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**Subject:** Natural Environment Work Program – Phases 2 & 3: Mapping and Watershed Planning Discussion Papers and Comprehensive Background Study

**Report to:** Planning and Economic Development Committee

**Report date:** Wednesday, November 6, 2019

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## Recommendations

1. That Report PDS 32-2019 **BE RECEIVED** for information; and,
2. That Report PDS 32-2019 **BE CIRCULATED** to the Area Municipalities and the Niagara Peninsula Conservation Authority (NPCA).

## Key Facts

- The purpose of this report is to present the Mapping Discussion Paper, Watershed Planning Discussion Paper, and Natural Environment Background Study for information. These background reports have been completed as part of Phase 2 of the Natural Environment Work Program for the new Niagara Official Plan.
- As recommended by the Mapping Discussion Paper staff will be initiating an update to key environmental mapping layers (including a field-verification component) in support of the ongoing Natural Environment Work Program. This work will be done concurrently and the costs will be accommodated within the budget for the new Niagara Official Plan.
- This report also presents an overview of Phase 3 of the Work Program - “1<sup>st</sup> Point of Engagement: Inform on Background Study”, including a list of activities undertaken, summary of input received, and a link to the Consultation Summary Report.
- The next step of work program is Phase 4 which is the identification and evaluation of options. This will be followed by the 2<sup>nd</sup> Point of Engagement – which will include two points of contact with Planning and Economic Development Committee (PEDC).

## 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

PDS 6-2018 (January 2018) was the project initiation report for the natural environment work program. PDS 18-2018 (April 2018) provided a summary of the early consultation process; framework for the work program moving forward; an outline of the proposed consultation and engagement process; and a schedule for reporting to Committee and Council. PDS 10-2019 (February 2019) provided a status update on Natural Environment Work Program.

The Mapping Discussion Paper, Watershed Planning Discussion Paper, and Natural Environment Background Study are now complete and a brief summary is provided in the following sections. For the complete documents see the web links at the end of this report.

### Mapping Discussion Paper

Through the process of scoping the work program with local planning staff and the NPCA - mapping was identified as a key issue in almost all discussions. There were a range of concerns about the Region's existing natural environment mapping - most related to its accuracy and reliability. There were discussions related to the degree in which the Region would be field-verifying mapping as part of the Official Plan process. The need to have reliable mapping to support local planning was stressed, as was a need for the Region to consider a range of mapping options.

*Key findings of the Discussion Paper were:*

- The Province provides direction on the type of features and areas that should be included in natural heritage and water resource systems. The methodology for mapping varies across municipalities.
- The mapping of natural environment systems requires the use of dozens of sources of data – each with varying ages, degrees of accuracy, and ownership. The Region is responsible for producing and maintaining the data for some features. For other features, the Region is reliant on datasets maintained by others.
- The woodland dataset is one of the most important and extensive datasets/layers. It is the responsibility of the Region to produce and maintain this layer – and an update is required. The discussion paper provided several options for how this could be done, the most practical being to generate a new ELC (Ecological Land Classification) dataset for the Region. This would involve updating the existing data that was produced through the Natural Areas Inventory (NAI) through a combination of aerial image interpretation and field-verification.

Although there is a higher level of effort associated with an update of the ELC dataset, it will have a range of other uses including updates to datasets for other features, a more holistic understanding of the natural environment in the Region, assisting with watershed planning, and supporting site-specific environmental impact studies (EISs). Following the identification of woodlands across the region, criteria are then applied to determine which woodlands are considered 'significant'.

*Key mapping next steps:*

- Prepare a work plan, and initiate a process for updated ELC dataset based on the recommendations of the discussion paper. Regional staff will consult with NPCA staff as part of preparing the work plan.

Watershed Planning Discussion Paper

The Provincial Policy Statement (PPS) requires that watersheds be the ecologically meaningful scale for integrated and long-term planning. It is not a new concept. However, recent Provincial changes have reinforced the need for watershed planning to 'inform' municipal land-use planning. The purpose of the Watershed Planning Discussion Paper was to better understand the history, new provincial direction, and the updated process, roles, and responsibilities related to watershed planning in the Region.

*Key findings of the discussion paper were:*

The Region will now have a lead role in coordinating watershed planning, with the NPCA continuing to provide technical expertise and partnering where appropriate. The discussion paper provides direction in three key areas:

1. Watershed planning that is required to 'inform' the new Niagara Official Plan.
2. Policies for watershed planning that should be included in the new Niagara. Official Plan.
3. A suggested framework for watershed planning in Niagara moving forward.

*Key watershed planning next steps:*

- Staff to prepare a report and work plan for the implementation of a watershed planning program - based on the direction and recommendations of the discussion paper. This will include a consideration of options, costs, funding, and other resources.

## Natural Environment Background Study

The Natural Environment Background Study was designed to be the primary source of information for the project moving forward, and to ensure that policy development will be informed by science and the best available information. The background study covers both general topics, as well as issue and trends that are specific to Niagara. Several key findings are overviewed as follows:

### *Provincial Direction –*

Much of the direction for natural environment planning is provided by the Province. Provincial direction starts with the Provincial Policy Statement (PPS). The PPS identifies the types of natural features, areas, functions, and systems that must be identified and protected.

In Niagara, the Region is responsible for implementing the Provincial Greenbelt Natural Heritage System (NHS) and the Provincial Growth Plan NHS. The Greenbelt NHS has been in place since 2005 and is generally reflected in existing Regional Policies. The Growth Plan NHS was introduced in 2017, and is being implemented in Niagara through the new Official Plan for the first time. The implementation of the Growth Plan NHS itself represents a significant shift to natural environment planning in the Region.

A second major shift in provincial direction is the need to identify and protect a ‘water resource system’. Watershed planning in addition to the joint Niagara Region/NPCA ‘contemporary mapping of watercourses’ project will play an important role in the identification and protection of the water resource system.

### *Fish Habitat -*

The PPS and Provincial Plans require the protection of ‘fish habitat’. Fish habitat, is defined by the Federal Fisheries Act, and means: “spawning grounds and any other areas, including nursery, rearing, food supply, and mitigation areas on which fish depend directly or indirectly in order to carry out their life processes”. This is a broad definition that includes direct and indirect habitat.

One of the issues to be considered through the new Niagara Official Plan is relationship between fish habitat and agricultural infrastructure – this has been subject to ongoing discussions for at least 15 years – and required a detailed review to ensure the history and nuisances of the issue could be understood. Some of the key facts include:

- Agricultural infrastructure (i.e. drains and irrigation systems) in Niagara includes a combination of natural, altered, and man-made watercourses.

- The definition of fish habitat does not include a specific exemption for man-made or altered watercourses. In fact, the Department of Fisheries and Oceans (DFO) produced a document 'Guidance for Maintaining and Repairing Municipal Drains in Ontario' which discusses the relationship between fish habitat and municipal drains.
- There is on-going concern that agriculture infrastructure may be identified as fish habitat and could restrict the construction of agricultural buildings and other agricultural infrastructure, and possibly normal farm practices.
- Beyond the PPS, Provincial Plans, and Fisheries Act, there are other pieces of legislation that must be taken into consideration including the Drainage Act, the Conservation Authorities Act and Regulations, and applicable Private Member Bills.

### *Offsetting -*

Offsetting is generally defined as the positive actions that are taken to address the partial or whole loss of environmental features or ecological functions with the goal of achieving an equal (i.e. no net loss) or greater gain (i.e. net gain) in the amount of a natural feature or ecological function.

There is a recent and controversial history related to the concept of offsetting in Niagara. As a direct result of this, during early consultation on the project, Staff were asked many questions on the topic. Stakeholders, including PEDC, requested more information, as well as clarification on its official position in land-use planning in Ontario. Some of our stakeholders simply wanted to know what it was.

To that end, it was identified as a topic for specific inclusion in the background study. Its inclusion in the report does not take a position, rather it is intended to provide a review of the topic to better inform our partners, stakeholders, and the public. Some key facts include:

- Currently, the PPS and Provincial Plans do not address offsetting.
- Offsetting is not considered an approach to be used to meet the test of 'no negative impacts' as required by the PPS.
- There are concerns about the use of offsetting due to poorly written policies, incorrect interpretation/application, and/or lack of enforcement of policies or regulations.
- Not all features can or should be considered for offsetting. The more complex a feature the higher the risk of not achieving a no-net loss or even net gain. The irreplaceability of some types of features must be acknowledged.
- Several Conservation Authorities and Municipalities in Ontario have policies and guidelines which contemplate compensation/offsetting. In general, they were

developed in response to the development approvals system which in some cases allow impacts to natural features.

- The current NPCA policy document in some cases does permit a compensation approach for wetlands which are not considered to be 'provincially-significant'. It is however understood that this policy is currently under review by the NPCA Board and Staff.

### *Climate Change and Invasive Species –*

To date – the two issues which have generated the most discussion have been climate change and invasive species. These are recognized as two of the most significant threats to the natural environment and can often work in conjunction with one another to accelerate the deterioration of our natural areas.

With respect to the relationship between natural environment and climate change, this generally means two things: planning to protect our natural areas from the impacts of climate change, and understanding that natural areas are an important tool for mitigation and resilience.

The natural environment system is vulnerable to a range of changes in the environment and is widely expected to be affected by climate change. However, the full extent of the impact of climate change on natural features and ecological functions is uncertain. As part of a forward-thinking Official Plan, there is a need to consider the potential impacts of climate change as part of natural environment planning in order to better protect the natural environment system and reduce economic costs (e.g., flood damage, effect of drought on crops, etc.). The work on climate change in this work program is being complemented by the stand-alone Climate Change Work Program being undertaken in support of the new Niagara Official Plan.

There are many invasive species that are creating issues in Niagara including Phragmites, Garlic Mustard, European Buckthorn, and Emerald Ash Borer. Directly controlling invasive species is difficult through the land use policies of Official Plans - and is typically better addressed through by-laws and other management tools. It is clear that controlling invasive species will require partnerships and the work of a number of agencies across the Region. The background study provides some approaches and best practices from other jurisdictions on how this could be done.

### Phase 3: 1<sup>st</sup> Point of Engagement – Inform on Background Study

As overviewed in PDS 18-2018, the consultation and engagement program included a range of stakeholders, Indigenous groups, and the public. A variety of engagement techniques were used including workshops, meetings, presentations, and open houses. Engagement activities took place at a variety of locations across the Region. Information was also made available on the new Niagara Official Plan website.

*List of Activities Undertaken –*

The following activities were undertaken as part of the 1<sup>st</sup> Point of Engagement:

<b>Date</b>	<b>Activity</b>
February 20, 2019	Presentation to Planning and Economic Development Committee (PDS 10-2019)
February 22, 2019	Presentation to the Agricultural Policy and Action Committee (APAC)
February 22, 2019	Technical Advisory Group (TAG) Meeting
April 23, 2019	Presentation to Fort Erie Council
May 1, 2019	Meeting with Six Nations Elected Council Staff
May 1, 2019	Meeting with Haudenosaunee Confederacy Chiefs Council
May 3, 2019	Workshop – Development Community, Consultants, and Local Planning Staff
May 6, 2019	Presentation to Grimsby Council
May 7, 2019	Meeting with Fort Erie Friendship Centre Staff
May 7, 2019	Presentation to Thorold Council
May 13, 2019	Presentation to Niagara-on-the-Lake Council
May 14, 2019	Presentation to Niagara Falls Council
May 16, 2019	Workshop – Agricultural Community
May 16, 2019	Workshop – Environmental Stakeholder Groups
May 22, 2019	Workshop – Planning Advisory Committee (PAC)
May 27, 2019	Presentation to Port Colborne Council
May 28, 2019	Presentation to Wainfleet Council
May 29, 2019	Meeting with Niagara Region Metis Council
May 30, 2019	Public Information Centre – West Lincoln
June 3, 2019	Presentation to Pelham Council
June 5, 2019	Meeting with Niagara Region Native Centre Staff
June 6, 2019	Meeting with NPCA Senior Staff
June 6, 2019	Public Information Centre - Welland
June 10, 2019	Information Package to St. Catharines Council
June 10, 2019	Presentation to West Lincoln Council
June 11, 2019	Meeting with Mississauga-of-the-Credit Staff
June 11, 2019	Presentation to Welland Council
June 13, 2019	Meeting with NPCA Technical Staff
June 17, 2019	Presentation to Lincoln Council
July 23, 2019	Meeting with NPCA Technical Staff
September 18, 2019	Presentation to NPCA Board

*Summary of What We Heard –*

The Consultation Summary Report identifies 9 key themes that emerged through the 1<sup>st</sup> Point of Engagement - as well as the implications for the Natural Environment Work Program moving forward. These findings are summarized in the table below:

<b>Key Theme</b>	<b>Implication for Natural Environment Work Program</b>
1. Consistent Policies and Clear Roles and Responsibilities	<ul style="list-style-type: none"> <li>- Need to address roles and jurisdictions</li> <li>- Need for consistent definitions and application of policy</li> </ul>
2. Take a Systems Approach to Natural Environment Planning	<ul style="list-style-type: none"> <li>- Need to address connection between issues</li> <li>- Need to address connectivity and linkages within natural systems</li> <li>- Need to account for the inter-relationship between natural and built environments</li> </ul>
3. Recognize the Uniqueness of Niagara's Geography, Natural Environment and Agriculture	<ul style="list-style-type: none"> <li>- Need for a balanced approach that considers a range of land uses</li> <li>- Need for a specific consideration of the relationship between agriculture and natural environment</li> </ul>
4. Accurately Mapping the Natural Environment	<ul style="list-style-type: none"> <li>- Need to use the most up-to-date and reliable sources of information</li> <li>- Need to ensure that mapping is updated on a regular basis</li> </ul>
5. Monitor Federal Legislation and Provincial Policy Direction	<ul style="list-style-type: none"> <li>- Need to continue to monitor changes at the provincial and federal level and make changes as required</li> </ul>
6. Protect the Natural Environment	<ul style="list-style-type: none"> <li>- Need to both protect existing features and restore/enhance others</li> <li>- Need to focus development in the right areas</li> </ul>
7. Explore Challenging Issues in Natural Environment Planning	<ul style="list-style-type: none"> <li>- Need to continue to explore issues and make policy decisions based on science and a fact-based approach</li> </ul>

Key Theme	Implication for Natural Environment Work Program
	<ul style="list-style-type: none"> <li>- Need for ongoing public education and dialogue</li> </ul>
8. Forward Thinking Natural Environment Policies and Official Plan	<ul style="list-style-type: none"> <li>- Need to take advantage of this opportunity to explore - and potentially implement bold new approaches</li> </ul>
9. Build Trust Through Continued Engagement, Collaboration and Education	<ul style="list-style-type: none"> <li>- Need for ongoing meaningful dialogue, with a goal of building trust, and the best outcomes for Niagara</li> <li>- Need to be forward looking and not weighed down by a rehash of past site-specific outcomes</li> </ul>

Next Steps

The next phase of the work program is to develop and evaluate options for the natural systems. This work will be documented the second technical paper: Identification and Evaluation of Options for Regional Natural Environment System(s).

This will be followed by the 2<sup>nd</sup> Point of Engagement – which will include two points of contact with PEDC. Firstly, the preliminary preferred option will be presented for endorsement; we will then undertake a fulsome consultation program with the full range of stakeholders, the public, and Indigenous groups; finally, based on the input received, the preferred option will then be presented to PEDC for final endorsement.

**Alternatives Reviewed**

Council could choose not to receive or circulate this report. 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

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## **Appendices**

The reports can be accessed on the new Niagara Official Plan webpage through the following web links:

[Mapping Discussion Paper](#)

[Watershed Planning Discussion Paper](#)

[Natural Environment Background Study](#)

[Consultation Summary Report #1 – 1<sup>st</sup> Point of Engagement](#)