered in your municipality.

POLICY ITEM 1: “New land uses, including the creation of lots, and new or expanding livestock facilities shall comply with the minimum distance separation formulae.” –Provincial Policy Statement (PPS) 2.3.3.3

POLICY ANALYSIS

Barns that remain with a dwelling on a smaller severed residential lot are already in compliance with MDS setbacks since there would be no new odour conflict. If this landowner wants to house animals a Nutrient Management Plan/Strategy is required for anything over 5 Nutrient Units (NU, this is equivalent to 15+ beef feeders, OR 5+ medium-framed horses, 40+ meat goats, or 5+ beef cows), and are required to have a plan for manure removal either on their own property or in agreement with another land owner as per the OMAFRA Nutrient Management Plan/Strategy Guidelines. Any livestock count under 5NU does not require a Nutrient Management Plan. Although the capacity of these heritage barns is generally above 5 NU, in practice it is unlikely an owner would exceed this number because heritage barns are not usually that large and owners of this type of property are likely to only have a hobby-size operation.

On the other hand, barns that do not remain with a dwelling on a smaller severed residential lot, but remain on the larger retained agriculture lot often immediately become a violation of the MDS setbacks should that barn house livestock, or potentially house livestock. However unlikely this may be due to the nature and condition of the barn for livestock housing, it is a possibility. Many barns could house up to 30 Nutrient Units, or more, depending on the size of the barn. This capacity would require a separation distance from the house on the new severed lot much larger than existing to allow the barn to remain standing. Thus barns on the larger retained agriculture lot have limited options to avoid demolition.

POSSIBLE RESOLUTION:

The MDS guidelines state that a building must be “reasonable capable of housing animals” in order for MDS to be triggered. Therefore, a barn that is in a decrepit state is automatically exempted from MDS as it cannot house livestock. Thus the barn can be severed off from the dwelling without MDS implications.

However, some barns are not in a decrepit state and are the ones that are worth saving. If the barn is to remain on the retained agriculture lot, it needs to be prevented from being used as a livestock facility to be exempt from MDS. This can be done by removing water, stalls, electricity to the barn and make it “incapable of housing animals”.

Some municipalities have had the livestock restriction written into the special conditions of the zoning amendment exception. Two examples are

1. that the barn not be permitted to hold livestock. For example *“A livestock use shall be prohibited in any farm buildings existing on the date of passage of this by-law.”*
2. The amendment can also be used to only restrict the quantity of livestock in the barn as such as 1.2NU (animal nutrient units) per hectare *“Notwithstanding their General Rural (RU1) or Restricted Rural (RU2) zoning, those lots 4.0 hectares (9.9 ac.) in size or less shall be limited to no more than 1.25 nutrient units per hectare (0.5 nutrient units per acre). Minimum Distance Separation Guidelines shall apply.”*

The Ontario Building Code does not differentiate between agricultural buildings for livestock vs. implements storage, therefore a change of use of this type is not clearly defined as a possibility through the building code. A change of use permit could also be undertaken to change the occupancy of the building from agriculture to part 9. However, this solution is costly and prohibitive for most Owners.

We feel that the best case of survival for the barn is to include it with the severed residential lot. If the barn is to be severed with the residential lot we feel that the barn best use is for animals within compliance with the MDS requirements. Some municipalities use a minimum lot size required for livestock (but you have to be willing to sever that lot size where appropriate). We recommend that these smaller lots be permitted to house animals. These lots are ideal for starting farmers, CSA's, and value-added farm operations. The owners of these smaller lots are often in a position to invest in restoration of our heritage barns.

POLICY ITEM 2: A residence surplus to a farming operation as a result of farm consolidation, provided that:

“1. the new lot will be limited to a minimum size needed to accommodate the use and appropriate sewage and water services;” - PPS 2.3.4.1c

POLICY ANALYSIS

Provincial policy has limited the lot creation size to only accommodate the water and sewage to maintain large lots and maximum land remaining for agriculture uses.

POSSIBLE RESOLUTION

Many municipalities use a minimum and maximum lot size rather than the above strict guideline to determine the lot line and review each severance on a case by case basis.

The Ministry of Environment provides “reasonable use guidelines” on lot size for sewage systems. These guidelines recommend that a lot should have a “Reasonable Use Assessment” be done to ensure that the lot is adequately sized for septic systems. A rule of thumb that has been used is clay soil lots should be a minimum of 2 acres, and a lot with sandy soil be 1 acre.

However, we would recommend that this statement be reviewed at a provincial level and we would encourage you to contact the provincial policy department to review this statement.

POLICY ITEM 3: Designation of severed lot to be zoned “non-farm” and permitted uses as “non-farm” dwelling

POLICY ANALYSIS

Provincial policy does not dictate the residential lot be “non-farm”. In fact, the PPS states that

"Proposed agriculture-related uses and on-farm diversified uses shall be compatible with, and shall not hinder, surrounding agricultural operations."

We would argue that the “non-farm” designation does create an incompatible use, encouraging non-farming residents, but it also limits the possible use of the small land for small scale farm operations within Prime Agriculture Zones.

POSSIBLE RESOLUTION:

Provide a zoning category for small lots that are sized to permit limited livestock, alternative and value-added agriculture operations. These can also be separate provisions within your existing rural or agricultural designations. For example Provisions for lots larger than 10 acres, and lots less than 10 acres.

POLICY ITEM 4: Change of Use for the building to not permit livestock.

POLICY ANALYSIS

A change of use to non-livestock building is a challenging proposition. The building code does not differentiate between livestock agriculture building and implement agriculture building. This change of use permit is quite simple and would not require any investment or structural upgrade by the owner.

If a change of use to a non-agriculture building is required, it would fall into part 9 of the building code (unless other uses are proposed). This upgrade would often require significant structural reinforcement and investment by the owner. Most owners would not be willing or in a position to invest this type of capital on a building that does not have function in a farm operation, nor for a residential property owner, also without a major purpose for the building other than storage, garage, or workshop.

This Change of Use requirement will most likely end with the demolition of the barn when required.

POSSIBLE RESOLUTION:

Change of use is only required to limit the use of the barn for livestock. This can be achieved by removing water and stalls from the building. The barn remains an existing agriculture building but unable to “reasonably house animals” (see issue 1 above for further details or options).

CONCLUSION

We hope that you will consider our review of Provincial and Municipal Planning Policy as it relates to any future Reviews of Official Plans, Comprehensive Zoning By-laws, and approaches to the conservation of built heritage resources related to agricultural use.

Too often we see these community raised historic structures in poor condition with loose boards flapping in the wind, roofs caved in, or just a mass of timbers and roofing decaying into the ground. On behalf of Ontario Barn Preservation, we encourage you to help find ways to prevent the further unnecessary demolition of our heritage barns especially in relation to surplus farm dwelling severances. It is our hope that barns of significant cultural heritage value are conserved for future generations.

Please don't hesitate to contact us if you have any questions, and we hope to hear from you in the future.

Regards,

Krista Hulshof, Vice President, architect,

Questions can be directed to Krista at 519-301-8408 or krista@veldarchitect.com

Sub-Item 8



2019

ANNUAL FINANCIAL REPORT

For the year ended December 31, 2019
Niagara Region | Ontario Canada
niagararegion.ca

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INTRODUCTION

Spring day at the Floral Showhouse
Niagara Region, Ontario Canada

Prepared by Corporate Services
Department and the office of the
Chief Administration Officer

PURPOSE

The Niagara Region's annual report provides an opportunity to reflect and highlight on some of the accomplishments during the year. As well as providing transparent financial information to taxpayers regarding the use of financial resources entrusted by the Niagara Region for the purpose of providing municipal services and infrastructure.

Vision

Niagara Region is a unified community of communities with diverse opportunities and qualities. Together we strive for a better tomorrow.

Mission

Niagara Region will serve its residents, businesses and visitors through leadership, partnership and the provision of effective and community-focused services.

Top: St. John's Conservation Area in Fonthill.

Values

Our corporate values guide our decision-making and actions every day:

Respect

We treat everyone equitably with compassion, sensitivity and respect.

Serve

We serve Niagara with pride, care and excellence.

Honesty

We value honesty, integrity and trust.

Choice

We believe in social, environmental and economic choices that support our diverse community.

Partnerships

We foster collaboration and value partnerships.



Jim Bradley
Regional Chair

2018 - 2022 Regional Council

Niagara Region is one of six regional governments in Ontario. As an upper-tier municipality, the Niagara Region provides programs and services for the residents and businesses in 12 cities and towns. Regional Council is composed of a regional chair, 12 elected mayors and 19 elected officials from Niagara's local area municipalities. Regional Council also functions as Niagara's Board of Health.



Sandie Bellows
St. Catharines



Barbara Butters
Port Colborne



David Bylsma
West Lincoln



Frank Campion
Welland



Pat Chiocchio
Welland



George Darte
St. Catharines



Jim Diodati
Niagara Falls



Betty Disero
Niagara-on-the-Lake



Sandra Easton
Lincoln



Kelly Edgar
St. Catharines



Wayne Fertich
Grimsby



Robert Foster
Lincoln



Bob Gale
Niagara Falls



Kevin Gibson
Wainfleet



Barbara Greenwood
Niagara Falls



Brian Heit
St. Catharines



Diana Huson
Pelham



Tom Insinna
Fort Erie



Laura Ip
St. Catharines



Jeff Jordan
Grimsby



Marvin Junkin
Pelham



Peter Nicholson
Niagara Falls



Wayne Redekop
Fort Erie



Tim Rigby
St. Catharines



Walter Sendzik
St. Catharines



Bill Steele
Port Colborne



Terry Ugulini
Thorold



Leanna Villella
Welland



Tim Whalen
Thorold



Albert Witteveen
West Lincoln



Gary Zalepa
Niagara-on-the-Lake

Corporate Leadership Team



The Regional Chair

Jim Bradley, Regional Chair

The Niagara Regional Chair holds dual roles as both head of Regional Council and the Chief Executive Officer of the Niagara Region. This role also provides leadership to Regional Council, represents the Niagara Region at official functions, and participates in activities that enhance the economic, social and environmental well-being of the Niagara Region and its residents.



The CAO

Ron Tripp, Acting Chief Administrative Officer
Commissioner of Public Works

The Chief Administrative Officer is responsible for providing advice to Regional Council and leadership to senior staff as part of the Corporate Leadership Team. The CAO is responsible for empowering a team of more than 3,000 employees to ensure that Regional Council's strategic priorities and policies are implemented efficiently and effectively.



Dr. M. Mustafa Hirji,
MD, MPH, FRCPC

Acting Medical Officer, Commissioner of
Public Health and Emergency Services



Adrienne Jugley
Commissioner of
Community Services



Todd Harrison
Commissioner of Corporate Services,
Treasurer



Rino Mostacci
Commissioner of Planning and
Development Services

Office of the Chief Administrative Officer

- Corporate Services
- Planning and Development Services
- Public Health and Emergency Services
- Community Services
- Public Works

Regional Council Committees

- Public Health and Social Services Committee
- Corporate Services Committee
- Planning and Economic Development Committee
- Public Works Committee

Boards and Agencies

- **Provincial Offences Joint Board**
Chair: Cathy Hickson
Vice-Chair: Heather Salter
- **Police Services Board**
Chair: Kenneth Gansel
Vice Chair: Bill Steele
- **Niagara Peninsula Conservation Authority**
Chair: Brenda Johnson
Vice Chair: Bruce MacKenzie
- **Niagara Regional Housing**
Chair: Walter Sendzik
Vice Chair: James Hyatt

Other Supporting Services

- **Auditors**
Deloitte LLP
- **Fiscal Agents**
National Bank Financial Inc.,
RBC Capital Markets,
CIBC World Markets Inc.
- **Fiscal Solicitor**
WeirFoulds LLP
- **Insurance Provider and Broker**
Marsh Canada Limited
- **Banker**
The Royal Bank of Canada



Message from

JIM BRADLEY, NIAGARA REGIONAL CHAIR

Last year in this report I spoke about our Council's mandate to set Niagara on a course for future success, and I am proud of the progress made in just one short year. Each day we move closer to our vision of a community that is prosperous, safe and inclusive while embracing what makes Niagara special and promoting a high quality of life.

2019 brought a new set of strategic priorities that will guide Council in our mission to provide residents with the responsible and effective services they have come to expect from the Niagara Region.

Our plans to support business development and further economic growth are bolstered by a long-term economic development strategy and the Niagara Official Plan. The documents will help market the region as well as map out the strategy for how we manage growth and development in Niagara.

We made steps to foster a healthy and vibrant community by supporting long-term care redevelopment – we must adapt to best practices in our seniors homes as our population continues to age. Council also continues to advance the Regional Affordable Housing Strategy through the Housing and Homelessness Action plan and work to secure investments in affordable housing developments so all residents can have the opportunity to live and grow in our community.

With further Go Train service expansion, including a separate levy for transportation, we continue to promote connectedness with the Greater Toronto and Hamilton Area as a way to facilitate job growth and invite more tourists to enjoy all of the wonder that Niagara has to offer.

Not just focused on moving outside the region however, we need to safely transport residents within Niagara with responsible growth and infrastructure planning. Inter municipal transit continues to be a focus and we invested in greater services for waste management so the region can be enjoyed for generations to come.

In 2019 we explored more ways that we can innovate and do business differently. Niagara Region strives to be a sustainable and engaging government. One that can increase two-way communication between Niagara Region and the public to improve service and identify opportunities to repurpose funds towards the replacement of infrastructure that will better serve our residents needs.

At the end of 2019, the global community faced an immediate danger with the spread of coronavirus (COVID-19). While we do not yet know how long, or what the total impact of this health crisis will be, Niagara Region will continue to meet each challenge head on and support our community in every way we can.

Regional Council will continue to collaborate with residents, businesses and community partners to make Niagara a place where residents are happy to live, work and play for life.

Jim Bradley
Niagara Regional Chair

WHERE ARE WE?

Niagara offers our residents a mix of urban and rural living amidst the lush Southern Ontario greenbelt. Residents and visitors to the region enjoy celebrated events such as the Niagara Wine Festival in St. Catharines, Canal Days in Port Colborne or our New Years Celebration in Niagara Falls. The region is home to an abundance of culture, from museums to art galleries and highly revered restaurants. The Shaw Festival in Niagara-on-the-Lake presents world-class plays each year and has grown to become a significant Canadian cultural icon.

The Niagara Region is always looking for ways to improve our services and infrastructure to serve residents better. Recently we have invested in new Community Safety Zones to improve the flow of traffic around schools and ensure the safety of our young people. In 2019, we broke ground on a new state-of-the-art police facility in downtown St. Catharines and we are excited to continue the redevelopment process on two long-term care homes in Niagara.

Our proximity to Toronto and the United States has been an integral part of our economic evolution. Our industries include manufacturing, tourism, agriculture, and agribusiness, transportation and logistics and emerging sectors such as new media, green technology and bioscience. As we grow, we continue our regional mandate to move transit forward, with significant investment into GO transit to connect our communities to the Greater Toronto and Hamilton Area and share all the amazing things Niagara has to offer. This is where we are - and we are passionate about Niagara. The population is growing, jobs are being created at a steady pace, weekly employment income is increasing, gross domestic product is on the rise, new businesses are being created, more businesses are employing people, investment in commercial and industrial building construction is booming and more companies are exporting and bringing new money into the regional economy. We hope to continue on this path as we strive to act as a sustainable and engaging government.



From top: Niagara Icewine Festival, Launch of a Community Safe Zone at Twenty Valley Public school in Lincoln and soybeans growing in a field in Wainfleet.



WHERE ARE WE GOING?

Regional Council proudly released its new Strategic Plan in 2019 and the Niagara Region is excited for what is in store in 2020 and beyond. This document will guide staff and council as we plan for a prosperous and sustainable future. By serving our residents, businesses and tourists through collaborative leadership, with responsible policy and the provision of effective and efficient community-focused services, we can achieve our goal of a prosperous, safe and inclusive community that embraces natural spaces and promotes a high quality of life. We also are continuing to execute the Transportation Master Plan. A comprehensive strategic planning document that defines policies, programs and infrastructure improvements required to address transportation and growth needs from today through to 2041. We are working with local area municipalities to provide communities with safe, clean drinking water and effective environmental protection. We are responsible for what comes out of your tap and what happens after you flush the toilet. The Water and Wastewater Master Servicing Plan provides direction on how we operate now and how we plan to operate and deliver water and wastewater services in the future.



From top: Niagara Falls Wastewater Treatment plant, Niagara Falls GO train station.

This includes for example, the extensive work that has been completed to bring a new wastewater treatment plan to Niagara Falls, with a large-scale environmental assessment and conceptual design already underway. Community growth has a huge impact on water supply and delivery. It is up to us to determine how best to meet Niagara's growing needs and ensure water and wastewater infrastructure accurately reflects this. As we continue to work towards achieving our Niagara Region vision, staff and Council are investing in service improvements that will affect our residents from birth to old age. With successful community capital builds providing additional child care spaces in five of our municipalities and new long-term care home enhancements on their way, there is so much to be excited about with where we are going.

TWO-TIER GOVERNMENT SYSTEM

Along with the 12 local area municipalities in Niagara, the Niagara Region is part of a two tier government structure. Since 1970, the Niagara Region has served as the upper tier while each of the local municipalities administer local programs and services. Services like regional transportation or infrastructure move between local boundaries and a two tier government allows for coordinated growth. This collaboration and partnership between the two tiers can ensure service delivery across jurisdictions is efficient and takes into account the many voices that make up Niagara.

REGIONAL PROGRAMS AND SERVICES

Niagara Region's programs and services touch the lives of residents every day. We provide high quality drinking water, maintain the regional roads you drive on, fund two inter municipal transit services and provide help for Niagara residents from birth to old age, which includes the operation of eight long term care homes and a range of support services to help seniors remain in their homes.

From the collection of your garbage and recycling bins, to the staff that support our childcare centres, and our paramedics who are ready to respond when the unexpected happens, Niagara Region is here to build a healthier and more prosperous community.

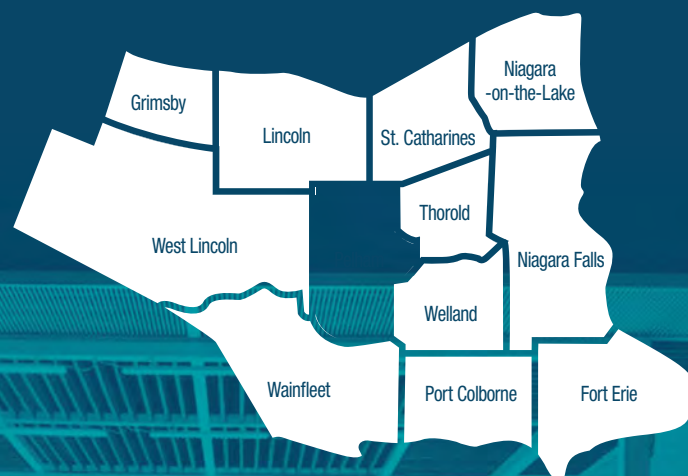
NIAGARA REGION'S
POPULATION IS APPROXIMATELY

480,000

12 LOCAL AREA
MUNICIPALITIES

MEDIAN AGE WOULD BE
46 YEARS

AFTER TAXES,
THE MEDIAN FAMILY
INCOME WOULD BE
\$72,105



Source: Statistics Canada

International Plaza,
Niagara Region Headquarters



Niagara Regional Council

Niagara Regional Council acts as the final decision-making body for Niagara Region and serves as the Board of Health. The Council consists of a Regional Chair, the mayors of all 12 Niagara Regional municipalities, and 18 additional Regional Councillors elected to represent the various municipalities. All councillors hold office until November 14, 2022.



Transportation Services

Provides a reliable, consistent, safe and cost-effective transportation network for all users and stakeholders across Niagara. The Transportation Division is responsible for the planning, design, implementation, operation and maintenance of the 750 centre lane kilometre regional road network. The Niagara Region has also invested in the expansion of transit services that connect people to schools and jobs while strengthening our community.



Waste Management

We provide quality waste management services to meet the growing needs of the Niagara Region. Waste Management is responsible for the planning, management and operations of residential and commercial curbside waste, recycling and organics collection programs. It is also responsible for overseeing; two regional landfills, a recycling centre, three household hazardous waste depots, three material drop-off depots and 12 closed landfill sites.



Water and Wastewater

Water and Wastewater provides safe drinking water to 11 municipalities across Niagara, and practices good resource stewardship. The division operates and maintains: six water treatment plants, 21 remote water storage facilities, seven dedicated chlorine facilities, seven dedicated water pumping stations, 312 kilometres of trunk water mains, 11 wastewater treatment plants, one biosolids facility, 113 pumping stations, five odour control stations, one high rate treatment facility, 12 combined sewer overflow tanks, 161 kilometres of forcemain and 145 kilometres of gravity sewers.



Public Health and Emergency Services

We are committed to building one of the healthiest communities in Canada by providing public health programs which prevent illness and injury, emergency health services for those calling 911, and community-based clinical services that expand access to care.



Public Health consists of divisions offering a complete range of programs including chronic disease and injury prevention, clinical services, emergency services, environmental health, family health, medical, organizational and foundational services and mental health programs.

Community Services

We envision a strong community as one where every individual is supported to maximize their potential, achieve their goals, and enhance their quality of life and social well-being. The Niagara Region Community Services Department assists some of the most vulnerable people in our community, from infancy to senior years. Our services are broken down into four divisions covering Children's Services, Homelessness Services and Community Engagement, Senior Services and Social Assistance and Employment Opportunities.



Planning and Development

The Provincial Growth Plan requires that Niagara Region plan to accommodate 610,000 people and 265,000 jobs by 2041. Our proactive planning will play a central role in helping Niagara Region ensure that the forecasted growth in Niagara over the next 25 years is developed to help make our cities livable and communities complete. The Planning and Development Services Department makes recommendations, guides and regulates community development in Niagara Region to ensure future development is sustainable, healthy, economical, and supports prosperity. The planning and development department is broken down into three divisions; Development Services, Community and Long Range Planning and Infrastructure Planning and Development Engineering.



Niagara Regional Housing

Niagara Regional Housing is responsible for the administration of Community Housing across the Niagara Region and is dedicated to improving lives and building healthy communities through a combination of programs and services. These services include public housing, non-profit and co-operative housing, community programs, new development, rent supplement and temporary housing allowances in private buildings. Some of Niagara Regional Housing's program offerings include Niagara Renovates, Housing First, and the Welcome Home Niagara Homeownership Program.



Niagara Regional Police Service

The Niagara Regional Police Service provides policing and public safety services to all of Niagara's residents as well as approximately 13 million visitors annually. The Niagara Region Police Service aims to provide quality-policing services, with integrity.



Niagara Peninsula Conservation Authority

Niagara Peninsula Conservation Authority serves approximately half a million people and covers an area of over 2,430 square kilometres covering the region, 21 per cent of the City of Hamilton and 25 per cent of Haldimand County. The driving force behind the Conservation Authority movement is its land stewardship focus and involvement with water programs.



Provincial Offences Court, Niagara Region Courts

Niagara Region administers the Provincial Offences Court on behalf of the 12 local area municipalities. Niagara Region's staff are responsible for setting trials, prosecuting certain provincial offences, recording court proceedings, and receiving fine payments resulting from charges laid by the various police forces and enforcement agencies operating within the region. Niagara Region enforces the decisions of the court by pursuing collection of unpaid Provincial Offences fines.

COUNCIL STRATEGIC PRIORITIES 2019-2022

Supporting Businesses And Economic Growth

A coordinated approach to fostering economic growth in Niagara

Healthy and Vibrant Community

Foster a high quality of life through safe, healthy and inclusive neighbourhoods through the delivery of quality, affordable and accessible human services

Responsible Growth and Infrastructure Planning

Sustainable investments in transportation, transit and infrastructure, while aligning infrastructure planning with the reservation of the natural environment

Sustainable and Engaging Government

A commitment to high quality, efficient, fiscally sustainable and coordinated core services through enhanced communication, partnerships and collaborations with the community

Escarpment view of Niagara



**55.46
BILLION
LITRES OF
WATER TREATED**
by the Water and
Waste Water Division



**8 LONG TERM
CARE HOMES**

all awarded Registered Nurses'
Association of Ontario (RNAO)
Best Practice Spotlight Organization



\$2.38 BILLION
INVESTED IN NEW CONSTRUCTION
the highest ever on record



\$14 MILLION
in private sector investment



**14 NEW NIAGARA
REGIONAL
TRANSIT BUSES**
to meet fleet requirements
and service expansion



13,901

PUBLIC HEALTH INSPECTIONS



NIAGARA REGIONAL HOUSING
Operated and managed

2,842 UNITS

This includes approximately
200 units with affordable
(80% market) and market
rents across Niagara



750 KM
OF CENTRE LANE
ROADS MAINTAINED



**13 MILLION
ANNUAL VISITORS
to NIAGARA**



**31,009 DENTAL
SCREENINGS**

2018/19 school year (JK – Grade 8)

83%

of Housing First and
Home for Good clients
ENTERED STABLE
HOUSING AT 6 MONTHS



71,932 TONNES
of blue box recyclables
processed



**YEAR-ROUND
GO TRAIN
SERVICES
ANNOUNCED**



2,583 SENIORS
served through Seniors
Community Programs



**6
WATER
TREATMENT
PLANTS**



**11
WASTE
WATER
TREATMENT PLANTS**



5.8%

UNEMPLOYMENT RATE
continued to improve as more
opportunities created



**23,989
VACCINES
administered**



**192,278
TONNES**
total garbage
tonnes landfilled



**25 EarlyOn
CENTRES
SUPPORTED**
(as of April 28, 2020)

ACHIEVEMENTS

Welding at Handling Specialty
in Grimsby

SUPPORTING BUSINESSES AND ECONOMIC GROWTH

Throughout 2019 Niagara has continued to experience new heights of economic growth. In 2019, Niagara Region received seven applications through its Industrial Development Charge Grant program, which will support over \$14 million in new private sector investment and create approximately 114 new jobs.

Additionally, our Economic Development division generated 152 pre-qualified leads and hosted three major delegations visit from Czech Republic, Latvia and India. The team built on existing relationships with U.S., U.K. and Germany with a focus on manufacturing and agribusiness sectors for inward investment.

Promotion of the Niagara Foreign Trade Zone designation through a single contact point, resulted in over 100 companies taking advantage of federal exporting programs. The Niagara Gateway Economic Zone and Centre Community Improvement Plan provides tax increment-based grants to companies that are making significant investments and creating and/or retaining jobs in our community. In 2019, Niagara Region approved four Gateway applications to support \$23.1 million in new investment, create approximately 104 new jobs, and retain 32 existing jobs.

The Economic Development division tracks economic indicators to report on the performance of the regional economy. This research revealed in 2019 businesses invested in record values in Niagara and that potential for investment in the future remains strong. Some key findings were non-residential building permit values totalled \$401.4 million – a 33 per cent increase over 2018, and an 80 per cent increase since 2016.

The most impressive finding for 2019 was total investment in new building construction, which was \$2.382 billion, the highest it has even been on record.

To plan for continued growth, we supported capital builds of additional child care spaces in Fort Erie, Fonthill, Grimsby, Niagara-on-the-Lake and St. Catharines. By joining with the Lundy's Lane working group, we partnered directly with local business along the Lundy's Lane corridor to engage agencies and business early during our wastewater infrastructure planning. This improved any approval times and kept stakeholders informed.



From top: Tourism at Clifton Hill in Niagara Falls, Members of Indian business delegation visiting Niagara Region.

HEALTHY AND VIBRANT COMMUNITY

As we grow, it is vital that we foster safe, healthy and inclusive neighbourhoods that can provide a home to everyone who wants one. We want to ensure that our services are affordable, accessible and robust. In order to meet the high standard of quality that our residents expect, we continue to work with the community to improve the quality of living for all who call Niagara home.

Focusing our efforts on the most vulnerable users of our transportation system, pedestrians, school children, older adults and cyclists, two community safety zones were regulated in late 2019 at two school locations within the region, with more planned to come in the future. Reducing serious injuries in Niagara's streets is a major commitment the Niagara Region has made to ensure everyone can safely enjoy our communities.

In 2019, Niagara was announced as one of the nine new communities accepted to participate in Built for Zero Canada. Built for Zero is a national organization dedicated to helping ambitious, leading communities work toward an end to chronic homelessness. In our continued effort to meet the challenge of homelessness, Niagara Region Council approved the five-year review and update to Niagara's 10-Year Housing and Homelessness Action Plan. Input for this update was gathered from across the entire region and reflect how our local housing market has changed along with the increased demand for emergency shelter and community housing.



From Top: Healthy, Safe and Strong exercise class for seniors, Flu vaccination at Niagara Region Flu Clinic.



Niagara Regional Housing was also instrumental in our continued response to meet the high demand for affordable housing. Nearly 100 units were added in St. Catharines, Welland and Thorold and through collaboration with community partner Stamford Kiwanis we brought 17 units into Niagara Falls. Niagara Regional Housing, along with community partners, also worked to hire, train and mentor at-risk youth to prepare housing units for new tenants. Working alongside social service worker students from Niagara College, activities and life skills workshops were brought to a community with vulnerable tenants experiencing mental health and addiction issues. The contributions from Niagara Regional Housing in 2019 made a significant impact on making our communities more healthy and vibrant for some of our most vulnerable.

We also continued to partner with communities to improve the quality of life for children and families, by reconfiguring and enhancing the EarlyOn Child and Family Centres. Working with providers, we continue to adjust hours of service where appropriate and ensure locations are utilized properly and located conveniently for residents.

From Left: Emergency Health Services dispatch, newly completed Niagara Regional Housing building at Roach Avenue in Welland, Resident at Gilmore Lodge enjoying the innovative ABBY machine.

In 2019, Emergency Medical Services continued to expand the range of options for 911 callers to better serve their health needs, while improving the speed of response to those with time-critical emergencies. As part of the system transformation, Emergency Communication Nurses were added to the Niagara Emergency Medical Services dispatch centre. The first of its kind in Canada, this nurse can give advice and provide appropriate care options for non-emergency patients. The system transformation works to provide Niagara residents the right care, at the right time, in the right place, by the right provider.

The Niagara Region's long-term care homes were also recognized in 2019 with the designation of Best Practice Spotlight Organization for their commitment in implementing and evaluating Registered Nurses Association of Ontario best practice guidelines. Niagara's population is aging at a rate faster than most other areas throughout Ontario and we continue to respond to that challenge by offering the highest quality of care in each of our homes. In 2019, Council approved levy funding for the redevelopment of long-term care homes in Fort Erie and St. Catharines that will allow us to continue to meet the needs of residents. We are excited to see how our vibrant seniors communities can continue to thrive in Niagara with this welcome infrastructure improvement at our long-term care homes.

RESPONSIBLE GROWTH AND INFRASTRUCTURE PLANNING

In 2019 we continued our efforts to connect everything Niagara has to offer to the Greater Toronto and Hamilton Area with a historic 1.4 per cent separate levy specifically for transit. This investment will allow us to ensure inter-municipal transit and GO expansion continue on schedule as we work towards a full complement of GO Train service for Niagara in the future. We are proud of the continued development of our Niagara Specialized Transit system. Our specialized transit study allowed us to learn how we can better serve Niagara Specialized Transit customers and led us to add a new transfer hub at Stoney Creek. With 14 new buses being added to meet Niagara Region Transit fleet requirements and service expansion, the future is looking bright for our connectedness in Niagara.

Our Public Health staff opened a new 21,500 sq. ft. Public Health and Sexual Health office in Niagara Falls in 2019. The office is located across from the MacBain Community Centre, in a rapidly growing area of Niagara Falls accessible by both car and transit. The new space is three times larger than the previous location and allows for more programs and services to be offered in one location, including dental clinics, vaccine clinics, tick identification, STI testing and mental health program – which were previously offered across multiple locations.



From top: Reece Bridge replacement in West Lincoln, Niagara Specialized Transit van and driver, Public Health and Sexual Health office ribbon cutting.

We also expanded our infrastructure throughout Niagara, making significant connections across St. Catharines on Martindale Road, replacing Reece Bridge linking West Lincoln and St. Catharines and awarding a contract for the Thorold Stone Road extension in Niagara Falls.

Part of what makes Niagara special is our rich natural landscape, and it's also part of why we attract so many visitors each year. In 2019 we took steps to ensure that our environment in Niagara would be preserved so that it can be enjoyed for generations to come. We undertook environmental assessments for the Bender Hill Sewage Pumping Station, a critical station serving a main Niagara Falls area, and for a new south Niagara Falls wastewater treatment plant. The successful completion of these assessments will allow us to inform the public of coming improvements and guarantee that as we plan for new infrastructure, we continue to account for our environmental impact.



From top: ground breaking for the Niagara Regional Police Service District Facility in St. Catharines, new cell at Niagara Road 12 Waste Management Facility in West Lincoln, New Public Health and Sexual Health office in Niagara Falls.



SUSTAINABLE AND ENGAGING GOVERNMENT

In our commitment to providing the highest quality service possible to Niagara residents, we also want to ensure we are transparent and fiscally responsible on behalf of the taxpayer. Last year we made efforts to engage and communicate with the public our government's plans across all facets of our organization. With over 50 surveys promoted throughout our organization and a number of public information centres, we hope that our efforts in 2019, and beyond, continue to reflect the goals of our communities.

We explored new avenues for engagement, by completing two Facebook Live streaming events where the public could hear firsthand from consultants and Niagara Regional staff how we plan to implement a new wastewater plant in south Niagara Falls. In partnership with the Ontario Clean Water Agency and local municipalities, Niagara Regional staff also engaged the public in our "I Don't Flush" campaign around how we as citizens of Niagara can impact our wastewater systems and the environment for the better. Also, in continuing our efforts on the Niagara Region Official Plan, we held several public information centres where residents could learn more about how we are planning for responsible growth as far ahead as 2041.

The staff at the Niagara Region are residents with similar wants and needs as anyone who calls Niagara home. Through extensive engagement with our own staff, we learned more about how we can improve Niagara Region practices and find efficiencies to improve service delivery across the organization. 2019 also saw the Niagara Region embrace a more inclusive environment, not just in the workplace but also in our communities. We continue to work towards a Global Niagara that is open and connected to all people who wish to enjoy what Niagara has to offer.



From top: public consultation at an Official Plan public information centre, Public consultation for the Glendale District Plan, Regional Chair Jim Bradley speaking at the Niagara Regional Housing Carlton Street opening in St. Catharines.

SUPPORTING OUR COMMUNITY



United Way Barbecue Kick Off



Regional Chair's Golf Tournament

Through the very generous support of last year's sponsors and participants, the 22nd Annual Niagara Regional Chair's Charity Golf Tournament was able to contribute to the efforts of the Education Foundation and Hotel Dieu Shaver. Nearly \$100,000 was raised through the tournament and together, with the help of generous local sponsors, we are approaching \$2 million in donations raised for charities in Niagara.



United Way

Including monies raised through the Regional Chair's golf tournament, Niagara Regional employees raised \$210,000 through the last fiscal year towards the United Way. Employees donated both through voluntary payroll deductions, and through numerous fundraising events. Money donated through the United Way campaign is invested in more than 80 programs and services across the region that help create safe and inclusive communities for all of Niagara.



From top: player at the Niagara Regional Chair's Golf Tournament, Regional Chair Jim Bradley (centre) with friends of the Golf Tournament, United Way flag raising at Niagara Region Headquarters.



REPORT FROM THE TREASURER | 2

Waterfall at Morningstar Mill
Niagara Region, Ontario Canada

Prepared by Corporate Services
Department and the office of the
Chief Administration Officer

REGIONAL ECONOMY HIGHLIGHTS

Niagara Region offers a diverse economy that includes manufacturing, tourism, agriculture and agribusiness, transportation and logistics, and emerging sectors such as new media, green technology and bioscience.

Unemployment Rates

Unemployment rates in the region's labour market were in line with the provincial and national averages, decreasing from 6.6% in the prior year to 5.8% in 2019.

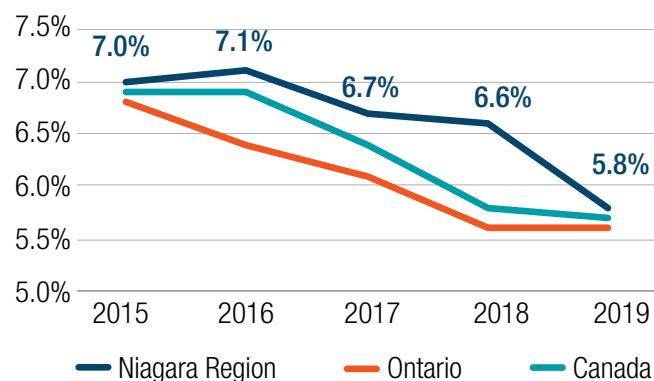
Building Permits Issued

In 2019, the value of building permits issued totalled \$1,326 million, which was an increase of approximately \$261 million over the 2018 values of \$1,065 million. The government and institutional sector experienced the highest growth percentage of business permits issued, increasing 206.3% over 2018 with a 2019 value of \$69.7 million (2018 - \$22.7 million). The largest amount of building permits issued continues to be the residential and agricultural sector with a total value of \$919.6 million in 2019 (2018 - \$763.8 million, which accounts for 69.4% (2018 – 71.7%) of total building permits issued.

Housing Starts

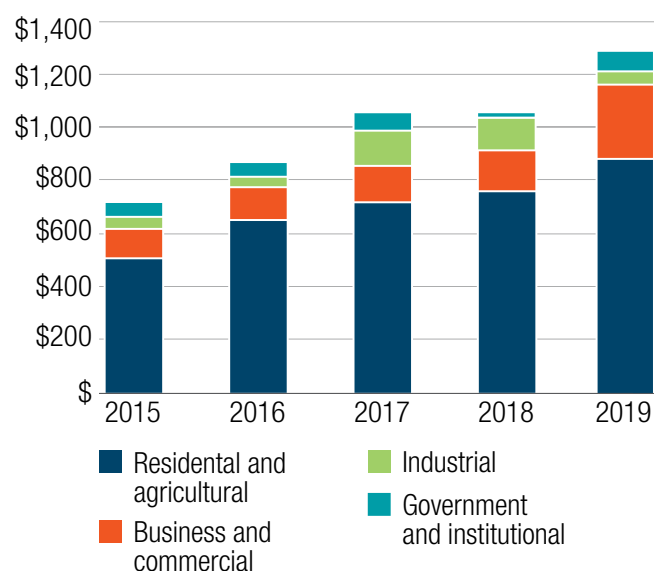
The region saw a significant increase (31.9% over 2018) in housing starts during the year. In 2019, there was a total of 3,077 housing starts in Niagara.

Unemployment Rates (%)

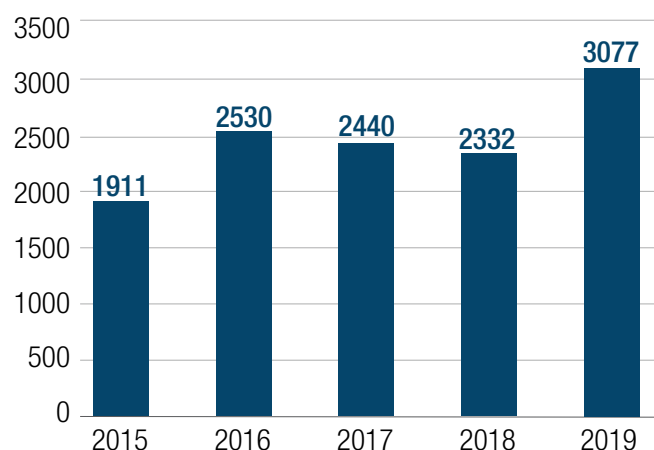


Value of Building Permits Issued

(In millions of dollars)



Housing Starts





BUDGET AND TAXATION

On February 28, 2019, Regional Council approved a 3.82 per cent increase, net of assessment growth, in Niagara Regional taxes, after Regional Council passed its 2019 tax supported operating budget with a tax levy of \$365.7 million and a capital budget of \$274 million. For the average household with a home assessed at \$267,711, the Regional portion of taxes increased by \$51 from 2018 to \$1,516.

Recent analysis performed by an independent firm illustrated that the Niagara Region maintains a competitive advantage with respect to property taxes on commercial (office buildings) and large industrial properties. The review noted that while property tax rates are equal to or higher than other jurisdictions, assessment values representing the cost of capital in Niagara is on average lower than other jurisdictions. This has resulted in commercial office building properties and large industrial properties paying approximately 10 per cent and 26 per cent per square foot less than other jurisdictions respectively¹.

¹ BMA Management Consulting Inc., Municipal Study - 2019



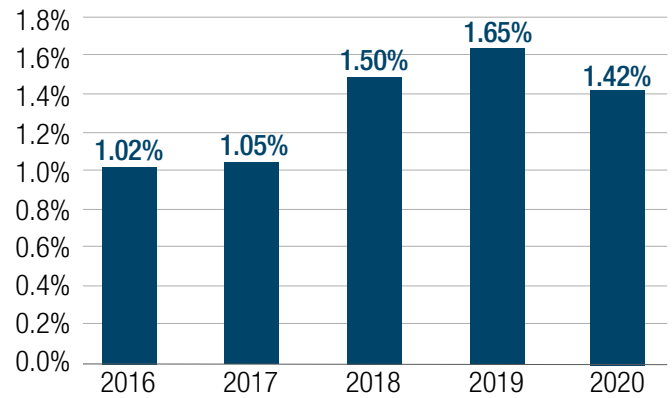
Assessment Growth

Historical assessment growth, being the incremental property taxes paid as a result of an expanding region (new homes and businesses), through 2020 is presented to the right.

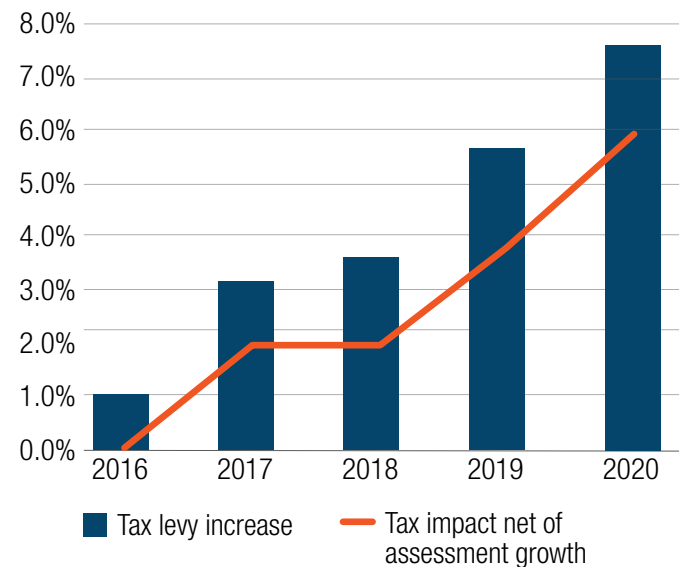
Assessment growth is tied to, but lags behind, building permit values. The increase in the value of building permits issued has resulted in the upward trend of assessment growth.

Assessment growth for any given year is based on the information received from the Municipal Property Assessment Corporation (MPAC) in December of the prior year and is used in setting the tax rates at the time of budget approval.

Historical Assessment Growth (%)



Historical Tax Levy Increase (%)

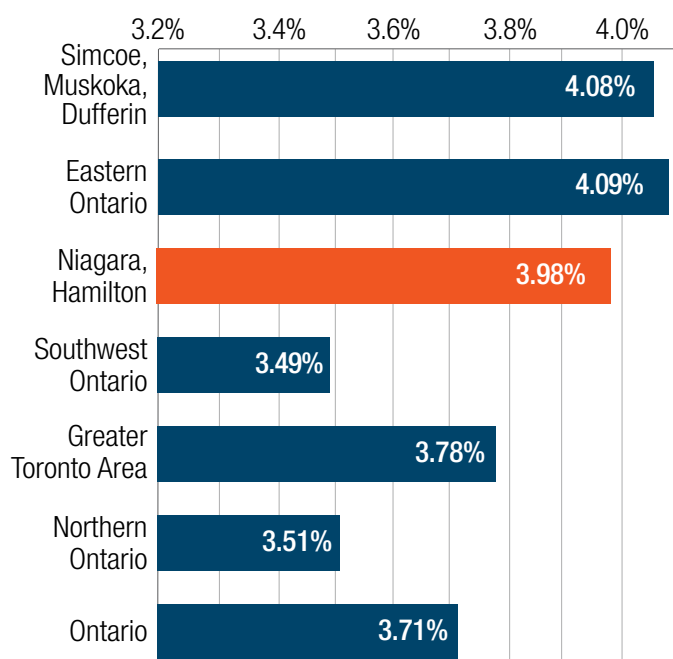


Property Taxes as a Per cent of Household Income

As a measure of affordability for residents, property taxes as a percentage of household income have remained relatively unchanged, with a small decrease from 2018. In 2019, property taxes accounted for 3.98% of household income² (2018 – 4.00%), leaving Niagara Region slightly higher in comparison to other jurisdictions. This equates to property taxes of \$750 per capita³, increasing slightly over 2018 from \$744 per capita.

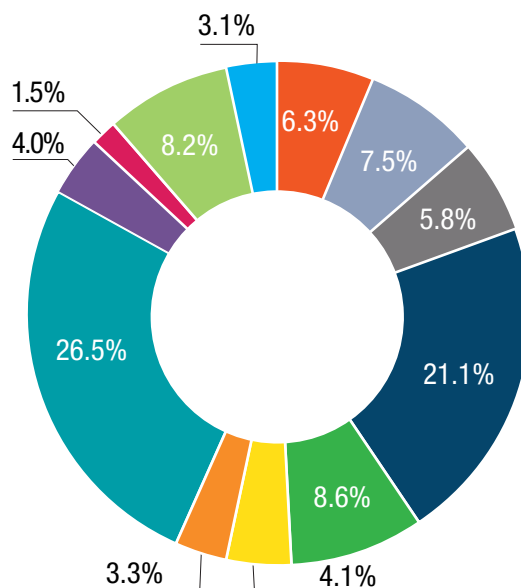
During 2019, the Niagara Region collected \$365.7 million in tax levy from the local area municipalities, excluding payments in lieu and supplemental taxes. A breakdown of the amount and percentage received from each of the local area municipalities is to the right.

Property Taxes As Per Cent of Household Income (%)



2019 Taxation Requisition by Local Area Municipality

(in per cent and millions of dollars)



In Millions of Dollars

Fort Erie	\$22.9	(6.3%)
Grimsby	27.4	(7.5%)
Lincoln	21.4	(5.8%)
Niagara Falls	77.2	(21.1%)
Niagara-on-the-Lake	31.5	(8.6%)
Pelham	15.2	(4.1%)
Port Colborne	11.9	(3.3%)
St. Catharines	97.1	(26.5%)
Thorold	14.5	(4.0%)
Wainfleet	5.5	(1.5%)
Welland	29.8	(8.2%)
West Lincoln	11.4	(3.1%)

Total Requisition _____ **\$365.7**

² BMA Management Consulting Inc., Municipal Study – 2019

³ 2018 FIR; Levy revenue/population; Levy revenue/households

NIAGARA OUTLOOK AND TRENDS



Aging Population

Niagara's median age is approximately five years older than the median age of the province and country. Over the last 20 years, the 30-44 and under age cohort has decreased significantly while the 45-64 and 65+ age cohorts have increased across Niagara and the province. As a result, this demographic difference will create a larger demand for a number of Niagara Regional services (i.e. Emergency Medical Services, Senior Services and Niagara Regional Housing). Niagara needs to prepare for this ahead of the rest of the country and province.



Housing and Affordability

In 2019 Niagara Region embarked on a comprehensive analysis of its housing landscape. Called the Niagara Housing Statement, this groundbreaking work established a data-informed basis for analyzing housing scenarios across the region. With the assistance of Canadian Centre for Economic Analysis (CANCEA), Niagara Region is able to use detailed demographic, housing, and economic trends to determine core housing need and affordability. Among its uses, the information contained in the database will support the development of a Niagara Regional Housing Strategy, which will be implemented through the Housing and Homelessness Action Plan and the new Niagara Region Official Plan.



This initiative will also help inform the Niagara Region's review of incentives to developers, which aim to encourage construction by defraying some costs. While this analysis is ongoing, the purpose of the review is to ensure Niagara Regional incentives are sustainable and working to achieve and support Council strategic priorities.

Population's Median Age

 Niagara Region
45.7 years ¹

 Ontario
40.4 years ²


 Canada
40.8 years ²

Sources: Census ¹ (2016)

Statistics Canada ² (2019)

Types of Households in Core Housing Need

 **20,000**
Singles or roommates

 **3,254**
Lone parents

 **286**
Couples

 **271**
Couples with children



Governance and Sustainability

The Niagara Region undertook a service sustainability review of the Niagara Region operations in 2019. The scope of the service sustainability review was as follows:

- Will be consistent with the Niagara Region's objectives for fiscal responsibility, transparency, and sustainability
- Provide a better understanding of Niagara Region services; the rationale for service levels, delivery model, resource allocations and opportunities for efficiencies through collaboration with local area municipalities
- Provide a road map of opportunities for the cost reductions and capacity gains that would contribute to long term sustainability of Niagara Region operations

The review allowed the Niagara Region to develop service profiles which include benchmarks and key performance indicators. It also identified opportunities for cost reduction with six detailed business cases for future implementation consideration. Key themes of the review were:

- Discretionary services are more the exception than the rule with only 8 per cent of Niagara Regional services deemed discretionary
- The cost of services, while a valid concern, does not appear to be a significant issue with Niagara Region falling within the range of upper tier municipal comparators for most services
- Cost reductions have been underway prior to the service sustainability review
- Financial constraints have impacted service levels in certain areas
- Opportunities exist that can be pursued by Council

A final report of the outcomes, including service profiles, and recommendations for next steps is expected to be submitted to Council in 2020.



Infrastructure

In 2019, Niagara Region Council adopted a new set of strategic priorities including Responsible Growth and Infrastructure Planning. The goal of this strategic priority will be to promote sustainable investments in transportation, transit and infrastructure, while aligning infrastructure planning with preservation of the natural environment.



Niagara Region approved the largest ever capital budget for 2020 and projected an even larger request for 2021. Continued capital investment will allow Niagara Region to target new infrastructure developments including the construction of two new long term care homes, construction related to the expansion of GO Transit into Niagara, residential builds within Niagara Regional Housing, upgrades to water and wastewater treatment plants as well as replacing some of Niagara Region's aging but vital infrastructure.



With the introduction of the Asset Management Office in 2019, Niagara Region will seek to make asset management part of the Niagara Region's business firstly by implementing decision-making based on corporate wide risk to ensure that approved projects deliver the best return and contribute to a long-range financial plan to maintain existing and new infrastructure.

Climate Change

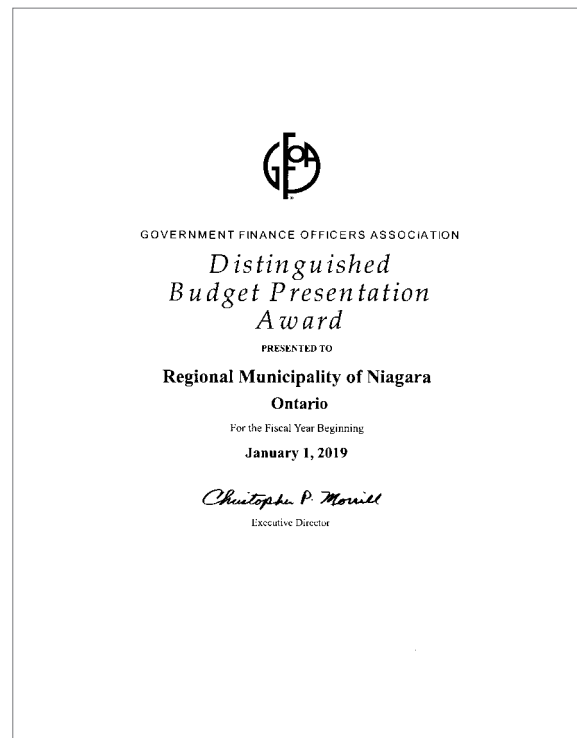
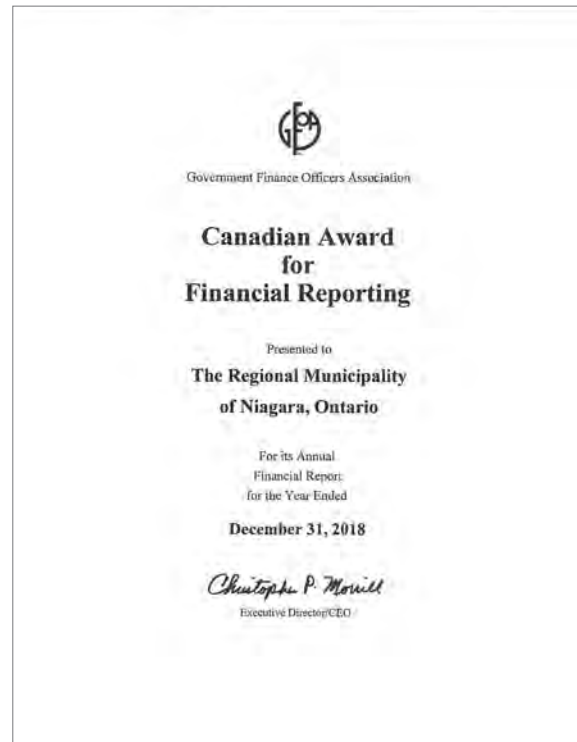
Climate change is creating increased risks for major weather events such as severe and more frequent storms. This places more demand on existing infrastructure and may require more costly infrastructure to be built to accommodate these risks and will require the municipality to have increased budget flexibility to deal with unexpected costs.

CANADIAN AWARD FOR FINANCIAL REPORTING

Our commitment to developing fiscally responsible budgets and presenting financial information to Niagara Region taxpayers in a clear and easy to understand format was recognized by the Government Finance Officers Association of the United States and Canada (GFOA).

For the fifteenth consecutive year, the GFOA presented Niagara Region with the Canadian Award for Financial Reporting for the Niagara Region's 2018 Annual Financial Report. To receive this award, a government organization must present financial information in a clear, concise and informative manner, with content that conforms to program standards. Such reports should go beyond the minimum requirements of generally accepted accounting principles.

Niagara Region is continuing this standard of high quality reporting for the submission and evaluation of its 2019 Annual Report to the GFOA's 2019 award program. GFOA also presented Niagara Region with a Distinguished Budget Presentation Award for the 2019 Budget Plan. This award reflects the commitment of Regional Council, management and staff to meet the highest standards of government budgeting. This is the sixth time that Niagara Region has received the award and it represents a significant achievement.



CONSOLIDATED FINANCIAL STATEMENT HIGHLIGHTS

The consolidated financial statements have been prepared in accordance with Canadian Public Sector Accounting Standards (PSAS) as recommended by the Chartered Professional Accountants of Canada. The statements and related information are the responsibility of management and include financial activities of all entities deemed to be controlled by Niagara Region, including Niagara Regional Police Service Board, Niagara Regional Housing and Court Services.

The Municipal Act of Ontario requires Niagara Region to appoint an independent auditor to express an opinion as to whether the financial statements present fairly, in all material respects. The independent auditor provides an opinion on Niagara Region's financial position and operating results.

In discharging this responsibility, the auditors have complete access to all Niagara Region records and meet regularly with staff to discuss policies, procedures and process improvements arising from the audit. The auditors provide a written report and management letter dealing with the adequacy of internal financial control systems relevant to the audit, and an audit opinion regarding the results of the financial statement audit.

Consistent with prior years, Niagara Region's financial statements have received an unmodified audit opinion.

Consolidated Statement of Financial Position Highlights

The consolidated statement of financial position reports on Niagara Region's financial and non-financial assets, liabilities and accumulated surplus at December 31, 2019.

Tangible Capital Assets and Capital Funding Program

Tangible capital assets are significant economic resources managed by Niagara Region and a key component in the delivery of many programs and services.

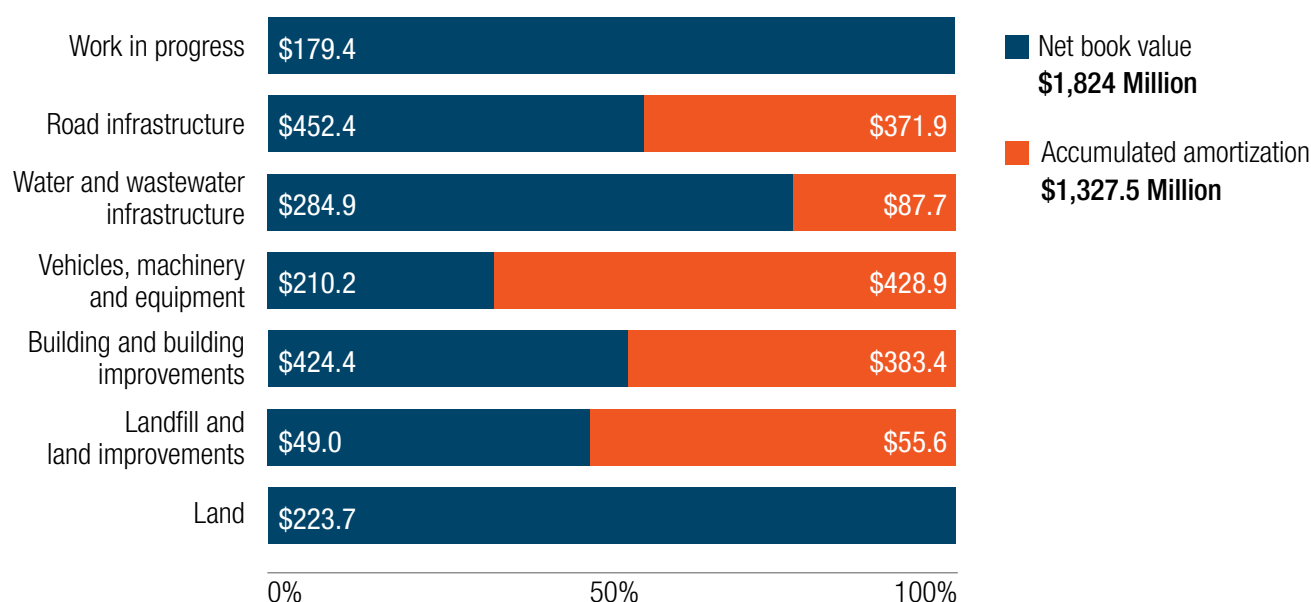
The net book value of tangible capital assets, as reported in the consolidated statement of financial position, is \$1.8 billion and is highlighted by the categories in the accompanying chart. Total historical costs are \$3.1 billion and the total accumulated amortization is \$1.3 billion, implying that 42.1 per cent of the estimated useful life of Niagara Region's tangible capital assets have been used in the delivery of programs and services.

Amortization can be used to estimate future capital spending requirements with the understanding that asset replacement costs will be significantly higher than historical costs. During the year, Niagara Region acquired \$158 million (2018 - \$108 million) of tangible capital assets. The amortization expense, as reported in the statement of operations, amounts to \$87.2 million (2018 - \$82.3 million).

Project budgets, whereby tangible capital assets are constructed or acquired, are approved by Regional Council to ensure that the appropriate funding is in place. Once the funding is in place, tangible capital assets are acquired in compliance with the Niagara Region's financial policies.

Tangible Capital Assets

Net Book Value and Amortization (in millions of dollars)



The Niagara Region's Capital Financing Policy is focused on ensuring long-term financial sustainability and flexibility while maintaining a strong credit rating and adherence to statutory requirements. Policy principles will be implemented over time to manage affordability associated with the transition period to financial sustainability. The intent of the Policy is to establish guidelines for Council and staff to effectively plan for the appropriate financial resources to deliver the growing needs of the Niagara Region's capital program and to identify optimal funding sources for these capital projects based on the scope of the project.

Total request\$2,998 MILLION

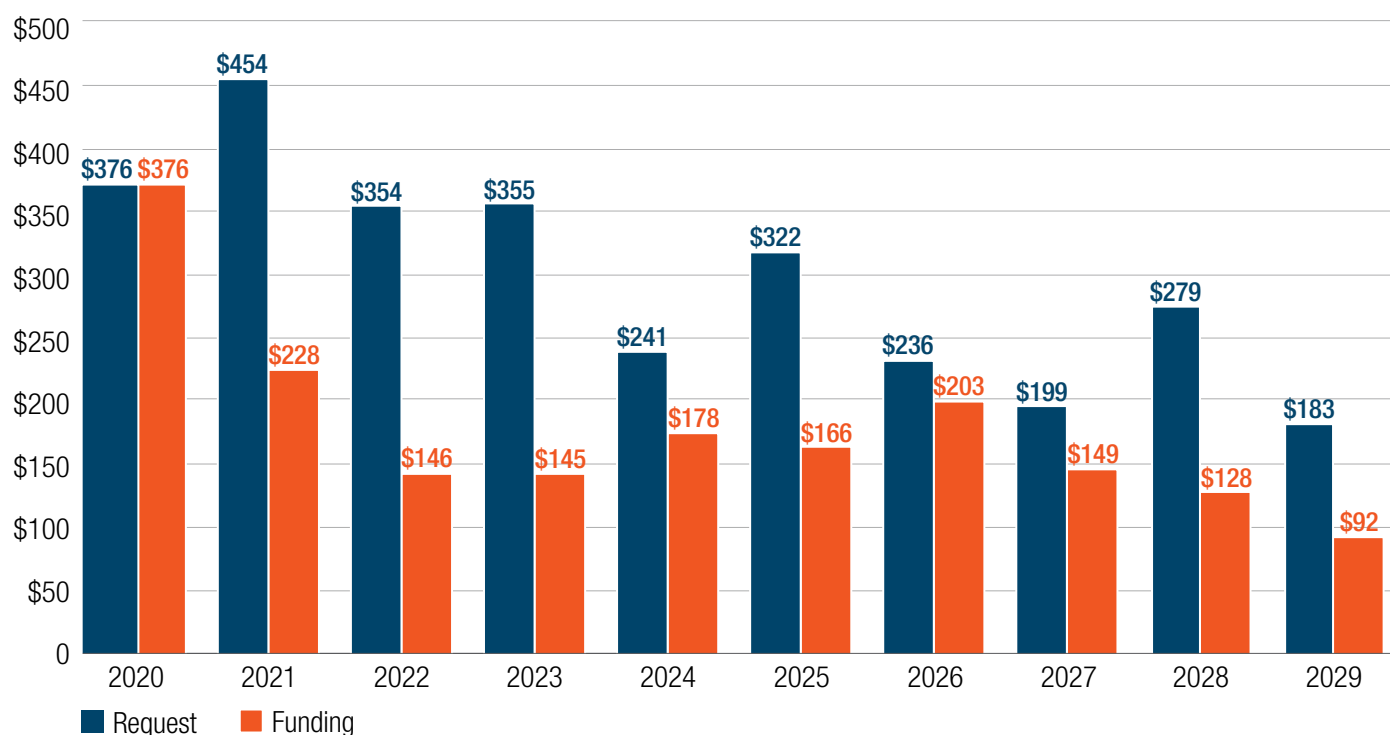
Total funding\$1,810 MILLION

Funding gap\$1,188 MILLION

The graph illustrates deviations between gross capital requests and funding sources available within each year.

Ten Year Capital Ask

(In millions of dollars)



Debt Position and Long-Term Debt Strategy

Niagara Region's debt practices are governed by provincial legislation and Regional Council. On an annual basis, Niagara Region is required to calculate their annual repayment limit. The annual repayment limit is the maximum amount that a municipality can pay in principal and interest payments in the year for long-term debt. To calculate the annual repayment limit, Niagara Region divides total debt payments for the year by the total net revenues for the same year. A lower debt payment as a per cent of own source revenues indicates that a lower amount of the municipality's own source revenues are being used toward principal and debt repayments.

The province's prescribed annual debt repayment limit stipulates that payments relating to all debt and other long-term financial obligations of a municipality may not exceed 25 per cent of own source revenues, including the annual tax levy, rate generated revenue and user fees. Niagara Region's annual repayment limit was 7.8% (2018 – 6.7%) at the end of 2019.

Niagara Region, by way of provincial legislation, also issues all debt on behalf of the 12 local area municipalities. The total debt recorded on the consolidated statement of financial position is \$696 million (2018 - \$663 million), which includes \$316 million (2018 - \$306 million) of debt recoverable from others. Debt recoverable from others accounts for 45.4% of the total debt recorded at the end of 2019 (2018 – 46.2%).

The debt attributed to Niagara Region (total debt less debt recoverable from others) is \$380 million or \$792 per resident, up from \$357 million or \$756 per resident in 2018. Niagara Region's debt charges (principal and interest) totalled \$49 million or 7.8% of own source revenue which is higher than the 2018 figures of \$41 million or 6.7% respectively. The increase in debt charges during the year is a result of the Niagara Region taking on a larger debt load during the year in relation to projects for Transportation, Public Health, Water and Wastewater, Niagara Regional Housing, Niagara Regional Police Services and local area municipalities.

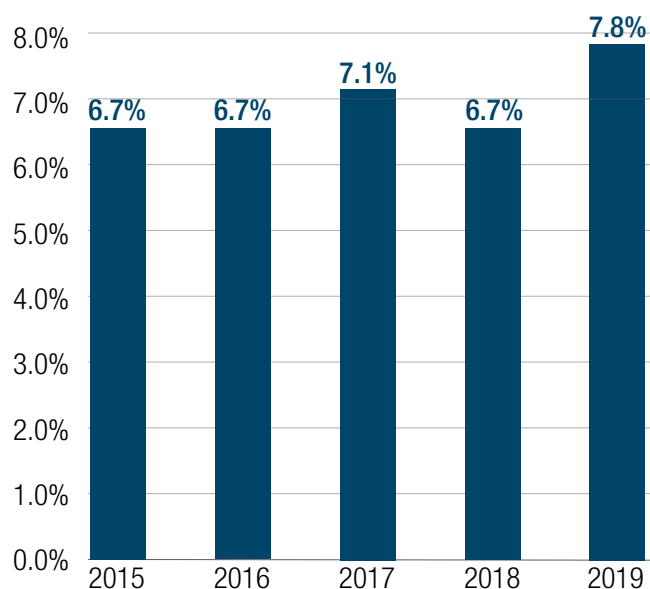
On October 8, 2019 S&P undertook a credit rating review and reaffirmed Niagara Region's stable "AA" rating. The stable rating is a reflection of Niagara Region's solid budgetary performance, strong financial management, as well as ample liquidity.

The credit agency's report noted that Niagara Region has shown increased focus on long-term strategic and financial planning, which is supported by its financial policies, disclosure and transparency in financial reporting are identified as good, with debt and liquidity management practices being considered prudent.

The report highlights that financial management is strong and institutions remain broadly supportive. However, in S&P's opinion, slow population growth and weak demographic trends result in a less favourable socioeconomic profile, which is a rating constraint. Having said that, S&P notes that "...the expansion of GO commuter train service in the region could increase the influx of younger people and start reversing these trends [less favourable socioeconomic profile]".

As a result of the trends identified by S&P, in the 2019 budget Niagara Region has continued using the debt charge placeholder as a tool to control both debt charge levels and future debt issuance amounts, continues to use levy reserves, and is funding economic development initiatives.

Debt Payments as a Per Cent of Own Source Revenues (%)



Net Financial Assets (Net Debt)

Public Sector Accounting Standards (PSAS) require Niagara Region to distinguish between financial and physical assets. Financial assets are those assets on hand, which would provide resources to discharge liabilities or finance future operations. The difference between financial assets and liabilities, or net financial assets (net debt), is an indicator of the Niagara Region's ability to finance future activities and meet its liabilities and commitments.

In 2019, Niagara Region's net debt position increased from \$41.2 million to \$50.5 million. The Niagara Region's net debt is a result of all the financial activity that occurred in 2019 and means that the Region's financial liabilities exceed its financial assets. The increase in net debt is a result of additional debentures issued for infrastructure financing as well as higher balances of deferred revenue including development charges and gas tax.

Accumulated Surplus

The accumulated surplus represents the net asset position (financial assets plus non-financial assets less financial liabilities) of Niagara Region.

At December 31, 2019, Niagara Region's accumulated surplus balance is \$1.8 billion (2018 - \$1.7 billion). This consists of \$1.4 billion investment in tangible capital assets (2018 - \$1.4 billion), \$268 million (2018 - \$295 million) in reserves and \$271 million (2018 - \$226 million) in unexpended capital. These balances are offset by a \$11 million operating fund deficit (2018 - \$13 million) and \$169 million (2018 - \$165 million) in unfunded liabilities.

Niagara Region's reserves of \$268 million at December 31, 2019 are highlighted in the chart below by their designated purpose.

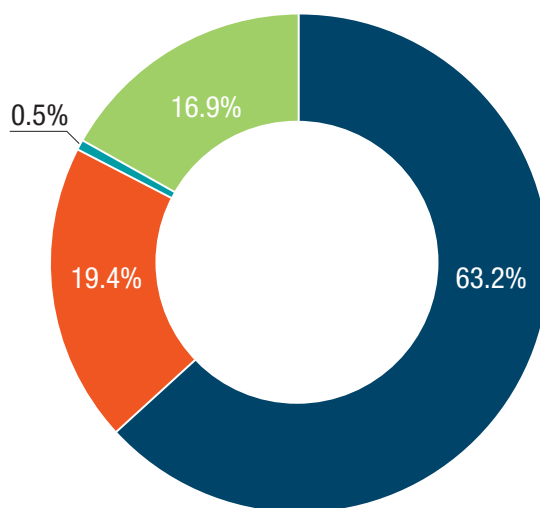
Reserves

The accumulated surplus figured on the consolidated statement of financial position includes reserve funds. These reserves are managed and funds transferred to/from the funds as per the Niagara Region's Reserve and Reserve Fund Policy. Reserves are to be used for specified purposes are categorized as capital reserves, stabilization reserves, specified contribution reserves and future liability reserves.

The Reserve and Reserve Fund Policy states minimum target balances for corporate stabilization funds to be 10% to 15% of gross budgeted expenditures. As of December 31, 2019, and taking into consideration Regional Council's approved year end transfer recommendation, the Niagara Region's Taxpayer Relief Stabilization Reserve and the Wastewater Stabilization Reserve are both underfunded. The Water Stabilization Reserve and Waste Management Stabilization Reserve are currently within the minimum target balances noted above.

Reserves

(In per cent and millions of dollars)

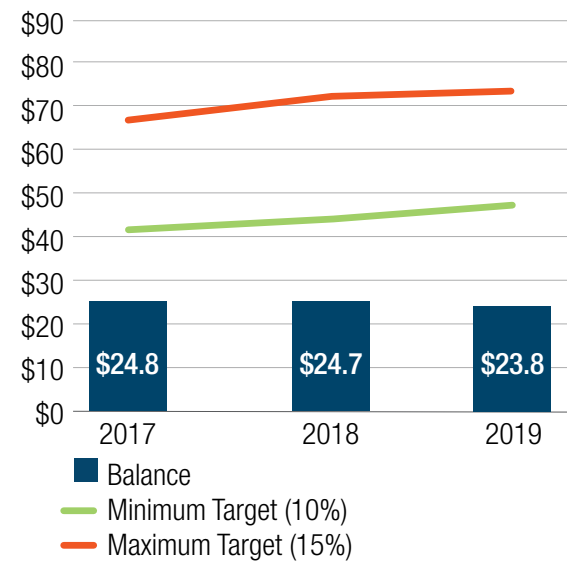


In Millions of Dollars

Capital reserves	\$169.6 (63.2%)
Stabilization reserves	51.9 (19.4%)
Specified contribution reserves	1.4 (0.5%)
Future liability reserves	45.2 (16.9%)
Total Revenues	\$268.1

Tax Levy Stabilization*

(In millions of dollars)

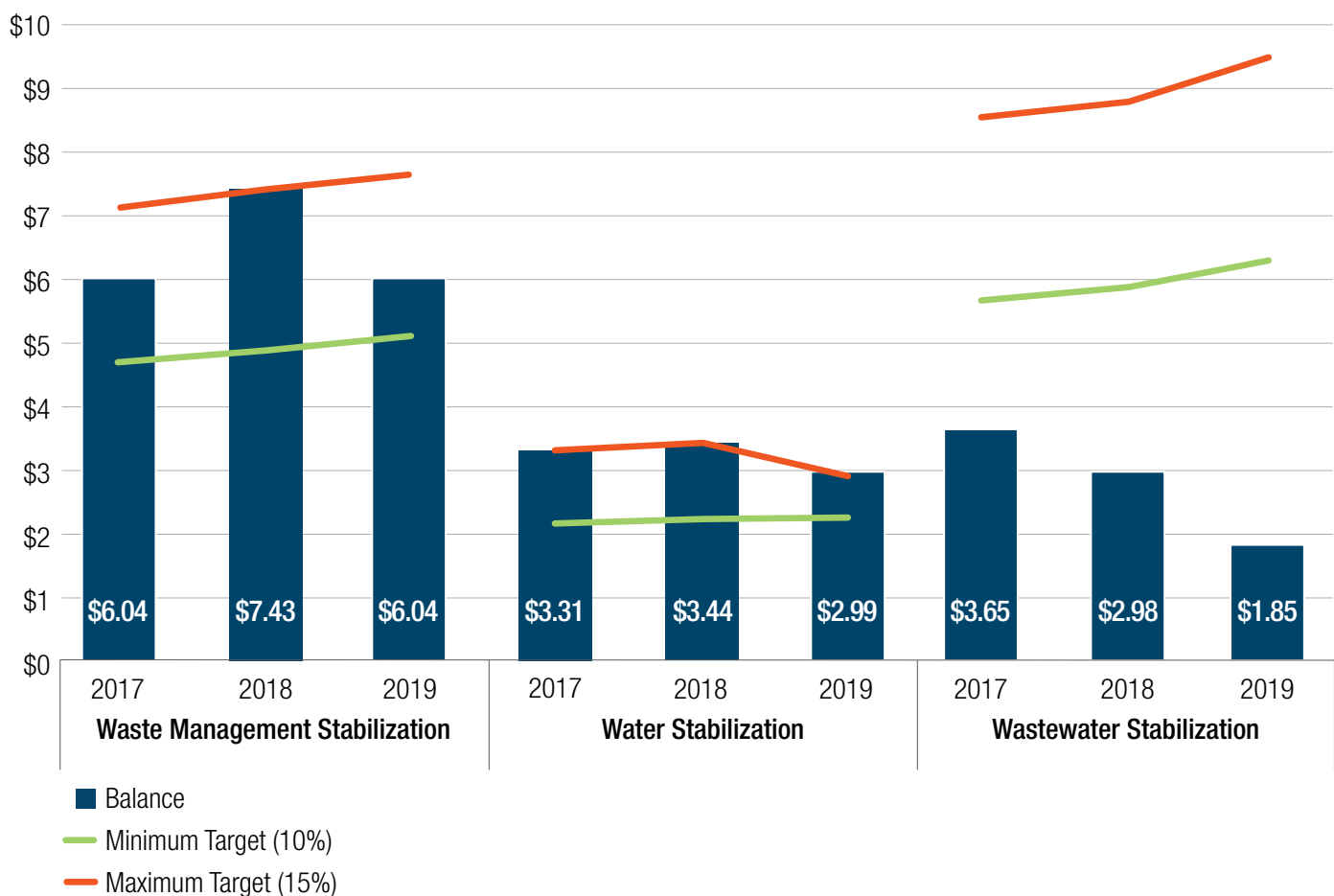


At December 31, 2019 the Tax Levy Stabilization Reserve is underfunded by a range of \$32 to \$60 million.

*Taxpayer Relief Reserve

Waste Management, Water and Wastewater Stabilization Reserve Balances

(In millions of dollars)



Consolidated Statement of Operations Highlights

The consolidated statement of operations reports Niagara Region's change in economic resources and accumulated surplus. During the year annual revenues exceeded expenses resulting in a \$57.4 million (2018 - \$71.8 million) surplus in accordance with Canadian Public Sector Accounting Standards.

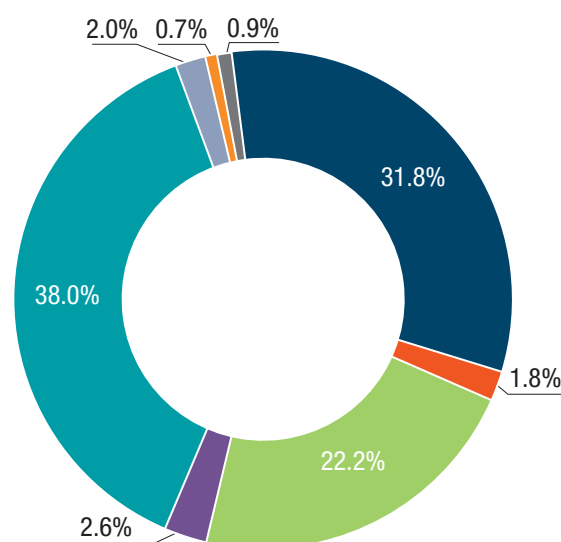
Compared to 2018, Niagara Region's revenues reflect and increase in taxation and user charges for the year of \$27.3 million, a net increase in federal, provincial and municipal grants of \$0.75 million and an increase in other revenues of \$2.2 million.

Higher expenses in 2019 related to increased Workplace Safety Insurance Board costs experienced in Health Services, unanticipated maintenance and repair costs in Social Housing and Environmental Services as well as increased amortization compared to the prior year. Expenses in Environmental Services were higher compared to the prior year due to changes in the assumptions involved in the landfill liability which lowered 2018 expenses in this function by approximately \$17 million.

The following charts break down Niagara Region's revenue source by type and expenses by function.

Revenue By Source

(In per cent and millions of dollars)



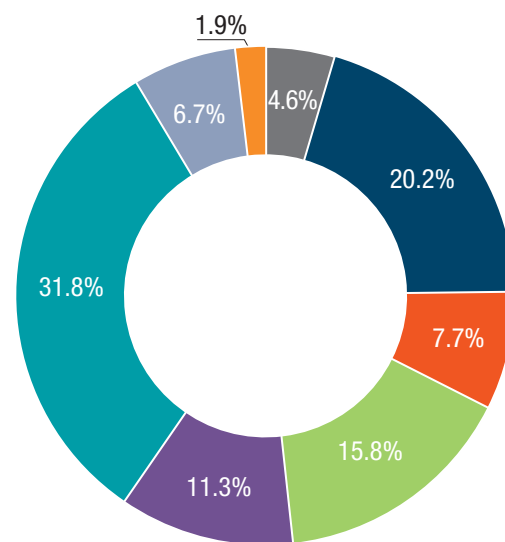
In Millions of Dollars

Province of Ontario	\$320.8	(31.8%)
Investment income	18.2	(1.8%)
User charges	223.7	(22.2%)
Government of Canada grants	26.7	(2.6%)
Property taxpayer	383.5	(38.0%)
Development charges	19.8	(2.0%)
Court Services	7.0	(0.7%)
Other Income	9.6	(0.9%)

Total Revenues **\$1,009.3**

Expense By Function

(In per cent and millions of dollars)



In Millions of Dollars

Protection to persons and property	\$192.7	(20.2%)
Transportation services	72.9	(7.7%)
Environmental services	150.4	(15.8%)
Health services	108.0	(11.3%)
Social and family services	302.6	(31.8%)
Social housing	64.0	(6.7%)
Planning and development	17.8	(1.9%)
General government	43.5	(4.6%)

Total Expenses **\$951.9**



2019 APPROVED BUDGET COMPARED TO FINANCIAL STATEMENTS

A balanced 2019 operating and capital budget was approved by Regional Council on February 28, 2019.

When preparing the budget, Niagara Region considers its cash needs for the year to ensure it collects sufficient tax revenue to cover its obligations and execute its business plan. This includes budgeting for any principal debt repayments and considers and required transfers to or from reserves. Conversely, Niagara Region does not budget for amortization and its annual impact on tangible capital assets, changes in employee future benefit liabilities, and changes in the solid waste landfill closure, contaminated site and post closure costs liability as there are primarily non-cash items.

The budget was prepared for the purpose of setting tax rates and user fees rather than a framework for presenting annual financial results. Therefore, in order to issue financial statements, Niagara Region is required to adjust its presentation of the financial results to be in accordance with Canada Public Sector Accounting Standards (PSAS). The chart on the following page identifies the components that move the Niagara Region from its approved balanced budget to the Canadian PSAS financial statements presented throughout the annual report.



View from Brock University's Cairns building

2019 Approved Budget Compared to Financial Statements

(In millions of dollars)	Approved Budget	2019	2018
Based on budget approach			
Water and Wastewater (deficit) surplus	\$-	\$(1.68)	\$2.08
Waste Management (deficit) surplus	-	(1.16)	1.55
Levy surplus	-	3.45	1.83
Operating surplus based on CSD 15-2020	-	0.61	5.46
Capital PSAS Adjustments			
Recognize amortization	(87.19)	(87.19)	(82.30)
Recognize in year capital program revenues	44.52	45.38	44.97
Recognize capital fund expenditures resulting in operating expenses	(10.26)	(10.68)	(9.15)
Recognize operating fund expenditures resulting in capital assets	2.04	2.04	1.79
Recognize proceeds & loss on disposal of assets	(0.77)	(0.77)	(4.23)
Recognize operating funding transferred to capital program	-	6.19	-
Capital subtotal	(51.66)	(45.03)	(48.92)
Funded PSAS Adjustments			
Remove principle debt repayments	46.65	33.94	26.76
Remove net transfers to reserves (including interest allocation)	46.94	72.03	72.98
Remove sinking fund activity	-	0.35	0.26
Funded subtotal	93.59	106.31	100.00
Unfunded PSAS Adjustments			
Recognize change in landfill liability	0.12	0.12	17.79
Recognize power dams liability	-	0.42	0.42
Recognize change in unfunded employee future benefits liability	(5.04)	(5.04)	(2.92)
Unfunded Subtotal	(4.92)	(4.49)	15.30
Annual surplus with PSAS adjustments	\$37.01	\$57.40	\$71.83



FINANCIAL MANAGEMENT AND CONTROL

Niagara Region maintains a system of internal controls designed to safeguard assets and ensure transactions are properly authorized and recorded in compliance with legislative and regulatory requirements. The financial management and control systems of Niagara Region are governed by various by-laws, policies and procedures. Niagara Region's systems of internal controls are monitored and evaluated by management and are subject to independent audit.

The Niagara Region has been consistently making improvements to the financial reports within the new system implemented in 2016 which has enhanced decision making and the financial reporting environment. Niagara Region did not receive any management letter points for improvements in relation to the 2019 financial statement audit. This was the third consecutive year in which no management letter was issued. In 2019, Regional Council also approved the following policies and by-laws during the year:

- **Capital Financing Policy** – this policy establishes principles and practices for preparing Niagara Region's Capital Budget, operating impacts and multi-year capital forecasts to adhere with statutory requirements and support a strong credit rating. On an annual basis, the multi-year capital plan shall be analyzed for funding requirements with the objective that projects aligned to asset management should utilize reserves where applicable, projects that are supporting growth should be funding with development charges and projects that are new strategic investments should be funded with debt.

Additionally, this policy includes guidance on budgeting for the cost of servicing the debt, operating impacts of capital as well as timing variances on debt charges or operating impacts resulting from timing of project completion.

- **Employee Travel and Expense Policy** – this policy provides guidance on the claiming and reimbursement of expenses incurred by employees for Niagara Regional business and is based on four key principles; accountability; transparency; value for money and fairness
- **Budget Planning By-law** – the purpose of this by-law is to establish the timing of annual budget approval, ensure the sustainability of Niagara Region's level of service, align with Regional Council's strategic priorities and establish expectation of staff for the development of the annual budget. This is accomplished with transparent disclosure of operating budget pressures and revenue declines, capital funding required to support the asset management plan and capital financing policy, new program resources and the use of assessment growth revenues.

AUDIT COMMITTEE

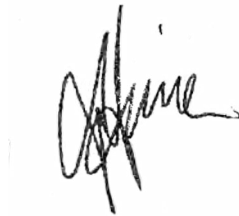
Niagara Region's Audit Committee is responsible for ensuring that:

- Annual consolidated financial statements are prepared in accordance with Canadian Public Sector Accounting Standards and referred to Regional Council for approval
- Systems of internal control over financial reporting operate effectively and are used to ensure compliance with legal, regulatory and ethical requirements
- The external audit function is used effectively and issues identified are addressed

The Audit Committee evaluates the external auditor based on qualifications, independence, scope of the audit, timing of the audit and fees. The Audit Committee recommends the replacement, reappointment and/or appointment of the external auditors to Regional Council.

CONCLUSION

Providing service to 479,183 residents in an ever-changing economy requires proactive financial management and a strong control framework. Achieving a balance between providing the programs and services residents have come to rely upon, ensuring they can afford to pay for them and making sure we have funds to support future infrastructure and program needs will continue to driver the financial strategies of Niagara Region. We are committed to providing high standards of fiscal excellence at Niagara Region.



Todd Harrison,
Commissioner of Corporate Services/Treasurer
May 29, 2020



FINANCIAL

Downtown Niagara on the Lake
Niagara Region, Ontario Canada

Prepared by Corporate Services
Department and the office of the
Chief Administration Officer

THE REGIONAL MUNICIPALITY OF NIAGARA

MANAGEMENT'S RESPONSIBILITY FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements of The Regional Municipality of Niagara (the "Region") are the responsibility of the Region's management and have been prepared in accordance with Canadian Public Sector Accounting Standards. A summary of the significant accounting policies is described in Note 1 to the consolidated financial statements. The preparation of consolidated financial statements necessarily involves the use of estimates based on management's judgment, particularly when transactions affecting the current accounting period cannot be finalized with certainty until future periods.

The Region's management maintains a system of internal controls designed to provide reasonable assurance that assets are safeguarded, transactions are properly authorized and recorded in compliance with legislative and regulatory requirements, and reliable financial information is available on a timely basis for preparation of the consolidated financial statements. These systems are monitored and evaluated by management.

The audit committee meets with management and the external auditors to review the consolidated financial statements and discuss any significant financial reporting or internal control matters prior to their approval of the consolidated financial statements.

The consolidated financial statements have been audited by Deloitte LLP, independent external auditors appointed by the Region. The accompanying Independent Auditors' Report outlines their responsibilities, the scope of their examination and their opinion on the Region's consolidated financial statements.



Todd Harrison,

Commissioner of Corporate Services/Treasurer

May 21, 2020

Independent Auditor's Report

To the Members of Council, Inhabitants and Ratepayers of
the Regional Municipality of Niagara

Opinion

We have audited the consolidated financial statements of Regional Municipality of Niagara (the "Region"), which comprise the consolidated statement of financial position as at December 31, 2019, and the consolidated statements of operations and changes in net financial assets, and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Region as at December 31, 2019, and the results of its operations, changes in net financial assets, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Region in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Region's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Region or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Region's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Region's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Region's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Region to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Region to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

"Original signed by Deloitte LLP"

Chartered Professional Accountants
Licensed Public Accountants
May 21, 2020

THE REGIONAL MUNICIPALITY OF NIAGARA

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at December 31, 2019 (In thousands of dollars)

	2019	2018
FINANCIAL ASSETS		
Cash	\$ 135,681	\$ 106,902
Investments (note 2)	635,596	585,420
Accounts receivable (note 3)	80,140	80,713
Other current assets	417	329
Tangible capital assets held for sale (note 4)	1,760	756
Debt recoverable from others (note 9)	316,419	305,684
	1,170,013	1,079,804
FINANCIAL LIABILITIES		
Accounts payable and accrued liabilities	129,782	114,195
Employee future benefits and post-employment liabilities (note 5)	109,462	104,421
Deferred revenue (note 6)	219,750	178,320
Landfill closure and post-closure liability (note 7)	61,277	61,397
Long-term liabilities (note 9)	695,904	662,658
Capital lease obligation (note 10)	4,352	-
	1,220,527	1,120,991
Net debt	(50,514)	(41,187)
NON-FINANCIAL ASSETS		
Tangible capital assets (note 11)	1,823,929	1,755,117
Inventory	7,498	7,360
Prepaid expenses	18,609	20,836
	1,850,036	1,783,313
Accumulated surplus (note 12)	\$ 1,799,522	\$ 1,742,126

The accompanying notes are an integral part of these consolidated financial statements.

THE REGIONAL MUNICIPALITY OF NIAGARA

CONSOLIDATED STATEMENT OF OPERATIONS

For the year ended December 31, 2019 (In thousands of dollars)

	2019 Budget (note 20)	2019 Actual	2018 Actual
REVENUES (Note 19)			
Taxation and user charges:			
Levies on area municipalities	\$ 380,993	\$ 383,481	\$ 363,304
User charges	226,456	223,723	216,641
	607,449	607,204	579,945
Government transfers (note 18):			
Government of Canada	26,497	26,690	24,986
Province of Ontario	326,670	320,813	322,020
Other municipalities	687	861	608
	353,854	348,364	347,614
Other:			
Development charges earned	26,314	19,814	13,387
Investment income	17,519	18,176	16,613
Provincial offences	6,740	7,025	7,336
Miscellaneous	7,429	8,710	14,234
	58,002	53,725	51,570
Total revenues	1,019,305	1,009,293	979,129
EXPENSES (Note 19)			
General government	43,417	43,503	43,507
Protection to persons and property	193,701	192,662	189,911
Transportation services	80,451	72,933	66,063
Environmental services	167,317	150,408	123,780
Health services	106,017	107,966	98,499
Social and family services	306,453	302,631	297,976
Social housing	66,753	63,964	64,095
Planning and development	18,185	17,830	23,470
Total expenses	982,294	951,897	907,301
Annual surplus	37,011	57,396	71,828
Accumulated surplus, beginning of year	1,742,126	1,742,126	1,670,298
Accumulated surplus, end of year	\$ 1,779,137	\$ 1,799,522	\$ 1,742,126

The accompanying notes are an integral part of these consolidated financial statements.

THE REGIONAL MUNICIPALITY OF NIAGARA

CONSOLIDATED STATEMENT OF CHANGE IN NET DEBT

For the year ended December 31, 2019 (In thousands of dollars)

	2019 Budget (note 20)	2019 Actual	2018 Actual
Annual surplus	\$ 37,011	\$ 57,396	\$ 71,828
Acquisition of tangible capital assets	(158,046)	(158,046)	(104,039)
Contributed tangible capital assets	(142)	(142)	(3,615)
Transfers from (to) tangible capital assets held for sale	1,004	1,004	(2,759)
Amortization of tangible capital assets	87,189	87,189	82,301
Loss on sale of tangible capital assets	197	197	1,295
Proceeds on sale of tangible capital assets	568	568	2,850
Write down on tangible capital assets held for sale	418	418	-
Change in inventory	-	(138)	(41)
Change in prepaid expenses	-	2,227	(3,664)
Change in net debt	(31,801)	(9,327)	44,156
Net debt, beginning of year	(41,187)	(41,187)	(85,343)
Net debt, end of year	\$ (72,988)	\$ (50,514)	\$ (41,187)

The accompanying notes are an integral part of these consolidated financial statements.

THE REGIONAL MUNICIPALITY OF NIAGARA

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended December 31, 2019 (In thousands of dollars)

	2019	2018
OPERATING ACTIVITIES		
Annual surplus	\$ 57,396	\$ 71,828
Items not involving cash:		
Amortization of tangible capital assets	87,189	82,301
Loss on sale of tangible capital assets	197	1,295
Contributed tangible capital assets	(142)	(3,615)
Write down on tangible capital assets held for sale	418	-
Change in employee future benefits and post-employment liabilities	5,041	3,018
Change in landfill closure and post-closure liability	(120)	(17,794)
Change in non-cash assets and liabilities:		
Accounts receivable	573	(2,131)
Other current assets	(88)	(117)
Accounts payable and accrued liabilities	15,587	(8,026)
Deferred revenue	41,430	36,098
Inventory	(138)	(41)
Prepaid expenses	2,227	(3,664)
Net change in cash from operating activities	209,570	159,152
CAPITAL ACTIVITIES		
Proceeds on sale of tangible capital assets	568	2,850
Cash used to acquire tangible capital assets	(158,046)	(104,039)
Net change in cash from capital activities	(157,478)	(101,189)
INVESTING ACTIVITIES		
Proceeds on sale of investments	137,880	35,135
Purchase of investments	(188,056)	(140,425)
Net change in cash from investing activities	(50,176)	(105,290)
FINANCING ACTIVITIES		
Capital lease acquired	6,379	-
Capital lease payments	(2,027)	-
Proceeds on debt issued and assumed	58,263	38,999
Long-term debt repaid	(33,936)	(26,759)
Increase in sinking fund assets	(1,816)	(1,776)
Net change in cash from financing activities	26,863	10,464
Net change in cash	28,779	(36,863)
Cash, beginning of year	106,902	143,765
Cash, end of year	\$ 135,681	\$ 106,902
Cash paid for interest	13,289	12,993
Cash received from interest	20,065	15,175
Investing and financing activities on behalf of others:		
Debt issued on behalf of others	39,412	48,230
Repayment made on behalf of others	28,677	27,956

The accompanying notes are an integral part of these consolidated financial statements.

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

1. Significant accounting policies:

The Regional Municipality of Niagara (the "Region") is an upper-tier municipality in the Province of Ontario (the "Province"), Canada. The provisions of provincial statutes such as the Municipal Act, Municipal Affairs Act and related legislation guide its operations.

The consolidated financial statements of The Regional Municipality of Niagara are prepared by management in accordance with Canadian public sector accounting standards ("PSAS") as recommended by the Public Sector Accounting Board ("PSAB") of the Chartered Professional Accountants of Canada ("CPA Canada"). Significant accounting policies adopted by the Region are as follows:

(a) Basis of consolidation:

(i) Consolidated entities:

The consolidated financial statements reflect the assets, liabilities, revenues, expenses and accumulated surplus of the reporting entity. The reporting entity is comprised of all organizations, committees and local boards accountable for the administration of their financial affairs and resources to the Region and which are owned or controlled by the Region. These entities and organizations include:

Niagara Regional Police Services

Niagara Regional Housing

Court Services Operations

Interdepartmental and inter-organizational transactions and balances between these organizations are eliminated.

(ii) Trust funds:

Trust funds and their related operations administered by the Region are not included in these consolidated financial statements.

(b) Basis of accounting:

The Region follows the accrual method of accounting for revenues and expenses. Revenues are recognized in the year in which they are earned and measurable. Expenses are recognized as they are incurred and measurable as a result of receipt of goods or services and/or the creation of a legal obligation to pay.

(c) Investments:

Investments consist of bonds and money market notes and are stated at the lower of cost and market value. Gains and losses on investments are recorded when incurred.

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

1. Significant accounting policies (continued):

(f) Non-financial assets:

Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations.

(i) Tangible capital assets:

Tangible capital assets are recorded at cost which includes amounts that are directly attributable to acquisition, construction, development or betterment of the asset. The cost, less residual value of the tangible capital assets, excluding land and landfill sites, are amortized on a straight line basis over their estimated useful lives as follows:

Asset	Useful Life - Years
Landfill and land improvements	3 – 50
Building and building improvements	3 – 60
Vehicles, machinery and equipment	- Vehicles 3 – 20
	- Machinery and equipment 3 – 60
Water and wastewater infrastructure	25 – 100
Roads infrastructure	- Base 40
	- Bridge and culvert 60
	- Surface 10
	- Other infrastructure 5 - 40

Landfill sites are amortized using the units of production method based upon capacity used during the year.

One half of the annual amortization is charged in the year of acquisition and in the year of disposal. Assets under construction (work in progress) are not amortized until the asset is in service.

(ii) Contributions of tangible capital assets:

Tangible capital assets received as contributions are recorded at their fair value at the date of receipt and also are recorded as revenue.

(iii) Intangible assets:

Intangible assets and natural resources that have not been purchased are not recognized as assets in the consolidated financial statements.

(iv) Interest capitalization:

The Region's tangible capital asset policy does not allow for the capitalization of interest costs associated with the acquisition or construction of a tangible capital asset.

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

1. Significant accounting policies (continued):

(f) Non-financial assets (continued):

(v) Leases:

Leases which transfer substantially all of the benefits and risks incidental to ownership of property are accounted for as capital leases. All other leases are accounted for as operating leases and the related payments are charged to expenses as incurred.

(vi) Inventories:

Inventories held for consumption are recorded at the lower of cost and replacement cost.

(g) Reserves and reserve funds:

Certain amounts, as approved by Regional Council are set aside in reserves for future operating and capital purposes. Transfers to and/or from reserves are an adjustment to the respective reserve when approved. Reserves are presented on the consolidated statement of financial position in accumulated surplus.

(h) Government transfers:

Government transfers are recognized as revenue in the consolidated financial statements when the transfer is authorized, any eligibility criteria are met and a reasonable estimate of the amount can be made, except when and to the extent that stipulations by the transferor give rise to an obligation that meet the definition of a liability. Government transfers that meet the definition of a liability are recognized as revenue as the liability is extinguished.

(i) Deferred revenue:

Deferred revenues represent development charges collected under the Development Charges Act (1997), grants, user charges and fees which have been collected but for which the related services have yet to be performed. These amounts are recognized as revenues in the fiscal year the services are performed.

(j) Taxation revenue:

Property tax revenue is recognized on an accrual basis when the tax is authorized by the passing of the tax levy by-law. Taxes are levied on properties listed on the assessment roll at the time the by-law is passed based on approved budget and tax rates. Supplementary taxation is recognized as additional billings are issued for properties that are added to the assessment roll during the year.

At year end, the Region evaluates the likelihood of having to repay taxes as a result of tax appeals or other changes and recognizes the liability if the amount can be reasonably estimated.

(k) Investment income:

Investment income earned on surplus current fund, capital fund, reserves and reserve funds (other than obligatory reserve funds which are comprised of development charges and gas tax), are reported as revenue in the period earned. Investment income earned on obligatory reserve funds is added to the fund balance and forms part of the deferred development charges balance.

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

1. Significant accounting policies (continued):

(l) Municipal cost-sharing:

The Region acts as an intermediary to administer capital projects for the acquisition of assets belonging to local area municipalities. Funding received and expenses incurred relating to the local area municipalities share of these projects amounted to \$4,886 (2018 \$982) and is not reflected in these consolidated financial statements.

(m) Tangible capital assets held for sale:

Tangible capital assets which meet the criteria for financial assets are reclassified as "tangible capital assets held for sale" on the consolidated statement of financial position. Tangible capital assets held for sale are recorded at the lower of cost and net realizable value.

Tangible capital assets held for sale are reasonably anticipated to be sold to a purchaser, external to the Region, within one year of the statement of financial position date.

(n) Use of estimates:

The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the period. Significant estimates include assumptions used in estimating provisions for tax write-offs, accrued liabilities, landfill closure and post-closure liability, contaminated site liability, certain payroll liabilities and in performing actuarial valuations of employee future benefits and post-employment liabilities. Amounts recorded for amortization of tangible capital assets are based on estimates of useful service life. Actual results could differ from these estimates.

2. Investments:

Investments reported on the consolidated statement of financial position at the lower of cost or market have market values as follows:

	2019		2018	
	Cost	Market Value	Cost	Market Value
Investments	\$ 635,596	\$ 650,422	\$ 585,420	\$ 586,280

The Region has purchased \$4,841 (2018 - \$5,961) of its own debentures issued on behalf of itself and local area municipalities which have not been cancelled. This investment in own debentures is included in investments on the consolidated statement of financial position. The Region's share of the gross outstanding amount of these debentures is \$36,627 (2018 - \$39,742). Coupon rates for these debentures ranged from 3.10% to 3.95%.

3. Accounts receivable:

Accounts receivable are reported net of a valuation allowance of \$763 (2018 - \$643).

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

4. Tangible capital assets held for sale:

During the year, the Region wrote down tangible capital assets held for sale to these assets net realizable value in the amount of \$418 (2018 – \$nil). The value of write downs related to tangible capital assets held for sale is reported in the consolidated statement of operations.

5. Employee future benefits and post-employment liabilities:

The Region provides certain employee benefits which will require funding in future periods. These benefits include benefits under the Workplace Safety and Insurance Board ("WSIB") Act, sick leave, life insurance, extended health and dental benefits for early retirees.

	2019	2018
Workplace Safety & Insurance Board	\$ 48,039	\$ 42,407
Accumulated Sick Leave	11,818	13,544
Retiree benefits	35,335	34,909
Vacation pay	10,098	9,587
Other post-employment liabilities	4,172	3,974
Total employee future benefits and post-employment liabilities	\$ 109,462	\$ 104,421

Employee future benefits and post-employment benefits reported on the consolidated statement of financial position by entity consist of the following:

	2019	2018
Niagara Regional Police Services	\$ 61,438	\$ 59,976
Niagara Regional Housing	1,648	1,738
Niagara Region	46,376	42,707
Total	\$ 109,462	\$ 104,421

The Region has established reserve funds to mitigate the future impact of these obligations. These reserves were created under municipal by-law and do not meet the definition of a plan asset under PSAS PS3250 Retirement Benefits. Therefore, for the purposes of these financial statements, the plans are considered unfunded. These reserve funds are presented in the consolidated statement of financial position within accumulated surplus. Reserves relating to these liabilities are summarized by entity below:

	2019	2018
Niagara Regional Police Services	\$ 9,101	\$ 8,902
Niagara Regional Housing	793	792
Niagara Region	24,695	24,845
Total (Note 12)	\$ 34,589	\$ 34,539

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

5. Employee future benefits and post-employment liabilities (continued):

Information about the Region's benefit plans is as follows:

2019				
	Niagara Regional Police	Niagara Regional Housing	Niagara Region	Total
Accrued benefit obligation:				
Balance, beginning of year	\$ 65,513	\$ 460	\$ 52,454	\$ 118,427
Current benefit cost	5,075	42	6,367	11,484
Interest	2,302	6	1,610	3,918
Benefits paid	(6,466)	(28)	(5,070)	(11,564)
Balance, end of year	66,424	480	55,361	122,265
Unamortized actuarial (loss) gain	(4,986)	1,168	(8,985)	(12,803)
Liability	\$ 61,438	\$ 1,648	\$ 46,376	\$ 109,462

2018				
	Niagara Regional Police	Niagara Regional Housing	Niagara Region	Total
Accrued benefit obligation:				
Balance, beginning of year	\$ 59,187	\$ 1,779	\$ 37,098	\$ 98,064
Current benefit cost	5,370	344	2,481	8,195
Interest	1,724	51	826	2,601
Actuarial loss (gain)	4,416	(1,591)	14,858	17,683
Benefits paid	(5,184)	(123)	(2,809)	(8,116)
Balance, end of year	65,513	460	52,454	118,427
Unamortized actuarial (loss) gain	(5,537)	1,278	(9,747)	(14,006)
Liability	\$59,976	\$1,738	\$42,707	\$104,421

Included in expenses is \$1,202 (2018 - \$338) for amortization of the actuarial gain. The unamortized actuarial gain (loss) is amortized over the expected average remaining service life as listed below:

Accumulated Sick Leave Benefit Plan entitlements	6 - 12 years
Retiree benefits	16 - 21 years

The most recent actuarial valuation was completed as at December 31, 2018 with estimates to December 31, 2021.

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

5. Employee future benefits and post-employment liabilities (continued):

Workplace Safety and Insurance Board ("WSIB")

With respect to responsibilities under provisions of the Workplace Safety and Insurance Act the Region has elected to be treated as a Schedule 2 employer and remits payments to the WSIB as required to fund disability payments. An actuarial estimate of future liabilities of the Region under the provisions of the Workplace Safety and Insurance Act has been completed and forms the basis for the estimated liability reported in these financial statements.

The unamortized actuarial gain on future payments required to WSIB is amortized over the expected period of the liability which is 11 years.

The main actuarial assumptions employed for the valuation are as follows:

Discount rate

The obligation of the present value of future liabilities as at December 31, 2019 and the expense for the year ended December 31, 2019, were determined using a discount rate of 3.75% (2018 – 3.75%).

Administration costs

Administration costs were assumed to be 32% (2018 – 32%) of the compensation expense.

Compensation expense

Compensation costs include loss of earnings benefits, health care costs and non-economic loss awards, were assumed to increase at a rate of 2.0% per annum (2018 – 2.0%).

Accumulated sick leave

Under the accumulated sick leave benefit plan, unused sick leave can accumulate and certain employees may become entitled to a cash payment when they leave the Region's employment.

The main actuarial assumptions employed for the valuation are as follows:

Discount rate

The obligation as at December 31, 2019, of the present value of future liabilities and the expense for the year ended December 31, 2019, were determined using a discount rate of 3.75% (2018 – 3.75%).

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

5. Employee future benefits and post-employment liabilities (continued):

Retiree benefits

The Region pays certain life insurance benefits on behalf of retired employees as well as extended health and dental benefits for early retirees to age 65 and Health Care Spending Accounts for certain retirees until the age of 70 or 75 depending on year of retirement. The Region recognizes these post-retirement costs in the period in which the employees rendered the services.

The unamortized actuarial loss on retiree benefits is amortized over the expected average remaining service life of 10 years.

The main actuarial assumptions employed for the valuations are as follows:

Discount rate

The obligation as at December 31, 2019, of the present value of future liabilities and the expense for the year ended December 31, 2019, were determined using a discount rate of 3.75% (2018 - 3.75%).

Medical costs

Medical costs were assumed to increase at the rate of 3.42% (2018 – 3.42%) per year, reducing to 2.75% in 2022 and thereafter.

Dental costs

Dental costs were assumed to increase at the rate of 2.75% (2018 – 2.75%) per year.

Inflation

Inflation was assumed to be 1.75% (2018 – 1.75%) per year.

Other pension plans

The Region makes contributions to the Ontario Municipal Employees Retirement Fund ("OMERS"), which is a multi-employer plan. The plan is a defined benefit plan which specifies the amount of the retirement benefit to be received by the employees based on the length of service and rates of pay. The Region accounts for its participation in OMERS as a defined contribution plan. The OMERS Plan ended 2019 with a funding deficit of \$3.4 billion (2018 - \$4.2 billion). The funded ratio has increased to 97% from 96% in 2018. The funded ratio has increased for the seventh consecutive year.

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

5. Employee future benefits and post-employment liabilities (continued):

Other pension plans (continued)

The amount contributed to OMERS for 2019 was \$31,292 (2018 - \$30,473) for current service and is included as an expense on the consolidated statement of operations. Employees' contribution to OMERS in 2019 were \$31,259 (2018 - \$30,453).

Contributions for employees with a normal retirement age of 65 were being made at rate of 9.0% (2018 – 9.0%) for earnings up to the yearly maximum pensionable earnings of \$57.40 (2018 - \$55.90) and at a rate of 14.6% (2018 – 14.6%) for earnings greater than the yearly maximum pensionable earnings. For uniformed police officers with a normal retirement age of 60, those rates were 9.2% (2018 - 9.2%) and 15.8% (2018 - 15.8%) respectively.

6. Deferred revenue:

In accordance with PSAS, obligatory reserve funds are reported as deferred revenue. The Region treats development charges and gas tax as obligatory reserve funds. The Region has obligatory reserve funds in the amount of \$198,142 (2018 - \$154,762). These reserve funds are considered obligatory as Provincial and Federal legislation restricts how these funds may be used, and under certain circumstances, how these funds may be refunded.

Amounts related to development charges collected are recognized as revenue when the Region has approved and incurred the expenses for the capital works for which the development charges were raised. These funds have been set aside, as required by the Development Charges Act (1997), to defray the cost of growth related capital projects associated with new development.

In 2008, Investing in Ontario approved a total funding of \$20,157 for capital infrastructure. Revenue is recognized as expenses are incurred. The remaining balance of \$10,617 has been set aside for the construction of the South Niagara East-West Corridor.

The deferred revenues, reported on the consolidated statement of financial position, are made up of the following:

	2019	2018
Development charges	\$ 163,141	\$ 134,530
Gas tax	35,001	20,232
Obligatory reserve funds	198,142	154,762
Investing in Ontario Grant	10,617	10,617
Other deferred revenue	10,991	12,941
Balance, end of year	\$ 219,750	\$ 178,320

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

6. Deferred revenue (continued):

The continuity of obligatory reserve funds are summarized below:

Development charges:

	2019	2018
Balance, beginning of year	\$ 134,530	\$ 97,197
Externally restricted inflows	45,478	48,817
Revenue earned	(19,814)	(13,387)
Investment income	2,947	1,903
Balance, end of year	\$ 163,141	\$ 134,530

Gas tax:

	2019	2018
Balance, beginning of year	\$ 20,232	\$ 19,124
Externally restricted inflows	28,344	14,415
Revenue earned	(14,121)	(13,630)
Investment income	546	323
Balance, end of year	\$ 35,001	\$ 20,232

7. Landfill closure and post-closure liability:

The Region owns and monitors 14 landfill sites, two of which are open and operating. The liability for closure of operational sites and post-closure care has been recognized based upon the usage of the site's capacity during the year. Landfill closure and post-closure care are activities that are expected to occur in perpetuity and requirements have been defined in accordance with industry standards and include final covering and landscaping of the landfill, pumping of ground water and leachates from the site, and ongoing environmental monitoring, site inspection and maintenance.

The costs were based upon the 2019 budget and inflation adjusted at a rate of 1.75% per annum (2018 – 1.75%) until the end of contamination. These costs were then discounted to December 31, 2019 using a discount rate of 3.75% (2018 – 3.75%). Post-closure care is estimated to be required for the contaminating lifespan of landfill sites up to 40 years (2018 – 40 years). The liability for closure and post-closure care as at December 31, 2019 is \$61,277 (2018 - \$61,397). Estimated total expenditures for closure and post-closure care are \$71,419 (2018 - \$75,440). The liability remaining to be recognized is \$10,142 (2018 - \$14,043). It is estimated that the life of open landfill sites range from 31 to 46 years with an estimated total remaining capacity of 3,285 thousand cubic meters (2018 - 3,473 thousand cubic meters).

The Region has a landfill reserve which is dedicated for costs relating to settling closure and post-closure care liabilities. As of December 31, 2019 the reserve balance is \$8,205 (2018 - \$8,288).

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

8. Contaminated site liability:

A liability for the remediation of contaminated sites is recognized as the best estimate of the amount required to remediate the contaminated sites when the following criteria are met: contamination exceeding an environmental standard exists, the Region is either directly responsible or accepts responsibility for the remediation, it is expected that the future economic benefit will be given up, and a reasonable estimate of the amount is determinable. If the likelihood of the Region's obligation to incur these costs is either not determinable, or if an amount cannot be reasonably estimated, the costs are disclosed as contingent liabilities in the notes to the financial statements.

As at December 31, 2019 there are no contaminated sites that meet the specified criteria and no liability (2018 - \$nil) for contaminated sites has been recorded in the consolidated financial statements.

9. Net long-term liabilities:

- (a) As well as incurring long-term liabilities for regional purposes, the Region also incurs long-term liabilities on behalf of the area municipalities. The responsibility for raising the amounts required to service this debt lies with the respective area municipalities.

The balance of net long-term liabilities reported on the consolidated statement of financial position is made up of the following:

	2019	2018
Long-term liabilities incurred by the Region	\$ 712,170	\$ 676,851
Less: Sinking fund assets	(16,266)	(14,193)
Long-term debt	\$ 695,904	\$ 662,658
Debt recoverable from others net of sinking fund assets (long-term liabilities incurred by the Region for which other entities have assumed responsibility)	(316,419)	(305,684)
Net long-term debt, end of year	\$ 379,485	\$ 356,974

- (b) The long-term liabilities in (a) issued in the name of the Region have been approved by by-law. The annual principal and interest payments required to service these liabilities are within the annual debt repayment limit prescribed by the Ministry of Municipal Affairs.
- (c) The Region issued sinking fund debentures of \$78,079 payable on June 30, 2040 and bearing interest at the rate of 5.2% per annum. The sinking fund debentures are included in long-term liabilities in (a) and include \$9,333 borrowed on behalf of the City of St. Catharines and shown as debt recoverable from others. The City of St. Catharines share of the sinking fund assets have been removed from the debt recoverable from others in (a). Annual principal payments into the sinking fund of \$1,512 are due June 30 of each year. These payments are reflected as principal repayments in (e).

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

9. Net long-term liabilities (continued):

(d) The Region is contingently liable for long-term liabilities with respect to debt issued for area municipalities, school boards, tile drainage and shoreline property assistance. The total amount outstanding as at December 31, 2019 is \$316,419 (2018 - \$305,684) and is reported on the consolidated statement of financial position as debt recoverable from others.

(e) Principal payments to be funded by the Region, including sinking fund payments, due in each of the next five years are as follows:

	2019
2020	\$ 31,573
2021	27,233
2022	26,982
2023	26,603
2024	23,878
Thereafter	243,216
	\$ 379,485

Total interest on net long-term liabilities which are reported on the consolidated statement of operations amounted to \$13,340 in 2019 (2018 - \$13,212). The long-term liabilities bear interest at rates ranging from 1.3% to 4.8%. The interest on long-term liabilities assumed by the municipalities or by individuals in the case of tile drainage and shoreline property assistance loans are not reflected in these consolidated financial statements.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

10. Capital lease obligation:

In 2017, the Region entered into a lease agreement for the construction of land and building in Niagara Falls to be used for Public Health. Upon completion of the construction in 2019, the Region has accounted for the obligation as a capital lease. The amount of the obligation is calculated as the present value of payments required under the terms of the agreement. The discount rate used by the Region in determining the present value of the lease payments is 3.75%.

The payments under the lease agreement began in 2019 and the agreement requires monthly lease payments over a period of 30 years until 2049 in addition to balloon payment required in 2029.

Future annual lease payments under the agreement are as follows:

	2019
2020	\$ 216
2021	216
2022	216
2023	216
2024	216
Thereafter	6,263
Total minimum lease payments	\$ 7,343
Less: amount representing implicit interest at 3.75%	(2,991)
Capital lease obligation	\$ 4,352

In 2019, interest of \$95 relating to the capital lease obligation has been reported in the consolidated statement of operations.

The cost of the leased tangible capital assets at December 31, 2019 is \$6,379 and accumulated amortization of leased tangible capital assets at December 31, 2019 is \$69. Amortization of the building is calculated using the straight line method for a period of 40 years.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

for the year ended December 31, 2019 (In thousands of dollars)

1. Tangible capital assets:

	2019							
	Land	Landfill and Land Improvements	Building and Building Improvements	Vehicles, Machinery and Equipment	Water and Wastewater Infrastructure	Roads Infrastructure	Work in progress	Total
Cost								
Balance, beginning of year	\$ 223,572	\$ 101,046	\$ 773,995	\$ 627,622	\$ 355,448	\$ 781,767	\$ 148,601	\$ 3,012,051
Additions/transfers	1,526	5,300	38,050	18,441	17,151	46,936	30,784	158,188
Disposals	(1,432)	(1,756)	(4,246)	(6,892)	-	(4,462)	-	(18,788)
Balance, end of year	223,666	104,590	807,799	639,171	372,599	824,241	179,385	3,151,451
Accumulated Amortization								
Balance, beginning of year	-	53,869	363,510	403,820	82,372	353,363	-	1,256,934
Disposals	-	(1,747)	(4,073)	(5,438)	-	(5,343)	-	(16,601)
Amortization expense	-	3,505	24,005	30,541	5,282	23,856	-	87,189
Balance, end of year	-	55,627	383,442	428,923	87,654	371,876	-	1,327,522
Net Book Value, end of year	\$ 223,666	\$ 48,963	\$ 424,357	\$ 210,248	\$ 284,945	\$ 452,365	\$ 179,385	\$ 1,823,929

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

for the year ended December 31, 2019 (In thousands of dollars)

1. Tangible capital assets (continued):

	2018							
	Land	Landfill and Land Improvements	Building and Building Improvements	Vehicles, Machinery and Equipment	Water and Wastewater Infrastructure	Roads Infrastructure	Work in progress	Total
Cost								
Balance, beginning of year	\$ 221,881	\$ 98,785	\$ 764,034	\$ 621,224	\$ 342,251	\$ 762,655	\$ 114,490	\$ 2,925,320
Additions/transfers	1,691	2,538	10,617	21,010	13,234	24,453	34,111	107,654
Disposals	-	(277)	(656)	(14,612)	(37)	(5,341)	-	(20,923)
Balance, end of year	223,572	101,046	773,995	627,622	355,448	781,767	148,601	3,012,051
Accumulated Amortization								
Balance, beginning of year	-	50,854	340,824	386,901	77,332	338,259	-	1,194,170
Disposals	-	(277)	(421)	(14,095)	(18)	(4,726)	-	(19,537)
Amortization expense	-	3,292	23,107	31,014	5,058	19,830	-	82,301
Balance, end of year	-	53,869	363,510	403,820	82,372	353,363	-	1,256,934
Net Book Value, end of year	\$ 223,572	\$ 47,177	\$ 410,485	\$ 223,802	\$ 273,076	\$ 428,404	\$ 148,601	\$ 1,755,117

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

11. Tangible capital assets (continued):

(a) Work in progress

Work in progress having a value of \$179,385 (2018 - \$148,601) have not been amortized. Amortization of these assets will commence when the asset is put into service. Included in work in progress at December 31, 2019 is \$13,687 (2018 - \$nil) related to Niagara Region's contribution toward the construction of the 2021 Canada Summer Games infrastructure. The Niagara Region also has an additional commitment of \$6,350 to this project and plans to fund 68% of the total contribution with federal gas tax revenue

(b) Contributed tangible capital assets

Contributed capital assets are recognized at fair market value at the date of contribution. Where an estimate of fair value could not be made, the tangible capital asset was recognized at a nominal value. Land is the only category where nominal values were assigned. The value of contributed assets transferred to the Region during the year is \$142 (2018 - \$3,615).

(c) Works of art and historical treasures

No works of art or historical treasures are held by the Region.

(d) Write-downs of tangible capital assets

The Region had \$nil write-downs (2018 – \$nil) of tangible capital assets during the year.

The value of write-downs related to tangible capital assets is reported in the consolidated statement of operations.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

12. Accumulated Surplus:

Accumulated surplus consists of balances as follows:

	2019	2018
Surplus:		
Invested in tangible capital assets	\$ 1,440,091	\$ 1,398,144
Capital fund – unexpended capital financing	271,407	226,159
Operating fund	(10,886)	(12,686)
Unfunded		
Landfill closure and post-closure liability	(61,277)	(61,397)
Employee future benefits and post-employment liabilities	(108,148)	(103,112)
Total surplus	1,531,187	1,447,108
Reserves set aside by Council:		
Ambulance communication	37	37
Circle route initiatives	1,383	1,383
Employee benefits	34,589	34,539
Encumbrances	16,377	19,494
General capital levy	15,680	26,221
Niagara Regional Housing	14,482	10,439
Court Services facilities renewal	2,876	1,650
Public liability self-insurance	2,270	2,270
Smart growth	201	201
Taxpayer relief reserve	23,757	26,539
Waste management	21,813	24,330
Wastewater	43,424	46,228
Water	81,798	91,930
Landfill liability	8,205	8,288
Other reserves	1,443	1,469
Total reserves	268,335	295,018
Total accumulated surplus	\$ 1,799,522	\$ 1,742,126

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

13. Trust funds:

Trust funds administered by the Region amounting to \$962 (2018 - \$958) have not been included in the consolidated statement of financial position nor have their operations been included in the consolidated statement of operations. The financial position and activities of the trust funds are reported separately in the trust fund financial statements.

14. Commitments:

- (a) The Region has outstanding contractual obligations of approximately \$184,243 (2018 - \$93,111) for public works projects. These costs include holdbacks. The holdbacks related to work completed as of December 31, 2019 have been accrued. Regional council has authorized the financing of these obligations.
- (b) The Region is committed to paying principal and interest payments on provincial debentures issued to finance the properties transferred to Niagara Regional Housing from Ontario Housing Corporation. The debentures are outstanding in the amount of \$7,124 (2018 - \$8,750). Annual payments of \$2,063 (2018 - \$2,159) have been charged to current operations.
- (c) The Region enters into various service contracts and other agreements in the normal course of business, which have been approved by the appropriate level of management or by Council but which have not been reported as commitments.
- (d) Minimum annual operating lease payments:

The Region has commitments under various building, land and equipment lease agreements with minimum annual operating lease payments as follows:

	2019
2020	\$ 2,032
2021	1,620
2022	1,173
2023	733
2024	647
Thereafter	389
	\$ 6,594

15. Contingent liabilities:

At December 31, 2019, the Region has been named defendant or co-defendant in a number of outstanding legal actions. No provision has been made for any claims that are expected to be covered by insurance or where the consequences are undeterminable. A provision of \$9,576 (2018 - \$10,935) has been made for those claims not expected to be covered by insurance.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

16. Public Liability Insurance:

The Region has undertaken a portion of the risk for public liability as a means of achieving efficient and cost effective risk management. The Region is self-insured for public liability claims up to \$1,000 for any individual claim and \$1,000 for any number of claims arising out of a single occurrence. Outside coverage is in place for claims in excess of these amounts up to \$50,000 per occurrence.

The Region has a reserve fund for allocated self-insurance claims which as at December 31, 2019 amount to \$2,270 (2018 - \$2,270) and is reported on the consolidated statement of financial position under accumulated surplus. An amount of \$nil (2018- \$nil) has been transferred from this reserve fund in the current year.

Payments charged against operations in the current year amounted to \$6,091 (2018 - \$3,972).

17. Self-funded employee benefit plans:

The Region provides a group health and dental plan for certain employees and has assumed the full liability for payment of benefits under this plan.

Payments charged against operations in the current year amounted to \$17,886 (2018 - \$17,754).

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

18. Government transfers:

The government transfers reported on the consolidated statement of operations are:

	Budget	2019	2018
Revenue:			
Government of Canada:			
Transportation services	\$ 10,668	\$ 10,668	\$ 12,059
Environmental services	6,164	6,164	2,602
Health services	-	54	53
Social and family services	1,082	1,125	2,339
Social housing	8,383	8,598	7,787
Planning and development	200	81	146
	26,497	26,690	24,986
Province of Ontario:			
General government	1,951	1,952	1,930
Protection to persons and property	10,008	9,652	10,007
Transportation services	2,048	2,031	1,558
Environmental services	1,626	1,626	1,127
Health services	65,843	64,920	62,419
Social and family services	233,277	230,206	226,638
Social housing	11,917	10,426	18,306
Planning and development	-	-	35
	326,670	320,813	322,020
Other municipalities:			
General government	369	542	200
Protection to persons and property	318	319	332
Transportation services	-	-	576
Environmental services	-	-	(500)
	687	861	608
Total revenues	\$ 353,854	\$ 348,364	\$ 347,614

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For the year ended December 31, 2019 (In thousands of dollars)

19. Segmented information:

Segmented information has been identified based upon functional areas by the Region.

The functional areas have been separately disclosed in the segmented information as follows:

(i) General government:

General government consists of the general management of the Region, including adopting by-laws and policy, levying taxes, issuing debentures and providing administrative, technical, facility management, and financial services.

(ii) Protection to persons and property:

Protection to persons and property is comprised of Police Services and Court Services. The mandate of Police Services is to ensure the safety of the lives and property of citizens, preserve peace and good order, prevent crimes from occurring, detect offenders and enforce the law. Court Services is responsible for administering and prosecuting Provincial Offences including those committed under the Highway Traffic Act, the Compulsory Automobile Insurance Act, the Trespass to Property Act, the Liquor License Act and other provincial legislation, municipal by-laws and minor federal offences. Court Services governs all aspects of the legal prosecution process, from serving an offence notice to an accused person to conducting trials including sentencing and appeals.

(iii) Transportation services:

Transportation services is responsible for the planning, design, operation and maintenance of the roadway system, the maintenance of parks and open space, and street lights.

(iv) Environmental services:

Environmental services is responsible for the engineering and operation of the water and wastewater systems and waste management. Waste management encompasses solid waste collection and disposal and Niagara Recycling.

(v) Health services:

The Public Health Department offers a range of programs related to health services that includes protection and promotion, disease and injury prevention and also oversees the Emergency Services Division ("ESD") that encompasses both Land Ambulance ("Paramedic") Services and Land Ambulance Communications ("Dispatch") Services.

(vi) Social and family services:

The Community Services department is responsible for providing public services that sustains and supports individuals, families and communities. Programs and services are delivered through Senior Services, Children's Services, Social Assistance and Employment Opportunities and Homelessness Services and Community Engagement.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

19. Segmented information (continued):

(vii) Social housing:

Social housing is responsible for providing and advocating for secure, affordable housing in the Region.

(viii) Planning and development:

The Planning and Development department provides information to Council and the community through working with partners and community groups to support planning initiatives in the region, providing information to residents about Region programs and services. The planning and development department also supports the Region special initiatives.

Certain allocation methodologies are employed in the preparation of segmented information. Taxation and payments-in-lieu of taxes are allocated to the segments based on the segment's budgeted net expenses. User charges and other revenue have been allocated to the segments based upon the segment that generated the revenue. Government transfers have been allocated to the segment based upon the purpose for which the transfer was made. Development charges earned and developer contributions received are allocated to the segment for which the charge was collected.

The accounting policies used in these segments are consistent with those followed in the preparation of the consolidated financial statements as disclosed in Note 1.

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

for the year ended December 31, 2019 (In thousands of dollars)

9. Segmented information (continued):

	2019								
	General government	Protection to persons and property	Transportation services	Environmental services	Health services	Social and family services	Social housing	Planning and development	Total
Revenues:									
Levies on area municipalities	\$ 348,152	-	-	\$ 35,329	-	-	-	-	\$ 383,481
User charges	746	8,119	6,680	163,353	735	27,908	15,293	889	223,723
Government transfers	2,494	9,971	12,699	7,790	64,974	231,331	19,024	81	348,364
Development charges earned	-	(4)	12,556	6,570	14	-	272	406	19,814
Investment income	17,842	-	-	-	-	-	334	-	18,176
Provincial offenses	-	7,025	-	-	-	-	-	-	7,025
Miscellaneous	1,815	835	61	4,691	74	842	388	4	8,710
Total revenues	371,049	25,946	31,996	217,733	65,797	260,081	35,311	1,380	1,009,293
Expenses:									
Salaries, wages and employee benefits	6,061	156,665	15,648	32,249	90,134	110,197	6,042	5,506	422,502
Operating expenses	13,784	17,728	25,133	86,358	14,793	78,421	19,876	1,849	257,942
External transfers	3,247	7,895	5,490	4,263	-	110,122	29,516	10,475	171,008
Debt services	13,230	-	26	-	-	-	-	-	13,256
Amortization	7,181	10,374	26,636	27,538	3,039	3,891	8,530	-	87,189
Total expenses:	43,503	192,662	72,933	150,408	107,966	302,631	63,964	17,830	951,897
Annual surplus (deficit)	\$ 327,546	\$ (166,716)	\$ (40,937)	\$ 67,325	\$ (42,169)	\$ (42,550)	\$ (28,653)	\$ (16,450)	\$ 57,396

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

for the year ended December 31, 2019 (In thousands of dollars)

9. Segmented information (continued):

	2018								
	General government	Protection to persons and property	Transportation services	Environmental services	Health services	Social and family services	Social housing	Planning and development	Total
Revenues:									
Levies on area municipalities	\$ 328,702	-	-	\$ 34,602	-	-	-	-	\$ 363,304
User charges	178	8,510	3,937	161,464	385	26,892	14,192	1,083	216,641
Government transfers	2,118	10,339	14,205	3,230	62,473	228,976	26,092	181	347,614
Development charges earned	6	33	10,953	1,890	249	-	-	256	13,387
Investment income	16,234	-	-	-	3	-	376	-	16,613
Provincial offenses	-	7,336	-	-	-	-	-	-	7,336
Miscellaneous	6,579	1,574	(1,722)	5,655	1,117	503	455	73	14,234
Total revenues	353,817	27,792	27,373	206,841	64,227	256,371	41,115	1,593	979,129
Expenses:									
Salaries, wages and employee benefits	6,084	152,946	13,927	30,084	81,503	107,727	6,451	5,328	404,050
Operating expenses	16,091	17,066	27,287	63,173	13,609	81,667	22,582	2,381	243,856
External transfers	1,229	9,250	2,229	3,390	-	104,684	27,336	15,761	163,879
Debt services	13,188	-	27	-	-	-	-	-	13,215
Amortization	6,915	10,649	22,593	27,133	3,387	3,898	7,726	-	82,301
Total expenses:	43,507	189,911	66,063	123,780	98,499	297,976	64,095	23,470	907,301
Annual surplus (deficit)	\$ 310,310	\$ (162,119)	\$ (38,690)	\$ 83,061	\$ (34,272)	\$ (41,605)	\$ (22,980)	\$ (21,877)	\$ 71,828

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

20. Budget data:

The budget amounts presented in these consolidated financial statements are based upon the 2019 operating and capital budgets approved by Council on February 28, 2019. The chart below reconciles the approved budget to the budget amounts reported in these consolidated financial statements. Budgets established for tangible capital asset acquisitions are on a project-oriented basis, the costs of which may be carried out over one or more years. Where amounts were budgeted for on a project-oriented basis, the budget amounts used are based on actual projects that took place during the year to reflect the same basis of accounting that was used to report the actual results. In addition, to ensure comparability of expenses, the allocation of program support costs completed for actual reporting was also applied to the budget amounts.

	Budget Amount
REVENUES	
Operating	
Approved budget	\$ 973,894
Budget Adjustments	33,848
Expenses classified as revenue	(195)
Capital:	
Development charges	18,376
Grants and subsidies	25,864
Other contributions	277
Loss on sale of tangible capital assets	(197)
Less:	
Transfers from reserves	(31,994)
Proceeds on sale of tangible capital assets	(568)
Total revenue	1,019,305
EXPENSES	
Operating	
Approved budget	\$ 973,894
Budget Adjustments	33,848
Expenses classified as revenue	(195)
Add:	
Capital project cost resulting in operating expenses	10,261
Amortization	87,189
Employee future benefits	5,041
Landfill liability	(120)
Less:	
Operating expenses resulting in tangible capital assets	(2,040)
Transfers to reserves, including capital	(78,933)
Debt principal payments	(46,651)
Total expenses	982,294
Annual surplus	\$ 37,011

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

21. Comparative figures:

Certain prior year figures have been reclassified to conform to the consolidated financial statement presentation adopted in the current year.

Independent Auditor's Report

To the Members of Council, Inhabitants and Ratepayers of the
Regional Municipality of Niagara

Opinion

We have audited the financial statements of the Sinking Funds of the Regional Municipality of Niagara (the "Region"), which comprise the statement of financial position as at December 31, 2019, and the statements of operations, change in net financial assets and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the sinking funds of the Region as at December 31, 2019, and the results of its operations, changes in net financial assets, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Region in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Region's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Region or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Region's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users

As part of an audit in accordance with Canadian GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Region's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Region's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Region to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

"Original signed by Deloitte LLP"

Chartered Professional Accountants
Licensed Public Accountants
May 21, 2020

THE REGIONAL MUNICIPALITY OF NIAGARA

SINKING FUND STATEMENT OF FINANCIAL POSITION

As at December 31, 2019 (In thousands of dollars)

	2019	2018
FINANCIAL ASSETS		
Cash	\$ 228	\$ 169
Interest receivable	96	65
Due from operating fund	48	5
Investments (note 2)	15,941	13,960
	16,313	14,199
LIABILITIES		
Accounts payable and accrued liabilities	4	4
Sinking fund requirements		
City of St. Catharines	1,907	1,665
The Regional Municipality of Niagara	14,049	12,265
	15,960	13,934
Accumulated surplus and net financial assets	\$ 353	\$ 265

The accompanying notes are an integral part of these financial statements.

THE REGIONAL MUNICIPALITY OF NIAGARA

SINKING FUND STATEMENT OF OPERATIONS AND CHANGE IN NET FINANCIAL ASSETS

For the year ended December 31, 2019 (In thousands of dollars)

	2019	2018
REVENUES		
Contributions	\$ 1,512	\$ 1,512
Investment Income	606	528
Total revenues	2,118	2,040
EXPENSES		
Professional fees and dues	3	7
Provision for sinking fund requirements	2,027	1,958
Total expenses	2,030	1,965
Annual Surplus	88	75
Accumulated surplus and net financial assets, beginning of year	265	190
Accumulated surplus and net financial assets, end of year	\$ 353	\$ 265

The accompanying notes are an integral part of these financial statements.

THE REGIONAL MUNICIPALITY OF NIAGARA

SINKING FUND STATEMENT OF CASH FLOWS

For the year ended December 31, 2019 (In thousands of dollars)

	2019	2018
OPERATING ACTIVITIES		
Annual surplus	\$ 88	\$ 75
Change in non-cash assets and liabilities:		
Interest receivable	(31)	(30)
Due from operating fund	(43)	-
Net change in cash from operating activities	14	45
INVESTING ACTIVITIES		
Purchase of investments	(1,981)	(2,087)
Net change in cash from investing activities	(1,981)	(2,087)
FINANCING ACTIVITIES		
Increase in sinking fund requirements	2,026	1,959
Net change in cash from financing activities	2,026	1,959
Net change in cash	59	(83)
Cash, beginning of year	169	252
Cash, end of year	\$ 228	\$ 169

The accompanying notes are an integral part of these financial statements

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO SINKING FUND FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

1. Significant accounting policies:

The financial statements of sinking funds of The Regional Municipality of Niagara (the "Region") are the representation of management prepared in accordance with Canadian public sector accounting standards.

The sinking fund is a separate fund maintained for the purpose of providing for the repayment of all sinking fund debt when it becomes due. The Region issued sinking fund debentures of \$78,079 payable on June 30, 2040 and bearing interest at the rate of 5.2% per annum. Included in the sinking fund debenture is \$9,333 borrowed on behalf of the City of St. Catharines, representing a proportionate share of 11.95%. Annual interest payments on the sinking fund debt are \$4,060.

Significant accounting policies adopted by the Region for the sinking funds are as follows:

(a) Basis of accounting:

The Region's sinking fund follows the accrual method of accounting for revenues and expenses.

(b) Sinking fund requirements:

The requirements of the sinking fund represent the amounts required which, together with interest compounded annually, will be sufficient to retire the related debentures at maturity. The requirements were calculated using a rate of 3.5% per annum.

(d) Investment income:

Investment income is reported as revenue in the period earned.

2. Investments:

The investments consist of municipal bonds and are carried at cost. At December 31, 2019 the investments have a market value of \$17,751 (2018 - \$14,254)

Independent Auditor's Report

To the Members of Council, Inhabitants and Ratepayers of
the Regional Municipality of Niagara

Opinion

We have audited the financial statements of the trust funds of the Regional Municipality of Niagara (the "Region"), which comprise the statement of financial position as at December 31, 2019, and the statements of financial activities and change in fund balance and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the trust funds of the Region as at December 31, 2019, and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Region in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Region's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Region or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Region's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users

As part of an audit in accordance with Canadian GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Region's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Region's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Region to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

"Original signed by Deloitte LLP"

Chartered Professional Accountants
Licensed Public Accountants
May 21, 2020

THE REGIONAL MUNICIPALITY OF NIAGARA

TRUST FUNDS STATEMENT OF FINANCIAL POSITION

As at December 31, 2019 (In thousands of dollars)

	2019	2018
ASSETS		
Cash	\$ 244	\$ 249
Due from Regional Municipality of Niagara	718	709
Fund balance	\$ 962	\$ 958

The accompanying notes are an integral part of these financial statements.

THE REGIONAL MUNICIPALITY OF NIAGARA

TRUST FUNDS STATEMENT OF FINANCIAL ACTIVITIES AND CHANGE IN FUND BALANCE

For the year ended December 31, 2019 (In thousands of dollars)

	2019	2018
REVENUE		
Deposits from residents	\$ 468	\$ 492
Donations	261	227
	729	719
EXPENSES		
Expenditures for the benefit of residents	725	685
	725	685
Excess of revenues over expenses / (expenses over revenues)	4	34
Fund balance, beginning of year	958	924
Fund balance, end of year	\$ 962	\$ 958

The accompanying notes are an integral part of these financial statements.

THE REGIONAL MUNICIPALITY OF NIAGARA

TRUST FUNDS STATEMENT OF CASH FLOWS

For the year ended December 31, 2019 (In thousands of dollars)

	2019	2018
OPERATING ACTIVITIES:		
Excess of revenues over expenses	\$ 4	\$ 34
Change in non-cash assets and liabilities		
Due from Regional Municipality of Niagara	(9)	(59)
Net change in cash from operating activities	(5)	(25)
Cash, beginning of year	249	274
Cash, end of year	\$ 244	\$ 249

The accompanying notes are an integral part of these financial statements.

THE REGIONAL MUNICIPALITY OF NIAGARA

NOTES TO TRUST FUNDS FINANCIAL STATEMENTS

For the year ended December 31, 2019 (In thousands of dollars)

1. Significant accounting policies:

These financial statements reflect the financial position, financial operations, and cash flows of funds held in trust by The Regional Municipality of Niagara ("the Region") for residents of the eight long-term care homes:

- Gilmore Lodge
- Upper Canada Lodge
- Deer Park Villa
- Woodlands of Sunset
- Linhaven
- Rapelje Lodge
- Northland Point
- Meadows of Dorchester

These financial statements are the representation of management and are prepared by management in accordance with Canadian accounting standards for not-for-profit organizations, and reflect the following policies:

(a) Basis of Accounting:

Revenues are recorded in the period in which the transactions or events occurred that gave rise to the revenue.

Expenses are recorded in the period the goods and services are acquired and a liability is incurred, or transfers are due.

(b) Uses of Estimates:

The preparation of financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the period. Actual results could differ from these estimates.

STATISTICAL 4

Downtown Welland
Niagara Region, Ontario Canada

Prepared by Corporate Services
Department and the office of the
Chief Administration Officer

THE REGIONAL MUNICIPALITY OF NIAGARA

FIVE YEAR STATISTICAL REVIEW

December 31, 2019, with comparative information for 2018-2015 (Unaudited - In thousands of dollars)

	2019	2018	2017	2016	2015
STATISTICS					
Population (a)	479,183	472,448	458,986	447,888	449,098
Number of households (b)	201,797	201,063	198,806	196,914	195,451
Niagara Region government full-time employees	3,821	3,741	3,547	3,497	3,497
Unemployment rates (a):					
Niagara Region	5.8%	6.6%	6.7%	7.1%	7.0%
Ontario	5.6%	5.6%	6.1%	6.4%	6.8%
Canada	5.7%	5.8%	6.4%	6.9%	6.9%
Average monthly Ontario Works caseloads	10,084	10,080	10,418	10,826	11,053
Housing starts (c)	3,077	2,332	2,440	2,530	1,911
Annual disposal residential solid waste (metric tonnes)	88,126	87,350	87,048	84,256	88,146
Annual diversion of residential solid waste (metric tonnes)	110,715	111,135	113,720	106,652	104,564
Annual supply of treated water (000 m3)	55,458	58,491	56,986	58,843	57,623
Annual wastewater flows (000 m3)	79,271	76,140	76,715	63,407	67,779
BUILDING PERMIT VALUES					
Residential & agricultural (a)	\$ 919,644	\$ 763,804	\$ 714,596	\$ 649,828	\$ 509,137
Business & commercial (a)	289,118	167,511	145,011	131,755	114,901
Industrial (a)	47,560	111,274	134,973	39,085	44,751
Government & institutional (a)	69,669	22,743	63,024	48,107	47,241
	\$ 1,325,991	\$ 1,065,332	\$ 1,057,604	\$ 868,775	\$ 716,030

Note:

- 2019 residential solid waste values above are preliminary values based on initial submission for RPRA Blue Box Program Datacall – data verification and publication has not been completed by RPRA.

Source:

- (a) Statistics Canada
- (b) Municipal Property Assessment Corporation
- (c) CMHC Canadian Housing Observer

NIAGARA REGION TOP EMPLOYERS (TOTAL # OF EMPLOYEES)

Employer:

- District School Board of Niagara
- Brock University
- Niagara Region
- Niagara Health System
- Niagara Fallsview Casino Resort

THE REGIONAL MUNICIPALITY OF NIAGARA

FIVE YEAR STATISTICAL REVIEW

December 31, 2019, with comparative information for 2018-2015 (Unaudited - In thousands of dollars)

	2019	2018	2017	2016	2015
AREA MUNICIPALITIES TAX LEVY & COLLECTION EXPERIENCES(*)					
Current tax levy	n/a	911,109	893,568	871,219	846,694
Current tax levy collections	n/a	863,756	841,580	819,332	786,829
Current collection as a % of current levy	n/a	94.8%	94.2%	94.0%	92.9%
Total collections	n/a	904,306	889,307	876,343	842,882
Total collections as a % of current levy	n/a	99.3%	99.5%	100.6%	99.5%
Total tax arrears	n/a	36,444	47,414	51,203	61,630
Total tax arrears as a % of current levy	n/a	4.0%	5.3%	5.9%	7.3%
Regional tax levy	365,726	346,748	335,024	325,108	321,878
Regional government tax levy change (Net assessment decrease/increase after assessment growth)	3.82%	2.00%	2.00%	-0.02%	1.92%
TAXABLE ASSESSMENT					
Residential and farm	\$ 50,585,629	\$ 47,727,464	\$ 45,058,956	\$ 42,907,735	\$ 41,524,036
Commercial, industrial and business	8,071,174	7,654,672	7,238,493	7,090,274	6,911,357
Total	\$ 58,656,802	\$ 55,382,136	\$ 52,297,449	\$ 49,998,009	\$ 48,435,393
Per household	\$ 250,676	\$ 237,376	\$ 226,648	\$ 217,901	\$ 212,452
Commercial, industrial, business, as a % of taxable assessment	13.8%	13.8%	13.8%	14.2%	14.3%

TOP FIVE REGIONAL COMMERCIAL TAXPAYERS

- OPB Realty (Pen Centre) Inc.
- The Outlet Collection (Niagara) Limited
- Steadfast Hospitality Inc.
- Calloway Real Estate Investment Trust Inc.
- 2100422 Ontario Limited

TOP FIVE REGIONAL INDUSTRIAL TAXPAYERS

- General Motors of Canada Company
- Jungbunzlauer Canada Inc.
- Cytec Canada Inc.
- 2433814 Ontario Inc.
- Forty Creek Distillery Ltd.

(*) Prepared using the most recent annual data at the time of publishing

THE REGIONAL MUNICIPALITY OF NIAGARA

FIVE YEAR STATISTICAL REVIEW

December 31, 2019, with comparative information for 2018-2015 (Unaudited - In thousands of dollars)

	2019	2018	2017	2016	2015
CONSOLIDATED STATEMENT OF CHANGE IN NET DEBT					
Annual surplus	\$ 57,396	\$ 71,828	\$ 47,663	\$ 72,419	\$ 87,569
Acquisition of tangible capital assets	(158,046)	(104,039)	(116,972)	(180,417)	(195,701)
Contributed tangible capital asset	(142)	(3,615)	(428)	-	-
Transfer to (from) tangible capital assets held for sale	1,004	(2,759)	(6,791)	7,007	700
Amortization of tangible capital assets	87,189	82,301	85,944	73,489	67,406
Loss (gain) on sale of tangible capital assets	197	1,295	2,042	(1,598)	1,023
Proceeds on sale of tangible capital assets	568	2,850	5,127	2,951	334
Write down on tangible capital assets held for sale	418	-	-	-	-
Change in inventory	(138)	(41)	(415)	(1,021)	(394)
Change in prepaid expenses	2,227	(3,664)	(1,669)	(4,256)	(591)
Change in net debt	(9,327)	44,156	14,501	(31,426)	(39,654)
Net debt, beginning of year	(41,187)	(85,343)	(99,844)	(68,418)	(28,764)
Net debt, end of year	\$ (50,514)	\$ (41,187)	\$ (85,343)	\$ (99,844)	\$ (68,418)

NET LONG-TERM LIABILITIES

General municipal activities – capital projects	\$ 379,485	\$ 356,974	\$ 346,510	\$ 316,940	\$ 315,749
Per capita (\$)	\$ 792	\$ 778	\$ 755	\$ 708	\$ 703
Percentage of taxable assessment	0.6%	0.6%	0.7%	0.6%	0.7%

ANNUAL REPAYMENT LIMIT

25% of own source revenues	\$ 158,216	\$ 153,945	\$ 150,437	\$ 146,319	\$ 145,517
Debt payments (interest and principal)	\$ 49,310	\$ 41,306	\$ 42,564	\$ 39,077	\$ 39,271
Per capita (\$)	\$ 98	\$ 85	\$ 93	\$ 87	\$ 87
Annual repayment limit (\$)	\$ 108,906	\$ 112,639	\$ 107,873	\$ 107,242	\$ 106,260
Annual repayment limit (%)*	7.8%	6.7%	7.1%	6.7%	6.7%
Percentage of debt to general expenses	5.0%	4.4%	4.8%	4.6%	4.6%

* Annual repayment limit has been calculated using the FIR data for each year listed and may differ from Niagara Region debt reports presented during the year.

THE REGIONAL MUNICIPALITY OF NIAGARA

FIVE YEAR STATISTICAL REVIEW

December 31, 2019, with comparative information for 2018-2015 (Unaudited - In thousands of dollars)

	2019	2018	2017	2016	2015
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION					
FINANCIAL ASSETS					
Cash	\$ 135,681	\$ 106,902	\$ 143,765	\$ 102,524	\$ 168,521
Investments	635,596	585,420	480,130	438,585	402,792
Accounts receivable	80,140	80,713	78,582	84,647	92,162
Other current assets	417	329	212	269	164
Tangible capital assets held for sale	1,760	756	3,515	10,307	3,300
Debt recoverable from others	316,419	305,684	285,412	262,552	251,899
Total financial assets	1,170,013	1,079,804	991,616	898,884	918,838
FINANCIAL LIABILITIES					
Accounts payable and accrued liabilities	129,782	114,195	122,221	124,811	134,151
Employee future benefits and post-employment liabilities	109,462	104,421	101,403	101,064	98,752
Deferred revenue	219,750	178,320	142,222	113,000	106,656
Landfill closure and post-closure liability	61,277	61,397	79,191	80,361	79,849
Contaminated sites liability	-	-	-	-	200
Long-term liabilities	695,904	662,658	631,922	579,492	567,648
Capital lease obligation	4,352	-	-	-	-
Total financial liabilities	1,220,527	1,120,991	1,076,959	998,728	987,256
Net debt	(50,514)	(41,187)	(85,343)	(99,844)	(68,418)
NON-FINANCIAL ASSETS					
Tangible capital assets	1,823,929	1,755,117	1,731,150	1,700,072	1,601,504
Inventory	7,498	7,360	7,319	6,905	5,884
Prepaid expenses	18,609	20,836	17,171	15,502	11,246
Total non-financial assets	1,850,036	1,783,313	1,755,640	1,722,479	1,618,634
Accumulated surplus	\$ 1,799,522	\$ 1,742,126	\$ 1,670,298	\$ 1,622,635	\$ 1,550,216

THE REGIONAL MUNICIPALITY OF NIAGARA

FIVE YEAR STATISTICAL REVIEW

December 31, 2019, with comparative information for 2018-2015 (Unaudited - In thousands of dollars)

	2019	2018	2017	2016	2015
CONSOLIDATED STATEMENTS OF OPERATIONS					
REVENUES BY SOURCE					
Property taxpayer	\$ 383,481	\$ 363,304	\$ 350,157	\$ 339,835	\$ 331,661
Sewer charges	74,382	69,390	68,079	67,047	67,273
Water charges	43,245	43,883	42,150	42,929	41,851
Waste management	45,717	48,181	53,113	48,827	48,030
User charges	60,379	55,187	53,877	52,732	52,060
Government of Canada grants	26,690	24,986	25,915	25,740	41,701
Province of Ontario grants	320,813	322,020	294,769	284,831	278,554
Other municipalities	861	608	1,967	785	2,052
Development charges	19,814	13,387	11,761	16,923	17,236
Investment income	18,176	16,613	15,993	13,973	13,751
Court services	7,025	7,336	6,812	7,823	7,989
Miscellaneous income/other	8,710	14,234	9,952	13,709	17,971
Total revenue by source	1,009,293	979,129	934,545	915,154	920,129
EXPENSE BY FUNCTION					
General Government	43,503	43,507	42,100	41,150	34,155
Protection to persons and property	192,662	189,911	185,360	179,017	175,013
Transportation services	72,933	66,063	63,688	54,190	57,820
Environmental services	150,408	123,780	143,508	132,062	147,116
Health services	107,966	98,499	92,751	90,860	86,034
Social and family services	302,631	297,976	279,678	271,524	263,935
Social housing	63,964	64,095	67,130	62,571	59,677
Planning and development	17,830	23,470	12,667	11,361	8,810
Total expenses by function	951,897	907,301	886,882	842,735	832,560
Annual Surplus	57,396	71,828	47,663	72,419	87,569
Accumulated surplus, beginning of year	1,742,126	1,670,298	1,622,635	1,550,216	1,462,647
Accumulated surplus, end of year	\$ 1,799,522	\$ 1,742,126	\$ 1,670,298	\$ 1,622,635	\$ 1,550,216
ANALAYSIS OF EXPENSES BY OBJECT					
Salaries, wages and employee benefits	\$ 422,502	\$ 404,050	\$ 388,360	\$ 381,888	\$ 372,591
Operating expenses	257,942	243,856	241,619	225,441	235,935
External transfers to others	171,008	163,879	158,209	149,181	144,602
Debt services	13,256	13,215	12,750	12,736	12,027
Amortization	87,189	82,301	85,944	73,489	67,405
Total expenses by object	\$ 951,897	\$ 907,301	\$ 886,882	\$ 842,735	\$ 832,560



2019 ANNUAL REPORT



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**Administration**

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July 24, 2020

CL 12-2020, July 23, 2020
 PHSSC 6-2020, July 14, 2020
 COM 15-2020, July 14, 2020

Local Area Municipalities***SENT ELECTRONICALLY*****RE:** Affordable Housing Strategy Update

Regional Council, at its meeting of July 23, 2020, approved the following recommendation of its Public Health and Social Services Committee:

That Report COM 15-2020, dated July 14, 2020, respecting Affordable Housing Strategy Update, **BE RECEIVED** and **BE CIRCULATED** to the Local Area Municipalities.

A copy of Report COM 15-2020 is enclosed for your information.

Yours truly,

A handwritten signature in black ink, appearing to read "Ann-Marie".

Ann-Marie Norio
 Regional Clerk

:kl

CLK-C 2020-169

Distribution List:

C. Cousins, Director of Homelessness Services & Community Engagement
 S. Dean, Executive Assistant to the Commissioner, Community Services
 D. Giles, Director of Community and Long Range Planning
 A. Jugley, Commissioner, Community Services
 A. Tikky, Planner, Planning & Development Services

Subject: Affordable Housing Strategy Update

Report to: Public Health and Social Services Committee

Report date: Tuesday, July 14, 2020

Recommendations

1. That Report COM 15-2020 **BE RECEIVED** for information; and
2. That a copy of Report COM 15-2020 **BE CIRCULATED** to Local Area Municipalities.

Key Facts

- The purpose of this report is to outline approaches staff are taking in the short-term to address Niagara's affordable housing needs as we continue to assess the changing demographic and economic trends resulting from COVID-19.
- Regional Council identified the retention, protection, and supply of affordable ownership and rental housing as a key objective of the 2019-2022 Council Strategic Plan.
- The Affordable Housing Strategy Steering Committee is an inter-departmental working group whose purpose is to develop a long-term Affordable Housing Strategy that coordinates the various studies, programs, and initiatives being undertaken across the Corporation to address housing affordability in Niagara.
- The development of the Affordable Housing Strategy and its related initiatives has been impacted by the emergency measures put in place to mitigate the spread of COVID-19.
- Short-term approaches include coordination with Local Area Municipalities, updates to the Regional Housing Database, and support for the affordable housing commitments made prior to the COVID-19 pandemic.
- Consideration should also be given to an MOU with Local Municipalities aimed at streamlining the approval and development of affordable housing projects and the identification of vacant/underutilized municipal lands that can be made available for affordable housing.

Financial Considerations

There are no direct financial implications arising from this report. It is expected that any costs associated with the recommended approaches will be brought forward in detail as part of future reports to Committee and Council.

Analysis

The Affordable Housing Strategy Steering Committee (AHSSC) is an inter-departmental working group made up of staff from Niagara Regional Housing (NRH) and Niagara Region's Planning and Development Services, Community Services, and Finance departments. The AHSSC was formed in 2018 in order to co-ordinate the various projects and initiatives being undertaken across the Corporation to address issues of housing affordability in Niagara.

The AHSSC is currently overseeing the development of an Affordable Housing Strategy that outlines the long-term approaches, land use tools, and financial incentives that can be used to support the protection and supply of affordable ownership and rental housing in Niagara.

The Affordable Housing Strategy is informed by the plans, projects, and other initiatives listed in the following section, each of which has been impacted by the implementation of emergency measures to reduce the spread of COVID-19.

Status of Affordable Housing Studies and Initiatives

Housing and Homelessness Action Plan (HHAP) Update

The HHAP includes a complete vision for addressing homelessness and access to affordable housing in response to identified local needs. The updated plan was approved by Regional Council in October 2019, and acknowledged by the Ministry of Municipal Affairs and Housing in March 2020.

Preventing and ending homelessness requires access to safe and affordable permanent housing. This includes options in both the private market (home ownership and purpose-built rentals) and community housing (NRH owned, non-profit, co-operative housing, and supportive housing). The goals related to affordable housing in the HHAP include the following:

-
- Increase the supply of higher-density housing forms, including townhouse and apartments.
 - Increase the number of new community housing units developed, and the proportion of new community housing units that are bachelor/1-bedroom units or four or more bedroom units.
 - Prevent the loss of current community housing stock.

During the initial phase of the COVID-19 pandemic, the HHAP working groups, including the Community Housing Provider Advisory, the Housing Affordability Innovation Working Group, and the Lived Experience Advisory have been unable to meet. Staff continue to communicate with stakeholders as needed to support the alignment of local affordable housing initiatives to the HHAP.

Niagara Regional Housing Projects

- NRH is continuing with the renewal and repair of owned units to maintain and increase the current supply. Project planning for new and infill developments on owned land has continued, with construction scheduled to begin on the Hawkins Street redevelopment in the City of Niagara Falls in June 2020.
- Formal project management services continue to be provided in a consulting capacity by NRH to assist housing providers across the region during all phases of new development. NRH has become a primary contact and resource for private developers interested in creating affordable housing across Niagara.
- NRH is preparing an RFP for the development of an Affordable Housing Master Plan to strategically plan for affordable housing units to the year 2041. Once complete, the Master Plan will form an overarching strategy for affordable housing that considers the HHAP, the Regional Housing Database, and the affordable housing grant and incentive programs. After a pause during the initial stages of COVID-19, the Master Plan Steering Committee is to resume meeting in the summer of 2020.

New Niagara Official Plan

The Planning and Development Services Department is continuing its development of the new Official Plan for Niagara Region.

An Official Plan is a long-range policy document that shapes a municipality's physical, economic and social development. The new Niagara Official Plan will include objectives,

policies and mapping to properly plan for forecasted population and employment growth, municipal infrastructure and services including public service facilities, and agricultural and natural heritage resources to ensure that the needs of Niagara's current and future residents are met.

In 2019, Niagara Region engaged the Canadian Centre for Economic Analysis (CANCEA) to prepare a Regional Housing Database to inform the HHAP update and the comprehensive review of the Official Plan. The database aggregates existing sources of housing-related data to determine the current and future demand for affordable housing in Niagara. The results of the analysis of the Regional Housing Database, as well as the associated growth scenario analysis, were endorsed by the Planning and Economic Development Committee in April and November 2019, respectively.

The background work already completed by CANCEA will enable policy drafting to begin for the housing component for the new Official Plan, which will include affordable housing targets and policies to achieve those targets. The Province has recently released new draft population and employment forecasts for Niagara Region to the year 2051 as part of "Amendment 1" to the *A Place to Grow: Growth Plan for the Greater Golden Horseshoe*. Once the Province finalizes Amendment 1, Regional forecasts will be updated and reflected in the new Niagara Official Plan.

Niagara Region Grants and Incentives Review

In 2018, the Niagara Region Grants and Incentives Review was initiated to promote greater transparency, accountability, and efficiency in the administration of the financial incentives offered by Niagara Region, and to ensure they continued to align with Council priorities, economic trends, and growth management strategies.

In September 2019 through PDS 34-2019, Council endorsed the following four target areas for Regional incentives: affordable/rental housing; brownfield remediation; employment growth in key sectors; and public realm.

The Regional Incentive Review Team continues its work to focus and coordinate incentives in these four areas in light of the significant changes caused by COVID-19. Specifically, the Team is monitoring the impact of the pandemic on the construction sector and the housing market and how these changes will affect affordable/rental housing. More information on potential incentive programs related to affordable/rental

housing will come forward when there is a better understanding of these impacts and how affordable housing incentives may best be adapted to address them.

Short-Term Approaches to Housing Affordability

Municipalities across Canada continue to address the impacts of COVID-19. Given the sudden shifts in the ways government services and private businesses have been run since the declaration of the pandemic, significant changes are expected to previously established demographic and economic trends.

Because of these changes, a better understanding of the socio-economic impacts of COVID-19 on Niagara's economy and housing market is needed prior to pursuing long-term investments and actions to support the development and availability of affordable housing in Niagara.

While the opportunities and risks associated with long-term housing strategies are reassessed, however, staff will continue to pursue the following short-term approaches to support affordable housing choices in the region as coordinated by the AHSSC.

Coordination of Affordable Housing with Local Area Municipalities

Like all development proposals, affordable housing projects must be consistent with Provincial, Regional and local land use policies, and must adhere to the processes outlined in the *Planning Act, 1990*, the *Building Code Act, 1992*, and the *Local Planning Appeal Tribunal Act, 2017*.

Due to the nature of affordable housing developments, there are a number of obstacles associated with these applications which can delay the approvals process, including discriminatory opposition from members of the public (NIMBYism) and associated appeals. This is further complicated by the varying fees, timelines, and study requirements implemented by each of Niagara's twelve local municipalities to process these applications.

Development delays can be particularly detrimental for affordable housing projects. For the private market, delays can lead to increases in the final housing sales price, which in turn can reduce or negate the affordability of planned housing units. For non-profit organizations, Niagara Region, or Niagara Regional Housing, project delays can run the risk of exceeding funding deadlines associated with government grants and subsidies on which these developments are often dependent.

Niagara Region is part of a Memorandum of Understanding (“MOU”) with Local Area Municipalities to outline the respective responsibilities and timelines associated with the delivery of planning functions and services. The AHSSC has discussed the use of a similar MOU or equivalent agreement with Local Area Municipalities specifically aimed at the review, administration, and approval of affordable housing projects and development applications.

The intent of this agreement would be to facilitate a consistent approach to processing development applications and building permits for affordable housing projects across all twelve municipalities, as well as to ensure a common understanding of the process and timing restrictions associated with Provincially- or Federally-funded developments.

Additionally, a component of the MOU and associated discussions with Local Area Municipalities can include the identification and assessment of vacant or underutilized municipal lands that can be made available for future affordable housing developments. The parcels identified will be assessed for their suitability for affordable housing based on a number of criteria, including:

- the proximity and availability of transit service;
- the proximity of public service facilities, such as social services, recreation, and health and educational programs; and
- the location of adjacent or surrounding incompatible land uses, such as heavy manufacturing or industrial, or other uses with adverse impacts on sound and air quality.

Community Services and NRH staff collaboratively have already been working with Local Area Municipalities to review municipal properties that may be available and appropriate to support affordable or supportive housing projects and to create readiness to respond to Provincial or Federal funding opportunities. Often these funding opportunities have tight turnarounds and require shovel-ready projects to access.

Further coordination and consultation with Local Area Municipalities can lead to innovative programs and initiatives that can more effectively address housing and homelessness. In addition to the initiatives above, the Region will continue to seek partnerships with municipalities to support the development of new affordable housing options.

Funded Housing Projects

Regional staff will continue to process and support previously funded housing projects, including the Partnership Housing Program and the Park Street development in the City of Niagara Falls.

Partnership Housing Program

The 2018 Capital Budget approved a budget of \$1.75 million for the Partnership Housing Program (CSD 14-2018, CSD 34-2019), with \$1.575 million funded from Development Charges, and the balance from reserves. The purpose of the project is to partner with the private sector for the purposes of developing new, affordable purpose-built rental housing.

In return for the Region's investment, a number of units in the development would be allocated to Niagara Region to prioritize candidates on the centralized waiting list. Additionally the tax revenue on the property would be utilized to fund the required rent subsidy on the units allowing the Region to subsidize more households without an incremental budget increase.

A negotiated request for proposal requiring a two part submission was issued in July of 2019 and closed in October 2019. Part A submissions were evaluated by a team of representatives from Finance, NRH, Community Services and Planning and Development Services. A Part B submission was requested from one proponent on February 18, 2020 and the response was received on March 18, 2020. An initial review of Part B took place in March of 2020, however, some additional information was required of the proponent. Due to the COVID-19 pandemic the continued evaluation of the proponent has been delayed. Staff are following up with the proponent at this time to understand the impact of the pandemic on the submission.

City of Niagara Falls Park Street Development

The Park Street property, owned by the City of Niagara Falls, has been offered by the City to form part of an affordable housing project in the downtown area (CSD 33-2019). This development has been approached as a partnership opportunity between the City, Region, NRH and not-for-profit agencies to develop approximately 200 units on this property, with NRH committed to provide Rent Geared to Income for up to 50 units.

To date the City, with the support of the Region, has completed Phase 1 and 2 Environmental Assessments for the site, and has budgeted \$500,000 this year to commence the remediation of the property, with additional monies budgeted for this purpose in 2021, as well as to demolish the existing structure on the property.

Official Plan Amendments for the development have already been approved, and Zoning By-law Amendments for the site are currently underway to allow for a 10 storey structure to be developed on the property. The project's next steps will be to coordinate a joint RFP process during the fall of 2020, with a project award targeted for spring of 2021.

Alternatives Reviewed

Not applicable. This report provides an update on the short term activity related to the affordable housing strategy that is continuing during the COVID-19 pandemic. Evolving available information limits deliberation of long term alternatives at this time. As new information becomes available, additional long term options will be presented in future reports.

Relationship to Council Strategic Priorities

The retention, protection, and increase in the supply of affordable housing stock to provide a broad range of housing to meet the needs of the community is contemplated as part of Objective 2.3 of the 2019-2022 Council Strategic Plan and supports the Council Priority of a Healthy and Vibrant Community.

Other Pertinent Reports

- CSD 14-2018 Alternative Service Delivery Social Housing
- CSD 33-2019 Affordable Housing Development
- CSD 34-2019 Partnership Housing Program
- COM 40-2019 Five-Year Review of Niagara's 10-Year Housing and Homelessness Action Plan
- PDS 17-2019 Niagara Housing Statement: Affordable Housing Data
- PDS 34-2019 Grants and Incentives Review
- PDS 37-2019 Growth Scenario Analysis Related to the Housing Strategy
- CWCD 421-2019 New Niagara Official Plan Updates
- PDS 9-2020 Niagara Official Plan - Consultation Details & Revised Framework

Prepared by:

Alexandria Tikky

Planner

Planning & Development Services

Recommended by:

Adrienne Jugley, MSW, RSW, CHE

Commissioner

Community Services

Submitted by:

Ron Tripp, P.Eng.

Acting Chief Administrative Officer

This report was prepared in consultation with Donna Woiceshyn, CEO Niagara Regional Housing, Marian Bannerman, Grant and Incentive Program Manager, and Jeffrey Sinclair, Homelessness Action Plan Advisor, and reviewed by Cathy Cousins, Director of Homelessness Services & Community Engagement, and Doug Giles, Director of Community & Long Range Planning.

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www.niagararegion.ca**Sub-Item 10**

July 24, 2020

CL 12-2020, July 23, 2020
PEDC 6-2020, July 15, 2020
PDS 26-2020, July 15, 2020

Local Area Municipalities**Niagara Peninsula Conservation Authority****SENT ELECTRONICALLY**

RE: Natural Environment Work Program – Phase 4: Identification and Evaluation of Options
 PDS 26-2020

Regional Council, at its meeting of July 23, 2020, approved the following recommendation of its Planning & Economic Development Committee:

That Report PDS 26-2020, dated July 15, 2020, respecting Natural Environment Work Program - Phase 4: Identification and Evaluation of Options, **BE RECEIVED** and the following recommendations **BE APPROVED**:

1. That staff **BE DIRECTED** to initiate the 2nd point of engagement with the public, stakeholders, and Indigenous groups;
2. That staff **BE DIRECTED** to report back on the 2nd point of engagement, and that based on the incorporation of input received, staff **BE DIRECTED** to make a recommendation for the final preferred options for endorsement by Council; and
3. That Report PDS 26-2020 **BE CIRCULATED** to the Area Municipalities and the Niagara Peninsula Conservation Authority (NPCA).

A copy of Report PDS 26-2020 is enclosed for your information.

Yours truly,

Ann-Marie Norio
 Regional Clerk

:kl

CLK-C 2020-173

Distribution List:

S. Norman, Senior Planner

R. Mostacci, Commissioner, Planning & Development Services

N. Oakes, Executive Assistant to the Commissioner, Planning & Development Services

Subject: Natural Environment Work Program – Phase 4: Identification and Evaluation of Options

Report to: Planning and Economic Development Committee

Report date: Wednesday, July 15, 2020

Recommendations

1. That Report PDS 26-2020 **BE RECEIVED** for information;
2. That staff **BE DIRECTED** to initiate the 2nd point of engagement with the public, stakeholders, and Indigenous groups;
3. That staff **BE DIRECTED** to report back on the 2nd point of engagement, and that based on the incorporation of input received, staff **BE DIRECTED** to make a recommendation for the final preferred options for endorsement by Council; and
4. That Report PDS 26-2020 **BE CIRCULATED** to the Area Municipalities and the Niagara Peninsula Conservation Authority (NPCA).

Key Facts

- The purpose of this report is to present a summary of the options, evaluation process, and preliminary preferred options for the natural heritage system (NHS) and water resource system (WRS) to be implemented as part of the new Niagara Official Plan.
- The preliminary preferred options are the recommendations of the Consultant team and are supported by the professional opinion of Regional Planning Staff. The preliminary preferred options still require the input of the public, stakeholders, and Indigenous groups. Following the incorporation of input received through the 2nd point of engagement, the preliminary preferred options will be finalized, and then recommended by Planning Staff for the endorsement of Council.
- The direction for the Natural Environment Work Program through PDS 18-2018 was to take an incremental approach to developing the policies and mapping for the new Niagara Official Plan, including a number of decision points of Council and opportunities for consultation and engagement. This report presents the results of

Phase 4, which was the identification and evaluation of options for the NHS and WRS.

- Phase 4 is the incremental step in the work program between the background reports and the mapping and policy development phases to follow. Phase 4 is based on concepts for the natural systems only. Mapping, criteria, and policies were only developed to a level of detail that will be required to support the evaluation and engagement process. Once a direction has been established, detailed and region-wide mapping will be completed in conjunction with policy development during the next phase of the work program.
- There has been a strong desire expressed from the public, Councils, and other stakeholders to see the Region implement systems and policies beyond minimum provincial requirements.
- The full report entitled “Technical Report #2: Identification and Evaluation of Options for Regional Natural Environment System(s)” completed by the Consultant team is attached to this report.

Financial Considerations

The ongoing costs associated with the Natural Environment Work Program will be accommodated within the Council approved Regional Official Plan project budget.

Analysis

Background

The background reports for the Natural Environment Work Program are complete and were presented to Regional Council through PDS 32-2019:

- Mapping Discussion Paper
- Watershed Planning Discussion Paper
- Natural Environment Background Study
- Consultation Summary Report – 1st Point of Engagement

The reports are available for review on the website for the new Niagara Official Plan:

<https://www.niagararegion.ca/projects/rural-and-natural-systems/default.aspx>

The background reports are extensive and reviewed a wide range of topics related to both the mapping and policy development process. Several of the key findings which are essential to understanding the identification and evaluation of options are:

- There is a Provincial requirement for the Region to have both a natural heritage system (NHS) and water resource system (WRS). The requirement for a comprehensive WRS is new, includes surface and groundwater, and will be developed and implemented in the Region for the first time. Together the NHS and WRS will form the Region's natural environment system.
- The Province – through the Provincial Policy Statement (PPS), Growth Plan, Greenbelt Plan, and Niagara Escarpment Plan (NEP) has created a complicated framework for the protection of natural features, areas, and systems. There are different frameworks and policies that need to be considered in each geographic area of the Region (i.e. settlement areas, Growth Plan, Growth Plan NHS, Greenbelt Plan, Greenbelt Plan NHS, PPS, and NEP). This makes designing a system that meets the environmental protection objectives of the Region as well as being simple and flexible very difficult. For a system to be balanced and designed in consideration of the unique attributes of each geographic area of the Region, it will require detailed and well thought-out policies and other implementation tools.
- There is now a requirement for a 'systems-based' approach to natural environmental planning. The current framework in the Region is more reflective of a 'features-based' approach which was common in the late '90 and early 2000s. A 'system-based' approach requires the protection of areas adjacent to and connecting natural features in addition to the features themselves.
- Through the 1st point of engagement there was a strong desire expressed from the public, Councils, and other stakeholders to see the Region implement systems and policies beyond minimum provincial requirements.

Development of Options

The background studies identified a range of considerations that were reflected in the development of options. These considerations are documented in detail as part of the attached "Technical Report #2: Identification and Evaluation of Options for Regional Natural Environment System(s)". As there is a requirement for both a NHS and WRS, a separate process was undertaken to develop options for each.

It is important to note that given the ongoing changes in Provincial requirements, even the most basic options will result in changes in natural environment planning in the Region, in terms of both features and areas identified for protection, and restrictions to development. A brief overview of the options identified in Technical Report #2 is as follows:

Overview of NHS Options:

A range of options for the development of an NHS were designed – starting with those which would meet provincial standards to those which would exceed provincial standards as permitted by the PPS. All of the options identified would meet the test of conformity with respect to provincial requirements.

- NHS Option 1 – Minimum Standards – Overlay:
 - This option would simply implement the minimum standards of the PPS, Growth Plan, Greenbelt Plan, and NEP.
 - This option relies on the Growth Plan NHS and Greenbelt Plan NHS to fulfil the requirements for a ‘system-based’ approach. Other geographic areas of the Region, including settlement areas, would continue to be reflective of a ‘features-based’ system.
 - Key features required to be mapped would be shown, other features would rely only on the policies of the Official Plan for protection.
 - Restrictive development and site alteration policies would rely on the provincial policies of the PPS, Growth Plan, and Greenbelt Plan.
 - All features, areas, and systems would be shown as an overlay in the Official Plan schedules.
- NHS Option 2 – Minimum Standards – Designation:
 - This option would be the same as Option 1 except that features would be a designation in the Official Plan as opposed to an overlay.
 - There are no policy differences between Option 1 and Option 2.
- NHS Option 3 – Going Beyond Minimum Standards: This option builds upon NHS Option 1 and 2 by providing three scenarios that exceed minimum provincial standards, and include an increasing range of additional components, linkages, and buffers/vegetation protection zones. There is specific consideration

given to the design of the system in settlement areas. Table 1 on page 24 of Technical Report #2 provides a more detailed overview of the options which are summarized as follows. Building on Option 2:

- Option 3A -
 - identifies additional features outside of settlement areas (e.g. key features that are required to be included in the Greenbelt Plan NHS but could be identified Region-wide, etc.);
 - includes large linkages outside of settlement areas ; and,
 - suggests policy minimum for buffers outside of provincial NHSs and outside of settlement areas.
- Option 3B -
 - identifies additional features in and outside settlement areas;
 - identifies supporting features outside of settlement areas (e.g. enhancement areas, etc.);
 - includes large and medium linkages outside of settlement areas; and,
 - suggests policy minimums for buffers outside of provincial NHSs, and both inside and outside of settlement areas.
- Option 3C -
 - identifies additional features in and outside settlement areas;
 - identifies supporting features in and outside of settlement areas;
 - includes large, medium, and small linkages outside of settlement areas;
 - includes small linkages inside of settlement areas where the potential area is in a natural state; and,
 - prescribes mandatory buffer minimums outside of settlement areas with suggested policy minimums inside of settlement areas.

Overview of WRS Options:

The identification of a WRS is relatively new in provincial planning. As such, there is limited guidance or existing examples from other jurisdictions to rely on for best

practices. Two primary options for the WRS have been identified, both of which would meet the test of conformity with respect to provincial requirements. Both options rely on watershed planning or equivalent to support the identification of features and areas as well as the policy development process. [Note: a watershed planning project is underway]

- WRS Option 1 – Minimum Standards: This option would implement the standards of the PPS, Growth Plan, Greenbelt Plan, and NEP. The WRS would be identified as an overlay in the new Niagara Official Plan.
- WRS Option 2 – Going Beyond Minimum Standards: This option includes all of the policy direction and components identified in WRS Option 1 as well as additional features and areas (such as headwater drainage features or ecologically significant groundwater recharge areas) which would be considered Regionally important, and are identified thorough watershed planning or equivalent. WRS Option 2 is divided into two sub-options:
 - 2A: would identify additional features and areas outside of settlement areas only.
 - 2B: would identify additional features and areas Region wide, including within settlement areas.

Evaluation of Options

Evaluation Criteria:

Preliminary criteria were identified through the Natural Environment Background Study, refined through discussion with the TAG and other stakeholders through the 1st point of engagement, and finalized in the attached Technical Report #2. A comprehensive set of criteria were developed that included a range of considerations including: ecology, land-use planning, stakeholder needs, and public input. As the Natural Environment Work Program is ultimately a land-use planning exercise, the evaluation criteria went beyond ecological considerations to ensure that an additional land-use planning exercise would not be required.

Evaluation Process:

A separate evaluation process was undertaken for the NHS and WRS options. The evaluation of options was a qualitative comparison of how each option achieves the criteria. The evaluation process was not a scoring, weighting, or quantitative analysis of each option, instead, it was largely a value-based exercise.

Preliminary Preferred Options

Following the evaluation of the options, preliminary preferred options were identified for the NHS and WRS. The preliminary preferred options are the recommendations of the Consultant team and are supported by the professional opinion of Regional Planning Staff. The preliminary preferred options still require the input of the public, stakeholders, and Indigenous groups. Following input received through the 2nd point of engagement the final preferred option will be recommended by Planning Staff for the endorsement of Council. The detailed design process for the NHS and WRS will then begin including detailed region-wide mapping and policy development.

NHS:

Option 3B was identified as the preliminary preferred NHS option. Technical Report #2 provides details of the rationale which is summarized as follows. Option 3B:

- Goes beyond minimum provincial standards for the identification of features and systems which in the long-term will support a more resilient and biodiverse NHS. This option has the added benefit of supporting a range of additional objectives such as helping to mitigate the impacts of climate change.
- Provides a balanced approach for the protection of the NHS by increasing the number of components and features outside of settlement areas and limiting additional constraints to development in settlement areas, thereby helping to support the desire to direct growth to settlement areas. This option is considered defensible from both an ecological and land-use planning perspective.
- Can be designed, mapped, and implemented within the constraints and timelines of the new NOP.
- Effectively considers input received through the 1st point of engagement.

WRS:

Option 2A was identified as the preliminary preferred WRS option. Technical Report #2 provides details of the rationale which is summarized as follows. Option 2A:

- Goes beyond minimum provincial standards for the identification of features and systems which in the long-term will support a more robust and resilient WRS. This option has the added benefit of support a range of additional objectives such as helping to mitigate the impacts of climate change.

-
- Provides a balanced approach for the protection of the WRS by identifying additional regionally-important areas and features outside of settlement areas and limiting additional constraints to development in settlement areas, thereby helping to support the desire to direct growth to settlement areas. This option is considered defensible from both an ecological and land-use planning perspective.
 - Can be designed, mapped, and implemented within the constraints and timelines of the new NOP.
 - Effectively considers input received through the 1st point of engagement.

Additional Considerations

In addition to recommending the preliminary preferred options, Technical Report #2 provides some additional direction towards moving the work program forward including:

- Further direction on which natural features are appropriate to be mapped for the new NOP, and which features are more appropriately protected through policy.
- Further direction on what the appropriate source of information and methods are for many of the features and areas that are recommended to be mapped.
- Recommendations on several of the key issues that have been important to the public and other stakeholders. For example, the report recommends:
 - that offsetting not be considered as part of the policy framework for the new NOP and,
 - that fish habitat is not recommended to be mapped as part of the new NOP (although it would be fully protected by policies in the Official Plan as required by provincial policy). This is the approach taken by many of our comparator municipalities.

Next Steps

The next steps in the Natural Environment Work Program are to:

1. Undertake the 2nd point of engagement with the public, stakeholders, and Indigenous group (i.e Phase 5).
2. Incorporate input received through the consultation process and identify the final preferred option for the NHS and WRS.

3. Present the final preferred option for the NHS and WRS to Regional Council for endorsement.
4. Initiate Phase 6 of the work program which is the detailed design of the systems based on the final preferred options.

Alternatives Reviewed

Council could choose not to direct staff to initiate the 2nd point of engagement with the public, stakeholders, and Indigenous groups. This is not recommended.

Relationship to Council Strategic Priorities

This report is being brought forward as part of the ongoing reporting on the new Niagara Official Plan. The Natural Environment Work Program aligns with Objective 3.2 Environmental Sustainability and Stewardship:

“A holistic and flexible approach to environmental stewardship and consideration of the natural environment, such as in infrastructure, planning and development, aligned with a renewed Official Plan.”

Other Pertinent Reports

- PDS 40-2016 – Regional Official Plan Update
- PDS 41-2017 – New Official Plan Structure and Framework
- PDS 3-2018 – New Official Plan Update
- PDS 6-2018 – Natural Environment Project Initiation Report
- PDS 18-2018 – Natural Environment – Project Framework
- PDS 9-2019 – New Official Plan Consultation Timeline Framework
- PDS 10-2019 – Update on Natural Environment Work Program – New Regional Official Plan
- CWCD 122-2019 – Agricultural and Environmental Groups – Draft Stakeholder Lists
- CWCD 150-2019 – Update on Official Plan Consultations – Spring 2019
- CWCD 179-2019 – Notice of Public Information Centres – Natural Environment Work Program, New Regional Official Plan
- CWCD 271-2019 – Update on Consultation for New Official Plan
- PDS 32-2019 – Natural Environment Work Program – Phases 2 & 3: Mapping and Watershed Planning Discussion Papers and Comprehensive Background Study
- PDS 1-2020 – New Niagara Official Plan – Public Consultation Summary

-
- PDS 3-2020 – Ecological Land Classification Mapping Update
 - PDS 9-2020 – Niagara Official Plan – Consultation Details and Revised Framework
 - CWCD 153-2020 – Natural Environment Work Program Update – New Niagara Official Plan

Prepared by:

Sean Norman, PMP, MCIP, RPP
Senior Planner
Planning and Development Services

Recommended by:

Rino Mostacci, MCIP, RPP
Commissioner
Planning and Development Services

Submitted by:

Ron Tripp, P.Eng.
Acting Chief Administrative Officer

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Appendices

Appendix 1 Natural Environment Work Program: Technical Report #2:
Identification and Evaluation of Options for Regional Natural Environment System(s) –
107 pages

PDS 26-2020 Natural Environment Work Program – Phase 4: Identification and Evaluation of Options

Appendix 1

Natural Environment Work Program: Technical Report #2:
Identification and Evaluation of Options for Regional Natural
Environment System(s)

June 12, 2020

107 Pages



NEW NIAGARA OFFICIAL PLAN

Natural Environment Work Program: Technical Report #2: Identification and Evaluation of Options for Regional Natural Environment System(s)

Niagara Region
June 12, 2020



SUSTAINABLE REGION

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1.0 Introduction

An important component of the new Niagara Official Plan (N.O.P.) is the development of new policies and mapping for the Region's natural environment system(s). This work is essential for the preservation of the Region's natural heritage and water resources, and to bring the Region in conformance the recent provincial plans and mapping. These systems include both the natural heritage system (N.H.S.) and the water resource system (W.R.S.). While the N.H.S. and the W.R.S. are discussed in Provincial documents as two distinct systems with specific policies related to each, they include some of the same features (e.g., wetlands, etc.), are ecologically interconnected, and thus are collectively considered the natural environment system.

In order to inform the development of options for the policies and mapping of the natural environment system, two discussion papers and one technical report were completed in Phase 2 of the Natural Environment Work Program:

- Mapping Discussion Paper – September 2019
- Watershed Planning Discussion Paper– September 2019
- Technical Report #1: Natural Environment Background Study – September 2019

The two discussion papers and Technical Report #1 include information related to the identification of the natural environment system and options for mapping and policy. A brief overview of these documents is provided in **Section 2.0** below.

The topics reviewed in these documents were discussed through consultation with stakeholders and members of the public as part of the 1st Point of Engagement completed in Phase 3 of the Natural Environment Work Program. The feedback and comments received through consultation informed the development of the discussion papers and technical report and documented in the Consultation Summary Report. A summary of the key takeaways from the 1st Point of Engagement is also provided in **Section 2.0**.

1.1 Purpose of this Report

The purpose of this technical report is to develop and evaluate options for Niagara Region's natural environment system, including policies and mapping and to identify preliminary preferred options for the N.H.S. and W.R.S. A key element of developing options will be incorporating Provincial requirements for natural environment planning as reviewed in the discussion papers and Natural Environment Background Study.

2.0 Overview of Discussion Papers, the Natural Environment Background Study and the 1st Point of Engagement

The following provides a brief overview of the Mapping Discussion Paper, Watershed Planning Discussion Paper, Natural Environment Background Study and key takeaways from the 1st Point of Engagement. These reports inform the various options for the design and implementation of a regional natural environment system that meets Provincial requirements and the Region's vision for the natural environment.

2.1 Overview of Mapping Discussion Paper

As a first step in the overall work program a Mapping Discussion Paper was prepared. The purpose of the Mapping Discussion Paper was to review relevant provincial guidance for natural environment mapping, review the Region's existing mapping data, and provide preliminary input towards the development of mapping options. The Mapping Discussion Paper included:

- An evaluation of current regional natural environment mapping to assess the age, quality, accuracy, and sources of information
- Considerations for mapping the natural environment system at a Regional scale
- A review of comparator municipalities
- Consideration of how the natural environment system should be reflected and refined in local Official Plans.
- Recommendations related to what features to map, what datasets required updating and further study (e.g., field verification), what features should be addressed through policy rather than be mapped, and estimated costs for updating datasets of components recommended for mapping as part of the natural environment system(s)

The findings and recommendations from the Mapping Discussion Paper which inform the identification and evaluation of options have been carried forward into this report.

2.2 Overview of the Watershed Planning Discussion Paper

The purpose of the Watershed Planning Discussion Paper was to provide the Region with further understanding of the Provincial watershed planning requirements to inform development of the new N.O.P. This discussion paper reviewed the following topics:

- History and background to watershed planning and its relevance to development of the new N.O.P.
- Summary of provincial draft watershed planning requirements/guidance
- Review of provincial policies, guidelines, and direction with respect to watershed planning that need to be considered and addressed through the new N.O.P.

- Equivalency of Watershed Planning Documents - the equivalency of existing watershed planning documents to the 2018 Draft Watershed Planning guidance document. Gaps and data deficiencies were identified and reviewed with respect to incorporating into the natural systems work program or additional work
- Considerations for policies to reflect watershed planning requirements

The Watershed Planning Discussion Paper also provided recommendations for a watershed planning framework for Niagara Region; an approach was proposed that considered geographical scale, hierarchy of stakeholders and respective responsibilities within the Region, triggers and timelines for study initiation, and inter-relationships for completion of cross-jurisdictional studies.

The findings and recommendations from the Watershed Planning Discussion Paper which inform the identification and evaluation of options for the W.R.S. have been carried forward into this report.

2.3 Overview of Natural Environment Background Study

The Natural Environment Background Study provides an unbiased, fact-based discussion and analysis, and where appropriate provides recommendations related to a list of specific topics that were either of interest to the public and stakeholders, and/or necessary to inform decisions related to the options for the Region's natural environment system. The background study includes:

- A review of relevant Provincial legislation, policies, guidelines and technical criteria related to natural environment planning
- Definitions of key terms and concepts of relevance to natural environment planning
- A review and discussion of Provincial Plans, (i.e. Growth Plan, Greenbelt Plan, and Niagara Escarpment Plan) including a discussion on key changes that inform Niagara's natural environment system. Specific discussion was provided on the implications of the new Growth Plan N.H.S. and Growth Plan Agricultural System on the development of the Region's natural environment systems
- A review and discussion of the range of natural environment work completed by the Niagara Peninsula Conservation Authority (N.P.C.A.) that could inform the Region's natural environment systems
- A review of industry guidance and best management practices related to the identification of the natural environment systems
- A detailed review of the natural environment planning, mapping, and policies of three comparator municipalities
- A review of the connection between climate change and natural environment planning
- A review and discussion of invasive species and natural environment planning
- A review and discussion of shorelines and the role of the Region in shoreline planning and management

- A discussion on natural hazards with direction on if and how natural hazards should be addressed as part of the Region's natural environment systems
- A review of current Provincial direction and best-practices related to offsetting/natural area enhancements in natural environment planning
- A detailed discussion on definitions and criteria for woodlands as they relate to natural environment planning. In addition, this discussion reviewed issues associated with impacts from emerald ash borer, best practices for mapping and refinements, relationship with municipal tree by-laws, illegal cutting, and consideration of silviculture and other planted woodlands
- A review and discussion of fish habitat, including requirements at a Provincial and Federal level
- A review and discussion of linkages, riparian vegetation, and vegetation protection zones
- A review and discussion of the work completed by the Region on watercourse identification and mapping
- A review of the current Regional system and natural environment policies including a gap analysis related to current Provincial requirements
- Identification of trends, issues, and key policy directions for natural environment planning
- A discussion of a suggested framework for new Regional Official Plan policies
- Recommendations for consideration in the design of the Regional natural environment systems, mapping, and policy development
- Preliminary recommendations for criteria that could be used to evaluate various options for Regional natural environment systems

The findings and recommendations from the Natural Environment Background Study which inform the identification and evaluation of options have been carried forward into this report.

2.4 Key Considerations from 1st Point of Engagement

The purpose of the 1st Point of Engagement was to inform the public and stakeholders on the discussion papers and background study and to seek input for the development of options for evaluation in the next phase of the Natural Environment Work Program. In total, nine key themes emerged through the 1st Point of Engagement. The following six themes are considered directly relevant to informing the development of the options for mapping and policies for the natural environment systems:

- **Develop Consistent and Clear Policies** - Developing policies that are consistent with Provincial and Federal legislation and Provincial policies; are clear and defensible; provide the appropriate level of flexibility, and include definitions for key terms to ensure objectives for the natural environment are met and policies are implemented as intended.
- **Take a Systems Approach to Natural Environment Planning** - Watershed planning should form the basis for land use planning. The natural environment

component of the new N.O.P. should take a holistic approach with consideration of the inter-relationships between multiple issues and their cumulative impacts.

- **Recognize the Uniqueness of Niagara's Geography, Natural Environment and Agriculture** - Niagara Region is rich in natural beauty and has a thriving agricultural community that both relies on and supports the natural environment. The approach to natural environment planning needs to recognize this and other important industries and find a balance that achieves the goals and objectives for the natural environment system.
- **Accurately Map the Natural Environment** - The mapping of the natural environment system should ensure a level of accuracy that supports land use planning and includes the best available data; this includes working with agency partners and the community to ensure data is accurate and recent. Available natural environment mapping data should also be accessible in a user-friendly on-line mapping tool.
- **Protect the Natural Environment** - Future natural environment planning in Niagara needs to reflect multiple focuses: protecting existing important natural environment features and restoring/enhancing others. Tools and guidelines will need to be developed to ensure policies are interpreted and implemented as intended.
- **Develop Forward Thinking Natural Environment Policies** - The new N.O.P. should recognize trends and issues in environment planning and provide clear policies to achieve the vision, goals, and objectives for the Region's natural environment.

The themes identified through the 1st Point of Engagement can be summarized into the following statement:

The Region's natural environment system planning framework should be forward thinking, following a systems approach that accurately identifies and protects the natural environment, recognizes the uniqueness of Niagara's geography, and important agricultural system, and is implemented through a clear and consistent set of policies, with roles and responsibilities clearly identified.

This statement will be considered when evaluating the options to determine if they meet the intent of this statement.

3.0 Options for the Natural Environment Systems

The Region's natural environment system will include a N.H.S. and a W.R.S. The minimum policy requirements for each system are set out in Provincial policy documents including the Provincial Policy Statement (P.P.S), the Greenbelt Plan, the Niagara Escarpment Plan and the Growth Plan. These documents have been reviewed

in the Mapping Discussion Paper and set the direction for developing policies for the new N.O.P.

The Province has given municipalities the discretion to develop natural environment systems that exceed minimum Provincial policy requirements so long as they do not conflict with the P.P.S. and other Provincial plans. Therefore, developing the Regional natural environment system should consider a range of options that meet minimum policy requirements/standards, and provide alternatives that include the protection of additional features and areas that are important at the Regional scale and/or provide a system with enhanced ecological integrity and biological diversity. The options also need to address preliminary policy directions relating to the protection of the components of the natural environment system, as informed from the recommendations put forward in the discussion papers, Natural Environment Background Study and from feedback received during the 1st Point of Engagement.

3.1 Policy Direction for the new Niagara Official Plan

The existing Regional Official Plan (R.O.P) policy framework on the natural environment was initially developed in the 1970s and then refined and updated as required. The establishment of a Core N.H.S. on Schedule C in the R.O.P (which is divided into Environmental Protection and Environmental Conservation) was very commonplace in Ontario between the 1970's and the 2000's. It is recognized that in the case of Niagara, there was also an effort made to identify potential natural heritage corridors.

Significant changes have been made to Provincial policy, notably in 2017 with a new Growth Plan and updated Greenbelt and Niagara Escarpment Plans. There is now a need for a very different approach in the new N.O.P. with that approach being based on the establishment of a N.H.S. and a W.R.S. In this regard, Section 18 of the Natural Environment Background Study reviewed a number of considerations, the primary of which are the requirements of the Province with respect to the contents of an upper-tier Official Plan as it relates to N.H.S. and W.R.S. mapping and policies.

In this regard, the P.P.S. (2020) indicates the following in part with respect to Official Plans in general in the Preamble:

“Official plans should also coordinate cross-boundary matters to complement the actions of other planning authorities and promote mutually beneficial solutions. Official plans shall provide clear, reasonable and attainable policies to protect provincial interests and direct development to suitable areas.”

There is also reference in the above to cross boundary issues, which is dealt with as well by Section 1.2.4 of the P.P.S. (2020), which states the following:

“Where planning is conducted by an upper-tier municipality, the upper-tier municipality in consultation with the lower-tier municipalities shall:

e) identify and provide policy direction for the lower-tier municipalities on matters that cross municipal boundaries.”

Section 1.2.1 of the P.P.S. (2020) provides some insight into what those matters that cross municipal boundaries may be and they include items c), e), and f) below:

- "c) Managing natural heritage, water, agricultural, mineral, and cultural heritage and archaeological resources;
- e) Ecosystem, shoreline, watershed, and Great Lakes related issues;
- f) Natural and human-made hazards;"

As per the above, there is an expectation in the P.P.S. that upper-tier Official Plans 'identify and provide policy direction for the lower-tier municipalities on' managing natural heritage and water resources and ecosystem, shoreline, watershed, and Great Lakes related issues. It is noted that Section 2.1.3 of the P.P.S. (2020) requires that N.H.S.s be identified. While there is no specific requirement in the P.P.S. that such a system be identified in an upper-tier Official Plan, it is common practice for upper-tier municipalities to establish and map N.H.S.s in their Official Plans.

In addition, there is also a requirement in the P.P.S. for 'planning authorities' to implement certain planning tools, with a 'planning authority' being either an upper tier, single tier or lower tier municipality. With respect to water resources in particular, Section 2.2.1 of the P.P.S. requires that planning authorities 'protect, improve or restore the quality and quantity of water' by doing certain things. In this regard, there is a specific requirement for a planning authority to:

1. Use the watershed as the ecologically meaningful scale for integrated and long-term planning. Given that watersheds typically extend beyond local municipal boundaries, this implies that there is a need for an upper-tier policy framework and oversight when it comes to watershed planning;
2. Identify water resource systems, which consist of ground water features, hydrologic functions, natural heritage features and areas, and surface water features including shoreline areas, which implies that these areas need to be mapped in an upper-tier Official Plan, if information is available;
3. Maintain linkages and related functions among ground water features, hydrologic functions, natural heritage features and areas, and surface water features including shoreline areas. This implies that there is a need for an upper-tier policy framework on linkages and possibly mapping showing linkages; and,
4. Implement necessary restrictions on development and site alteration to protect all municipal drinking water supplies and designated vulnerable areas and protect, improve or restore vulnerable surface and ground water, sensitive surface water features and sensitive ground water features, and their hydrologic functions. This implies that there is a need for an upper-tier Official Plan to map these features,

where known, and include policies that establish restrictions on development within and adjacent to these features.

Similar to Section 1.2.4 e) of the P.P.S. (2014), Section 5.2.3.2 f) of the Growth Plan (2019) states the following:

“Upper-tier municipalities, in consultation with lower-tier municipalities, will, through a municipal comprehensive review, provide policy direction to implement this Plan, including:

f) addressing matters that cross municipal boundaries.”

The difference between the P.P.S. policy and the Growth Plan policy is that the Growth Plan policy requires that matters that cross municipal boundaries be addressed through a municipal comprehensive review, which is defined as a new Official Plan, or an Official Plan Amendment (O.P.A.). This process would be initiated by an upper-or single-tier municipality under section 26 of the Planning Act to comprehensively apply the policies and schedules of Growth Plan. It is noted, as per the above that there is a requirement to 'comprehensively apply the policies' of the Growth Plan through such a process, which Niagara Region is currently engaged in.

Section 2.2.1.3 of the Growth Plan (2019) provides additional direction to upper-tier municipalities and it indicates in sub-section d) the following:

“Upper- and single-tier municipalities will undertake integrated planning to manage forecasted growth to the horizon of this Plan, which will:

d) support the environmental and agricultural protection and conservation objectives of this Plan;”

Sub-section d) above speaks to the requirement to support the environmental and agricultural protection and conservation objectives of this Plan, which implies that the objectives are to be implemented in some way. Section 4.2.10.1 of the Growth Plan (2019) provides further direction on what upper and single tier Official Plans shall contain, with sub-sections e) and f) being particularly relevant:

“Upper- and single-tier municipalities will develop policies in their official plans to identify actions that will reduce greenhouse gas emissions and address climate change adaptation goals, aligned with other provincial plans and policies for environmental protection, that will include:

e) Recognizing the importance of watershed planning for the protection of the quality and quantity of water and the identification and protection of hydrologic features and areas;

f) Protecting the Natural Heritage System for the Growth Plan and water resource systems;”

With respect to the N.H.S., Section 4.2.2.2 of the Growth Plan (2019) states the following:

"Municipalities will incorporate the Natural Heritage System for the Growth Plan as an overlay in official plans, and will apply appropriate policies to maintain, restore, or enhance the diversity and connectivity of the system and the long-term ecological or hydrologic functions of the features and areas as set out in the policies in this subsection and the policies in subsections 4.2.3 and 4.2.4."

The above policy does not specify what type of municipality is required to identify the N.H.S. as an overlay in their Official Plan - however, incorporating the N.H.S. as an overlay in both upper-tier and lower-tier Official Plans allows for a consistent approach. At a minimum, section 4.2.10.1 f) of the Growth Plan requires that single- and upper-tier municipalities protect this system through the development of policies in their Official Plans. A similar policy requirement also applies to the agricultural system. Section 4.2.2.5 of the Growth Plan (2019) also references single- and upper tier municipalities:

"Upper- and single-tier municipalities may refine provincial mapping of the Natural Heritage System for the Growth Plan at the time of initial implementation of their official plans. For upper-tier municipalities, the initial implementation of provincial mapping may be done separately for each lower-tier municipality. After the Natural Heritage System for the Growth Plan has been implemented in official plans, further refinements may only occur through a municipal comprehensive review."

The above means that only single- and upper-tier municipalities can modify the boundaries of the N.H.S. established by the Province. In addition, once the N.H.S. has been incorporated in Official Plans, only an upper tier or single tier municipality can consider refinements through the municipal comprehensive review process.

With respect to lands outside of the N.H.S. for the Growth Plan (2019), Section 4.2.2.6 states the following:

"Beyond the Natural Heritage System for the Growth Plan, including within settlement areas, the municipality:

- a) will continue to protect any other natural heritage features and areas in a manner that is consistent with the PPS; and
- b) may continue to protect any other natural heritage system or identify new systems in a manner that is consistent with the P.P.S."

This implies that there is some discretion by the municipality for how, in what form and where the N.H.S. will be identified outside of the Growth Plan N.H.S. (and including within settlement areas), so long as it is consistent with the P.P.S.

The above Growth Plan policy supports the consideration of different approaches outside of the provincial N.H.S.s including within settlement areas, provided such approaches are consistent with the P.P.S. It is also noted that the above policy requires that features and other natural heritage features and areas be protected, however, the identification and protection of any other natural heritage system is optional.

In this regard, there is no requirement to establish a natural heritage system outside of provincial N.H.S.s including within settlement areas as long as features are protected in a manner that is consistent with the P.P.S. That said, the Growth Plan Regional N.H.S. Mapping – Technical Report notes the following:

“...that the scale of the NHS is important. Given that NHS mapping for the Growth Plan for the Greater Golden Horseshoe is on a broad, regional scale, it is focused on identifying larger core areas and broad linkages. The mapping was not intended to identify all areas and connect features that may be important to consider at a local or smaller scale...” (O.M.N.R.F. 2018, p. 4).

This statement acknowledges that there may be other features or connections (i.e., linkages) not identified in the Growth Plan N.H.S. that are important for Niagara Region that could be identified as part of Niagara’s N.H.S.

With respect to the W.R.S., Section 4.2.1.1 of the Growth Plan (2019) states the following:

"Upper- and single-tier municipalities, partnering with lower-tier municipalities and conservation authorities as appropriate, will ensure that watershed planning is undertaken to support a comprehensive, integrated, and long-term approach to the protection, enhancement, or restoration of the quality and quantity of water within a watershed."

The above section is similar to Section 2.2.1 of the P.P.S. and applies to all municipalities.

Section 4.2.1.2 of the Growth Plan (2019) then states the following:

"Water resource systems will be identified to provide for the long-term protection of key hydrologic features, key hydrologic areas, and their functions."

The above implies that W.R.S.’s are to be identified in all Official Plans and that designations and policies will be required. This policy direction is also consistent with Section 2.2.1 of the P.P.S.

The Greenbelt Plan contains extensive N.H.S. policies and identifies the spatial extent of the Greenbelt Plan N.H.S.; however, like the Growth Plan, it does not map a W.R.S. With respect to implementation, Section 5.3 of the Greenbelt Plan states the following with respect to the N.H.S.:

“Official plans shall contain policies that reflect the requirements of this Plan together with a map(s) showing the boundaries of the Greenbelt Area, the Protected Countryside, the Natural Heritage System and the agricultural land base. Municipalities shall provide a map showing known key natural heritage features and key hydrologic features and any associated minimum vegetation protection zones identified in this Plan. The identification of the Natural Heritage System boundary will form the basis for applying the policies of section 3.2.”

The above clearly requires that all Official Plans show the boundary of the Greenbelt Area, the Protected Countryside, and the Greenbelt Plan N.H.S. The section goes further to require the preparation of a map showing 'known key natural heritage features and key hydrologic features and any associated minimum vegetation protection zones'.

Section 5.3 of the Greenbelt Plan states the following with respect to components of the W.R.S. (with the second paragraph being directly applicable to Niagara Region):

“Municipalities should also include a map of wellhead protection areas together with associated policies for these areas within their official plans as appropriate and in accordance with any provincial directives on source water protection.

Building on watershed planning, key hydrologic areas shall be identified and the appropriate designations and policies will be applied in official plans to provide for their long-term protection.”

Unlike the P.P.S., Growth Plan and Greenbelt Plan, there are no specific policies in the N.E.P. requiring the mapping of the N.H.S. in an Official Plan, because the N.E.P. does not include nor map a N.H.S.

Section 18.3.4 of the Natural Environment Background Study provides a summary of the Provincial requirements discussed above.

3.1.1 Issues and Trends in Natural Environment Planning

The Natural Environment Background Study reviewed several topics of relevance to current issues and trends in natural environment planning. For example, there is more recognition through legislation and policy to mitigating impacts of climate change and managing invasive species. In addition, there has been significant discussion on the topic of biodiversity offsetting related to other files in the Region. These topics are further discussed below as they may or may not inform the development of the options for the Region’s natural environment systems.

Climate Change

It is widely acknowledged that a more robust natural environment system is more resilient to impacts from climate change, and larger areas of natural cover and impervious surfaces can help to mitigate the impacts of climate change. The Natural Environment Background Study provided recommendations on the types of policies that should be considered for the new N.O.P. It was also recommended that the options ensure connectivity (linkages) between features to be maintained or enhanced. These approaches to addressing the challenges associated with climate change have been carried forward in developing the options for the natural environment systems (see **Section 3.3** and **3.4**) and are further discussed in the evaluation of the options (see **Section 4**).

Invasive Species

Invasive species pose a major threat to the natural environment, where the impacts of invasive species result in changes to vegetation community composition, classification

of a feature and ultimately the protection of the feature and natural environment system as a whole. An example of this is the combined impact to the canopy and understory of woodlands where the canopy trees are dying from invasive insects leaving an understory dominated by invasive shrubs. Under the current woodland definitions and policies, these woodlands may lose their status as significant, therefore the policies that protect significant woodlands may no longer apply to them, resulting in a loss of woodland cover – this is thoroughly discussed in **Section 12.3** of the Natural Environment Background Study. In order to recognize the impacts of invasive species on natural features and their status, and ensure woodland (and natural area cover) in the Region does not decline, either the definition of woodland should account for this change in woodland cover, or policies should be developed that ensure protection of woodlands and natural cover regardless of change in status. For example, Niagara Region could include a policy similar to the Region of Peel, as follows:

“In the event that portions of the significant woodland are damaged or destroyed, either through anthropogenic or natural causes, there shall be no adjustment to the boundary or re-designation of these areas in the area municipal official plans and the Region will require replacement or rehabilitation of the ecological features, functions and/or landforms” (Policy 2.3.2.7, Peel Official Plan).

Another important consideration beyond the policies related to classification and protection of features is the development and implementation of a region-wide invasive species management program. Due to the wide-spread prevalence of invasive species in the Region and their ability to continue to spread and further reduce the natural environment, including ecosystem services, the Natural Environment Background Study recommended the Region develop a coordinated invasive species management plan in conjunction with the area municipalities and/or the Niagara Peninsula Conservation Authority.

Offsetting

There is a recent and controversial history related to the concept of offsetting in Niagara. As a result of this, during early consultation on the Natural Environment Work Program, there were many questions on the topic. Stakeholders requested more information about the concept, and clarification on its application in land use planning in Ontario. The Natural Environment Background Study (**Section 11**) provided an objective review of the current knowledge, best practices and review of existing guidelines for offsetting.

The development of options for the natural environment systems has carefully reviewed and considered requirements for natural environment planning as determined by the P.P.S. and provincial plans, which do not contemplate offsetting as an approach to support natural environment planning. Furthermore, based on the review of best practices and current knowledge of the challenges associated with offsetting as described in the Natural Environment Background Study, and feedback received through the 1st Point of Engagement, it is recommended that offsetting not be an approach the Region consider as part of the natural environment planning framework.

As such, offsetting is not being proposed as part of the policy framework or implementation tools recommended for the Region's natural environment systems.

3.1.2 Impact of Provincial Requirement to Map the Agricultural System

In recognition of the overlap between the Provincial Agricultural System and N.H.S. mapping, the Province has identified four options with respect to mapping in a document entitled 'Implementation Procedures for the Agricultural System in the Greater Golden Horseshoe' dated March 2020. In this regard, the following is stated:

"For clarity and consistency across the GGH, it is recommended that as a best practice, one of four options be used by municipalities for official plan mapping where prime agricultural areas overlap with key natural heritage features and key hydrologic features. In all four options, the Natural Heritage System in the Growth Plan / Greenbelt Plan would be an overlay. As well, permissions for new agricultural uses, agriculture-related uses and on-farm diversified uses where features and prime agricultural areas overlap would be restricted by protective policies (i.e., no development or site alteration)."

It is noted as per the above that the N.H.S. would be an overlay in each of the four identified options. However, key natural heritage features and key hydrologic features within the N.H.S. could be designated within a mutually exclusive land use designation in an Official Plan. Variations of options identified by the Province could be considered as long as prime agricultural areas are clearly delineated, this is further discussed in **Section 3.1.6.**

3.1.3 Implementing the Niagara Escarpment Plan in the New N.O.P.

At the present time, Schedule C of the R.O.P. includes certain lands within the N.E.P. within the Environmental Protection Area and Environmental Conservation Area and also identifies fish habitat, Earth Science Areas of Natural and Scientific Interest and Potential Natural Heritage Corridors.

The N.E.P. is implemented to varying degrees in upper- and lower-tier Official Plans, but not through the application of zoning by-laws pursuant to the Planning Act. Instead of zoning, the Niagara Escarpment Commission (N.E.C.) oversees the issuance of development permits for all development within the N.E.P. area. In addition, the N.E.C. also is responsible for processing applications to amend the N.E.P. and for commenting on applications to amend the Regional and Local Official Plans as required. In addition, the development permit process administered by the N.E.C. also allows for conditions to be included and attached to development permits. To a very large extent, the development permit system relied upon by the N.E.C. is very similar to the development permit process established by the Province through amendments to the Planning Act (now known as the Community Planning Permit System).

It is noted that since N.E.C. implements the N.E.P., some municipalities simply indicate that the N.E.P. applies and direct the reader to the N.E.P. to determine what is permitted and under what conditions. Others repeat the policy framework word-for-word,

or translate the policy framework into the language of the Official Plan. Both of these options would conform to the N.E.P.

3.1.4 Natural Heritage Systems within Settlement Areas

Section 2.1.3 of the P.P.S. states the following:

"Natural heritage systems shall be identified in Ecoregions 6E & 7E1, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas."

The above section implies that the 'size and form' of N.H.S.s can vary based on land use considerations. Given the use of the words 'size and form', this also implies that the criteria relied upon to determine whether a feature is significant could be different if the feature is in a settlement area with the selected criteria recognizing that there are a number of other Provincial policies supporting more compact development forms.

Furthermore, in recognition of the desire for more efficient development patterns in settlement areas, the Region could establish different criteria for determining when a feature is significant in settlement areas and determining whether the identification of enhancements and linkages in settlement areas is appropriate. The approach to minimum vegetation protection zone (V.P.Z.) width could also be different in settlement areas. These options are presented in the **Section 3.2**.

3.1.5 Mapping Options for the Identification of Features in the New N.O.P.

Section 5.2.1 of the Mapping Discussion Paper reviewed five basic approaches to identifying known key natural heritage features, key hydrologic features and natural heritage features and areas (referred to as key features and areas below) in an Official Plan as set out below:

Mapping Option 1 - Designate key features and areas in a separate mutually exclusive land use designation that is shown on an operative Official Plan schedule. Allow for refinements to boundaries and the addition of new key features and areas and the deletion of key features and areas without requiring an Official Plan Amendment;

Mapping Option 2 - Designate key features and areas in a separate mutually exclusive land use designation that is shown on an operative Official Plan schedule. Allow for only 'minor' refinements to boundaries without an Official Plan Amendment and require an Official Plan Amendment for the addition of new key features and areas and the deletion of key features and areas;

Mapping Option 3 - Identify key features and areas as a potential 'constraint to development' on an operative Official Plan schedule and allow for refinements without requiring an Official Plan Amendment (meaning that the features would be an overlay designation that 'sits on top' of other designations);

Mapping Option 4 - Identify key features and areas as a potential 'constraint to development' in an appendix to the Official Plan and allow for refinements without requiring an Official Plan Amendment;

Mapping Option 5 - Identify key features and areas in a companion document that is not part of the Official Plan.

In all options, an Environmental Impact Study or other study approved by the Region would be needed to support refinements and the addition or deletion of key features.

Within the Mapping Discussion Paper, it was determined that mapping option 5 would not conform to Provincial policy since the key features and areas are not mapped in a statutory document. In considering the specific restrictions on development and site alteration within and adjacent to key natural heritage features, key hydrologic features and natural heritage features and areas in Provincial policy, it is concluded within this paper that mapping option 4 would also not conform to Provincial policy. Option 4 will not conform as these key features and areas are not mapped in an operative component of an Official Plan. This leaves mapping options 1 to 3, with option 3 involving the mapping of key features and areas in an overlay designation. These options are presented in **Section 3.2**.

Each of the above options were assessed in the Mapping Discussion Paper based on the following factors:

- Accuracy of information - a high degree of confidence would be required for Options 1 and 2 and less so with each option after Option 2;
- Ability to update information - new information comes into effect when known in all options except Option 2;
- Fairness and transparency when new N.O.P is developed - there is more fairness and transparency with Options 1 to 3 since information can be challenged because features are being mapped in a statutory document;
- Fairness and transparency after N.O.P is in effect - since changes can be made without an OPA in Options 1, 3, 4 and 5, there would be no public process required to consider those changes. However, the impact of the change lessens in Options 4 and 5 because features are not mapped in a statutory document;
- Impacts on planning process - since major refinements to feature boundaries would require an OPA in Option 2, the planning process may be longer as a consequence;
- Ease of access to information - Options 1 and 2 would provide for the greatest ease of access since information on features would be included on a schedule to the OP; and

- Defensibility of approach - Options 1 and 2 are the most defensible since features would be designated in a manner that prohibits development. Option 3 would also be defensible since the features are also mapped in a statutory document. Options 4 and 5 would not conform to Provincial policy since mapping of features is not included in statutory document.

On the basis of the above, the minimum standard option would involve the mapping of key natural heritage features, key hydrologic features and natural heritage features and areas in an overlay designation. It is noted that this overlay designation would be different than the N.H.S. itself, which would also be in an overlay designation as well, meaning that there would be two overlay designations. Prime agricultural areas would be designated and with both the N.H.S and features included in overlay designations, this approach would be similar to the first option identified in the document entitled 'Implementation Procedures for the Agricultural System in the Greater Golden Horseshoe' dated March 2020.

It is noted that while the N.E.P. also contains policies on key natural heritage features and key hydrologic features, they do not have to be identified in the new N.O.P. to meet minimum standard requirements since the N.E.C., not the Region, administers the N.E.P. This means that key natural heritage features and key hydrologic features do not need to be identified or mapped within the N.E.P. area in the new N.O.P.

In addition to features, the Growth Plan and Greenbelt Plan N.H.S.s include linkages and V.P.Z.s. With respect to the linkages, these can be shown on the mapping as a different overlay that distinguishes the feature from the linkage (meaning that this would be the third overlay in the minimum standards approach). Policies on linkages should be consistent with policies related to the N.H.S. for the Growth Plan and Greenbelt Plan. Linkages in a minimum standard option would not be identified on the mapping or through policy outside of the Growth Plan and Greenbelt Plan N.H.S.

With respect to the V.P.Z.s, there are three mapping approaches. The first is to incorporate the 30-metre V.P.Z. requirement as part of the mapping of the feature itself, with policy text explaining the approach (it is noted that the V.P.Z. is reduced to 15 metres by the Greenbelt Plan within the Niagara Peninsula Tender Fruit and Grape Area for new buildings or structures for agricultural, agriculture-related and on-farm diversified uses from permanent and intermittent streams). The second is to establish a separate layer, in the form of another overlay, that goes around each of the features. The third is to not incorporate the mapping of the V.P.Z. at all and rely upon the policy document that indicates that a 30-metre wide (or 15 meters in the Niagara Peninsula Tender Fruit and Grape Area) V.P.Z. is required. V.P.Z.'s would not be identified on the mapping or through policy outside of the Growth Plan and Greenbelt Plan N.H.S.s, although there would be a policy requiring the establishment of a minimum V.P.Z. through a Planning Act process in accordance with the adjacent lands policies of the P.P.S.

3.2 Policy Framework Options for the Natural Heritage System

Given the previous discussion, there are a number of options that can be considered respecting how features and other elements of the N.H.S. are mapped in the new N.O.P. (designation versus overlay). In addition, the establishment of a N.H.S. beyond the N.H.S. established by the Growth Plan and Greenbelt Plan is optional. Lastly, different criteria for determining the significance of features can be applied in different parts of the Region (most notably within settlement areas).

Part III of the P.P.S. (2020), “How to Read the Provincial Policy Statement”, notes that the policies and direction provided in the P.P.S. “represent minimum standards” as described in the following statement:

“The policies of the Provincial Policy Statement represent minimum standards.

Within the framework of the provincial policy-led planning system, planning authorities and decision-makers may go beyond these minimum standards to address matters of importance to a specific community, unless doing so would conflict with any policy of the Provincial Policy Statement.”

Based on direction from the P.P.S. and Provincial plans and previous discussions related to policy considerations and approaches provided in **Section 3.1**, three N.H.S. options have been developed for consideration and evaluation. The first option involves implementing Provincial policy in a manner that achieves what is required to meet minimum standards. In Option 1 this option would treat the two Provincial N.H.S.s (Growth Plan and Greenbelt Plan) and key features and areas throughout the Region as an overlay, meaning that at least two overlays would be established. In this option, linkages would not extend beyond the two Provincial N.H.S.s, although significant features outside of the two Provincial N.H.S. systems would be included within an overlay. The second option includes the same as Option 1, but would designate the same key features and areas in a mutually exclusive land use designation, with the two Provincial N.H.S.s (Growth Plan and Greenbelt Plan) continuing to be an overlay.

Option 3 goes beyond the minimum standards (as permitted by the P.P.S.) by building upon Options 1 and 2, and includes sub-options with an increasing number of optional components, enhancements, and connections that would have the effect of establishing a spatially larger N.H.S. that extends beyond the two Provincial N.H.S.s (Growth Plan and Greenbelt Plan).

In developing the options, the following were considered:

- Desire to have:
 - A complex, flexible system;
 - A more simple, prescriptive system; or
 - Options for both.

- Interest and support for meeting minimum provincial requirements or going beyond in developing the natural environment system.
- Land-use specific policy considerations:
 - Consistent across similar geographies; or
 - One or more distinct policy-groups for urban, rural, and/or agricultural.
- Treatment of the N.H.S. and W.R.S. (both the Provincial and local) as designated land-uses or as land-use overlays.
- Treatment of Buffers, Enhancement Areas and Linkages as:
 - Part of the N.H.S. / W.R.S.; or
 - Supplementary/other components.

3.2.1 N.H.S. Option 1 - Minimum Standards - Overlay

The Province has developed the N.H.S. for the Growth Plan and a N.H.S. for the Greenbelt Plan, which must be incorporated as an overlay in the new N.O.P. Although it addresses only part of the Region, it could be interpreted as providing the required N.H.S. for Niagara Region, thus fulfilling Section 2.1.3 of the P.P.S. that requires a N.H.S. be identified. This approach is also consistent with Section 4.2.2.6 of the Growth Plan which states that municipalities have the option of establishing a N.H.S. outside of the Growth Plan N.H.S. This is further supported by the statement in the document entitled 'Implementation Procedures for the Agricultural System in the Greater Golden Horseshoe' dated March 2020, that indicates that "if local natural heritage systems are identified outside of the Provincial natural heritage system for the Growth Plan / Greenbelt Plan natural heritage system ...".

The above implies that while features and areas beyond the N.H.S. for the Growth Plan and Greenbelt Plan must be protected according to policies of the P.P.S., there is discretion as to if and how the municipality will identify a local N.H.S. beyond the Growth Plan and Greenbelt Plan N.H.S.s. As a result, minimum standards in this case would mean that a local N.H.S. outside of the Growth Plan and Greenbelt Plan N.H.S.s would not be required.

The N.H.S. for the Growth Plan does not apply to lands that are subject to the N.E.P. However, the N.E.P. does not include a N.H.S. and nor is there a requirement in the N.E.P. for a N.H.S. to be mapped in Official Plans.

In addition to identifying the two Provincial N.H.S.s as overlays, Section 5.3 of the Greenbelt Plan specifically requires that key natural heritage features, key hydrologic features and any associated minimum vegetation protection zones be mapped. While there is no direction in this section on whether this mapping is to be in an Official Plan, it is our opinion that this option would identify key features and minimum vegetation protection zones in the Greenbelt Plan N.H.S. also as an overlay on an operative schedule to the Official Plan.

There is no similar explicit requirement in the Growth Plan to map key features. As there are specific restrictions on development and site alteration within and adjacent to key natural heritage features and key hydrologic features in the Growth Plan N.H.S. and within and adjacent to key hydrologic features outside of settlement areas, it is our

opinion that they should also be identified as an overlay on an operative schedule to the Official Plan. With respect to vegetation protection zones and linkages within the Growth Plan, they have already been included as part of the N.H.S. mapping for the Growth Plan. That said, mapping of vegetation protection zones for those Key Natural Heritage Features and Key Hydrologic Features within the Growth Plan that require a vegetation protection zone should be illustrated as an overlay. Outside of the Growth Plan and Greenbelt N.H.S.'s, it is also our opinion that including significant natural heritage features in an overlay would be appropriate, because of the specific restrictions on development and site alteration in the P.P.S (2020) and to support implementation of these policies.

On the basis of the above, N.H.S. Option 1 would include the following:

- The N.H.S. for the Growth Plan and the N.H.S. for the Greenbelt Plan.
- Key natural heritage features within the Greenbelt Plan and Growth Plan N.H.S.
- Key hydrologic features outside of settlement areas
- Significant Natural Heritage Features outside of the Growth Plan and Greenbelt Plan N.H.S.s, as identified in the P.P.S.

Figure 1 shows a conceptual representation of N.H.S. Option 1 of the N.H.S. within a representative area of Niagara Region. It should be recognized that the mapping represents a conceptual approach to mapping N.H.S. Option 1, and includes datasets that will be updated prior to the completion of the final mapping for the Region's N.H.S.

Details of N.H.S. Option 1 - Components

Growth Plan

On lands subject to the Growth Plan, the following would need to be incorporated in the new N.O.P.:

- The **N.H.S. for the Growth Plan** is included as an overlay designation. This N.H.S. would not extend into lands within settlement areas.
- The following features would be identified as key natural heritage features in the N.H.S. for the Growth Plan:
 - Habitat of endangered species and threatened species;
 - Fish habitat;
 - Wetlands (also considered to be a key hydrologic feature by the Growth Plan and the Greenbelt Plan);
 - Life science areas of natural and scientific interest (A.N.S.I.'s);
 - Significant valleylands;
 - Significant woodlands;
 - Significant wildlife habitat (including habitat of special concern species);
 - Sand barrens, savannahs, and tallgrass prairies; and
 - Alvars.

(Note: these key features are the same in the Greenbelt Plan but differ from the features identified in the N.E.P. and the P.P.S.).

- Of the above key natural heritage features, wetlands (including Provincially significant wetlands and non-Provincially significant wetlands), life science A.N.S.I.s, and significant woodlands, would be included in a separate overlay designation the new N.O.P. on the same schedule, or on a different schedule if required, since there is only so much that can be adequately shown on the same schedule.
- For those features that are not included in the overlay, policies would be required to ensure that appropriate studies be completed to verify their presence and extent, as necessary.
- The policies in Section 4.2.2.3 of the Growth Plan dealing with negative impacts, connectivity, the removal of features, the amount of disturbed area permitted, and agricultural uses within the N.H.S. for the Growth Plan would be incorporated within the new N.O.P. as is.
- The restrictive development and site alteration policies that apply to key natural heritage features within the N.H.S. for the Growth Plan in Section 4.2.3 of the Growth Plan would be incorporated within the new N.O.P. as is.
- The restrictive development and site alteration policies that apply to lands within 120 meters of key natural heritage features within the N.H.S. for the Growth Plan in Section 4.2.4 of the Growth Plan would be incorporated within the new N.O.P. as is.
- For fish habitat, and significant woodlands, a V.P.Z. of no less than 30 metres, measured from the outside boundary of the key natural heritage feature is required. Other key natural heritage features and areas will require a V.P.Z. as determined through an approved study. The restrictions and exemptions related to development or site alteration in V.P.Z.'s, as noted in Section 4.2.4.3, would apply and these restrictions would also be included in the new N.O.P. as is.

Greenbelt Plan

On lands subject to the Greenbelt Plan, the following would need to be incorporated in the new N.O.P.:

- The Greenbelt N.H.S. is included as an overlay designation.
- The following features would be identified as key natural heritage features in the Greenbelt N.H.S.:
 - Habitat of endangered species and threatened species;
 - Fish habitat;
 - Wetlands;

- Life science A.N.S.I.s;
 - Significant valleylands;
 - Significant woodlands;
 - Significant wildlife habitat (including habitat of special concern species);
 - Sand barrens, savannahs, and tallgrass prairies; and
 - Alvars.
- Of the above features, wetlands (including Provincially significant wetlands and non-Provincially significant wetlands), life science A.N.S.I.s, and significant woodlands and related minimum V.P.Z.s would be included in in a separate overlay designation the new N.O.P. on the same schedule, or on a different schedule if required, since there is only so much that can be shown adequately on the same schedule.
 - For those features that are not within the overlay, policies would be required that ensure that appropriate studies be completed to verify the presence and extent of these features, and to ensure that the policies are applied as necessary.
 - The restrictive development and site alteration policies that apply to lands within and adjacent to key natural heritage features within the Greenbelt Plan N.H.S. in Section 3.2.5 of the Greenbelt Plan would be incorporated within the new N.O.P. as is. The policies affecting key natural heritage features are similar, but not the same as the policies affecting key natural heritage features in the Growth Plan.
 - In the case of wetlands, fish habitat, and significant woodlands, a minimum 30 metre V.P.Z., measured from the outside boundary of the key natural heritage feature is required (the V.P.Z. is reduced to 15 metres for agricultural buildings in the Niagara Peninsula Tender Fruit and Grape Area). A V.P.Z. will be required for other key natural heritage features within the N.H.S. or key hydrologic features anywhere within the Protected Countryside as determined through a natural heritage evaluation or a hydrological evaluation, where development is proposed within 120 metres of a feature. The restrictions and exemptions related to development or site alteration in vegetation protection zones, as noted in Section 3.2.5.1, shall apply.

Provincial Policy Statement

On lands that are outside of the N.H.S. for the Growth Plan and the Greenbelt Plan N.H.S., outside of the N.E.P., and within settlement areas, the following would need to be incorporated in the new N.O.P.:

- In this minimum standards option, linkages and enhancement areas would not be established on lands that are outside of the N.H.S for the Growth Plan and the Greenbelt N.H.S.
- The following features would be identified as natural heritage features and areas and subject to the development and site alteration policies of the P.P.S.:

- Significant wetlands;
 - Significant coastal wetlands;
 - Habitat of endangered species and threatened species;
 - Fish habitat;
 - Significant areas of natural and scientific interest;
 - Significant valleylands;
 - Significant woodlands; and
 - Significant wildlife habitat.
- Of the above features, significant wetlands, significant areas of natural and scientific interest and significant woodlands would be included in an overlay designation the new N.O.P. on the same schedule, or on a different schedule if required, since there is only so much that can be shown on the same schedule. Natural heritage features and areas that are present in settlement areas would also be included as an overlay.
 - For those features that are not within the overlay, policies would be required that ensure that appropriate studies be completed to verify the presence and extent of these features, and to ensure that the policies are applied as necessary.
 - The restrictive development and site alteration policies that apply to lands within and adjacent to features dealt with by the P.P.S. in Sections 2.1.4 to 2.1.8 would be incorporated within the new N.O.P. as is.
 - Mandatory buffers or V.P.Z.s of any kind adjacent to significant natural heritage features would not be identified through policy, since there are no mandatory buffer or V.P.Z. requirements in the P.P.S. (2020). Instead, the policies would require an environmental impact study to support the establishment of a buffer or V.P.Z. through a Planning Act process only.

3.2.2 N.H.S. Option 2 – Minimum Standards - Designation

This option would be similar to N.H.S. Option 1 except that key features would be designated in a mutually exclusive land use designation instead of being in an overlay. There are no policy differences in N.H.S. Options 1 and 2 since policies would be included in the new N.O.P. that prohibit development and site alteration within and adjacent to features, regardless of whether they were included in an overlay or a designation. As a result, the only difference in the approach is how the features are mapped. This also means that the prime agricultural area and the key features would be in mutually exclusive designations, as opposed to key features being in an overlay on top of the prime agricultural area designation in Option 1.

3.2.3 N.H.S. Option 3 – Going Beyond Minimum Standards

N.H.S. Option 3 builds on N.H.S. 1 and N.H.S. 2 by establishing a local N.H.S. that includes linkages and enhancement areas, extending beyond the Growth Plan and Greenbelt Plan N.H.S.'s. Option 3 also establishes three scenarios (as summarized in **Table 1**) that progressively exceed minimum standards (i.e. minimum provincial requirements). In this regard, all of the key natural heritage features, key hydrologic

features and significant natural heritage features that are designated in Option 2 would also be designated in each of N.H.S. Options 3A, 3B and 3C. The restrictive Provincial policies on development and site alteration would also be incorporated in the new N.O.P. as per Options 1 and 2. Additional linkages and component features and areas are added as per Options 3A, 3B and 3C, although linkages are not included in settlement areas in Options 3A and 3B.

Table 1. Overview of Natural Heritage System Options: 3A, 3B and 3C.

	N.H.S. 3A	N.H.S. 3B	N.H.S. 3C
Component Features and Areas	<ul style="list-style-type: none"> • Key Natural Heritage Features within the N.E.P. • Other Key Natural Features and Areas outside of provincial N.H.S.s, but only outside of settlement areas 	<ul style="list-style-type: none"> • Key Natural Heritage Features within the N.E.P. as per Option 3A • Other Key Natural Features and Areas outside of provincial N.H.S.s both outside and in settlement areas • Supporting Features and Areas outside of settlement areas 	<ul style="list-style-type: none"> • Key Natural Heritage Features within the N.E.P. as per Options 3A and 3B • Other Key Natural Features and Areas outside of provincial N.H.S.s both outside and in settlement areas as per Option 3B • Supporting Features and Areas in all of the Region, including both outside and within settlement areas
Connecting the System (linkages)	<ul style="list-style-type: none"> • Large Linkages only between Key Natural Features and Areas outside of settlement areas 	<ul style="list-style-type: none"> • Large and Medium Linkages between Key Natural Features and Areas outside of settlement areas 	<ul style="list-style-type: none"> • Large, Medium and Small Linkages between Key Natural Features and Areas outside of settlement areas • Small Linkages between Key Natural Features and Areas in settlement areas where the potential linkage area is in a natural state
Buffers/ Vegetation Protection Zones (to Key Natural Features and Areas)	<ul style="list-style-type: none"> • Suggested policy minimums outside of provincial N.H.S.s and outside of settlement areas 	<ul style="list-style-type: none"> • Suggested policy minimums outside of provincial N.H.S.s, both inside and outside of settlement areas 	<ul style="list-style-type: none"> • Mandatory buffers outside of settlement areas (that can be reduced through study) with suggested policy minimums inside settlement areas

N.H.S. in the Niagara Escarpment Plan Area

In addition to the above, the following key natural heritage features in the N.E.P. area would also be designated in each of Options 3A, 3B and 3C:

- Wetlands;
 - Habitat of endangered species and threatened species;
 - Fish habitat;
 - Life science A.N.S.I.;
 - Earth science A.N.S.I.;
 - Significant valleylands;
 - Significant woodlands;
 - Significant wildlife habitat; and
 - Habitat of special concern species in escarpment natural and escarpment protection areas.
- Of the above features, wetlands (including Provincially significant wetlands and non-Provincially significant wetlands), life and earth science areas of natural and scientific interest (A.N.S.I.s) and significant woodlands would be designated within the N.E.P.
 - For those features that are not designated, policies would be required that ensure that appropriate studies be completed to verify the presence and extent of these features, and to ensure that the policies are applied as necessary.
 - The restrictive development and site alteration policies that apply to lands within and adjacent to key natural heritage features within the N.E.P. area in Section 2.7 would be incorporated within the new N.O.P. as is. The policies affecting key natural heritage features are similar, but not the same as the policies affecting key natural heritage features in the Growth Plan and Greenbelt Plan. In this regard, a mandatory minimum V.P.Z. is not included in the N.E.P.

Other Features and Supporting Features and Areas

In addition to the above, items 1, 3 and 4 below could be included in each of Options 3A, 3B and 3C as individual overlays where mapping is available within the N.H.S.:

1. Key hydrologic features (note that these features are also considered to be part of the W.R.S. and two options - overlay versus designation are discussed in Section 3.3.1 of this report);
2. Federal and provincial parks and conservation reserves;
3. Other natural heritage features and areas (that are not defined as key natural heritage features);
4. Lands that have been restored or have the potential to be restored to a natural state;
5. Areas that support hydrologic functions; and
6. Working landscapes that enable ecological functions to continue.

Of the above, areas that support hydrologic functions (item 5) would be dealt with in the W.R.S. policy framework.

Provincial parks could be included for information purposes, however, it is not recommended that it be specifically included within the Region's N.H.S. because of the variety of uses that exist on these lands. There are no conservation reserves in Niagara Region but there are a number of conservation areas owned by the N.P.C.A. that could also be identified for information purposes.

This leaves other natural heritage features (item 3), lands that have been restored or have the potential of being restored (item 4) and areas and working landscapes (item 6). With working landscapes, these would be difficult to define and map, therefore it is recommended that they not be included as components of the N.H.S. Furthermore, they are often addressed through stewardship rather than policy that may unnecessarily restrict activities associated with other complementary uses. Other natural heritage features and areas could be shown as an overlay on an operative schedule. For Options 3A and 3B, these other natural features could be identified outside of settlement areas, where information is available. For Option 3C, such features would also be identified as an overlay in settlement areas.

Lands that have been restored or have the potential of being restored would be considered 'supporting features and areas' or 'enhancement areas'. Similar to the above, these areas could be identified as an overlay outside of settlement areas in Options 3A and 3B, where information is available. For Option 3C, such areas could also be identified as an overlay in settlement areas as well. Enhancement areas should be illustrated as an overlay as they may not entirely be comprised of an area in a natural state (i.e., they may contain developed areas or active recreational areas). A fulsome discussion of options for enhancement areas is provided in **Appendix 1, Section 1.10.1**. For illustrative purposes, figures representing the options for the N.H.S. where enhancements are proposed would include what is referred to as "enhancement area option 2".

Buffers/Vegetation Protection Zones in the N.H.S.

Lastly, while the Growth Plan and Greenbelt Plan prescribe minimum V.P.Z.s, there is no such prescribed width in the N.E.P. or P.P.S. On this basis, a flexible approach to V.P.Z.s outside of the Provincial N.H.S.s is suggested in Option 3A for features outside of settlement areas. In Option 3B, the flexible approach also applies to features in settlement areas as well. For Option 3C, mandatory V.P.Z.s are applied to features outside of settlement areas. Buffers and V.P.Z.s could be shown as an overlay on an operative schedule. For areas outside of Provincial Plan areas where a minimum V.P.Z. has been prescribed, recommended minimum and mandatory buffer widths have been proposed in **Appendix 1, Section 1.12**.

Figures 2a, 2b and 2c provide a visual for comparison of N.H.S. Options 3A, 3B and 3C within a representative area of Niagara Region based on the direction for mapping discussed in **Section 6.0** of this technical report. It should be recognized that the mapping represents a conceptual approach to mapping N.H.S. Option 3A, 3B and 3C,

and includes datasets that are anticipated to be updated prior to the completion of the final mapping for the Region's N.H.S. Once a preferred option is selected, detailed mapping for the entire Region would occur through Phase 7 and 8 of the Natural Environment Work Program

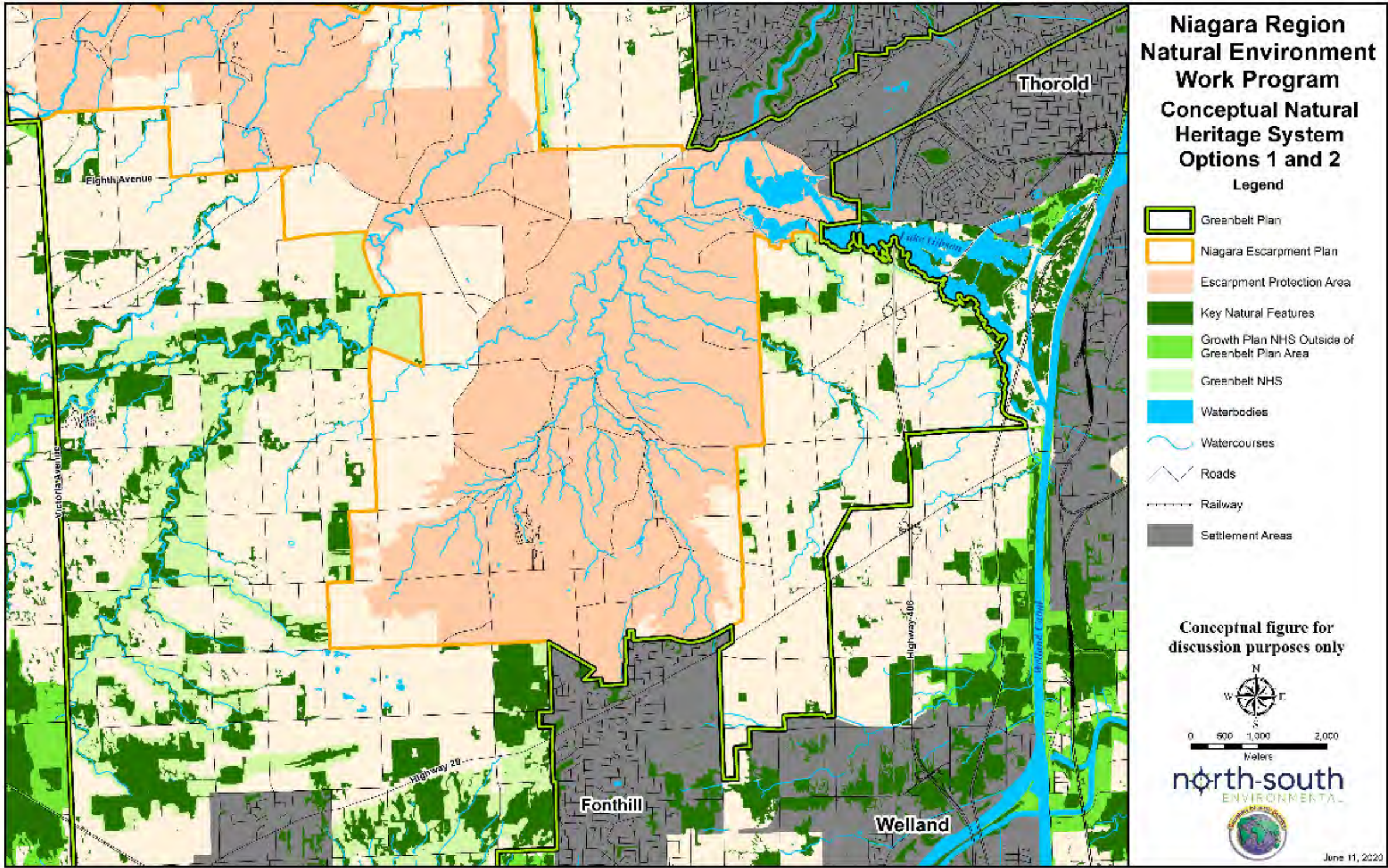


Figure 1. Conceptual illustration of N.H.S. Option 1 and 2.

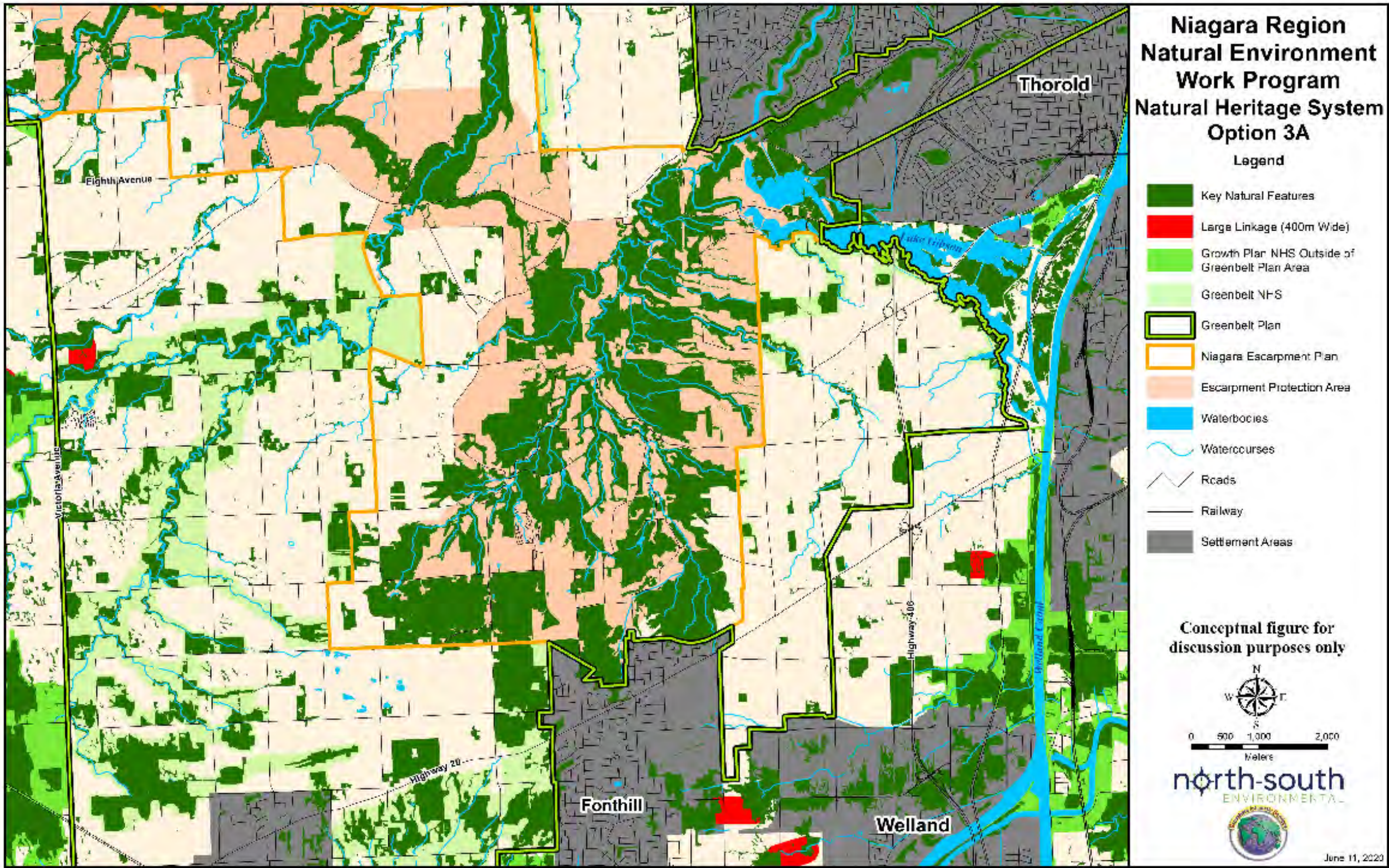


Figure 2a. Conceptual illustration of N.H.S. Option 3A.

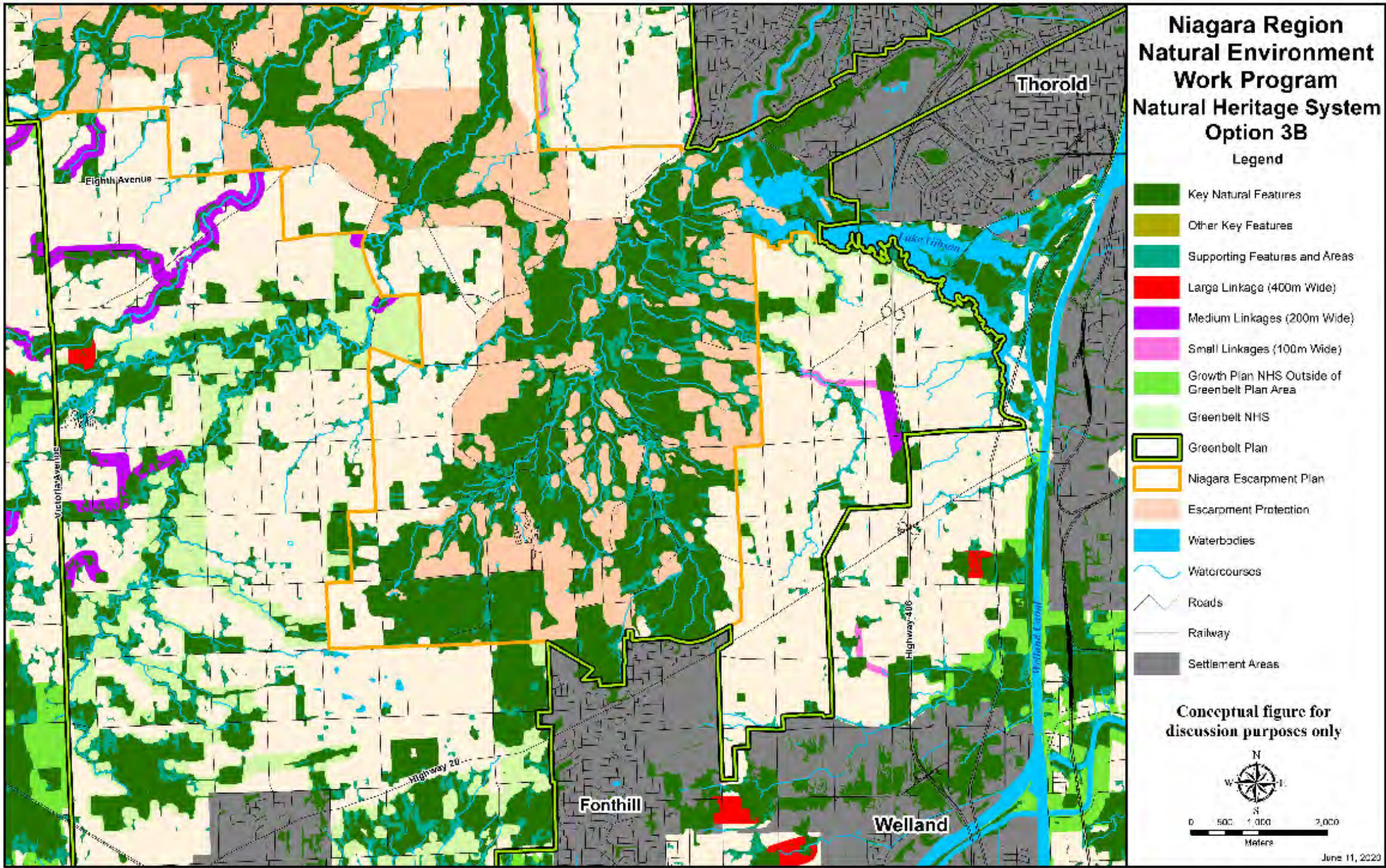


Figure 2b. Conceptual illustration of N.H.S. Option 3B.

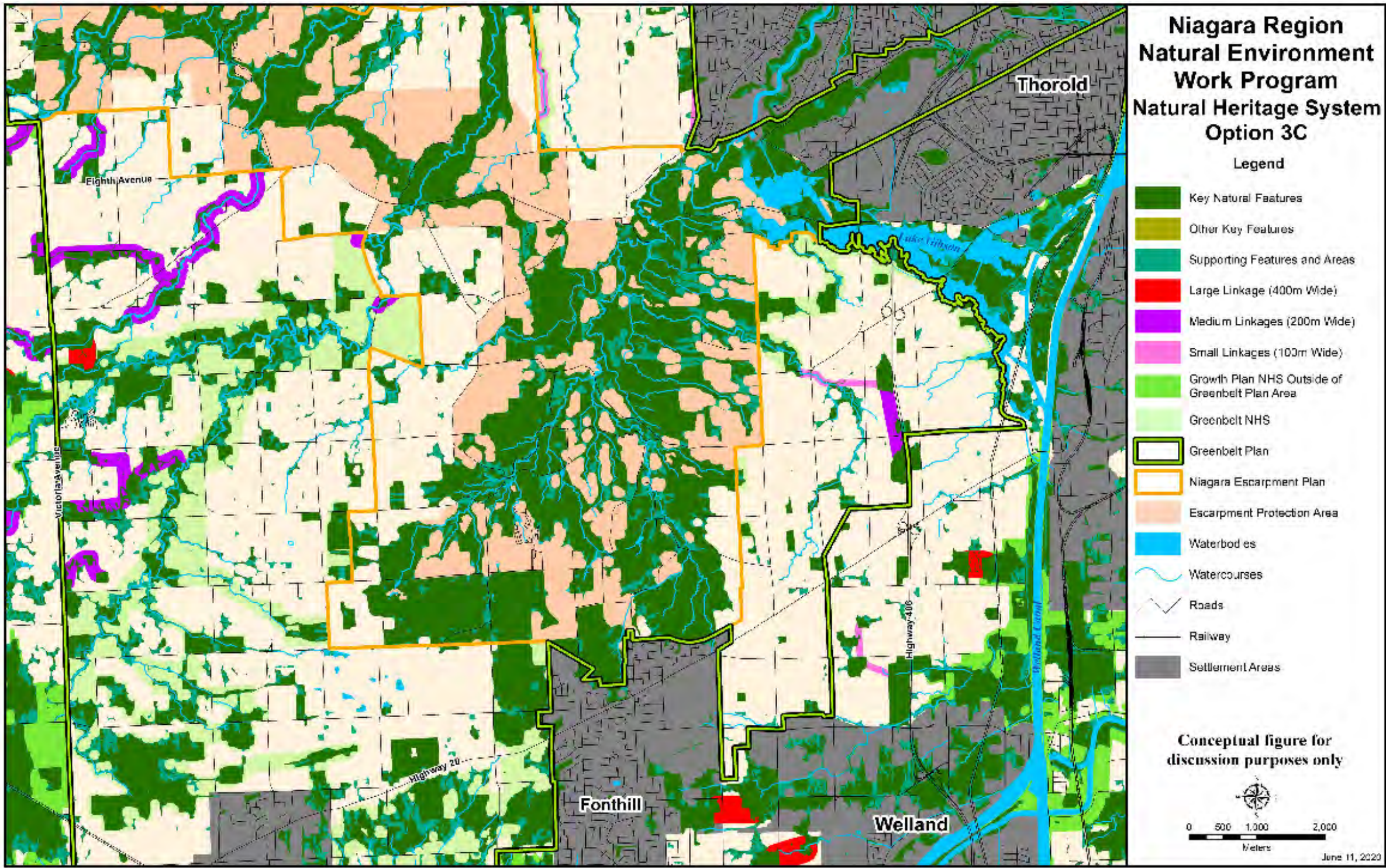


Figure 2c. Conceptual illustration of N.H.S. Option 3C.

3.2.4 Components of the Natural Heritage System

The above section described options for the N.H.S. that include various component features. The components of the N.H.S. have been grouped into the following categories:

- Key Features and Areas;
- Other Key Features (required in Greenbelt Plan N.H.S. and in W.R.S., but otherwise optional for N.H.S.);
- Supporting Features and Areas (considered optional components of the N.H.S.);
- Linkages (a required component of the N.H.S.); and
- Buffers/V.P.Z.s.

These categories are further expanded in **Table 2**. While there are some options and recommendations regarding criteria for component features (e.g., Significant Woodlands) as discussed in **Appendix 1**, the framework of options does not establish a final set of criteria for those components. Varying widths for linkages have been provided to enable evaluation of the options, but these are expected to be refined following consultation during the 2nd Point of Engagement and through the detailed design of the system in phase 7 and 8 of the Natural Environment Work Program. The review of definitions and potential criteria for other components have been discussed in **Appendix 1** of this technical report and will be further defined in subsequent phases of this work program.

Table 2. Components of the Natural Heritage System.

Category	Provincial Document	Components
Key Features and Areas	Natural heritage features and areas as per P.P.S.	<ul style="list-style-type: none"> Provincially Significant Wetlands (P.S.W.s) and coastal wetlands Significant woodlands Significant Life Science A.N.S.I. Significant Earth Science A.N.S.I. Fish Habitat Significant Valleylands Significant Wildlife Habitat Habitat of Threatened and Endangered Species
	Key Natural Heritage Features as per Growth Plan and Greenbelt Plan	<ul style="list-style-type: none"> Wetlands (Provincially and non-Provincially Significant) Significant woodlands Life Science A.N.S.I. Fish Habitat Significant Valleylands Significant Wildlife Habitat Habitat of Threatened and Endangered Species Sand barrens, savannahs, tallgrass prairies and alvars
	Key Natural Heritage Features as per the Niagara Escarpment Plan	<ul style="list-style-type: none"> Wetlands (Provincially and non-Provincially Significant) Significant woodlands Life Science A.N.S.I. Earth Science A.N.S.I. Fish Habitat Significant Valleylands Significant Wildlife Habitat Habitat of Threatened and Endangered Species Habitat of special concern species in Escarpment Natural Area and Escarpment Protection Area designations
	Key Hydrologic Features as per Greenbelt Plan	<ul style="list-style-type: none"> Wetlands (Provincially and non-Provincially Significant) Permanent and intermittent streams Inland lakes and their littoral zones Seepage areas and springs
Other Key Features	Key Hydrologic Features as per the Growth Plan	<ul style="list-style-type: none"> Permanent and intermittent streams Inland lakes and their littoral zones Seepage areas and springs

Category	Provincial Document	Components
		<ul style="list-style-type: none"> Wetlands (all wetlands outside of settlement areas)
Supporting Features and Areas	As per the definition of N.H.S. in the P.P.S, Growth Plan and Greenbelt Plan	<ul style="list-style-type: none"> Other natural heritage features and areas; this could include: <ul style="list-style-type: none"> Other woodlands (i.e., not meeting the criteria as Significant Woodland) Grasslands/meadows not meeting the criteria as Significant Wildlife Habitat that are continuous with Core Features and Areas Non- P.S.W.s in settlement areas Other valleylands Other wildlife habitat Lands that have been restored or have the potential to be restored to a natural state <ul style="list-style-type: none"> Enhancement areas
Linkages	Growth Plan, Greenbelt Plan, P.P.S.	<p>Types of Linkages (potential)</p> <ul style="list-style-type: none"> Large Linkages = Between large Core Areas (>50ha): 200-400m wide Medium Linkages = Between medium Core Areas (>20 ha): 100-200 m wide Small Linkages = Between small Core Areas (>10 ha): 50-100 m wide
Buffers/ Vegetation Protection Zone	As defined in the Provincial Plans and recommended in Section 1.12 of Appendix 1	<ul style="list-style-type: none"> Vegetation protection zone widths would be applied as defined in the Provincial plans for those plan areas The following buffers widths for areas outside of the Provincial Plans have been recommended (as described in Appendix 1, Section 1.12): <ul style="list-style-type: none"> If minimum buffers: <ul style="list-style-type: none"> Outside of settlement areas <ul style="list-style-type: none"> All features = 30 m Inside of settlement areas <ul style="list-style-type: none"> P.S.W.s = 30 m All other key natural features = 15 m If mandatory buffers: <ul style="list-style-type: none"> Inside and outside of settlement areas <ul style="list-style-type: none"> All features = 30 m

3.3 Policy Framework Options for the Water Resource System

3.3.1 Introduction to Identification of the Water Resource System

The identification of a W.R.S. is relatively new in Provincial planning. As such, there is limited guidance or existing examples in other jurisdictions that provide best practices.

The direction for the identification of a W.R.S, as noted in policy 4.2.1.3 of the Growth Plan states:

“Watershed planning or equivalent will inform:

- a) the identification of water resource systems.”

It is acknowledged in the Watershed Planning Discussion Paper that much of the information exists to develop the equivalent of a region-wide watershed plan, and makes reference to municipal and provincial databases on N.H.S.s, subwatershed plans, monitoring data, etc. More recently, the Region, in partnership with the N.P.C.A. developed the Contemporary Mapping of Watercourses dataset that contains a comprehensive, up-to-date and accurate geospatial dataset of watercourses. Subwatershed studies and other reports (e.g., N.P.C.A. Groundwater Study) include datasets and assessments of W.R.S. features. In particular, subwatershed studies identify key hydrologic functions and key hydrologic areas and consider existing conditions and future conditions associated with urban development and other impacts (e.g., climate change).

Subwatershed studies and other reports can also inform policy development, as they inherently apply current best practices in their characterization and management recommendations for W.R.S. features and areas. Through reviewing these existing studies, specific areas can be identified for mapping in the W.R.S. and policies can be developed based on the recommendations from these studies. It should be recognized that the data contained in subwatershed studies can be quite dated and the recommended methods and protocols may vary widely between subwatershed studies. These aspects need to be considered when assembling and vetting the data for use in mapping the W.R.S. That said, the existing studies, geospatial datasets and reports are considered equivalent to Regional watershed planning and sufficient to inform the identification of the W.R.S.

Two primary options have been proposed for the W.R.S., including the following:

- W.R.S. Option 1 –minimum standards related to Provincial planning requirements
- W.R.S. Option 2 –going beyond minimum standards including an increasing number of components and potential connections.

3.3.2 W.R.S. Option 1 – Minimum Standards

This option reiterates the policy direction for the W.R.S. established through policy in the P.P.S., Growth Plan and the Greenbelt Plan. There is no similar requirement in the N.E.P. to map a W.R.S. The basic elements of this policy framework are described below.

Growth Plan and Greenbelt Plan

As mentioned above, there is an expectation that watershed planning will inform the identification of a W.R.S. and inform how the quality and quantity of water will be protected, enhanced or restored. At a minimum, for lands subject to the Growth Plan and the Greenbelt Plan, the following would need to be incorporated in the new N.O.P.:

- The following features would be included as key hydrologic features in the W.R.S.:
 - Permanent streams and intermittent streams;
 - Inland lakes and their littoral zones;
 - Seepage areas and springs; and
 - Wetlands (which are also considered to be key natural heritage features by the Growth Plan and the Greenbelt Plan).
- The following areas would be included as key hydrologic areas in the W.R.S.:
 - Significant groundwater recharge areas;
 - Highly vulnerable aquifers; and
 - Significant surface water contribution areas.
- The inclusion of other components of the W.R.S. would be informed by watershed planning or equivalent. The following components would be included as part of the W.R.S., as informed by watershed planning or equivalent (Section 4.2.1.3), where they are considered “necessary to sustain healthy aquatic and terrestrial ecosystems and human water consumption”:
 - Ground water features:
 - recharge/discharge areas;
 - water tables; and
 - aquifers and unsaturated zones.
 - Surface water features:
 - headwaters;
 - recharge/discharge areas; and
 - associated riparian lands that can be defined by their soil moisture, soil type, vegetation or topographic characteristics.
 - Hydrologic functions; and
 - Shoreline areas.
- The W.R.S. would be shown as an overlay designation on an operative schedule of the Official Plan. This overlay would extend into settlement areas. Given the

absence of information on the location and in particular the boundaries of elements of the W.R.S., only certain elements of the W.R.S. can be mapped at this time.

- Wetlands (which are both key natural heritage features and key hydrologic features) are also considered to be a component of the Growth Plan N.H.S. and the Greenbelt Plan N.H.S in this option; they would be identified as an overlay, as per N.H.S. Option 1.
- The policies in Section 4.2.2.3 of the Growth Plan and Section 3.2.2 of the Greenbelt Plan relating to key hydrologic features that deal with negative impacts, connectivity, removal of features, and agricultural uses within the N.H.S. for the Growth Plan and Greenbelt Plan would be incorporated within the new N.O.P. as is.
- The restrictive development and site alteration policies that apply to key hydrologic features anywhere in the Region except for settlement areas, the Greenbelt Plan area and the N.E.P. area, also in Section 4.2.3 of the Growth Plan and Section 3.2.4 of the Greenbelt Plan would be incorporated within the new N.O.P. as is.
- The restrictive development and site alteration policies that apply to lands within 120 m of key hydrologic features anywhere in the Region except for settlement areas and the N.E.P. Area, also in Section 4.2.4 of the Growth Plan and Section 3.2.5 of the Greenbelt Plan, would be incorporated within the new N.O.P. as is.
- For key hydrologic features, a V.P.Z. of no less than 30 metres, measured from the outside boundary of the key hydrologic feature, is required (the V.P.Z. is reduced to 15 metres for agricultural buildings in the Niagara Peninsula Tender Fruit and Grape Area. Evaluations will be required to identify any additional restrictions to be applied before, during, and after development to protect the hydrologic and ecological functions of the feature. The restrictions and exemptions related to development or site alteration in V.P.Z.s, as noted in both the Growth Plan and Greenbelt Plan would apply.

Provincial Policy Statement

Policy 2.2.1 of the P.P.S. notes the following:

“Planning authorities shall protect, improve or restore the quality and quantity of water by:

- a) identifying water resource systems consisting of ground water features, hydrologic functions, natural heritage features and areas, and surface water features including shoreline areas, which are necessary for the ecological and hydrological integrity of the watershed.”
- The P.P.S. does not include any other policies related to the W.R.S. The Region would therefore have the ability to implement policies specific to settlement areas

that ensure adequate protection of the components of the W.R.S., while still directing appropriate development and infill within settlement areas.

- Similar to the direction provided in the Growth Plan, the identification of these components and the evaluation of their contribution to the ecological and hydrological integrity of the watershed is best determined through watershed planning or equivalent. Watershed Planning studies or the equivalent would also inform policy development. That said, it is expected the policies related to the W.R.S. in settlement areas would apply to the following, as informed through a review of existing watershed studies and geospatial datasets contained therein:
 - Ground water features;
 - Hydrologic functions;
 - Natural heritage features and areas; and
 - Surface water features, including shorelines.

Figure 3 provides a visual of W.R.S. Option 1 within a representative area of Niagara Region based on the direction for mapping discussed in **Section 6** of this technical report. It should be recognized that the mapping represents a conceptual approach to mapping the W.R.S. and includes datasets that are anticipated to be updated prior to the completion of the final mapping for the Region's W.R.S.

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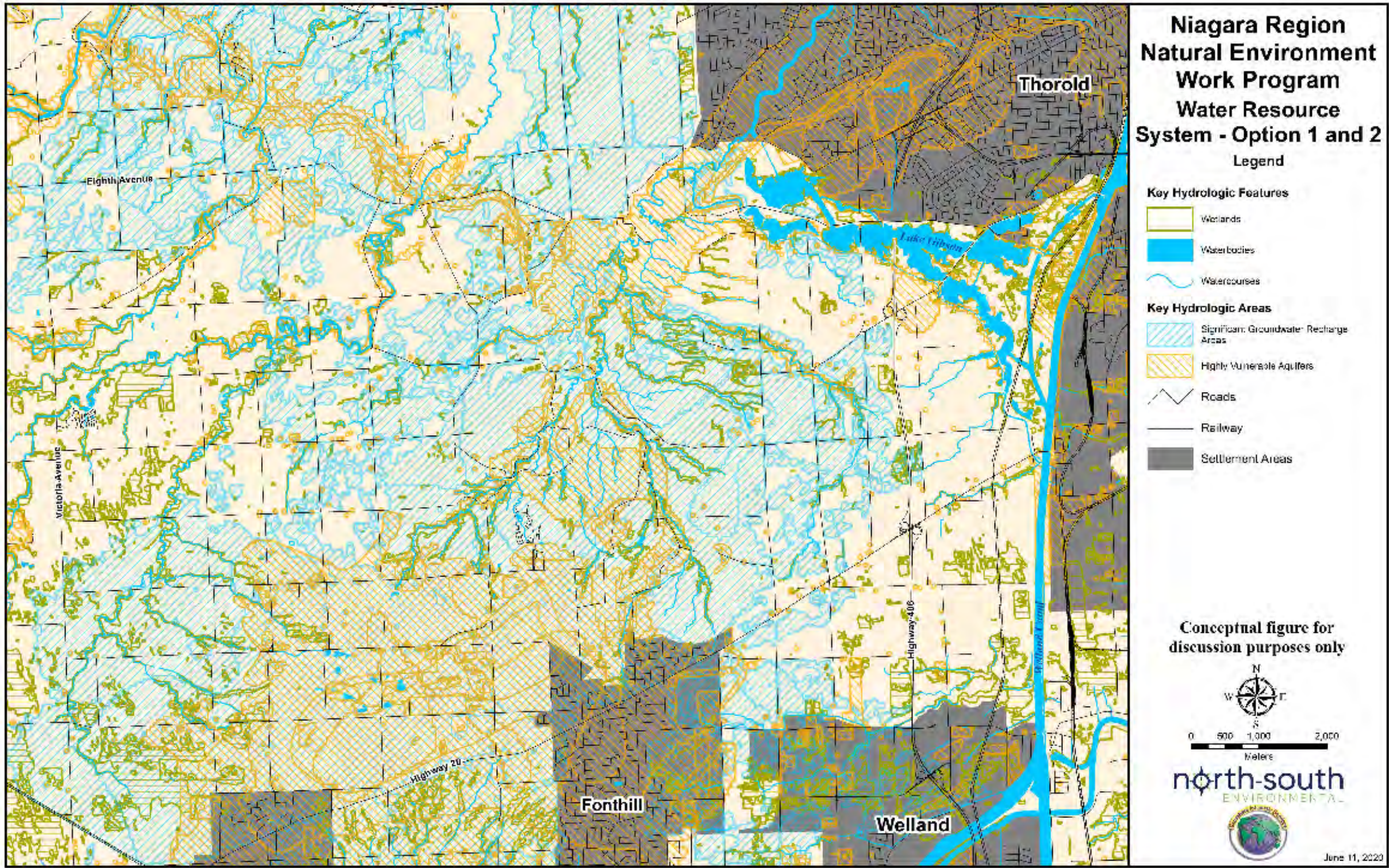


Figure 3. Conceptual illustration of Water Resource System Option 1.

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3.3.3 W.R.S. Option 2 – Going Beyond Minimum Standards

W.R.S. Option 2 includes all of the policy direction and components as identified in W.R.S. Option 1 as well as additional features and areas as informed through watershed planning or equivalent. The main difference between W.R.S. Option 1 and 2 would be the inclusion of additional components that goes beyond the required components of the W.R.S. Another difference would be that all key hydrologic features outside of settlement areas would be designated as per N.H.S. Option 2. Beyond this, the additional components may include:

- Headwater Drainage Features;
 - classified as “Protection”
 - classified as “Conservation”
- Ecologically Significant Groundwater Recharge Areas; or
- Hydrologic Functions;
 - Floodplain
 - Karst features.

W.R.S. Option 2 has been further divided into Options 2A and 2B where the main difference would be including or excluding these additional components in settlement areas:

- W.R.S. Option 2A – includes all of the components of W.R.S. plus the additional components listed above located outside of settlement areas only
- W.R.S. Option 2B - includes all of the components of W.R.S. plus the additional components listed above located region-wide, including within settlement areas

3.3.4 Components of the Water Resource System

The components of the W.R.S. (**Table 3**) have been grouped into required categories (Key Hydrologic Features and Key Hydrologic Areas) and those features or areas that are to be informed by watershed planning or equivalent. Definitions, and in some cases, preliminary criteria have been provided for the components of the W.R.S. described in **Appendix 2**.

Table 3. Components of the Water Resource System.

Category	Components
Key Hydrologic Features (required)	<ul style="list-style-type: none"> • Permanent streams and intermittent streams • Inland lakes and their littoral zones • Seepage areas and springs • Wetlands
Key Hydrologic Areas (required)	<ul style="list-style-type: none"> • Significant groundwater recharge areas • Highly vulnerable aquifers • Significant surface water contribution areas

Category	Components
Ground water features (to be informed by watershed planning or equivalent)	<ul style="list-style-type: none"> • Recharge/discharge areas • Ecologically Significant Groundwater Recharge Areas • Water tables • Aquifers and unsaturated zones
Surface Water Features (to be informed by watershed planning or equivalent)	<ul style="list-style-type: none"> • Headwaters • Recharge/discharge areas • Associated riparian lands that can be defined by their soil moisture, soil type, vegetation or topographic characteristics.
Hydrologic functions (to be informed by watershed planning or equivalent)	<ul style="list-style-type: none"> • Floodplain • Karst
Shoreline areas	<ul style="list-style-type: none"> • Recommended to be defined as 30 m (98 ft) from the limits of the shoreline flood hazard
Vegetation Protection Zone	<ul style="list-style-type: none"> • For key hydrologic features, a vegetated protection zone of no less than 30 m, measured from the outside boundary of the key hydrologic feature, is required outside of settlement areas.

4.0 Approach to Evaluate Natural Environment System Options

Each of the options characterized in **Section 3** will be assessed using a set of criteria that represent the full range of considerations identified through the Natural Environment Background Study to assess how they perform in each area. The options are also compared against each under each set of criteria to identify which option best fulfills the criteria. An evaluation of the options against a set of criteria and each other will not only assist the Region in identifying the preferred option for the natural environment system, including mapping and policies, but provides a defensible, transparent process that responds to input from the consultation process.

4.1 Evaluation of Options for the Natural Environment Systems

Preliminary criteria were developed in the Natural Environment Background Study based on consultation with the Technical Advisory Group (T.A.G.), and with input from stakeholders and the public during the 1st Point of Engagement. The general themes of the preliminary criteria considered the following:

- Consistency;
- Balance;
- Defensibility;
- Effectiveness; and
- Effective use of resources.

The feedback received from the 1st Point of Engagement has been used to build on these themes and develop the criteria to evaluate the options. Furthermore, following the 1st Point of Engagement, several key themes emerged that have been summarized in the following statement:

“The Region’s natural environment system planning framework should be forward thinking, following a systems approach that accurately identifies and protects the natural environment, recognizes the uniqueness of Niagara’s geography, and important agricultural system, and is implemented through a clear and consistent set of policies, with roles and responsibilities clearly identified.”

This statement is considered when evaluating the options to determine if the options meet the intent of this statement.

It should be recognized that the evaluation of options is a relative qualitative comparison of how each option achieves the criteria. The evaluation is not a scoring, weighting or quantitative analysis of each option. The evaluation is largely a value-based exercise that is intended to identify the option(s) which best fulfill the criteria, and ultimately the desire of the Region, stakeholders, and the public to provide policies and mapping that will achieve the goals and objectives for the natural environment system.

It should be noted that the criteria related to ensuring consistency with legislative requirements was not carried forward in the evaluation, as this criterion is redundant since it is Provincial policy, not laws and legislation that require that certain features be protected. Specifically, it is recognized that the Endangered Species Act (E.S.A.) does apply to endangered and threatened species and there is a process specific to those species that would apply regardless of which natural environment system option were selected by the Region.














Likewise, the criterion related to ‘Conformity with Provincial Direction and Plans’ is not included in the evaluation because all of the options proposed have been developed to ensure they conform to the requirements of the policies of the P.P.S. and Provincial plans. However, it should be noted that N.H.S. Options 3A, 3B and 3C exceed minimum standards with respect to the number of components and areal extent of the system.

The results of the evaluation of options for the N.H.S. and W.R.S. against the criteria and each other are provided in **Table 4** and **Table 5** respectively. A visual representation of the extent to which each option fulfills the criteria is provided along with a discussion of how the options meet each criterion. For some of the categories

several options fulfill the criteria; however, the option that best fulfills the criteria was indicated by a green circle for the N.H.S. and a blue circle for the W.R.S.

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Table 4. Evaluation of options for the Natural Heritage System.

Evaluation Criteria	Ability of Option to Meet Criteria (full =  , partial =  , minimal = )					Comparison of Options
	1	2	3A	3B	3C	
Consistent						
Achieves the Vision, Goals and Objectives of the new N.O.P., with consideration of Regional Council's strategic priorities						<p>The Region has not finalized a Vision, Goals and Objectives for the new N.O.P. However, through feedback received during the 1st Point of Engagement, the options have been reviewed against this statement:</p> <p>“The Region’s natural environment system planning framework should be forward thinking, following a systems approach that accurately identifies and protects the natural environment, recognizes the uniqueness of Niagara’s geography, and important agricultural system, and is implemented through a clear and consistent set of policies, with roles and responsibilities clearly identified”.</p> <p>Nothing in any of the options imposes additional restrictions to normal farming practices as already identified in Provincial policy, as such, all of the options recognize the importance of the agricultural system.</p> <p>Both N.H.S. Options 3B and 3C meet the intent of the above noted statement. However, Option 3C best represents a forward thinking systems approach since it includes additional linkages and features.</p>
Balanced						
Considers stakeholder needs and interests						<p>Agriculture - Generally speaking, Provincial policy recognizes and permits agricultural uses in and adjacent to key features within the two Provincial N.H.S.s and recognizes existing agricultural uses. As a result, while additional lands may be identified in Options 3A and 3B and 3C, the impacts of doing so would be negligible. As such, the agricultural communities’ needs have been recognized in all options.</p> <p>Development and Growth - Potential impacts on efficient development patterns in urban areas increase in Option 3C in particular as a result of the inclusion of additional key features, supporting features and linkages, which may have an impact on the location and amount of net developable areas. The constraints on other land uses resulting from identifying additional land in the form of larger features, other features and linkages in Option 3C is a consideration, particularly in settlement areas, where there is a desire to support efficient and compact development. Impacts may also be felt with rural development as a result of applying Options 3A, 3B and 3C on rural residential lot creation and other forms of rural development.</p> <p>Environmental Protection – Moving from Options 3A through 3C, the system includes more features and supporting areas, and connectivity, thus N.H.S. Option 3C provides a relatively higher degree of confidence that the N.H.S. will provide a resilient, interconnected system that preserves and enhances natural features, ecological functions and native biodiversity.</p> <p>Option 3B would best provide a balanced option that considers stakeholder needs as it includes Supporting Features and Areas outside of provincial N.H.S.s that would increase the resiliency of the system, but only outside of settlement areas as not to encumber growth and intensification within settlement areas.</p>

Evaluation Criteria	Ability of Option to Meet Criteria (full = ●, partial = ◐, minimal = ◑)					Comparison of Options
	1	2	3A	3B	3C	
Provides flexibility to achieve balanced land use planning or provides clear direction with respect to how balanced land use planning will be achieved	◐	◑	◐	◐	◐	<p>Option 1 provides the most flexibility when considering the development of land uses since only the features are identified in an overlay designation. In Option 2, these same lands would be designated, meaning that there may be less flexibility when considering alternative land uses. It is noted however that the policy framework is the same in both options.</p> <p>In Options 3A, 3B and 3C, other lands having environmental value would be identified along with an increasing requirement to identify buffers, thus having an impact on the location and form of development.</p>
Defensible						
Policies and identification of systems are informed by best practices (i.e., supported by science)	◐	◐	◑	◐	●	<p>This criterion has more to do with the criteria relied upon to identify the components of the N.H.S. The ecological integrity of a system as a whole is more robust when linkages and enhancement areas are identified to support the resiliency of the system, particularly when they are identified region-wide. While the policy and mapping options have all been based on best practices, and follow a science-based approach to ensure defensible and rigorous policies and mapping, Option 3B applies the most balanced, defensible approach. The approach in Option 3B incorporates both an ecological approach to identifying a complete system which includes linkages and enhancement areas outside of settlement areas; this has the effect of limiting constraints on development in settlement areas. As such, N.H.S. Option 3B would be highly defensible at a Local Planning Appeal Tribunal (L.P.A.T.) hearing from an ecological and land use planning perspective.</p>
Policies follow a systems-based approach	◐	◐	◑	◑	◐	<p>While N.H.S. options 1 and 2 are representative of a systems approach, it does not apply across the Region.</p> <p>Options 3A, 3B apply across the Region (including lands within the NEP), except for identifying linkages in settlement areas, whereas Option 3C would include linkages in settlement areas. Option 3C includes the largest areal extent including additional linkages and enhancements, including within settlement areas.</p>
Effective						
Ensure protection of the natural environment system	◐	◐	◑	◑	◐	<p>Moving from N.H.S. Option 3A through 3C, the system includes more features and supporting areas and connectivity, thus providing an increasing degree of confidence that the N.H.S. will provide a resilient, interconnected system that preserves and enhances natural features, ecological functions, and native biodiversity. Furthermore, a larger more robust natural environment system is more resilient to the impacts from climate change, and larger areas of natural cover and impervious surfaces can help to mitigate impacts of climate change. Option 3C best ensures the protection of a region-wide N.H.S, including within settlement areas.</p>
The policies can be effectively implemented	●	◐	◑	◑	◐	<p>Provincial policy outlines in considerable detail how features are to be protected and under what conditions development may be considered. This would apply across all of the options.</p> <p>For the other supporting features, enhancement areas and linkages included in Options 3A, 3B and 3C, the Region has the ability and discretion to establish policies that are based on local context. However, moving beyond Provincial policy requires more consideration for how policies could be interpreted and implemented. Implementation tools may need to be developed to support the interpretation and implementation of some policies (e.g., buffer guidelines).</p> <p>Given the relative ease of implementing Provincial policy requirements compared with a more complex policy framework that would result through Options 3A, 3B and 3C, N.H.S. Option 1 and 2 would result in a simpler policy framework. However, by designating features, Option 2 ensures that policies protecting features can be more effectively implemented.</p>

Evaluation Criteria	Ability of Option to Meet Criteria (full = ●, partial = ◐, minimal = ◑)					Comparison of Options
	1	2	3A	3B	3C	
Directing development to desired locations that support the objectives of the Province with respect to the location of growth and development	●	●	◐	◐	◑	All of the options would support development in desired locations (e.g. infill / intensification, etc.) where appropriate, because each option provides additional flexibility in settlement areas. However, Option 3C may have the most impact on growth and development in settlement areas since linkages in the settlement areas are a component of Option 3C. This means that since Options 1, 2, and 3A do not identify other key features, enhancement or linkages in settlement areas, these options would impose the least amount of restrictions to development in settlement areas. Since Option 3A identifies a more complete system, including linkages and enhancement areas outside of settlement areas, development would also be more likely to occur in settlement areas, where growth is more desirable; as such, Option 3A best fulfills this criterion.
Time and Resourcing						
Anticipated timeline for approval	◑	◑	●	◐	◑	This criterion considers the timeline and resources required to implement both the policies of the natural environment system, as well as subsequent development applications that require implementation of the natural environment policies of the new N.O.P. Based on feedback received through the 1 st Point of Engagement, there is a desire to protect the N.H.S., while ensuring development is directed to appropriate locations. Option 3B best fulfills this criterion related to approval of the new N.O.P. and limiting constraints to development in settlement areas, which would not include linkages, while providing flexibility to permit appropriate development in settlement areas.
Anticipated timeline to develop implementation tools (e.g., mapping, screening tools, E.I.S. guidelines, water resource study guidelines, etc.)	◐	●	●	◐	◑	Compared with Options 1 and 2, moving through Options 3A, 3B and 3C would require a greater need for implementation tools to provide clear guidance and direction for implementing enhancement areas, linkages, identifying ecologically appropriate buffers, and applying criteria as defined in the new N.O.P. or updated Environmental Impact Study Guidelines. Since Option 3A largely identifies features and areas outside of settlement areas, implementation could rely more heavily on Provincial guidance such as the Greenbelt Plan Technical Definitions and Criteria for Key Natural Heritage Features in the N.H.S. of the Protected Countryside Area (O.M.N.R. 2012) and the Natural Heritage Reference Manual (O.M.N.R. 2010). There would be few implementation tools required to map the N.H.S. or implement policies for Options 1 and 2. With Option 1 identifying the N.H.S. as an overlay and across a smaller area of the Region, mapping the system would require less time, and fewer tools or guidance documents would be required.
Anticipated costs to develop implementation tools (e.g., mapping, screening tools, E.I.S. guidelines, water resource study guidelines, etc.)	◐	●	●	◐	◑	It is expected that for Options 1, 2 and 3A, the Region could rely more heavily on Provincial guidance such as the Greenbelt Plan Technical Definitions and Criteria for Key Natural Heritage Features in the N.H.S. of the Protected Countryside Area (O.M.N.R. 2012) and the Natural Heritage Reference Manual (O.M.N.R. 2010). When identifying additional key natural features, enhancements, linkages and buffers outside of the Provincial plan areas and within settlement areas, there will be additional resources and tools required to support the interpretation and implementation of policies and mapping.

Table 5. Evaluation of options for the Water Resource System.

Evaluation Criteria	Ability of Option to Meet Criteria (full = ●, partial = ◐, minimal = ◑)			Comparison of Options
	1	2A	2B	
Consistent				
Achieves the Vision, Goals and Objectives of the new N.O.P. with consideration of Regional Council's strategic priorities	●	●	●	<p>The Region has not finalized a Vision, Goals and Objectives for the new N.O.P. However, through feedback received during the 1st Point of Engagement, the options have been reviewed against this statement:</p> <p>"The Region's natural environment system planning framework should be forward thinking, following a systems approach that accurately identifies and protects the natural environment, recognizes the uniqueness of Niagara's geography, and important agricultural system, and is implemented through a clear and consistent set of policies, with roles and responsibilities clearly identified".</p> <p>None of the options are intended to impose additional restrictions to normal farming practices as already identified in Provincial policy, as such, all options recognize the importance of the agricultural system.</p> <p>All three W.R.S. options meet the intent of the above noted statement. However, Option 2B best represents a forward thinking systems approach that would protect more of the components of the W.R.S. region-wide. In addition all wetlands would be designated in Options 2A and 2B.</p>
Balanced				
Considers stakeholder needs and interests	◐	◑	◐	<p>Agriculture - Generally speaking, Provincial policy recognizes and permits agricultural uses in and adjacent to key hydrologic features and hydrologic areas within the two Provincial N.H.S.s and recognizes existing agricultural uses. While additional lands may be identified in Option 2, the impacts of doing so would be negligible. As such, the agricultural communities' needs have been recognized in all options.</p> <p>Development and Growth - The impacts of identifying additional land in Option 2A and 2B on other land uses is a consideration, particularly where rural development is proposed in the form of residential lot creation for both options and for development in settlement areas in option 2B. Option 1 would provide the least amount of constraints to development, particularly in settlement areas where the W.R.S. would not identify additional components.</p> <p>Environmental Protection – Option 2B includes more features and areas, thus Option 2B provides a relatively high degree of confidence that the W.R.S. will provide long-term protection of key hydrologic features, key hydrologic areas, and their functions.</p> <p>Option 2A would best provide a balanced option that considers stakeholder needs as it identifies more components of the W.R.S. that would increase the resiliency of the system, but only outside of settlement areas as not to encumber growth and intensification within settlement areas.</p>

Evaluation Criteria	Ability of Option to Meet Criteria (full = ●, partial = ◐, minimal = ◑)			Comparison of Options
	1	2A	2B	
Provides flexibility to achieve balanced land use planning or provides clear direction with respect to how balanced land use planning will be achieved	◐	●	◐	<p>W.R.S. Option 1 provides some flexibility when considering the development of land uses since only the required features and areas and associated minimum prescribed V.P.Z.s are identified in an overlay designation outside of settlement areas.</p> <p>While Options 2A and 2B identify additional features, Option 2A provides the most balanced approach to land use planning as the additional features are identified outside of settlement areas, thus supporting directing development into settlement areas. Furthermore, the additional features identified in W.R.S. Option 2B are most often located in rural areas (e.g., headwater drainage features), contained within other key natural features, or confined by surrounding development in settlement areas. Therefore, it is anticipated that Option 2A would capture most of these features, and by not including them in settlement areas, growth and development can more appropriately be achieved in settlement areas.</p>
Defensible				
Policies and identification of systems are informed by best practices (i.e., supported by science)	◐	●	◐	<p>This criterion has more to do with the criteria relied upon to identify the components of the N.H.S. The ecological integrity of a system as a whole is more robust when linkages and contributing areas are identified to support the resiliency of the system, as well if the system applies region wide. While the policy and mapping options have all been based on best practices and follow a science-based approach to ensure defensible and rigorous policies and mapping, Option 2A applies the most balanced, defensible approach. The approach in Option 2A incorporates both an ecological approach to identifying a complete system, while limiting constraints on development in settlement areas. As such, W.R.S. Option 2A would be highly defensible at an L.P.A.T. hearing from an ecological and land use planning perspective.</p>
Policies follow a systems-based approach	◐	◐	●	<p>While W.R.S. Options 1 and 2A are representative of a systems approach, they do not apply across the entire Region.</p> <p>While there would be different policies applying to features based on geography, Options 2B would apply region-wide, and include lands within the N.E.P. Option 2B includes the largest areal extent and includes contributing areas, therefore, allowing the policies to be applied to a more inclusive system.</p>
Effective				
Ensure protection of the natural environment system	◑	◑	●	<p>Moving from W.R.S. Option 1 through 2B, the system includes more hydrologic features and areas, thus, providing an increasing degree of confidence that the W.R.S. will provide a resilient system that will provide long-term protection of key hydrologic features, key hydrologic areas, and their functions. Furthermore, a larger more robust W.R.S. is more resilient to impacts from climate change, and identification and protection of larger areas of natural cover and impervious surfaces can help to mitigate the impacts of climate change. Option 2B best ensures the protection of the W.R.S. by identifying the system region-wide, including in settlement areas.</p>
The policies can be effectively implemented	●	◐	◑	<p>Provincial policy outlines in considerable detail how components of the W.R.S. outside of settlement areas are to be protected and under what conditions development may be considered. This would apply across all of the options.</p> <p>For the other hydrologic features and areas included in Option 2B, the Region has the ability and discretion to establish policies that are based on local context. However, moving beyond Provincial policy requires more consideration for how policies could be interpreted and implemented. Implementation tools may need to be developed to support the interpretation and implementation of some policies (e.g., identification and treatment of floodplain zones in settlement areas; approach to protect and/or manage headwater drainage features).</p> <p>Option 1 provides relative ease of implementing Provincial policy requirements compared to the more complex policy framework that would result through Options 2A and 2B; therefore, Option 1 better fulfills this criterion.</p>

Evaluation Criteria	Ability of Option to Meet Criteria (full = ●, partial = ◐, minimal = ◑)			Comparison of Options
	1	2A	2B	
Directing development to desired locations that support the objectives of the Province with respect to the location of growth and development	●	●	◐	All of the options would aim to support development in desired locations (e.g. infill / intensification, etc.) where appropriate. Even Option 2B could include policies that encourage protection of the additional components identified, while permitting appropriate development to occur in settlement areas. However, with the identification of additional hydrologic features and areas in settlement areas, additional restrictions would be imposed. That said, Option 2A increases the potential for constraints outside of settlement areas, but not in settlement areas, as such would have the effect of directing development to settlement areas.
Time and Resourcing				
Anticipated timeline for approval	◐	●	◐	This criterion considers the timeline and resources required to implement both the policies of the natural environment system, as well as subsequent development applications that require implementation of the natural environment policies of the new N.O.P. Based on feedback received through the 1 st Point of Engagement, there is a desire to protect the W.R.S., while ensuring development is directed to appropriate locations. Option 2A best fulfills this criterion related to approval of the new N.O.P. and limiting constraints to development in settlement areas, as it identifies a region-wide system, while providing flexibility to develop policies that support appropriate development in settlement areas.
Anticipated timeline to develop implementation tools (e.g., mapping, screening tools, E.I.S. guidelines, water resource study guidelines, etc.)	●	◐	◐	Moving through Options 1, 2A and 2B, there would be a greater need for implementation tools to provide clear guidance and direction for identifying the components of the W.R.S. Since Option 1 mainly identifies hydrologic features and areas outside of settlement areas, implementation could rely more heavily on Provincial guidance. There would be fewer implementation tools required to map the W.R.S. or implement policies for Option 1.
Anticipated costs to develop implementation tools (e.g., mapping, screening tools, E.I.S. guidelines, water resource study guidelines, etc.)	●	◐	◐	It is expected that for Option 1 the Region can more readily obtain existing information and geospatial datasets from existing source (e.g., Contemporary Mapping of Watercourses dataset, watershed planning reports, etc.). When identifying additional hydrologic features and areas, there will be additional resources and tools required to support the interpretation and implementation of policies and mapping.

5.0 Preliminary Preferred Option for the Region's Natural Environment System

Following the evaluation of the options against the criteria, the following have been identified as the preliminary preferred options:

- N.H.S. Option 3B
- W.R.S. Option 2A

The following sections provide an overview of the evaluation and explanation regarding the selection of the preferred options for the N.H.S. and the W.R.S.

5.1 Natural Heritage System Preliminary Preferred Option

The following provides a summary of the framework for N.H.S. Option 3B:

- The N.H.S. for the Growth Plan and the N.H.S. for the Greenbelt Plan are both identified as an overlay;
- A N.H.S. would also be established as an overlay on lands outside of the Growth Plan and Greenbelt Plan N.H.S., but outside of settlement areas;
- Within the Greenbelt Plan N.H.S. and Growth Plan N.H.S., key natural heritage features and key hydrologic features would be designated. Vegetation protection zones and linkages within the Greenbelt Plan N.H.S. and Growth Plan N.H.S. would also be identified separately and included in an overlay designation;
- Beyond the Greenbelt N.H.S. and Growth Plan N.H.S. linkages would be identified as an overlay and policies would be included in the N.O.P. that provide guidance on the establishment of V.P.Z's in these areas;
- Significant natural heritage features and areas outside of the Greenbelt Plan N.H.S. and Growth Plan N.H.S. and the N.E.P. would be designated
- Key natural heritage features and key hydrologic features within the N.E.P. would also be designated;
- Other key natural features and areas and supporting features and areas outside of the Greenbelt N.H.S. and Growth Plan N.H.S. and the N.E.P. both outside and inside settlement areas would be identified through the use of an overlay;
- The restrictive policies as provided in the P.P.S., and the Provincial plans would be incorporated into the new N.O.P.;
- Prime agricultural areas and key features and areas would be designated in mutually exclusive land use designations, which equally recognizes the importance of the natural heritage and agricultural systems;

The following provides an overview as to why N.H.S. Option 3B was selected as the preliminary preferred option:

1. Option 3B most closely aligns with the feedback statement, summarizing the direction received from feedback through the 1st Point of Engagement.

2. Option 3B provides a more balanced approach to the identification and protection of the N.H.S., by increasing the number of components and connections outside of settlement areas, while also attempting to support development in settlement areas by limiting the number of components, linkages and requirements for buffers within settlement areas.
3. Option 3B applies the most balanced, defensible approach that incorporates best practices from an ecological approach to identifying a complete system, while limiting constraints on development in settlement areas. As such, N.H.S. Option 3B would be highly defensible at an L.P.A.T. hearing from an ecological and land use planning perspective.
4. Option 3B would be effective in ensuring protection of the N.H.S. The N.H.S. includes key features and areas both inside and outside of settlement areas. Additional linkages and enhancement areas are identified outside of settlement areas, thereby increasing the resiliency of those features and areas.
5. While Option 1 and 2 would be the most straight-forward, cost effective, requiring the least amount of time and resources, Option 3B can be mapped in the timeline set out for the new N.O.P. This would be achieved by updating select datasets (e.g., woodland dataset), acquiring other more recent datasets (e.g., wetlands from the NPCA), and by developing a clear set of definitions and criteria for the other components not being mapped. Furthermore, implementation could rely more heavily on Provincial guidance such as the Greenbelt Plan 'Technical Definitions and Criteria for Key Natural Heritage Features in the N.H.S. of the Protected Countryside Area' (O.M.N.R., 2012) and the Natural Heritage Reference Manual (O.M.N.R., 2010). Additional guidance documents and tools (e.g., updated Environmental Impact Study Guideline, Buffer Guidelines) can be prepared prior to final approval and adoption of the new N.O.P.

5.2 Water Resource System Preliminary Preferred Option

The following provides a summary of the framework for W.R.S. Option 2A:

- This option reiterates the policy direction for the W.R.S. established through policy in the P.P.S., Growth Plan, Greenbelt Plan, and N.E.P.;
- The W.R.S. would be shown as an overlay designation on an operative schedule of the Official Plan. This overlay would extend into settlement areas;
- Wetlands outside of settlement areas would be designated as per N.H.S. Option 3B;
- Prime agricultural areas and wetlands would be designated in mutually exclusive land use designations, which equally recognizes the importance of the natural heritage and agricultural systems (with the W.R.S. identified as an overlay); and
- The components of the W.R.S. would include:
 - Key Hydrologic Features;
 - Key Hydrologic Areas;
 - Ground water features;
 - Surface water features;

- Shoreline Areas;
- Hydrologic functions outside of settlement areas;
- Ecologically Significant Groundwater Recharge Areas outside of settlement areas; and
- Vegetation Protection Zones for Key Hydrologic Features outside of settlement areas.

The following provides an overview as to why W.R.S. Option 2A was selected as the preliminary preferred option:

1. Option 2A most closely aligns with the feedback statement summarizing the direction received from feedback through the 1st Point of Engagement.
2. Option 2A provides a more balanced approach to the identification and protection of the W.R.S. by increasing the number of components and connections outside of settlement areas and minimizing the hydrologic features and areas identified within settlement areas, which has the effect of directing development to settlement areas.
3. Option 2A applies the most balanced, defensible approach that incorporates best practices from an ecological perspective that identifies a complete system, while limiting constraints on development in settlement areas. As such, W.R.S. Option 2A would be highly defensible at an L.P.A.T. hearing from an ecological and land use planning perspective.
4. When considering the effectiveness of the options to ensure protection of the W.R.S., Option 2A includes additional hydrologic features and areas outside of settlement areas that will provide long-term protection of key hydrologic features, key hydrologic areas, and their functions. The resulting W.R.S. mapping and policy framework would have the effect of appropriately directing development to settlement areas while identifying a more robust system with stronger policies outside of settlement areas.
5. While Option 1 would be the most straight-forward and cost effective, requiring the least amount of time and resources. Option 2A can be mapped in the timeline set out for the new N.O.P. This can be achieved by using existing geospatial datasets (e.g., Contemporary Mapping of Watercourses) and compiling available information from existing sources (e.g. subwatershed studies, groundwater studies, etc.) that would form the equivalent to a region-wide watershed plan.

5.3 Implications for Natural Environment System Planning

The preliminary preferred options go beyond the minimum Provincial standards for the identification of the N.H.S. and W.R.S. The selection of these options was informed by the feedback and direction received during the 1st Point of Engagement as summarized in the key themes noted in **Section 2.3**. The feedback provided additional direction that should be considered when developing the natural environment system policies and framework.

As a result of the preliminary preferred options going beyond the Provincial minimum standards, the following is recommended to ensure the objectives for the natural environment system are met and policies are implemented as intended:

- Policies will need to include an appropriate level of flexibility given the inclusion of other features and supporting features and areas that go beyond the Provincial requirements, being mindful that a systems-based approach must be preserved;
- Definitions for component features not currently defined will need to be more fully developed and vetted through the process;
- Criteria will need to be well developed for the identification of component features, particularly those which are not currently well defined (e.g., ‘lands that have been restored or have the potential to be restored’);
- Environmental Impact Study Guidelines will need to be updated to support the identification and/or refinement of component features, including how to appropriately identify buffers/V.P.Z.s (currently there is no minimum provided); and
- W.R.S. Guidelines will need to be provided that support the appropriate identification and/or refinement of component features.

6.0 Mapping the Natural Environment System

The direction from the Province as outlined in the P.P.S. and Provincial plans identify what features/components that could comprise the proposed natural environment system. Although Provincial direction specifies that N.H.S. and W.R.S. (which together comprise the natural environment system) must be identified by municipalities, the direction for mapping features/components within these systems varies among the Provincial plans. However, it is recognized that features are to be mapped where information exists and is deemed appropriate by the municipality to support implementation of the relevant official plan policies.

6.1 Components Recommended for Mapping the Natural Environment System

The Mapping Discussion Paper provided a review of the P.P.S., Provincial plans and policies, and a review of comparable municipal approaches to mapping N.H.S.s. The review of mapping datasets recommended a subset of components that should be mapped based on a review of the age of data, accuracy, completeness (i.e., representation of the data across the entire Region) and the need to provide a visual representation of the feature to support policy implementation. The Mapping Discussion Paper provided a review of existing datasets in Table 9 of that report and provided a recommendation on the suitability of datasets and preliminary considerations for use of that dataset. Through applying a set of criteria related to the age, accuracy and areal (i.e., geographic) coverage of the dataset recommendations, as well as considerations of options to update existing datasets or develop new datasets, recommendations for mapping components were provided in Section 8.3.1 of the Mapping Discussion Paper.

Through the development of natural environment system options provided in this report and in consideration of the data that will be obtained through studies currently being completed (i.e., Ecological Land Classification Mapping for the Region and the Watershed Equivalency Study) the following components are recommended for mapping the N.H.S. and W.R.S.:

Natural Heritage System:

- P.S.W.s;
- Significant woodlands;
- Linkages;
- Life Science A.N.S.I.s;
- Earth Science A.N.S.I.s;
- Other wetlands (required to be mapped in the Growth Plan and Greenbelt Plan N.H.S.);
- Permanent and intermittent streams (required to be mapped in Greenbelt Plan N.H.S.);
- Inland Lakes (required to be mapped in Greenbelt Plan N.H.S.)*;
- Other woodlands*;
- Grasslands/meadows not meeting the criteria as significant wildlife habitat that are continuous with key features*;
- Sand barrens, savannahs, tallgrass prairies and alvars*; and
- Enhancement areas*.

Water Resource System:

- P.S.W.s and non-P.S.W.s;
- Inland lakes;
- Permanent streams (including rivers) and intermittent streams;
- Significant groundwater recharge areas;
- Highly vulnerable aquifers;
- Shoreline areas*; and
- Floodplains, flooding hazards, floodways*.

All components recommended for mapping in Section 6.2.1 of the Mapping Discussion Paper have been carried forward in this report. Those components denoted by an asterisk are components that were previously not identified for inclusion in the natural environment system, or were not recommended for mapping due to a lack of available data. In the case of Inland Lakes, the initial review of a potential dataset was based on the category 'inland lakes and their littoral zones'. While mapping of littoral zones is currently not available nor is it anticipated to be produced through a current or anticipated study, there is a dataset available to map Inland Lakes. Therefore, Inland Lakes are recommended for mapping.

The Region has recently initiated a study to map vegetation communities, with a minimum mapping unit of 0.1 hectares, in the Region according to Ecological Land

Classification. This dataset will allow the mapping of other woodlands, grasslands/meadows that are continuous with key features, and sand barrens, savannahs, tallgrass prairies and alvars. Enhancement areas can also be mapped in part informed through the Ecological Land Classification dataset currently being produced, as well as applying GIS-based algorithms.

Shoreline areas do not currently have a GIS dataset available for mapping this component. However, the N.P.C.A. currently regulates shorelines and the dynamic beach hazard, which is typically considered 30 meters from the limits of the shoreline flood hazard. A dataset representing this 30 m shoreline area can be easily produced using a GIS buffering tool. Furthermore, the mapping dataset produced through the Ecological Land Classification mapping project can be used to map natural/naturalized shoreline areas that are located within or overlap the shoreline area.

Floodplain datasets were evaluated in the Mapping Discussion Paper as suitable for mapping, but would require an updated dataset from the N.P.C.A. prior to developing mapping for the new N.O.P.

It should be acknowledged that additional datasets may be developed at a later time or sufficient data be available through other studies (e.g., subwatershed studies, environmental assessments, etc.) that could be used to map other components included as part of the Region's natural environment system. If other datasets are determined suitable for mapping the Region may consider updating the mapping of the natural environment system through an Official Plan Amendment.

6.2 Components of the Natural Environment System Not Recommended for Mapping

As mention previously in **Section 6.1**, the Mapping Discussion Paper provided a review of the datasets and made recommendations for those that should be mapped using current datasets, available datasets requiring minor updates/modifications, or in anticipation of datasets developed through anticipated studies. The components recommended for inclusion in the Natural Environment System, but which should not be mapped, include the following:

Natural Heritage System

- Fish habitat
- Significant valleylands
- Significant wildlife habitat
- Habitat of threatened and endangered species
- Habitat of special concern species in Escarpment Natural Area and Escarpment Protection Area designations
- Seepage areas and springs
- Other valleylands
- Other wildlife habitat

Water Resource System

- Significant surface water contribution areas
- Ground water features;
 - recharge areas (not considered ‘significant groundwater recharge areas’)
 - discharge areas
 - water tables
 - aquifers (not considered ‘highly vulnerable aquifers’)
 - unsaturated zones
- Surface water features;
 - headwaters (i.e., headwater drainage features)
 - recharge areas (not considered ‘significant groundwater recharge areas’)
 - discharge areas
 - associated riparian lands that can be defined by their soil moisture, soil type, vegetation or topographic characteristics
- Hydrologic functions;
 - Karst features
- Ecologically Significant Groundwater Recharge Areas*

Through the Mapping Discussion Paper it was determined that the above listed datasets were either not available, could not be easily produced, were insufficient in areal extent, inaccurate, contained sensitive data, and/or were not anticipated to be developed, and therefore should not be considered for mapping. Of the above listed components that are not recommended for mapping, Ecologically Significant Groundwater Recharge Areas were not discussed in the Mapping Discussion Paper. Similar to other components of the W.R.S., Ecologically Significant Groundwater Recharge Areas are best identified through subwatershed studies, or other site specific studies; the coverage of such mapping if currently available or produced in the future, would not be sufficient at the region-wide scale for mapping in the new N.O.P., therefore should not be mapped.

Headwater drainage features have been mapped as part of the Contemporary Mapping of Watercourses dataset. While this information is available, it has been recommended in this report that only ‘protection’ and ‘conservation’ headwater drainage features be included as components of the Water Resource System (see description of headwater drainage features in **Appendix 2**) given their increased hydrological and ecological contribution to the downstream watercourse system. Classification of headwater drainage features has not been completed at the region-wide scale and it is not anticipated that such a study would be completed, therefore, mapping of ‘protection’ and ‘conservation’ headwater drainage features is not recommended.

6.3 Sources of Mapping Data and Recommendations for Mapping

The Mapping Discussion Paper provided a review of available mapping as well as recommendations for how datasets could be improved, acquired, or created. **Table 6**

provides a review of the above noted datasets and expands further on recommendations for datasets for use in mapping the natural environment system.

Table 6. Datasets and recommendations for improving or creating datasets for the components considered for mapping in the Region's Natural Environment Systems.

Component Features and Areas	Existing Source of Data	Recommendations
Natural Heritage System		
Provincially Significant Wetland	Ministry of Natural Resources and Forestry (M.N.R.F)	Updates are undertaken by the Province. Regularly scheduled data downloads from Land Information Ontario (L.I.O.) for updated dataset is recommended to ensure current data are in use.
Significant Woodland	Region woodland dataset is anticipated to be updated and criteria for significant woodlands can be applied to woodland dataset	<ol style="list-style-type: none"> 1. Use available woodland datasets as base data; and. 2. Apply criteria established for significant woodlands.
Linkages	Growth Plan N.H.S.	<ol style="list-style-type: none"> 1. The Growth Plan N.H.S. includes linkages, which would be sufficient for mapping N.H.S. Option 1 and 2; or 2. In addition to the Growth Plan N.H.S. which includes linkages, develop a GIS-based algorithm to identify key features that should be linked. This can be informed by reviewing the results of the Nature for Niagara's Future study which recommends connections.
Life Science A.N.S.I.	M.N.R.F., 2018	None
Earth Science A.N.S.I.	M.N.R.F., 2018	None
Other wetlands	N.P.C.A. Ecological Land Classification	<ol style="list-style-type: none"> 1. Mapping of 'Other' (i.e. non P.S.W.) wetlands is available through N.P.C.A. (in place of M.N.R.F. 'other evaluated wetland' and unevaluated wetland mapping). N.P.C.A.

Component Features and Areas	Existing Source of Data	Recommendations
	(E.L.C.) mapping where available	regularly updates their wetland mapping and provides mapping updates to M.N.R.F. 2. Where E.L.C. mapping is available, wetland datasets can be developed.
Permanent and intermittent streams	Contemporary Mapping of Watercourses (Region, 2016)	1. Use watercourse layers with attribute of 'permanent' or 'intermittent' flow regime.
Inland lakes	Contemporary Mapping of Watercourses (Region, 2016)	Inland lakes can be identified by applying the Greenbelt Plan definition: "any inland body of standing water, usually fresh water, larger than a pool or pond or a body of water filling a depression in the earth's surface." However, it is recommended additional parameters or size criteria be determined as part of the detailed design process for the N.H.S. to be completed as part of the next technical report.
Other woodlands	Region woodland dataset is anticipated to be updated	See recommendations #1-4 for Significant Woodlands noted in Appendix 1 .
Grasslands/meadows not meeting the criteria as significant wildlife habitat that are continuous with key features	E.L.C. mapping where available	It is anticipated that a region-wide E.L.C. dataset will be developed from which grasslands/meadows can be mapped.
Sand barrens, savannahs, tallgrass prairies and alvars	E.L.C. mapping where available	It is anticipated that a region-wide E.L.C. dataset will be developed from which sand barrens, savannahs, tallgrass prairies and alvars can be mapped.

Component Features and Areas	Existing Source of Data	Recommendations
Enhancement areas	None	Criteria and methods to identify enhancement areas will be established as part of the detailed design process for the N.H.S. to be completed as part of the next technical report.
Water Resource System		
Provincially Significant Wetlands	See above	See above
Other Wetlands	See above	See above
Inland Lakes	See above	See above
Permanent and Intermittent Streams	See above	See above
Significant Groundwater Recharge Areas	N.P.C.A. Groundwater Study Final Report (Waterloo Hydrogeologic Inc. 2005); Source protection planning documentation and mapping; and Review of subwatershed studies	Existing data can be obtained through the N.P.C.A. Groundwater Study Final Report, source protection planning documentation and mapping and data derived through subwatershed studies
Highly Vulnerable Aquifers	N.P.C.A. Groundwater Study Final Report (Waterloo Hydrogeologic Inc. 2005);	Existing data can be obtained through the N.P.C.A. Groundwater Study Final Report, source protection planning documentation and mapping and data derived through subwatershed studies

Component Features and Areas	Existing Source of Data	Recommendations
	Source protection planning documentation and mapping; and Review of subwatershed studies	
Shoreline Areas	N.P.C.A. shoreline flood/erosion inventory mapping	Combine hazard mapping (shoreline flood and erosion) from N.P.C.A. with natural heritage feature mapping (e.g., E.L.C.) to identify naturally vegetated shorelines.
Floodplain, flooding hazard, floodway	N.P.C.A	The regulatory floodplain as determined according to N.P.C.A. policies.

7.0 Next Steps

The preliminary preferred options identified in this technical report will be presented through the 2nd Point of Engagement. Initially, the preliminary preferred options will be presented to the Region's Planning and Economic Development Committee (P.E.D.C.) to seek direction to consult with stakeholders and the public. Following consultation on the preliminary preferred options, a preferred option would be presented to P.E.D.C. and Council for final endorsement.

Once a final option is selected, the detailed design of the N.H.S. and W.R.S. will be undertaken. This information will be provided in Technical Report #3 and include the following:

- Expanding on the preferred options to fully develop definitions, criteria, system components, sources of information, direction for preparing mapping, including R.O.P. schedules;
- Detailed recommendations for Official Plan policies to support implementation of the system, building on the recommendations that were provided in the Mapping Discussion Paper, Natural Environment System Background Study, and this technical report;
- A framework for implementation based on previous work completed for this work program, including how local area municipalities would incorporate the Region's natural environment system mapping and policies into their Official Plans and the roles and responsibilities of other public agencies and landowners;
- Recommendations for implementation tools that will need to be recognized in the new N.O.P. (e.g. E.I.S. guidelines); and
- A review of current Regional E.I.S. guidelines and preliminary recommendations for updating them.

8.0 References

Niagara Peninsula Conservation Authority [N.P.C.A.]. 2009. Groundwater Vulnerability Analysis Niagara Peninsula Source Protection Area. Prepared for Niagara Peninsula Source Protection Authority.

Niagara Peninsula Conservation Authority [N.P.C.A.]. 2013. Updated Assessment Report: Niagara Peninsula Source Protection Area. Prepared for Niagara Peninsula Source Protection Authority.

Nottawasaga Valley Conservation Authority [N.V.C.A.]. 2015b. Nottawasaga Valley Source Protection Area Approved Assessment Report.

Ontario Ministry of Natural Resources and Forestry [M.N.R.F.]. 2018. The Regional Natural Heritage System for the Growth Plan for the Greater Golden Horseshoe - technical report on criteria, rationale and methods. Natural Heritage Section, Ontario. Ministry of Natural Resources and Forestry. Queen's Printer for Ontario, Peterborough, Ontario.

Ministry of Municipal Affairs and Housing [M.M.A.H.]. 2020. Provincial Policy Statement, 2020, Under the Planning Act.

Ministry of Natural Resources [M.N.R.]. 2002. Technical Guide: River & Stream Systems Erosion Hazard Limit

Toronto and Region Conservation Authority [T.R.C.A.] 2004. Belt Width Delineation Procedures.

Toronto and Region Conservation Authority and Credit Valley Conservation. 2014. Evaluation, Classification and Management of Headwater Drainage Features Guideline.

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Appendix 1: Descriptions and Criteria for Select Components of the Natural Heritage System

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Description and Criteria for Select Components of the Natural Heritage System Components

The Mapping Discussion Paper and Natural Environment Background Study provided a review of the components recommended for inclusion in the N.H.S. The follow builds on that review with further discussion of the components, providing definitions where they have been developed and indicating if criteria have been established or need to be established to aid in identifying the component. While this Technical Report is not intended to develop criteria and definitions for all of the potential components, several components (e.g., significant woodlands, linkages and enhancement areas) require identification of preliminary criteria in order to identify what they include, and thus provide clarity on the range of options to be considered. The criteria provided herein are subject to change through future consultation and refinement through the next phases of the Natural Environment Work Program.

Provincially Significant Wetlands and Provincially Significant Coastal Wetlands

P.S.W.s (coastal and inland) are determined using the Ontario Wetland Evaluation System (O.W.E.S.). The Province is the administrator of these assessments, makes determinations in this regard and houses the analyses and dataset from wetland evaluations. As such, it is the Provincial dataset that will be used to identify and define this component.

Non-Provincially Significant Wetlands

Non-P.S.W.s (including evaluated wetlands determined to be non- Provincially significant, Locally Significant Wetlands, as well as unevaluated wetlands, etc.) can represent substantial natural heritage resources on the landscape and can provide valuable ecological function(s), especially in landscapes with few wetlands. It should be noted, that all wetlands are considered key hydrologic features according to the Growth Plan; as such, all wetlands outside of settlement areas are subject to policies of the Growth Plan that protect key hydrologic features (see Growth Plan Section 4.2.3). Notwithstanding the above, minimum size thresholds should be established to determine when a wetland becomes a key hydrologic feature.

Although the Growth Plan specifically indicates that key hydrologic features outside of settlement areas are to be protected, there is no requirement to protect them in settlement areas. However, they can be identified as key hydrological features within settlement areas, if deemed appropriate by the Region and could also be subject to different criteria than non-P.S.W.s outside of settlement areas. Since wetlands in settlement areas may provide important ecosystem services in addition to important ecological functions, consideration should be given to including 'other wetlands' in settlement areas as a component of the N.H.S., or at the least, as features to be protected. Targets for wetland cover could be considered when determining the size/threshold for those wetlands that should be included as 'other wetlands'. According

to guidance from How Much Habitat is Enough?, “at least 10% wetland habitat and 6% of each subwatershed, or 40% of the historic watershed wetland coverage should be protected and restored” (Environment Canada, 2013, p.13). Region-specific targets can be identified following a geospatial review of wetland cover in Niagara Region.

Significant Woodlands

The Natural Environment Background Study provided a comprehensive review of the definition of woodlands and considerations for criteria to identify significant woodlands. Several recommendations for consideration were provided that have been carried forward for further discussion when developing the options to identify significant woodlands. Following from those recommendations, the following decisions will inform the criteria for significant woodlands in the Region.

Application of Guidelines and Technical Criteria

The Greenbelt technical paper provides criteria for identifying significant woodlands within the Greenbelt Plan area. The Province has also suggested that the Greenbelt Plan Technical Criteria and the Natural Heritage Reference Manual (O.M.N.R., 2010) be used as guidance to identify significant woodlands within the Growth Plan area, outside of the Greenbelt Plan N.H.S.

Targets to Inform Criteria

Based on existing woodland data, the woodland cover in Niagara Region is approximately 17.5%.

General guidance for woodland cover targets is provided in Environment Canada’s How Much Habitat is Enough? (Environment Canada, 2013):

“30% forest cover at the watershed scale is the minimum forest cover threshold. This equates to a high-risk approach that may only support less than one half of the potential species richness, and marginally healthy aquatic systems;

40% forest cover at the watershed scale equates to a medium-risk approach that is likely to support more than one half of the potential species richness, and moderately healthy aquatic systems;

50% forest cover or more at the watershed scale equates to a low-risk approach that is likely to support most of the potential species, and healthy aquatic systems.”

Setting targets for woodland cover will inform size-based components of woodland criteria. As Niagara Region’s woodland cover is approximately 17.5%, the Region could set a realistic target above 17% that is based on a geospatial review of potential areas for restoration or reforestation. Comparatively, York Region currently has 23% woodland cover and has set a target of 25% woodland cover by 2031. While this is below the 30% cover target that is considered a high-risk approach to support functions associated with woodlands, this would be a realistic cover target to achieve in the

timeframe established. The approach to achieve this increase in woodland cover can include protecting woodlands that meet a minimum size threshold and encouraging or requiring enhancement of woodlands through restoration of internal gaps, indents, or gaps between fragmented woodland patches. This would also have the effect of increasing the ecological function and resiliency of the existing woodlands.

The woodland cover by geographic area (e.g., settlement vs. outside of settlement areas, above vs. below the escarpment) should also be assessed to assist in setting targets for woodland cover in Niagara Region. These targets should inform the development of criteria to identify Significant Woodlands in Niagara.

Best Practices to Inform Criteria

Based on a review of best practice documents, (e.g., Natural Heritage Reference Manual (O.M.N.R., 2010) and How Much Habitat is Enough? (Environment Canada, 2013) developing criteria for significant woodlands may include consideration of the following factors:

- Land use (settlement area vs. outside settlement areas);
- Total and relative cover of woodlands;
- Ecological function and uncommon characteristics;
- Economic and social functional values;
- Proximity to other significant natural features (e.g., watercourses, wetlands, Great Lakes, etc.);
- Geography (e.g., above or below the escarpment); and
- Overlap with components of the W.R.S. (e.g., significant groundwater recharge area, vulnerable aquifer, etc.).

As recommended in the Natural Environment Background Study, criteria should be developed to include Significant Woodlands that have been affected by natural and anthropogenic changes in woodland composition and structure, where these changes would result in the feature no longer meeting the definition of woodland. These features provide an important ecological function and can contribute to meeting woodland cover targets in the long term, as the potential to restore them to woodlands remains. As such, criteria should be developed to recognize these features as Significant Woodlands (assuming they meet other criteria for significance). Alternatively, the woodland/natural feature could be captured in the criteria of another component of the N.H.S. (e.g., restoration or enhancement area) that remains a part of the natural environment system and is afforded appropriate protection in policy.

Criteria for Significant Woodlands

Greenbelt Plan Criteria to identify Significant Woodlands within the Greenbelt Plan N.H.S. have been provided in the Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside – Technical Paper 1 (O.M.N.R., 2012). These criteria include:

- Any woodland 4 ha or greater in size; or

- Any woodland 1 ha or greater in size containing:
 - Naturally occurring (i.e., not planted) trees (as defined in Appendix D of the Greenbelt Technical Paper); or
 - 10 or more trees per ha greater than 100 years old or 50 cm or more in diameter; or
 - Containing a basal area of at least 8 sqm per ha in native trees that are 40 cm or more in diameter; or
 - Any woodlands wholly or partially within 30 m of a significant wetland; habitat of an endangered or threatened species; significant woodland; or
- Any woodland 0.5 ha or greater in size containing:
 - A provincially rare treed vegetation community with an S1, S2 or S3 in its ranking by the M.N.R.'s Natural Heritage Information Centre (N.H.I.C.); or
 - Habitat of a woodland plant species with an S1, S2 or S3 in its ranking or an 8, 9, or 10 in its Southern Ontario Coefficient of Conservatism by the N.H.I.C, consisting of 10 or more individual stems or 100 or more sqm of leaf coverage.

In applying these criteria, a woodland must have an average minimum width of 40 m measured to crown edges to qualify as a 'significant' woodland. Also, the criteria noted above are specific to the Greenbelt Plan N.H.S. and may not be appropriate for use region-wide (e.g., applying criteria related to basal area or leaf coverage may be difficult to implement and are generally not used).

Criteria have not yet been developed for identifying significant woodlands in the N.H.S. for the Growth Plan. The Province has suggested following best practices as provided in the Natural Heritage Reference Manual (O.M.N.R., 2010) and the Greenbelt Plan Technical Paper (O.M.N.R., 2012). The Natural Heritage Reference Manual provides size criteria for Significant Woodlands based on woodland cover within a given jurisdiction (in this case Niagara Region). The Region's woodland cover is 17.5%, within the range of 15-30% woodland cover for the 20 ha size threshold (O.M.N.R., 2010, p. 68). The Natural Heritage Reference Manual also notes that "the size threshold should be reduced in the absence of information for the other three criteria" (O.M.N.R., 2010, p. 68). These criteria are related to ecological functions (e.g., woodland diversity), uncommon characteristics (e.g., presence of rare species), and economic and social functional values (e.g., other ecosystem services). In the absence of this information, the size threshold for significant woodlands in Niagara Region would be reduced to 4 ha, as recommended in the Natural Heritage Reference Manual (O.M.N.R., 2010, Table 7-2, p. 68). This is consistent with the Greenbelt Technical Paper criteria related to size for identifying Significant Woodlands. As such, it would be appropriate to apply the Greenbelt Plan Technical Criteria for size to identify Significant Woodlands within the N.H.S. for the Growth Plan.

The definition for 'significant' in regard to woodlands in the P.P.S. also suggests the identification of Significant Woodlands be determined "using criteria established by the Ontario Ministry of Natural Resources" (M.M.A.H., 2020, p. 51). As such, it would be appropriate to apply the same size criteria established for Significant Woodlands in the

Greenbelt Plan as a minimum for the remainder of Niagara Region (including within the N.E.P. area).

The current Regional Official Plan includes size criteria for identifying Significant Woodlands. With the preparation of a new N.O.P., criteria for significant woodlands will be proposed to ensure current best practices and science puts forward ecologically appropriate and defensible criteria. However, the current criteria for significant woodlands in Niagara provides a solid foundation on which to develop new criteria. Firstly, size requirements for identifying Significant Woodlands should consider the Greenbelt Plan Technical Paper criteria, as well as consideration of woodland cover in settlement areas compared with outside of settlement areas. For example, the current criteria indicate that woodlands 2 ha or larger in size “within or overlapping Urban Area Boundaries” (Niagara Region Official Plan, 2014, p. 7-18) would qualify as Significant Woodland. Following a review of current woodland cover in settlement areas (to be undertaken as part of the next Technical Paper), this may be determined to be an appropriate size threshold. To be consistent with the criterion in the Greenbelt Technical Paper, the size threshold for significant woodlands outside of settlement areas should be 4 hectares or larger. In addition to size criteria, proximity criteria could include any woodland of any size as significant where it overlaps with any key feature or significant feature. Therefore, based on the guidance from the Natural Heritage Resource Manual (N.H.R.M) and the Greenbelt Technical Paper, criteria to identify significant woodlands in Niagara Region should be as follows:

- Any woodland 4 ha or greater in size; or
- Any woodland 2 ha or greater in settlement areas; or
- Any woodland 1 ha or greater in size meeting at least one of the following criteria:
 - Naturally occurring (i.e., not planted) trees (as defined in the species list of Appendix D in the Greenbelt Technical Paper)
 - 10 or more trees per ha greater than 100 years old or 50 cm or more in diameter;
 - Any woodlands wholly or partially within 30 m of a significant wetland; habitat of an endangered or threatened species; significant woodland; or
- Any woodland 0.5 ha or greater in size meeting at least one of the following criteria:
 - A provincially rare treed vegetation community with an S1, S2 or S3 in its ranking by the M.N.R.’s N.H.I.C;
 - Habitat of a woodland plant species with an S1, S2 or S3 in its ranking or an 8, 9, or 10 in its Southern Ontario Coefficient of Conservatism by the N.H.I.C., consisting of 10 or more individual stems or 100 or more sqm of leaf coverage; or
- Any woodland of any size overlapping with one or more of the following features:
 - P.S.W.s;
 - Life Science A.N.S.I.;
 - Earth Science A.N.S.I.;
 - Fish habitat;

- Significant valleylands;
- Significant wildlife habitat; and
- Habitat of threatened species and endangered species.

To be consistent with the Greenbelt Technical Paper, a woodland must have an average minimum width of 40 m measured to crown edges to qualify as a 'significant' woodland according to these criteria.

Figure 1 provides a conceptual illustration of significant woodlands when applying the above using existing and available information (e.g. significant wildlife habitat, age of trees and composition of species was not used to map significant woodlands on Figure 2). This illustration of woodlands is based on existing woodland datasets. It is understood that the Region intends on updating the datasets available to identify woodlands in an effort to improve the accuracy of the significant woodland dataset.

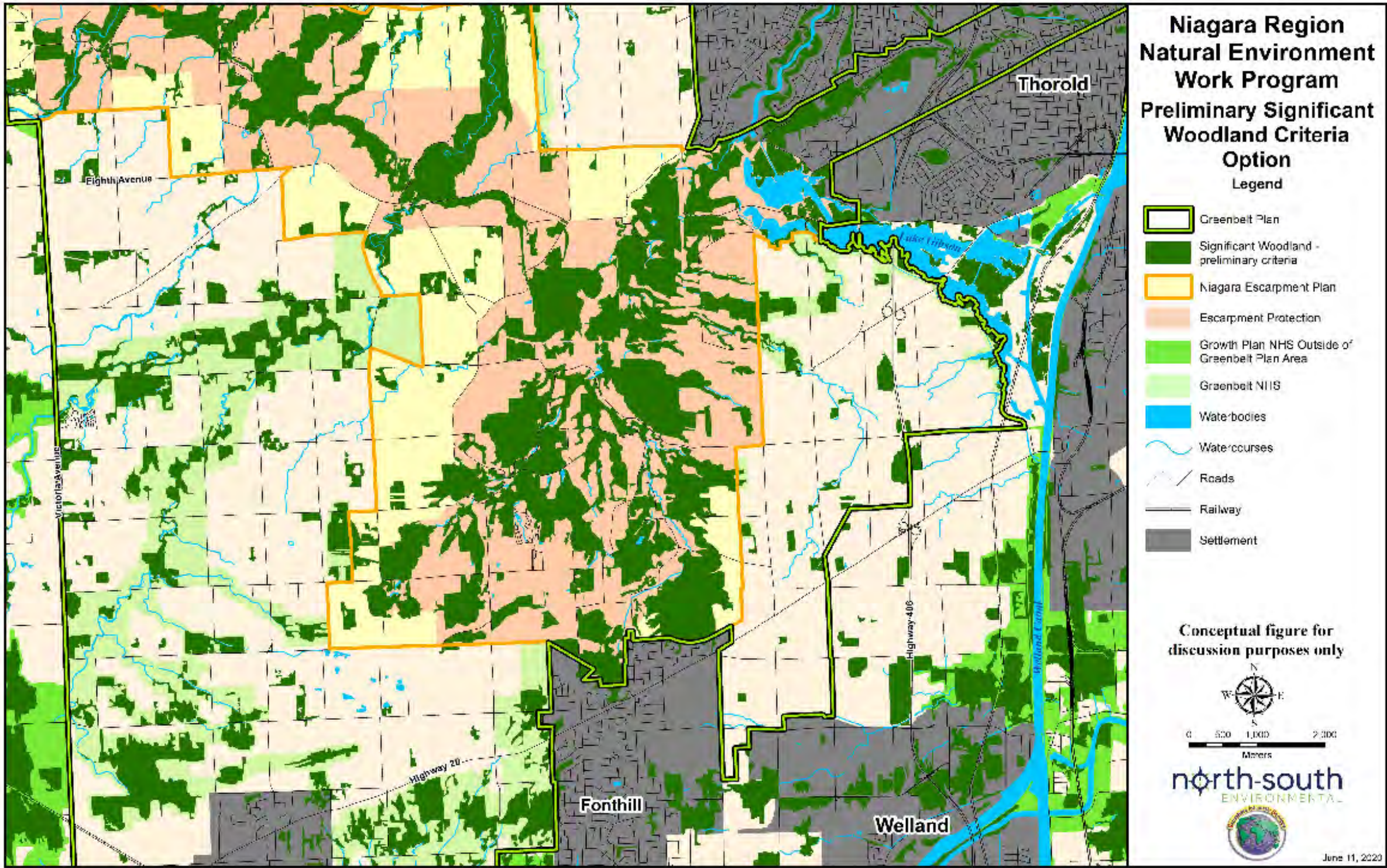


Figure 1. Significant Woodland mapping using recommended criteria.

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Significant Valleylands

Valleylands are landform features formed by watercourses and contain a watercourse for some part of the year. Often, as a result of their topography (e.g., deep valleys, steep slopes, often wooded, sometimes containing seepage areas, etc.) they are some of the most prominent and enduring natural features on the landscape in southern Ontario. Other features, such as forests and wetlands, have more frequently been removed or filled over for settlement areas, agriculture and development.

In the P.P.S. (2020), valleylands are defined as:

“... a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of the year.”

Under the P.P.S. the definition of significance with respect to valleylands means:

“ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system.”

The definition of a significant valleyland under the Growth Plan mirrors that of the P.P.S. with the additional statement that “[significant valleylands] are to be identified using criteria established by the Province.”

With respect to Provincial criteria, several may be useful in identifying criteria to identify significant valleylands in Niagara Region:

- **Greenbelt Plan 2005. Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside** (O.M.N.R., 2012): criteria applicable within the Greenbelt Plan area. Direction from the Province (M.N.R.F.) is to use the criteria for significant valleylands from the Greenbelt Technical Paper within the Growth Plan N.H.S.
- **The Natural Heritage Resource Manual** (N.H.R.M., 2010): criteria generally applicable throughout Ontario. Prepared in support of the 2005 P.P.S. The principles contained in this document remain relevant for the identification of natural heritage features in Ontario. The criteria can be used to identify significant valleylands outside of the Growth Plan N.H.S.

Significant Wildlife Habitat (S.W.H.)

Significant Wildlife Habitat (S.W.H.) is generally identified as those areas of ecological importance for supporting and providing specialized wildlife habitat form and/or function. S.W.H. represent the best quality examples of habitat types available on the landscape. The province prepared the ‘Significant Wildlife Habitat Criteria Ecoregion Schedules’ (M.N.R.F., 2015) to provide geographically-based guidance for the identification of significant habitat. Municipalities have the opportunity to identify equally or more restrictive criteria for the identification of S.W.H.; however, the S.W.H. Criteria

Schedules are generally used as the basis for identification of S.W.H. at the municipal level. The Ecoregion 7E Criteria Schedule applies to Niagara Region.

Areas of Natural and Scientific Interest (A.N.S.I.)

Life Science A.N.S.I.s are identified as being high quality example(s) of ecological form and function in each Ecodistrict in the province (provincially significant) and the Region (regionally significant) and are generally defined by natural heritage features (e.g., a woodland, valley top of bank, etc.) and generally exclude anthropogenic land uses (e.g., residential areas / properties).

Earth Science A.N.S.I.s represent the best examples of geologic and geomorphic landforms and areas (e.g., a moraine) in each Ecodistrict in the province (provincially significant) and the Region (regionally significant). They may encompass a single feature or a group of related features (e.g., a drumlin field). As geologic / geomorphic landforms, the overlying land use may include a composite of natural and anthropogenic uses (e.g., woodland, agricultural, rural residential, etc.).

The M.N.R.F. identifies A.N.S.I.s and provides available mapping to municipalities.

Fish Habitat

A comprehensive discussion on the relationship between Fish Habitat and the new N.O.P. is included as Section 13 of the Natural Environment Background Study. A brief summary is provided below.

The Federal Fisheries Act provides a definition for Fish Habitat, which has been adopted across the P.P.S. and Provincial plans. It should be noted that the definition does not stipulate that the watercourse or waterbody have fish residing in it (i.e., be direct fish habitat) to be considered fish habitat under the Fisheries Act or in accordance with those plans that have adopted the definition. Within Niagara Region, fish habitat may therefore include:

- Watercourses and waterbodies that seasonally or permanently provide direct or indirect fish habitat;
 - Waterbodies containing fish habitat may exclude constructed off-line ponds (e.g., active irrigation ponds, stormwater ponds)
- Intermittent watercourses or headwater drainage features that provide contributions in terms of baseflow, material (e.g., substrates) or allochthonous inputs important to the maintenance of downstream fish habitat;
- Shoreline features that provide direct contributions in terms of materials (e.g., substrates) or allochthonous inputs important to the maintenance of fish habitat in Lake Ontario.

For the purpose of defining and identifying Fish Habitat to which natural environment policies will apply, the Federal Fisheries Act definition should be included in the new N.O.P. Where detailed fish habitat mapping is not available, all waterbodies, permanent

or intermittent streams, headwaters, seasonally flooded areas, municipal or agricultural surface drains, lakes and ponds (excluding human-made off-line ponds such as stormwater management ponds), should initially be considered fish habitat unless and until it is demonstrated to the satisfaction of the regulatory authority that the feature(s) do not meet the definition of Fish Habitat (per the Fisheries Act).

Based on the review provided in the Natural Environment Background Study, it is recommended that Fish Habitat not be mapped (although appropriate policies for protection would still apply). However, screening and identification of Fish Habitat can be supported by using available detailed Fish Habitat mapping provided by the M.N.R.F., Department of Fisheries and Oceans Canada, the conservation authority, or other mapping and data sources as suitable. Types or categories of Fish Habitat (e.g., warm water or cold water) can be used to inform management objectives, mitigation and potential enhancement activities, which could be appropriately informed by watershed planning.

Habitat for Endangered and Threatened Species

Habitat for Endangered Species and Threatened species is defined through the Endangered Species Act (2007) and may be identified through a variety of project processes (e.g., a subwatershed study); however, it is confirmed and managed by the Province through their administration of the Endangered Species Act (2007). Habitat mapping for many species may not be maintained as a comprehensive dataset. Habitat mapping access is generally highly restricted by the Province, in part owing to the sensitive nature of the data.

It should be recognized that habitat mapping for Endangered and Threatened species is incomplete and will change over time as surveys are completed and/or as species designations change (e.g., new species are listed or de-listed as Endangered or Threatened). It is not recommended this category be mapped as a component of the Region's N.H.S.

Linkages

In the context of N.H.S. planning, linkage means an area that provides ecological connectivity between natural heritage features. Linkages support a range of community and ecosystem processes enabling plants and animals to move among natural heritage features, in some cases over multiple generations. Linkages are preferably associated with the presence of existing natural areas and functions and should be established where they will provide an important contribution to the long-term sustainability of the overall N.H.S.

The Growth Plan identified a N.H.S. as one complete system. This system was developed by identifying core areas that include concentrations of natural features and connecting them with linkages, although core areas and linkages are not separately mapped. In Niagara Region, core areas for the Growth Plan N.H.S. were defined by the Province as being natural features that are 100 ha in size or greater. The Growth Plan

‘Technical report on criteria, rationale and methods’ (M.N.R.F., 2018) provides a thorough review of approaches to identifying core areas, including how core areas were identified in the N.H.S. for the Growth Plan. In addition, the Growth Plan technical report considers the following when identifying linkages:

- Natural features (e.g. water courses, valleylands, woodland/wetland patches) and rural/agricultural lands without barriers that connect core features;
- Connectivity/permeability (i.e., linkages were not identified where bisected by major roads);
- Length (no minimum); and
- Width \geq 500 m (e.g., added 250 m on each side of watercourses that qualify).

It should be recognized that the Growth Plan N.H.S. was undertaken at a Greater Golden Horseshoe scale that captures the larger/more significant features/areas (referred to as ‘core areas’) and links the larger core areas. The Growth Plan Regional N.H.S. Mapping – Technical Report (O.M.N.R.F., 2015, p. 4) recognizes this in the following statement:

“Given that N.H.S. mapping for the Growth Plan for the Greater Golden Horseshoe is on a broad, regional scale, it is focussed on identifying larger core areas and broad linkages. The mapping was not intended to identify all areas and connect features that may be important to consider at a local or smaller scale...”

The N.H.S. at the Niagara Region scale, including the identification of linkages, should therefore identify additional features and linkages that are important at the scale of the Region to meet the objectives and targets for the Niagara Region N.H.S. Based on the review of best practices and guidance documents provided in the Natural Environment Background Study, the following criteria should be considered for identifying Niagara Region Linkages:

- Large Linkages = Between large Core Areas (>50ha): 200-400 m wide;
- Medium Linkages = Between medium Core Areas (>20 ha): 100-200 m wide; and
- Small Linkages = Between small Core Areas (>10 ha): 50-100 m wide.

In applying these recommended criteria, the approach of identifying core areas is solely intended to inform the location for ecologically appropriate linkages; as such, core areas would not be mapped in a schedule in the new N.O.P., nor have policies associated with them. In the case of identifying linkages for Niagara’s N.H.S., core areas can be defined as an individual feature or group of features in close proximity to each other (e.g., within 120 m) that have functional ecological connectivity (i.e., their proximity to each other supports ecological functions, such as wildlife habitat, exchange of genetic material, etc.). **Figure 2** provides a conceptual illustration of how linkages can be identified following this approach. The recommended approach for identifying core areas for the purpose of identifying linkages will be further discussed in the Regional Natural System(s) Technical Report, to be completed during Phase 6 of the Natural Environment Work Program.

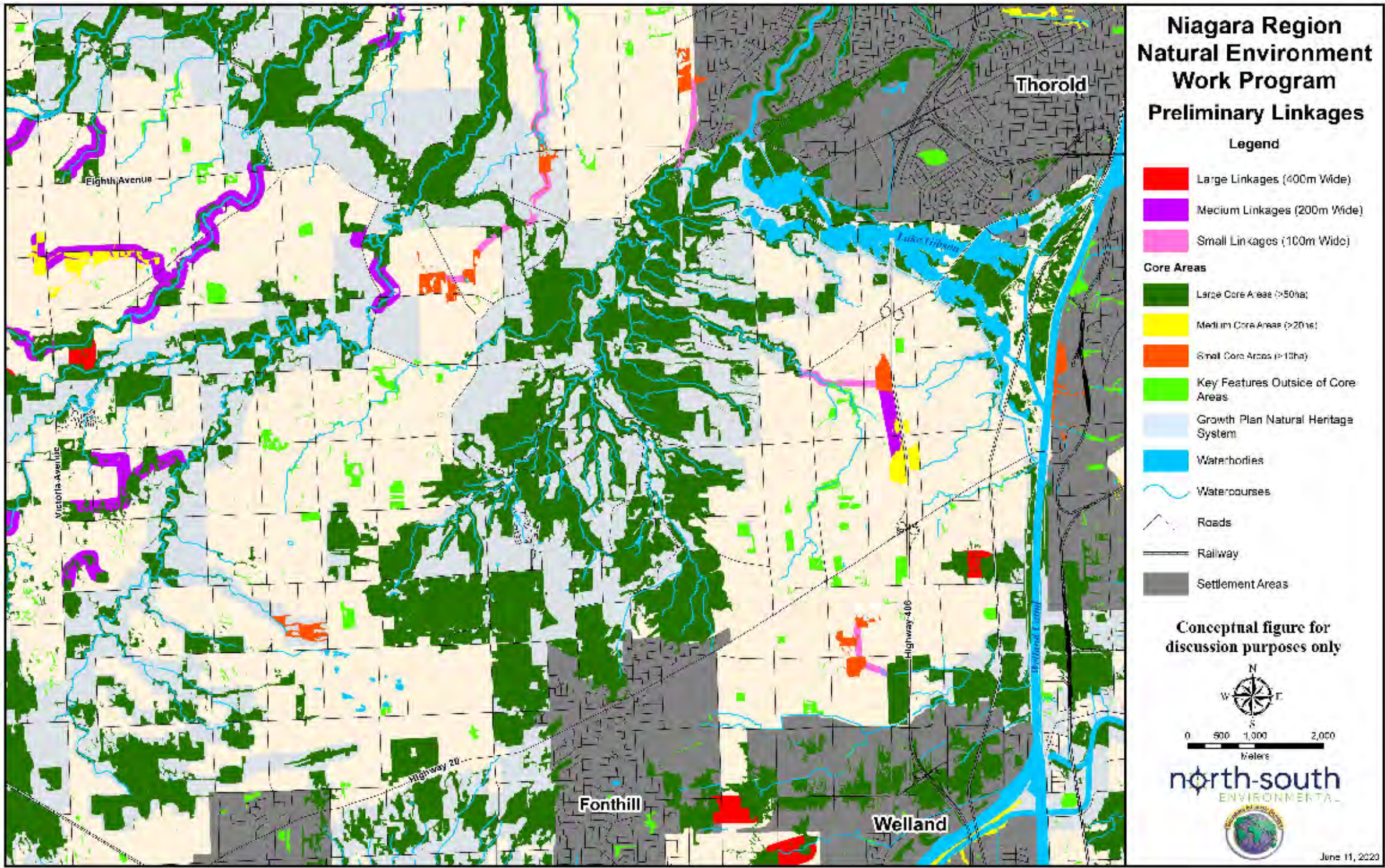


Figure 2. Preliminary conceptual linkage options.

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Key Hydrologic Features

Key Hydrologic Features are discussed in Section 2.1.

Other Natural Heritage Features and Areas

There is currently no definition for this optional component of the N.H.S. However, this component could include any number of natural features that do not currently meet the criteria to be considered on of the listed components in the definition for 'Natural Heritage Features and Areas'. For example, this component may include:

- Other woodlands (i.e., not meeting the criteria as Significant Woodland);
- Non-P.S.W.s (defined in section 1.1.1) in settlement areas;
- Other valleylands; and
- Other wildlife habitat.

Other than non-P.S.W.s, these features are not currently defined, nor are criteria proposed at this time.

Lands That Have Been Restored or Have the Potential to Be Restored to a Natural State [Enhancement Areas]

There is currently no definition for this optional component of the N.H.S. However, this component would function as and can be referred to as enhancement areas. Enhancement areas can include those areas recommended for restoration or enhancement as identified in watershed plans and other environmental studies or reports. These can be identified through consultation with the N.P.C.A. and can be identified through mapping sources, such as E.L.C. mapping.

The Natural Environment Background Study (Section 14) provided a review of best practices related to identifying potential enhancement areas. Based on applying accepted landscape ecology principles, the following objectives should be considered when identifying enhancement areas to key features:

- Achieve minimum size threshold of core area (woodland/swamp = 20 ha, wetland/open habitat = 10 ha);
- Group key natural features to create larger contiguous natural areas;
- Reduce edge habitat and increase proportion of interior conditions (> 100 m from edge); and
- Include critical function zones and important catchment areas critical to sustaining ecological functions.

Types of enhancements to mapped key features (i.e., Significant Woodlands, P.S.W.s, Life Science A.N.S.I.s) and potential criteria can be developed by applying these accepted landscape ecology and biogeography principles related to size and proximity. For example, options for criteria could include the following:

- Enhancement Option 1:
 - Fill 'bays and inlets' along the edge of features - < 30 m wide
 - Fill interior gaps in features - < 0.25 ha
 - Fill gaps between features - < 30 m
- Enhancement Option 2:
 - Fill 'bays and inlets' along the edge of features - < 60 m wide
 - Fill interior gaps in features - < 0.5 ha
 - Fill gaps between features - < 60 m
- Enhancement Option 3:
 - Fill 'bays and inlets' along the edge of features - < 100 m wide
 - Fill interior gaps in features - < 1.0 ha
 - Fill gaps between features - < 120 m

Figure 3a, 3b and 3c provide a conceptual illustration of how each enhancement option may appear as enhancements to key features. To understand the relative difference in area these enhancement areas cover for each of the options, the areal coverage for each enhancement option within the visual extent of the figure is provided as follows:

- Enhancement Areas Option 1 = 856 ha
- Enhancement Areas Option 2 = 1,195 ha
- Enhancement Areas Option 3 = 3,157 ha

Visually, and spatially, moving from Enhancement Area Option 1 through 3, more enhancement areas are captured resulting in a larger N.H.S. Enhancement Area Option 1 would in effect overlap with buffers, should they be required. Therefore, Enhancement Area Option 1 would result in very little increase in overall area of the N.H.S. should minimum buffers be required. For the example illustrated in **Figure 3b**, Enhancement Area Option 2 would identify approximately 50% more area than Enhancement Option 1, by filling in larger gaps, indents, and bays/inlets.

Enhancement Area Option 3 would identify an even larger area of enhancement, achieving a similar visual and functional result for the N.H.S. as was developed by the Province for the N.H.S. for the Growth Plan, where the N.H.S. for the Growth Plan includes the areas in between key natural heritage features. The policies in the Growth Plan restrict the percentage of land that can be developed in areas of the Growth Plan N.H.S. not occupied by a key natural heritage feature, as described in Section 4.2.2.3 of the Growth Plan. Through implementation of the Growth Plan policies where new development or site alteration is proposed, there is a requirement that a portion of the area must "remain or be returned to natural self-sustaining vegetation", thereby having the effect of 'enhancing' the key natural heritage features of the N.H.S.

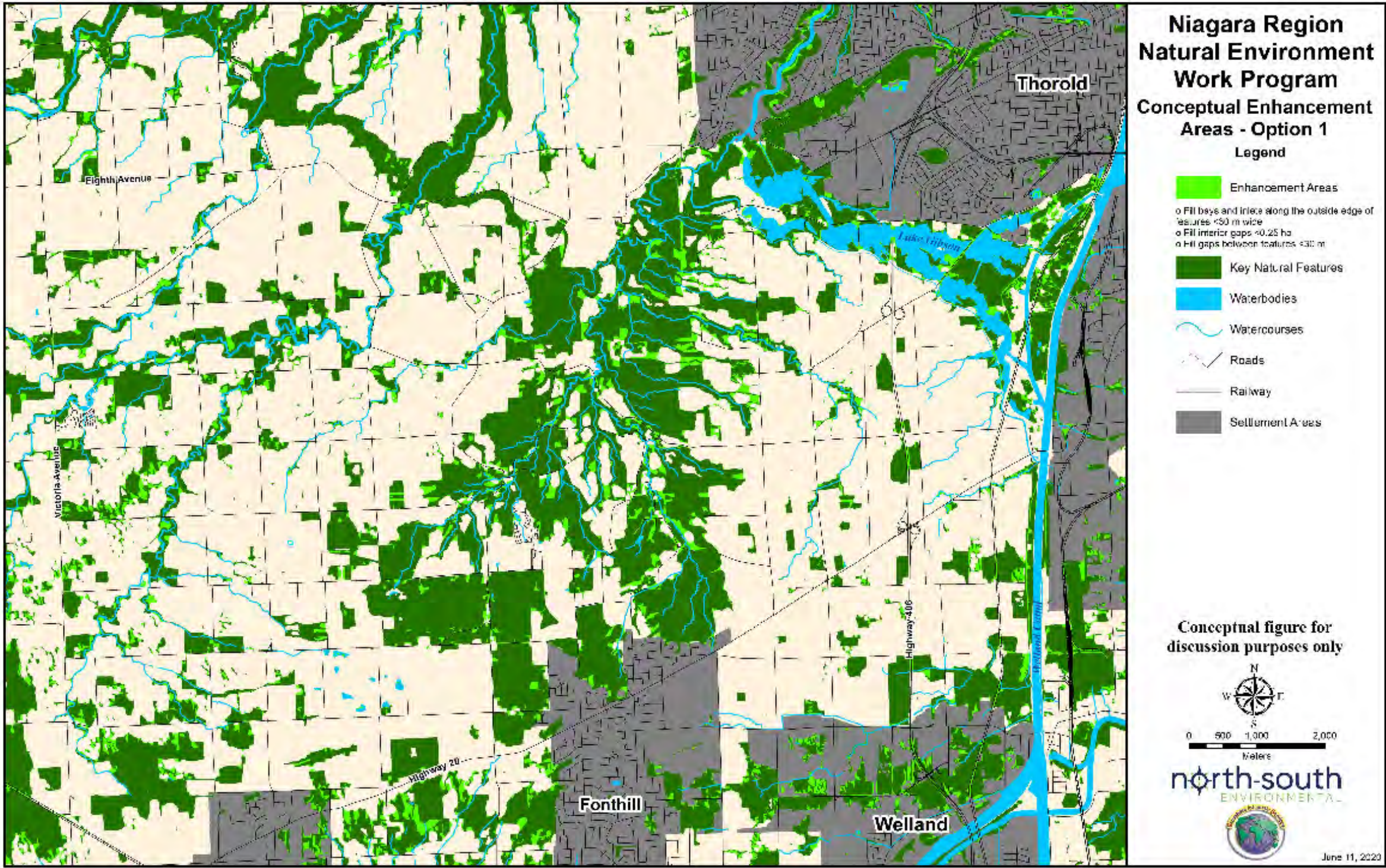


Figure 3a. Conceptual enhancement areas for Option 1.

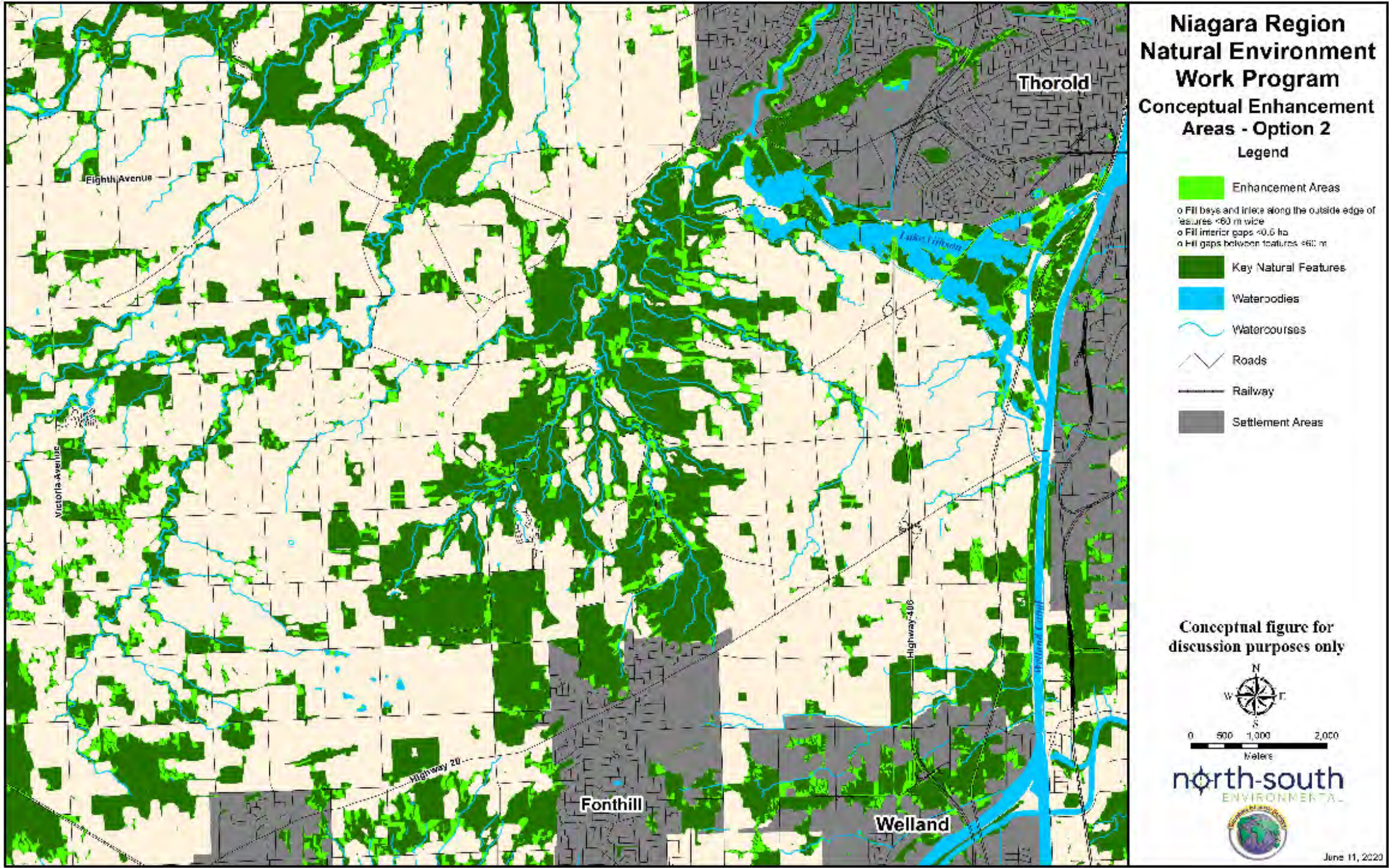


Figure 3b. Conceptual enhancement areas for Option 2.

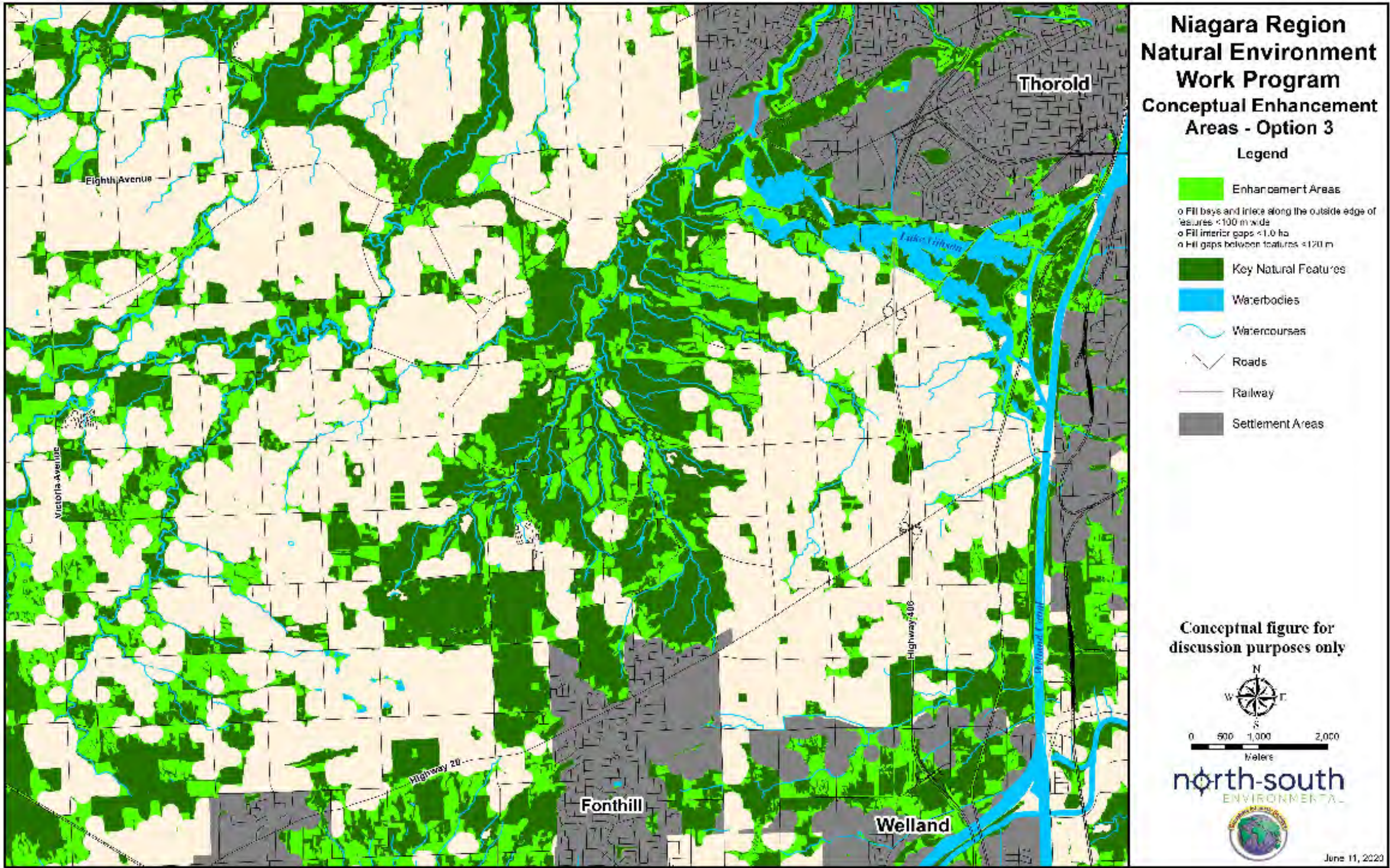


Figure 3c. Conceptual enhancement areas for Option 3.

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Areas That Support Hydrologic Functions

Hydrologic Functions are defined in the P.P.S. (2020) and the Growth Plan as:

“the functions of the hydrological cycle that include the occurrence, circulation, distribution and chemical and physical properties of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere, and water’s interaction with the environment including its relation to living things.”

The definition includes every potential component of water as it relates to the N.H.S. and W.R.S. Whereas the other components of the natural environment system provide more clear direction relating to definitions and potential criteria, there are no specific criteria to identify areas that support hydrologic functions. To capture other features/functions/areas that support hydrologic functions, which have not been specifically included in other components of the natural environment system, the following features/areas could be considered as part of this optional component:

- Floodplain, flooding hazard, floodway;
- Dynamic beach hazard; and
- Karst.

Buffers and Vegetation Protection Zones

Section 15.1 of the Natural Environment System Background Study provided a comprehensive review of policy requirements and exemptions for V.P.Z.s in the Provincial plan areas and Provincial N.H.S.s, a review of comparator municipal approaches to identifying and implementing buffers, and best practices to identifying buffers. The Background Study provided the following recommendations related to V.P.Z.s and buffers:

- The new N.O.P. will need to provide a definition of V.P.Z., and policies for the protection and implementation of exemptions (e.g., agriculture) and minimum required V.P.Z.s that is consistent with the Greenbelt and Growth Plan. The Region may consider including requirements for buffers and even prescribe minimum buffers as part of the natural environment system.
- The new N.O.P. must ensure that policies related to buffers to V.P.Z.s refer to and are consistent with the Greenbelt Plan policies 3.2.5.7 and 3.2.5.8, which notes that the agricultural community is exempt from Policy 3.2.5.4 and 3.2.5.5 within the Niagara Peninsula Tender Fruit and Grape Area.
- The Region may consider developing a guidance document for determination of buffers as part of site-specific studies (e.g., subwatershed plan, secondary plan, E.I.S.). There are several examples from comparator municipalities, which the Region may be able to draw from.

Following from these recommendations, review of best practices and comparator municipal approaches to identifying buffers, the following approaches to determine

buffer widths for key natural features areas (as listed in Table 2 within the main body of this Technical Report) is suggested for areas outside of the Provincial plan areas:

1. Minimum buffers (can be determined to be larger based on site-specific studies and following guidance documents developed by the Region)
 - a. Outside of settlement areas
 - i. All features = 30 m
 - b. Inside of settlement areas
 - i. P.S.W.s = 30 m
 - ii. All other key natural features = 15 m
2. Mandatory buffers that can be refined (increased or decreased) following a refinement framework or guidance developed by the Region)
 - a. Inside and outside of settlement areas
 - i. All features = 30 m

Appendix 2: Descriptions and Criteria for Select Components of the Water Resource System

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Description and Criteria for Select Components of the Water Resource System

The Mapping Discussion Paper and Natural Environment Background Study provided a review of the components recommended for inclusion in the W.R.S. The following builds on that review with further discussion of the components, providing definitions where they have been developed, and indicating if criteria have been established or need to be established to aid in identifying the component.

Key Hydrologic Features

Permanent and Intermittent Streams

Permanent and intermittent streams are those that contain water for a sufficient period in an average year to develop defined channel form and morphology. Intermittent streams may be dry during parts of the year. They may include features where the water table is above the stream bottom during parts of the year. The Growth Plan and Greenbelt Plan define intermittent stream as follows:

"Stream-related watercourses that contain water or are dry at times of the year that are more or less predictable, generally flowing during wet seasons of the year but not the entire year, and where the water table is above the stream bottom during parts of the year." (Greenbelt Plan)

Inland Lakes and their Littoral Zones

The Greenbelt Plan defines inland lakes as "any inland body of standing water, usually fresh water, larger than a pool or pond or a body of water filling a depression in the earth's surface". However, it is recommended additional parameters or size criteria be determined as informed through watershed planning or equivalent.

The littoral zone of a lake refers to the area near shore where the light penetrates to the lakebed making this zone the most ecologically productive area in a lake and which supports rooting aquatic vegetation.

Seepage Areas and Springs

The Greenbelt Plan and Growth Plan define Seepage Areas and Springs as "sites of emergence of groundwater where the water table is present at the ground surface." (Greenbelt Plan)

Wetlands

The Greenbelt Plan and Growth Plan define wetlands as:

"Lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of wetlands are swamps, marshes, bogs and fens.

Periodically soaked or wet lands being used for agricultural purposes which no longer exhibit wetland characteristics are not considered to be wetlands for the purposes of this definition.

Wetlands are further identified, by the Ministry of Natural Resources and Forestry or by any other person, according to evaluation procedures established by the Ministry of Natural Resources and Forestry, as amended from time to time.”
 (Greenbelt Plan)

Wetlands components are previously discussed in **Section 1.1**.

Key Hydrologic Areas

Significant Groundwater Recharge Area

The Greenbelt Plan and Growth Plan defines a Significant Groundwater Recharge Area (S.G.R.A.) as follows:

“An area that has been identified:

- a) as a significant groundwater recharge area by any public body for the purposes of implementing the P.P.S., 2014;
- b) as a significant groundwater recharge area in the assessment report required under the Water Act, 2006; or
- c) as an ecologically significant groundwater recharge area delineated in a subwatershed plan or equivalent in accordance with provincial guidelines.

For the purposes of this definition, ecologically significant groundwater recharge areas are areas of land that are responsible for replenishing groundwater systems that directly support sensitive areas like cold water streams and wetlands.
 (Greenbelt Plan)

Groundwater recharge areas are classified as “significant” when they supply more water to an aquifer (which is used as a drinking water source) than the surrounding area (N.P.C.A., 2013). In other words, a recharge area is considered significant when it helps to maintain the water level in an aquifer that supplies a community with drinking water, or supplies groundwater recharge to a coldwater ecosystem that is dependent on this recharge to maintain its ecological function (N.V.C.A., 2015b). Significant groundwater recharge areas are subdivided by the groundwater vulnerability and assigned scores of 6, 4 or 2 for groundwater vulnerabilities of high, medium and low, respectively (N.P.C.A., 2009).

Highly Vulnerable Aquifers

The Greenbelt Plan and Growth Plan define a Highly Vulnerable Aquifer (H.V.A.) as follows: “Aquifers, including lands above the aquifers, on which external sources have or are likely to have a significant adverse effect.” (Greenbelt Plan)

H.V.A.s are areas of high groundwater vulnerability that “typically consist of granular aquifer materials or fractured rock that have a high permeability, are exposed near the

ground surface, and have a relatively shallow water table” (N.P.C.A., 2009). Aquifer Vulnerability Index (A.V.I.) groundwater vulnerability assessments have been completed to improve the delineation of highly vulnerable aquifers. The A.V.I. groundwater vulnerability assessments were based on regional hydrostratigraphic interpretations (N.P.C.A., 2009). The H.V.A. delineation reflects the increased vulnerability of the shallowest identified aquifers by transport pathways. H.V.A are also defined as aquifers, including lands above the aquifers, on which external sources have or are likely to have a significant adverse effect (Greenbelt Plan, 2017).

Significant Surface Water Contribution Areas

The Greenbelt Plan and Growth Plan define Significant Surface Water Contribution Areas as follows: "Areas, generally associated with headwater catchments, that contribute to baseflow volumes which are significant to the overall surface water flow volumes within a watershed."

Ground Water Features

Recharge/Discharge Areas

An area where rain or snow seeps into the ground and flows to an aquifer is called a recharge area. Recharge areas tend to be areas that are characterized by permeable soils, such as sand or gravel, which allow the water to seep easily into the ground. Discharge areas are locations where groundwater transitions to the surface through springs or seeps, often into wetland features or watercourses.

Another important recharge area that may be considered as part of a W.R.S. includes Ecologically Significant Groundwater Recharge Areas (E.S.G.R.A.s). "E.S.G.R.A.s are identified as areas of land that are responsible for supporting groundwater systems that sustain sensitive features like coldwater streams and wetlands" (Lake Simcoe Region Conservation Authority, 2014). Ecological significance of the recharge area is identified where there is a "linkage" between the recharge area and an ecologically significant feature (e.g., a reach of a coldwater stream, a wetland, or an A.N.S.I.). The identification of an E.S.G.R.A. represents the pathway in which recharge would reach that feature. In this way, E.S.G.R.A.s would be important areas to include, in order to provide a connection or linkage between Key Hydrologic Features and Key Natural Heritage Features.

Water Tables

The water table refers to the upper surface or elevation of the saturated zone in an aquifer (i.e., the soil that is saturated with groundwater). This elevation or location of the water table can vary substantially over time and spatial location.

Aquifers and Unsaturated Zones

An aquifer is the underground storage of groundwater within permeable rock or unconsolidated sediment. By definition, water can be extracted from, or enter, an aquifer with relative ease. Unconfined aquifers are those in which surface water can enter directly. Confined aquifers are those that are situated between impermeable

layers of stone or sediment. Aquifers may exist at shallow depths close to watercourses, or may be found at much greater depths. The unsaturated zone of an aquifer refers to the porous underground area that is above the water table. Saturated zones refer to the underground area in which water occupies all pores and fractures.

Surface Water Features

Headwaters

Headwaters are not defined in the Provincial plans. The Evaluation, Classification and Management of Headwater Drainage Features Guideline, prepared by the Toronto and Region Conservation Authority and Credit Valley Conservation (2014) defines Headwaters as:

“Non-permanently flowing drainage features that may not have defined bed or banks; they are first-order and zero-order intermittent and ephemeral channels, swales and connected headwater wetlands, but do not include rills or furrows”.

This guideline document provides criteria for identifying and classifying headwater drainage features (H.D.F.s) for the purpose of recommending an approach to management. Management recommendations are provided based on the classification of the feature, such as:

- Protection (important functions);
- Conservation (valued functions);
- Mitigation (contributing functions);
- Recharge Protection (recharge functions);
- Maintain or Replicate Terrestrial Linkage (terrestrial functions); and
- No Management Required (limited functions).

According to the H.D.F. guidelines (Toronto and Region Conservation Authority and Credit Valley Conservation 2014), protection H.D.F.s are recommended to be protected in situ and conservation H.D.F.s should either be protected or ensure that their form and function are replicated in a natural channel design if relocated. Other management recommendations are generally related to maintaining hydrologic functions that can be achieved through storm water management designs and low impact development options. Terrestrial linkage functions would be considered as part of the N.H.S., and are therefore not recommended for inclusion as part of the H.D.F. component of the W.R.S. As such, it is recommended that if H.D.F.s are to be included as a component of the W.R.S., ‘protection’ and ‘conservation’ H.D.F.s be included and protected as part of the system.

Recharge/Discharge Areas

This has been previously defined under Ground Water Features.

Associated Riparian Lands

As the Growth Plan definition for ‘Surface Water Features’ states, Associated Riparian Lands “... can be defined by their soil moisture, soil type, vegetation or topographic characteristics” (as defined in part of the definition for Surface Water Features in the Growth Plan 2019). Riparian zones are the ecotone or interface between a watercourse and the terrestrial vegetation community and are characterized by hydrophilic plants.

Hydrologic Functions

The intent of the W.R.S. is to provide long-term protection for the functions associated with Key Hydrologic Features and Key Hydrologic Areas. As defined in the P.P.S., hydrologic function is defined as:

“The functions of the hydrological cycle that include the occurrence, circulation, distribution and chemical and physical properties of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere, and water’s interaction with the environment including its relation to living things.”

Consideration of elements that could be mapped to protect hydrological function include the following:

- **Floodplain** – the regulatory floodplain is defined by N.P.C.A. as the floodlines corresponding to the 100 - year flow event and represents the flood hazard area.
- **Karst Features** –Karst landscapes form due to the dissolution of soluble rocks such as limestone and dolomite. The resultant geology includes underground drainage systems such as sinkholes, caves, and rivers. The surface of karstic terrain is marked by dissolution features referred to as karren and is bare/rocky or supports a shallow overburden of soil that could support unique ecological communities. Generalized mapping of karstic terrain is available from the Ontario Geological Survey and is refined based on site-specific observations. Linkage between karst features and both the W.R.S. and N.H.S. is undertaken as part of watershed planning.

Shoreline Areas

Shorelines are the interface between terrestrial and aquatic environments, allowing for interactions between them, providing: specialized habitats (e.g., natural beach, overhanging cover, bird stopover or nesting, etc.), natural cover, areas of shoreline erosion or accretion, nutrient and sediment filtration / buffering, shading, foraging opportunities, etc. Naturalized shorelines also allow for natural shoreline processes, provide filtering / buffering and assist in protecting and maintaining water quality. The form and function of natural shorelines and shoreline features are important components of a connected and dynamic natural environment system.

It should be noted that hazards, including shorelines and the dynamic beach hazard, are also regulated according to the Conservation Authorities Act and through policies of

the various Conservation Authorities (N.P.C.A. in Niagara Region). The regulated area is typically identified as 30 m (98 ft) from the limits of the shoreline flood hazard. This regulated area should be considered when developing criteria for Shoreline Areas in addition to direction provided in watershed planning reports.



City Council Outstanding Reports List

Sub-Item 11

Reports by Strategic Pillar

Cultural	1	Economic	1
Environmental	3	Social	6

Reports Related to Strategic Plan 11

Reports Unrelated to Strategic Plan 12

Updated: July 31, 2020

Relation to Strategic Plan	ORL #	Requested	Requested by	Request	Lead Dept.	Expected Return Date	Comments
Cultural	2019-44	2-Dec-19	Porter	That staff be directed to gather the appeal processes for all grant programs and report back to Council	CRCS	Q2 2020	From BSC minutes of October 28, 2019
Economic	2019-22	15-Jul-19	Townsend	Amend sign by-law to permit digital signage on City-owned properties and buildings, including the appropriateness and ability to include third-party advertising as part of digital signage on City-owned properties.	PBS / COMMS	Q3 2020	Appeal Information Report - Application for Sign By-law Variance; 142 St. Paul Street; Owner: 2400795 Ontario Inc. was deferred 8-12-19 until ORL #2019-22 is presented to Council. Requested return Q4 2019
Environmental	2019-20	24-Jun-19	Mayor Sendzik	Corporate waste reduction strategy including best practices for municipal waste diversion and organics at city facilities, parks, beaches, public spaces and events at City facilities, including an implementation strategy and budget for 2020.	EFES / MW	Fall 2020	Report going to Environmental Sustainability Committee prior to going to Council
Environmental	2019-39	4-Nov-19	Townsend	Single-use plastic bag ban	EFES / LCS / EDTS	Q4 2020	
Social	2019-03	11-Feb-19	Porter	Policy and funding methods for how the City could support requests for assistance for affordable housing endeavors in the future	PBS	Q4 2020	To be incorporated in CIP Review Process. Should be considered with 2021 Budget
Social	2019-41	2-Dec-19	Littleton	That staff report back regarding the Conversion of Grantham South to a one-way street heading north from Queenston Street to Eastchester Avenue	EFES	Q3 2020	
Social	2020-05	24-Feb-20	Littleton	Family Care and Accommodation Policy	CSS	Q4 2020	Develop family care and accommodation policy (including but not limited to barrier-free access to childcare, transportation, dependent care) to improve equitable access and reduce systemic barriers to public participation in all city-initiated public meetings, citizen advisory committees and statutory meetings. Report going to BSC prior to Council
Social	2019-29	09-Sep-19	Littleton	Report back on the existing street naming process with ways to include more public engagement, perhaps similar to the park naming process	PBS	Q3 2020	
Social	2019-43	2-Dec-19	Kushner / Phillips	That staff utilize the EngageSTC portal to gather public feedback and report back end of Q1 2020 regarding a national ban on handguns and the joining with other municipalities that are advocating for a national ban on handguns.			Return requested for Q1 2020
Social	2020-10	27-Jul-20	Porter	Strategy and options for the relocation of the Private Watson statue	CRCS	Q2 2021	See Council Minutes from July 27, 2020 for list of groups to be consulted for the report
None	2019-40	2-Dec-19		That staff report back to Council with a schedule for Deputy Mayors	LCS	Q3 2020	
None	2019-47	16-Dec-19	Miller / Mayor Sendzik	That the request for funds to be used to record in-camera meetings be referred to 2020 for a report including the upgrading of screening services for all meetings (open and closed sessions).	LCS		
None	2020-09	27-Jul-20	Williamson	Parking concerns regarding 6-10 Dalhousie Avenue	PBS	Q3 2020	See Council Minutes from July 27, 2020 for additional information on the report request

Follow Up Reports

Relation to Strategic Plan	ORL #	Requested	Requested by	Request	Lead Dept.	Expected Return Date	Comments
Economic	2020-03	15-Jul-19	Porter	Living Wage Employer Implementation Plan, including financial impacts to the City.	CSS	September	Follow up report. Initial report (CAO-144-2019) approved July 15, 2019

Relation to Strategic Plan	ORL #	Requested	Requested by	Request	Lead Dept.	Expected Return Date	Comments
Environmental	2020-08	03-Jun-20	Porter	That staff prepare a report and budget in advance of the 2021 budget deliberations regarding a cul-de-sac program	MW		Follow up report. Initial report (FMS-085-2020, Sub-Item 10.2) approved June 3, 2020. See minutes of June 3, 2020 General Committee Meeting for additional information requested for inclusion in the report.
Social	2020-02	13-Jan-20	Townsend	E-Scooter report with results of consultation with stakeholder groups and risk management analysis	EDTS / EFES / MW		Follow up report. Initial report (EDTS/CRCS-006-2020) approved January 13, 2020
Social	2020-07	24-Feb-20	Porter	Revised Graffiti Program: Consult with the community, the relevant cultural committees and downtown stakeholder groups to modernize the graffiti program and by-law by 2021.	PBS	Q4 2020	Follow up report. Initial report (PBS-010-2020) approved February 10, 2020
Social	2019-49	16-Dec-19	Mayor Sendzik	That the needle pick-up team be a pilot project that includes tracking of the number of needles picked up, the cost of cleaning up spaces that have been subjected to abuse by people using needles and other drugs; and other issues around homelessness and addictions found in city parks and that the findings be reported back to Council by November 2020; and That data be used to secure future funding from Regional, provincial and federal governments to deal with this epidemic	MW		Update report going to Council in November 2020

Reports Affected by COVID-19

Relation to Strategic Plan	ORL #	Requested	Requested by	Request	Lead Dept.	Expected Return Date	Comments
Economic	2019-45	16-Dec-19	Porter	That staff be directed to consult with the public and report back to Council in Q2 with recommendations for how to use the telephone town hall money	FMS	2021	Due to COVID-19, Council approved deferring the proposed budget engagement plan until the 2022 budget cycle and that the Telephone Town Hall continue for the 2021 budget process.
Social	2019-12	15-Apr-19	Porter	Review of Citizen Appointments to Boards and Committees Policy	LCS	Q4 2020	Postponed due to COVID-19 until Q4 2020
Social	2019-23	15-Jul-19	Littleton	Opportunities and strategies for the City to support neighbourhood associations and neighbourhood-based community groups, including best practices and information gathered from the forum	CRCS	TBD	Staff report will come forward following the neighbourhood association forum. Forum was scheduled for March 28 but was postponed to a later date due to COVID-19
Social	2019-34	23-Sep-19	Mayor Sendzik	That additional staffing be considered for RZone in the 2021 budget deliberations and come back to Council with a report in Q3 2020	CRCS	Q3 2021	Given the financial implications of COVID-19, this report will be deferred to Q3 2021 for the 2022 budget deliberations.



Corporate Report City Council

Report from: Office of the Chief Administrative Officer

Report Date: August 7, 2020 **Meeting Date:** August 10, 2020

Report Number: CAO-117-2020 **File:** 10.4.19

Subject: COVID-19 Update – August 10, 2020

Strategic Pillar:



Recommendation

That Report CAO-117-2020, regarding COVID-19 Update – August 10, 2020, be received for information purposes; and

That staff be directed to keep the Garden City Golf Course open until October 12, 2020.
FORTHWITH

Summary

The purpose of this report is to provide Council with ongoing updates on the City's Municipal Emergency Control Group's (MECG) planning activities to address the rapidly evolving global COVID-19 pandemic from a strategic and proactive approach. The report illustrates the MECG's ongoing commitment to their four objectives and three considerations for reopening facilities and services.

This report provides an update on the City's recovery process, an overview of facilities that have reopened and are scheduled to be reopened, and information regarding the Advanced Planning Team.

For the latest information on the City's recovery, visit <http://www.EngageSTC.ca> and the City's social media platforms.

Relationship to Strategic Plan

City staff is responding to the COVID-19 pandemic as it has affected the economic, social, environmental and cultural sustainability of the city. City staff have prioritized their objectives to heavily focus on recovery efforts of COVID-19 to mitigate the impact on the community and support the sustainably pillars through new and innovative ways.

Background

On March 12, 2020, the City of St. Catharines partially activated its Emergency Operations Centre (EOC) to support the work of the Municipal Emergency Control

Group (MECG) in their response to COVID-19 pandemic and the provision of essential services.

In March 2020, Provincial Orders resulted in the closure of various businesses and services, which impacted municipalities and their communities, to reduce the spread of COVID-19.

As the Province moved into Stage One of its recovery, certain businesses and community service providers were able to open and/or provide services in a modified way, effective Tuesday, May 19, 2020.

On June 15, 2020, the Province announced that Niagara would be moving to Stage Two of reopening as of Friday, June 19, 2020 at 12:01 a.m. As a result, a number of businesses and public facilities were able to reopen with measures in place to help prevent the spread of infection.

On July 20, 2020, the Province announced that Niagara would be moving to Stage Three of reopening as of Friday, July 24, 2020 at 12:01 a.m. As a result, more businesses and public facilities were able to reopen with measures in place, and some restrictions were lifted regarding gatherings for both indoor and outdoor facilities.

In anticipation of the Province's reopening announcements, efforts were made through the City's Municipal Emergency Control Group (MECG), the City's Recovery Team and many staff members, to draft a recovery plan for the City of St. Catharines titled STC Framework to Recovery, which was shared at the June 3, 2020 Council meeting. The plan has been updated when necessary and to align with Provincial reopening announcements.

This is the ninth update from the MEGC regarding COVID-19. Details regarding preparedness, response, recovery and future planning can be found in the following previous reports to Council:

- [Report CAO-063-2020](#) – April 8, 2020 Council
- [Report CAO-070-2020](#) – April 22, 2020 Council
- [Report CAO-072-2020](#) – May 6, 2020 Council
- [Report CAO-077-2020](#) – May 20, 2020 Council
- [Report CAO-083-2020](#) – June 3, 2020 Council
- [Report CAO-087-2020](#) – June 22, 2020 Council
- [Report CAO-099-2020](#) – July 13, 2020 Council
- [Report CAO-108-2020](#) – July 27, 2020 Council

Report

The COVID-19 pandemic continues to pose a serious threat to the community as well as the City's ability to provide all levels of service in the same manner as they were previously delivered.

The MECG continues to respond to the pandemic proactively and has been diligently planning for potential future developments. The MECG continues to be dedicated to the safety of staff and the community, while ensuring essential services continue to be delivered without interruption and is focusing on recovery.

The MECG remains committed to their four objectives with a heavy focus on the STC Framework to Recovery as the Province continues to lift restrictions and move into Stage three of reopening.

MECG's planning and decisions are guided by their four key objectives:

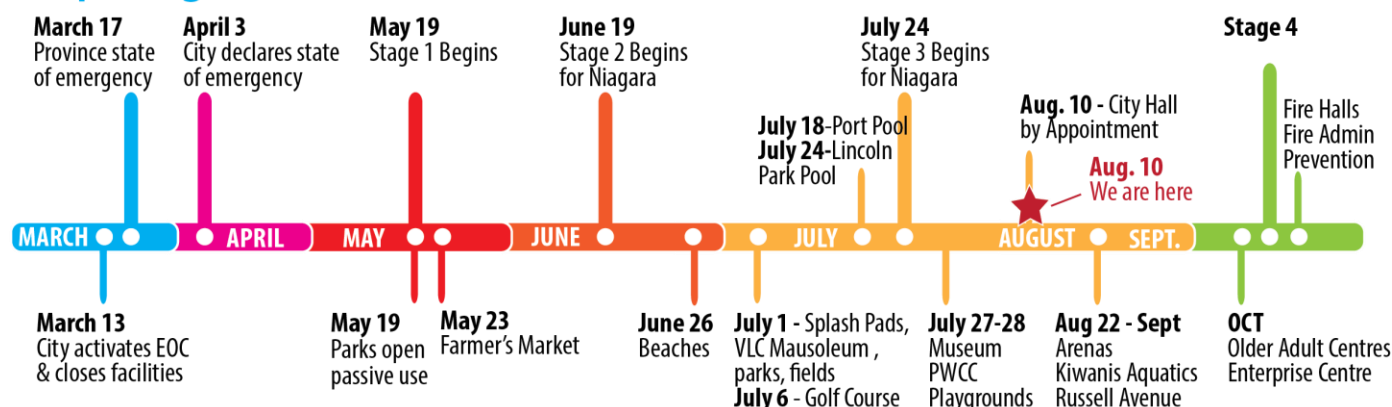
1. To focus on recovery while continuing to provide essential services.
2. To ensure the health, safety and security of the public and staff during the pandemic and through the recovery process.
3. To continue to be able to support Niagara Health, Public Health, Niagara Region and our other partners.
4. To ensure the organization remains in a financially stable condition during this pandemic.

STC Framework to Recovery Update

Facility Opening

The following timeline was shared with Council at the July 27, 2020 Council Meeting. Staff remain committed to the timeline and are on track.

Re-Opening Timeline



Recovery Implementation

In addition to reopening, staff is in the process of implementing a number of key initiatives to ensure facility reopening is safe for staff and residents:

Appointment Booking Application

Corporate Support Services (CSS) has launched an appointment booking application that can be used by Citizens First and other departments to allow residents to book appointments at various facilities throughout the corporation.

Citizens First Appointment Bookings allows residents to book appointments for 16 different services, including:

- Taxes
- Water
- Other payments
- Commissioning
- Dog licensing
- Parking permits
- General Information

The application launched on August 4, 2020, ahead of the August 10, 2020 opening date for City Hall. To date, 29 appointments have been booked for eight different services through the application.

Team and Public Meeting Policy

The recovery team has worked with staff to develop a policy regarding team and public meetings as facilities begin to reopen. Where possible, staff will continue to host meetings electronically, unless doing has an adverse effect on service delivery. This policy continues to allow staff to host meetings safely, while adhering to social distancing guidelines.

Volunteers

Currently, volunteers are unable to return to City facilities as they reopen. Staff is consulting with the Region and Public Health regarding a plan to safely allow volunteers to resume their roles with certain facilities.

While no timeline has been established, the recovery team is attempting to have a plan in place for Q4 2020 to allow the return of volunteers to coincide with the reopening of Older Adult Centres.

Garden City Golf Course

At its meeting of June 3, 2020, City Council passed the following motion:

“That the Garden City Golf Course be opened for July and August; and That staff review the operations and finances of the Garden City Golf Course to determine if it can also remain open in September and October.”

The Garden City Golf Course opened to the public on July 6, 2020. To become operational under COVID-19 guidelines, additional staff were hired and safety provisions were implemented on the golf course and in the clubhouse. Seeing that this initial investment has now been made, it is staff's recommendation for the golf course to remain open until Monday, October 12, 2020 (Thanksgiving).

Operations and Finances

Many notable changes have been introduced at the Garden City Golf Course to encourage physical distancing and protect the public and staff, including:

- Tee times are now scheduled 12 minutes apart;
- Flags remain in the holes;
- Ball cleaners and rakes have been removed;
- The washrooms at the clubhouse, hole #3 and hole #12 are open with additional cleaning and hand sanitizer available;
- One-way flow for patrons in and out of the clubhouse;
- Staff are not preparing food and only offering pre-packaged snacks and liquor for sale out of the clubhouse;
- A cashless system has been implemented with only debit and credit being accepted; and
- Plexiglass barriers have been installed inside the clubhouse and golf carts.

Many of these measures are now common across Ontario golf courses and staff have not reported any challenges with these operational changes.

One league has resumed play at the course this season. As of the writing of this report, tournaments have not been permitted to run; however, with Ontario now in Stage Three, this is an event staff feel can be encouraged into the late summer and fall season.

Although there have not been any 2020 memberships sold, the Activity Pack option has been a popular choice for customers who are looking to play more frequently. Since opening, 34 packages have been purchased, including two packages for 45 rounds. This is approximately one-third of the total number of Activity Packs usually sold in a golf season. There have also been approximately 3,000 rounds of golf sold in the first four weeks of operation. This number is also positive when compared to July play in previous years.

Financially, the municipal golf course is trending within expectations due to favourable revenues realized in the month of July.

Advanced Planning Team

When the COVID-19 pandemic became global in March 2020 and the Province of Ontario declared a State of Emergency, staff at the City of St. Catharines, specifically the Municipal Control Group (MECG), began to address the pandemic by reducing facilities and services as mandated by the upper levels of government.

When the Province announced its plan for a phased-in recovery, City staff recognized the need to establish not only a Recovery Team to plan for the City's recovery, but an Advanced Planning Team to plan for the event of another type of emergency scenario.

The Advanced Planning Team held their first meeting May 1, 2020 to establish a list of various scenarios, such as a severe weather event, major restrictive lockdown and a second wave of the virus that could affect the City, services, operations and resources.

Staff felt confident to address the first two scenarios and to remain more focused on planning for a second major outbreak of the virus.

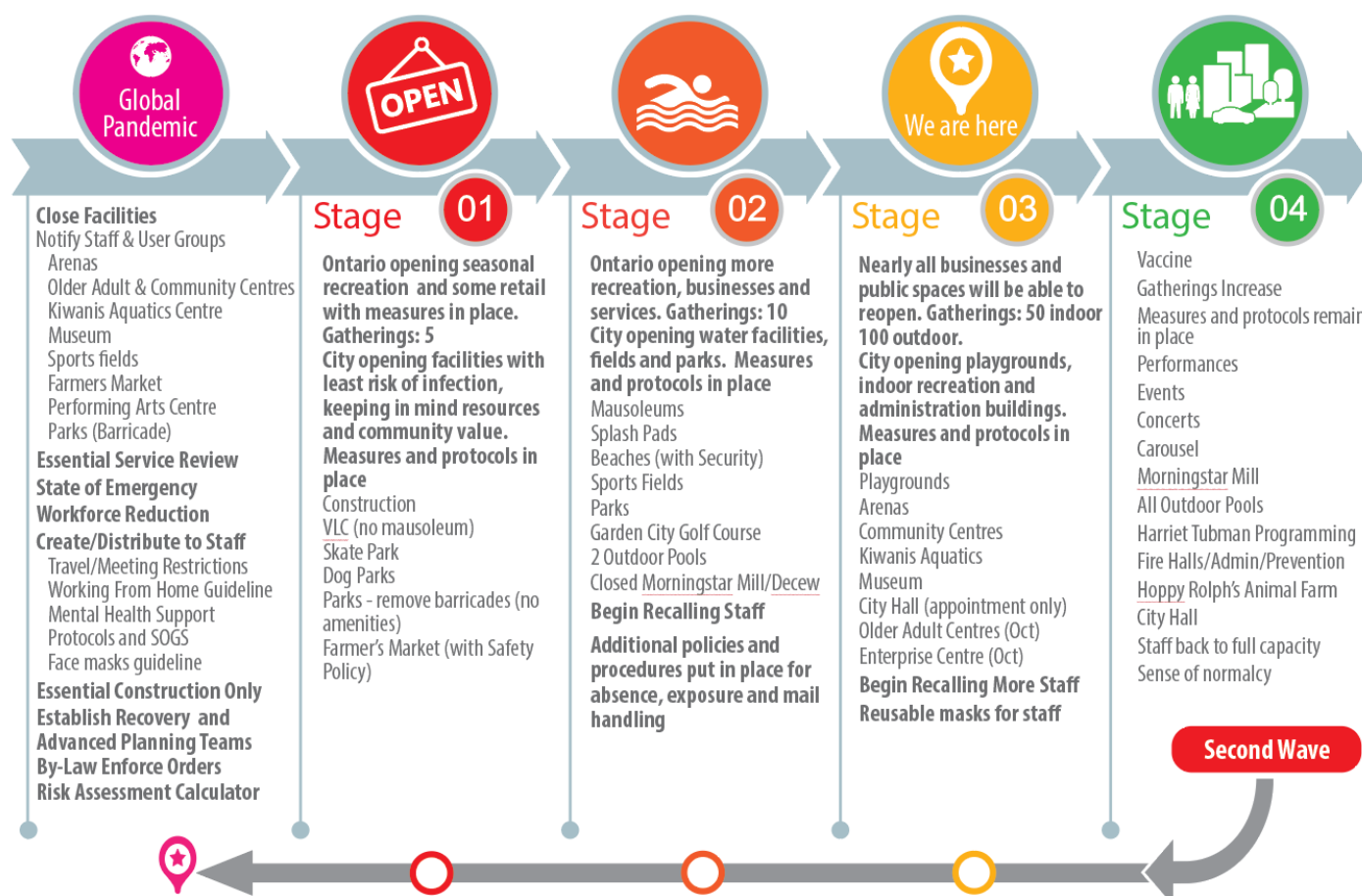
Methodology

The Advanced Planning Team began to breakdown the various second wave scenarios.

1. Ongoing smaller waves throughout summer, fall, winter and continuing throughout 2021;
2. Another large outbreak in the fall; and
3. Constant threat of large outbreaks as restrictions are lifted, causing further lockdowns and restrictions.

The team felt the best approach would be to document the steps the City has taken to address the current pandemic throughout the various stages and lessons learned. Documenting the process has allowed for a snapshot of steps taken throughout each Stage and if another major outbreak was to occur, whether the City would need to revert to Stage One or Two and follow the same procedures as documented.

On the next page is a high-level summary of the internal steps taken by staff throughout the pandemic as a guideline should the area experience large outbreaks.



The Advanced Planning Team will be prepared to provide updates if and when necessary moving forward.

Funding Opportunities and Requests

Investing in Canada Infrastructure Program (ICIP) – COVID-19 Stream

On August 5, 2020, the Federal Government of Canada via Catherine McKenna, Minister of Infrastructure and Communities, announced changes to ICIP funding to help provinces and territories deal with the pressures brought on by the COVID-19 health and economic crisis.

ICIP funding is being adjusted so that provinces and territories can use federal funding to act quickly on a wider range of more pandemic-resilient infrastructure projects. Under a new COVID-19 Resilience funding stream worth up to \$3.3 billion, projects will be eligible for a significantly larger federal cost share – up to 80%. Types of projects eligible for this funding include:

- Retrofits, repairs and upgrades for municipal buildings;
- COVID-19 response infrastructure (includes measures to support physical distancing);
- Active transportation infrastructure, including parks, trails, foot bridges, bike lanes and multi-use paths; and
- Disaster mitigation and adaptation projects, including natural infrastructure, flood and fire mitigation, and tree planting and related infrastructure.

Additional, qualifying projects must be started by September 30, 2021 and completed by the end of 2021.

Staff is evaluating a number of projects for eligibility and will provide an update regarding an application at a later date.

Financial Implications

The estimated net tax levy impact for 2020 as forecasted at July 27, 2020 was approximately \$7.0 million (Total estimated tax levy impact of \$10.8 million less cost containment estimated at \$3.8 million). Currently, there are no significant changes to these estimates.

Staff is in the process of completing a comprehensive updated yearend forecast as part of the Q2 variance report. This report will be presented to both BSC and Council in September.

With the fluidity of the COVID-19 pandemic, and as the City continues to respond to COVID-19, contain costs and mitigate issues, the 2020 yearend financial position of the City continues to be unfavourable.

Conclusion

The COVID-19 pandemic continues to evolve and is still a threat to the community. The MECG will continue to implement proactive responses and plan for potential developments with the safety and well-being of the community and staff at the forefront.

The MECG will continue to focus on recovery for the City of St. Catharines while remaining committed to the four objectives and three considerations for reopening facilities and services.

For the latest information on the City's recovery, visit <http://www.EngageSTC.ca> and the City's social media platforms.

Prepared and Submitted by

The City of St. Catharines Municipal Emergency Control Group (MECG)

Approved by

Shelley Chemnitz
Chief Administrative Officer

David Oakes
Deputy Chief Administrative Officer



Corporate Report City Council

Report from: Legal and Clerks Services, Office of the City Clerk

Report Date: June 25, 2020 **Meeting Date:** July 13, 2020

Report Number: LCS-097-2020 **File:** 35.65.75

Subject: Motion regarding Body Cameras for Police Officers – comments from Anti-Racism Advisory Committee

Strategic Pillar:

Motion Tabled on June 3, 2020

WHEREAS the topic of body cameras for police officers in Niagara has been discussed in the past; and

WHEREAS in 2018 the NRP indicated in a St. Catharines Standard article that they were deferring to a Toronto Police Services study on the issue; and

WHEREAS since that time there have been instances where body cameras on police officers would have been useful in determining what, exactly, had taken place during confrontations;

THEREFORE BE IT RESOLVED that St. Catharines City Council call on the Niagara Region, through the Police Services Board, to immediately begin the process of procuring and outfitting officers with body cameras; and

BE IT FURTHER RESOLVED that this motion be forwarded to all local municipalities; the offices of all Niagara-area MPPs and MPs; and the offices of the Attorney General of Ontario Doug Downey, the Attorney General of Canada David Lametti, Ontario Public Safety Minister Sylvia Jones and Federal Public Safety Minister Bill Blair. FORTHWITH

Background Information and Report

At the Council meeting of June 3, 2020, Councilor Siscoe moved the following motion regarding body cameras for police officers:

“WHEREAS the topic of body cameras for police officers in Niagara has been discussed in the past; and

WHEREAS in 2018 the NRP indicated in a St. Catharines Standard article that they were deferring to a Toronto Police Services study on the issue; and

WHEREAS since that time there have been instances where body cameras on police officers would have been useful in determining what, exactly, had taken place during confrontations;

THEREFORE BE IT RESOLVED that St. Catharines City Council call on the Niagara Region, through the Police Services Board, to immediately begin the process of procuring and outfitting officers with body cameras; and

BE IT FURTHER RESOLVED that this motion be forwarded to all local municipalities; the offices of all Niagara-area MPPs and MPs; and the offices of the Attorney General of Ontario Doug Downey, the Attorney General of Canada David Lametti, Ontario Public Safety Minister Sylvia Jones and Federal Public Safety Minister Bill Blair.”

Council referred the motion to the Anti-Racism Advisory Committee for comment regarding the issue of body cameras for police officers.

At its meeting of June 18, 2020, the Anti-Racism Advisory Committee passed the following motion regarding body cameras for police officers:

“WHEREAS body cameras are a tool which can be used for greater police accountability; and

WHEREAS earlier the Niagara Regional Police Services board had delayed a study on body cameras pending a similar study by the Toronto Police Service; and

WHEREAS the Toronto Police Service is now adopting body cameras.

THEREFORE BE IT RESOLVED that the Anti-Racism Advisory Committee recommends that City Council ask that the Niagara Regional Police Service (NRPS): Implement body cameras for all front line officers as soon as possible.”

Having received comment from the Anti-Racism Advisory Committee, staff is now bringing the original motion back to City Council for its consideration.

Also at its meeting of June 18, 2020, the Anti-Racism Advisory Committee passed several motions regarding police reform recommendations. These recommendations can be viewed in the [minutes of the June 18, 2020 meeting of the Anti-Racism Advisory Committee](#).

Prepared by

Evan McGinty
Council and Committee Coordinator

Submitted and Approved by

Bonnie Nistico-Dunk
City Clerk



Corporate Report City Council

Report from: Legal and Clerks Services, Office of the City Clerk

Report Date: August 7, 2020 **Meeting Date:** August 10, 2020

Report Number: LCS-116-2020 **File:** 10.12.35

Subject: Options for Consideration of In-Person Council Meetings

Strategic Pillar:

Recommendation

That in-person Council Meetings resume in Council Chambers following the completion of the required audio upgrades (estimated completion of late October 2020). FORTHWITH

Summary

This report provides Council with three options for resuming in-person Council meetings: Council Chambers, the FirstOntario Performing Arts Centre, and Niagara Regional Council Chambers. Each facility has different considerations, costs, and dates when they would be available to start accommodating meetings. The recommendation to resume in-person Council Meetings in Council Chambers following the required audio upgrades is subject to change based on public health guidelines; any changes that would impact the ability to resume in-person Council meetings, or timing, would be communicated to Council.

COVID-19 continues to be a public health threat and a number of associated public health guidelines remain in effect, including 2 metre physical distancing, and the recommendation that people aged 70 years and older, people who have underlying medical conditions, and people who are immunocompromised stay at home. As such, although this report is being brought forward at this time, it should be understood that Council is not required to resume in-person Council Meetings. Additional changes to the *Municipal Act, 2001* (the Act) in July further strengthen municipalities' ability to continue to meet through electronic participation.

Relationship to Strategic Plan

This report is not directly related to the City's Strategic Plan.

Background

In response to the COVID-19 pandemic, the Province enacted the *Municipal Emergency Act, 2020* which amended the electronic participation provisions of the *Municipal Act, 2001* (the Act) as they relate to municipal Councils, local boards and committees, as defined in the Act. On March 27, 2020, City Council amended its Procedural By-law to permit electronic participation in meetings during an emergency declared locally or provincially. This amendment applies to City Council, General Committee and Budget Standing Committee, and since this time, meetings have proceeded through electronic participation, with only a small number of essential staff being permitted in Council Chambers.

On July 13, 2020, as part of the discussion of a report on remote public engagement (CAO-102-2020), Council passed the following motion, moved by Councillor Garcia:

That programs or initiatives involving large commitments of taxpayer funds, that are not related to the COVID-19 emergency, such as CIP, not be discussed by Council until proper, in-person public participation is allowed.

Among other items, this motion significantly hinders the ability of the City Council to consider the 2021 Operating and Capital Budgets.

Report

Electronic meetings are permitted and meet open meeting requirements

Prior to the COVID-19 pandemic, the Act provided authority for a municipality's procedural by-law to allow for electronic participation in meetings, but did not permit those attending a meeting electronically to be counted towards quorum. The Act has since been amended to allow for full electronic participation, including allowing those individuals participating electronically to be counted towards quorum, provided these permissions are included in the municipality's procedural by-law.

Meetings held through electronic participation meet the open meeting requirements of the Act, provided that the public has been given appropriate notice of the meeting and its agenda, that there is an option for the public to view the proceedings of the meeting, providing options for public participation, and that meeting minutes are publically accessible. With these open meeting requirements in mind, municipalities across the province have been holding electronic Council meetings during the COVID-19 pandemic, and many continue to utilize this meeting format.

Online views are increasing and electronic participation has been working

As of 2018, 94% of Canadians had access to the internet in their home and 71% of seniors reported using the internet (Statistics Canada). Given past trends and recent circumstance, it is likely that internet access has continued to increase in the past two years. Since the COVID-19 pandemic there has been an increase in the number of

people who view City Council meetings, or portions thereof, online. A count of the online meeting views between October 7, 2019, and July 13, 2020, is included in Appendix 1.

As staff and councillors were getting used to the online platform, only written delegations were permitted for the first few meetings held through electronic participation. Since that time, individuals have been able to register to address Council through an electronic delegation (which includes the ability to speak during a meeting over the phone, including a landline). Having delegations present electronically has worked extremely well.

Resuming in-person Council Meetings

COVID-19 continues to be a public health threat and large gatherings are still not recommended and other public health advice remains in effect so it should be understood that although this report is being brought forward, Council is not required to resume in-person Council Meetings at this time. The Act provides authority to continue meetings through electronic participation (even without the existence of an emergency) and the City has implemented the necessary technology to execute these meetings.

Public Health Considerations

Although there continues to be a gradual reopening across the province, the COVID-19 pandemic still poses a serious threat to the community and as such the opening of any facility requires that public health and workplace safety restrictions be in place. For example, 2 metre physical distancing remains a requirement for all people of Ontario who are not from the same household or social circle. This requirement impacts any return to in-person Council meetings, affecting not only the number of people who can attend a meeting, but also their movement within the meeting facility.

At this time, the Ministry of Health and Public Health Ontario still strongly recommend that adults aged 70 years and older, people who have underlying medical conditions, and people who are immunocompromised stay at home. Returning to in-person meetings at this time would require that individuals falling within one or more of these categories to go against this advice in order to provide a verbal delegation (see information below regarding the inability to offer hybrid meetings at this time).

In addition to councillor and public attendees, a number of staff are present at every Council Meeting and the Corporation has a responsibility under the *Occupational Health and Safety Act* to take every precaution reasonable in these circumstances for the protection of staff. As a result, a number of new health and safety measures would be in place for meetings that will impact councillors and the public entering the facility. If these measures cannot be adhered to, the meeting may need to be delayed or rescheduled until compliance can be achieved.

The recent City and Regional Municipality of Niagara bylaws requiring the wearing of masks or other face coverings would also apply during in-person Council meetings. All councillors, staff and members of the public present would need to wear a mask throughout the meeting and their time in the public areas of City Hall, unless they had a personal exemption. Further, any screening procedures for the meeting location would

also be applied during Council Meetings. This means that councillors, staff, and the public who do not pass the screening would not be able to enter the facility or attend the meeting.

Three options to consider if returning to in-person Council Meetings

A number of options have been considered for when Council returns to in-person meetings. An overview of the three facilities that in staff's opinion are best able to accommodate in-person meetings is presented in Appendix 2; they include Council Chambers, the FirstOntario Performing Arts Centre, and the Niagara Region's Council Chambers. Appendix 2 includes considerations for each facility, as well as anticipated costs and when the facility may be able to start to accommodate in-person meeting.

A return to in-person Council meetings should not be viewed as a return to normal. Regardless of the meeting location, the experience of both the public and Council will be significantly different than before the COVID-19 pandemic. This includes how councillors interact with each other, the public and staff, the public's access to the meeting room, as well as movement within the room and broader facility.

Provisions for electronic meetings would remain

If Council chooses to proceed with in-person meetings it must be understood that these meetings will have a greater risk of uncertainty than prior to the COVID-19 pandemic. There are a number of examples of situations under which an in-person meeting may need to be rescheduled or changed to an electronic format with potentially little notice for health and safety reasons, including: if there is an increase in case numbers; if there is an outbreak within the meeting facility; if there is a change in public health guidelines or provincial orders; or if there are issues with quorum due to potential exposure or symptoms.

Option of in-person meetings for certain topics

If Council wishes to continue with electronic meeting participation at this time there would be an option to hold meetings on specific topics in-person; however, staff would need advance notice of the topics Council expects to be discussed in this format. Staff cannot accommodate changing a planned electronic meeting to an in-person meeting without adequate notice. Staff would request direction from Council around which meetings would be held in-person so that appropriate notice to the public is given and staff are prepared with the appropriate protocols in place.

Do not currently have capacity for hybrid meetings

Some municipalities have been able to implement a hybrid meeting model that includes some councillors attending in-person, while other councillors attend through electronic participation. With the City's current infrastructure, the only way this could be accommodated at this time would be for the councillors who are attending in-person to also be logged-in to and interacting through the online meeting platform; headphones would also need to be used by any in-person participants.

As of August 10, 2020, City Hall will be open to the public on an appointment basis. As such, if Council were to continue with electronic participation, and there was an

individual who wished to make an electronic delegation but did not have the means to do so (e.g. does not have access to the internet, a cell phone or a landline), staff could work with the individual to accommodate this request, understanding that these requests could not be accommodated without notice.

Budget Standing Committee (BSC) Meetings

If the staff recommendation is approved, BSC meetings would also continue through electronic participation until Council Chambers is available. If Council approves an alternative recommendation, then direction should be provided in relation to BSC meetings. Without upgrades, Council Chambers can accommodate BSC meetings given the smaller list of typical attendees with appropriate health, safety and attendance limitations in place (e.g. attendance from staff, non-BSC members of Council and the public will be limited).

Advisory Committee and Task Force Meetings

Due to the ongoing threat of COVID-19, advisory committee and task force meetings, as required, will continue through electronic participation at this time.

All forms of public participation must be valued equally

Regardless of the model or location of a meeting, it is vital that councillors continue to place the same value on all forms of public participation, whether this participation is in the form of an in-person delegation, or comments / concerns submitted via email, letter, or over the phone. There are a number of situations that may prevent an individual from participating in-person, for example: an individual's work schedule conflicts with Council meeting times; an individual's family care obligations conflict with Council meeting times; mental health conditions may make it difficult to attend meetings with large numbers of people; cognitive conditions may impact an individual's ability to speak or to speak publically; and during the COVID-19 pandemic many older adults or individuals with compromised immune systems could have concerns about the increased health risk of attending meetings. It is important that councillors continue to review and consider all forms of participation equally; the onus for this lies with each individual councillor.

Financial Implications

Council Chambers

Capital project P18-140 provided \$25,000 in capital funding for microphone replacement in Council Chambers (due to funding this work includes microphones and related equipment only, and no other improvements, such as video). In order to temporarily accommodate the modified room layout required due to public health guidelines, the audio upgrades will need to be completed in two stages: first to accommodate the modified layout (generally shown in Appendix 3); and then a second phase to implement the permanent solution. The same equipment will be used in both phases; however, there is additional labour costs related to installing part of the system twice, however these are relatively minimal.

Based on preliminary quotes, the microphone upgrades will cost approximately \$40,000. The additional \$15,000 required to complete the project would be reallocated from another capital project under delegated authority.

FirstOntario Performing Arts Centre

It would cost approximately \$1,900 per meeting to have a Council Meeting at the FirstOntario Performing Arts Centre. This price will vary depending on the specifics of the meeting, as identified in Appendix 4. This cost is unbudgeted and any expenditures would further increase the City's 2020 year-end net tax levy deficit.

Niagara Region Council Chambers

Per-meeting costs should be significantly less than the FirstOntario Performing Arts Centre as City staff would be responsible for the meeting logistics. If Council wishes to pursue this option, City and Regional staff will further discuss per-meeting costs and report back to Council. This cost is unbudgeted and any expenditures would further increase the City's 2020 year-end net tax levy deficit.

Conclusion

This report recommends resuming in-person Council Meetings following audio upgrades required to accommodate the health and safety measures necessary to meet during COVID-19.

Prepared by

Kristen Sullivan, Deputy City Clerk

Submitted by

Bonnie Nistico-Dunk, City Clerk

Approved by

Heather Salter, Director of Legal and Clerks Services / City Solicitor

Appendices

1. Number of online views for Council Meetings
2. Options for resuming in-person Council Meetings
3. General layout of Council Chambers with physical distancing
4. General layout of FirstOntario Performing Arts Centre with physical distancing

Number of Views for Council Meetings

Before Electronic Meetings

Council Meeting Date	Live Stream Views	Average Watch Time	Archive Views	Total Views
07-Oct-19	78	5 mins	32	110
21-Oct-19	57	3 mins	115	172
04-Nov-19	185	4 mins	10	195
18-Nov-19	67	5 mins	17	84
02-Dec-19	61	7 mins	27	88
16-Dec-19	135	7 mins	26	161
13-Jan-20	42	2 mins	32	74
27-Jan-20	142	5 mins	97	239
10-Feb-20	142	4 mins	70	212
24-Feb-20	172	5 mins	38	210
09-Mar-20	52	5 mins	7	59

Since Electronic Meetings

Council Meeting Date	Live Stream Views	Average Watch Time	Archive Views	Total Views
08-Apr-20	110	40 mins	152	262
22-Apr-20	99	1 hr 13 mins	154	253
06-May-20	160	39 mins	118	278
20-May-20	130	54 mins	152	282
03-Jun-20	401	45 mins	166	567
22-Jun-20	195	40 mins	194	389
06-Jul-20	374	22 mins	418	792
13-Jul-20	745	33 mins	246	991

Options for Resuming In-Person Council Meetings

Location	Capacity of Public Attendees ¹	Other Considerations	Costs ²	Timing
<p>Council Chambers</p> <p>General layout plan provided in Appendix 3.</p>	<p>Staff Clerk, CAO, Council Coordinator, and one other member of staff to be determined, by meeting content</p> <p>If additional staff are required for a meeting, they would need to take turns being in the room.</p> <p>Public One member of the public would be able to enter Council Chambers but only for the time when a delegation is being made.</p> <p>Depending on the number of public attendees, individuals may be able to watch the livestream from the Burgoyne Woods Room while physically distant, but may need to queue in the hallway or outside of City Hall. Depending on the queue location, individuals may be responsible for using their own devices if they wish to follow the live meeting proceedings.</p> <p>Media There would not be sufficient space for the media within the meeting room. If desired, they would be able to watch the livestream from the Burgoyne Woods Room.</p> <p>YourTV will be able to broadcast meetings.</p>	<p>Councillors' seats Due to space limitations some councillors will be required to sit in the gallery area and would not be in view of the livestream or YourTV (chairs and tables would be set up in place of the current benches); this would be assigned on a rotating basis.</p> <p>Audio Upgrades Required Given the limited public access to Council Chambers given public health guidelines, it is critical that the public has an opportunity to view the proceedings of open session meetings through the livestream or YourTV. Due to the required layout changes (again due to public health guidelines) technical upgrades related to Council Chambers audio system must be completed before hosting open session meetings.</p> <p>Audio upgrades were scheduled for Council Chambers in 2020. The temporary solution to address layout changes due to public health guidelines works towards the permanent installation.</p>	<p>The cost of the audio upgrades is approximately \$40,000. There is \$25,000 in capital funding that was previously approved for this project. An additional \$15,000 would need to be reallocated from another capital project.</p> <p>Council Chambers and any other room used to host the public would need to be cleaned by facilities staff. This will further reduce the capacity of these staff who are already increasing cleaning due to COVID-19 and the reopening of City Hall for appointments.</p>	<p>It is estimated that the audio upgrades would be complete in time to introduce open session meetings by late October 2020.</p>

<p>FirstOntario Performing Arts Centre (Robertson Hall)</p> <p>General layout plan provided in Appendix 4.</p>	<p>Staff This location allows the largest number of staff to attend, including the ability to accommodate all department heads. To improve physical distancing between participants, staff would only attend if required for that meeting (or portion thereof) at the discretion of the CAO.</p> <p>Public Approximately 12 members of the public would be able to be in the meeting room.</p> <p>Depending on the number of attendees / speakers, additional members of the public would queue to speak and be able to view the livestream of the meeting from elsewhere in the facility.</p> <p>Media Two members of the media could attend the meeting. Attempts would be made to confirm attendance in advance as without the media additional members of the public can be accommodated within the room.</p> <p>YourTV will be able to broadcast meetings.</p>	<p>The majority of costs are related to staffing. As these costs pay wages they may be viewed as contributing back into the economy and an opportunity to support employment at a time with the PAC's operations and staff have been significantly impacted.</p>	<p>Approximately \$1,900 per meeting.</p> <p>Price varies depending on the actual equipment needed for each meeting and whether or not the room is required for other uses between meetings (e.g. this would impact cost to set up room before the meeting). Meetings longer than 4 hours would incur additional staffing costs.</p> <p>This is a very favorable estimate and based solely on cost recovery.</p>	<p>Available as soon as August 24, 2020, until the end of 2020.</p>
<p>Niagara Region Council Chambers³</p> <p>Layout would be the same</p>	<p>Staff Clerk, CAO, Council Coordinator, and one member of senior staff (see below for additional staff numbers). Staff attendance would be limited as the more staff that attend the fewer members of the public can be accommodated in the room.</p>	<p>Regional Council has 32 councillors, and as such their facility is much larger than the City's.</p> <p>As this facility is regularly used for Council meeting, it is set up to meet the City's needs.</p>	<p>Per meeting costs should be significantly less than the Performing Arts Centre as City staff would be responsible for the meeting logistics and this staff</p>	<p>This space would only be available for use after Niagara Region headquarters is open for general public</p>

as Regional Council meetings, however not all seats would be available for use.	<p>Public (and staff) The room should be able to accommodate approximately 10 additional individuals (in addition to staff mentioned above) can be accommodated within the meeting room.</p> <p>Depending on the number of attendees, individuals may be able to watch the livestream from the area outside Regional Council Chambers while physically distant, but may need to queue in the hallway or outside of Niagara Regional Headquarters. Depending on the queue location, individuals may be responsible for using their own devices if they wish to follow the live meeting proceedings.</p> <p>Media Two members of the media could attend the meeting. Attempts would be made to confirm attendance in advance as without the media additional members of the public can be accommodated within the room.</p> <p>YourTV will be able to broadcast meetings.</p>	To manage the City resources required to run a meeting, the audio-visual provisions would be similar to what the City offered pre-COVID-19 (i.e. not as advanced as provided during Regional Council meetings).	time is not charged back (similar to current Council meetings). If Council wishes to pursue this option, City and Regional staff will further discuss per meeting costs and report back to Council.	access and, at a minimum Regional Standing Committees resume in-person meetings.
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Notes:

1. Prior to the COVID-19 pandemic, Council meetings typically included in-person attendance by the 13 members of Council, an average of 12 members of staff, one member of the media (in early 2020 YourTV made technology improvements so that they are able to broadcast Council meetings without being in Council Chambers). The number of public attendees at each meeting varied depending on the topics included on the meeting agenda.
2. Costs are in addition to any standard meeting costs which remain the same regardless of meeting location (e.g. staffing).
3. Section 236 of the Municipal Act allows a municipality to hold its meeting at an adjacent municipality. As the Region is located in Thorold, which is adjacent to St. Catharines, the requirements of the Municipal Act would be met.

