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Manitoulin Planning Area Natural Heritage Policy Review and Recommendations

Final Report

Prepared for:

Manitoulin Planning Board



north-south
ENVIRONMENTAL

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1. Introduction

1.1. Purpose

It is understood that a condition of the M.M.A.H. approved District of Manitoulin Official Plan (October 29, 2018) was to implement a Natural Heritage System (N.H.S.) in the Official Plan within 3 years and that the current project is to address this condition. In partial completion of this commitment, North-South Environmental was retained to review the natural heritage policies of the current Official Plan to:

- Identify policy gaps in meeting provincial requirements
- Identify recommended direction for policies to address provincial requirements and, as applicable, recommend directions specific to pressures and unique character of Manitoulin

To support recommendations, examples of existing approved natural heritage policies which illustrate or are comparable to the recommended directions are provided, wherever possible.

Because the policy review is being conducted prior to the identification of a Natural Heritage System for Manitoulin (i.e., a system defined using analysis of local conditions and natural cover), recommendations will reflect a general natural heritage system. Some specific guidance or potential opportunities for an N.H.S. for Manitoulin are provided where possible. Further consideration, selection of a preferred approach to implement a natural heritage system defined for Manitoulin (i.e., informed by an analysis of features) can occur at the time of system mapping / identification.

1.1. Natural Heritage / Landscape Context

Manitoulin occurs within the Lake Simcoe-Rideau Ecoregion of Ontario (6E), a sub-area of the Mixedwood Plains ecozone. Extending laterally across Ontario from Lake Huron (west) to the Ottawa River (east), this ecoregion encompasses most of the existing shoreline of Lake Ontario and a portion of the St. Lawrence River valley and extends northerly to include the Bruce Peninsula and Manitoulin. Physical, biological, and climatological similarities define the ecoregion.

Manitoulin represents the northerly extent of this Ecoregion, following the northern extent of Paleozoic bedrock in Ontario. This includes extensions of several sedimentary formations, including the Amabel formation (generally associated with the Niagara Escarpment), the Clinton Group and Cataract Group, and Upper Ordovician formations (northern Manitoulin). Karst formations, associated with the Amabel formation, Clinton, and Cataract Groups, occur throughout the southern portion of Manitoulin.

Manitoulin is unique for several reasons including the physical landform, being the largest lake island and largest freshwater island in the world. Additionally, although Manitoulin is not included within the Niagara Escarpment Plan (N.E.P.) area, it is a part of the natural continuation of the Niagara

Escarpment which extends northward from Bruce County to Manitoulin and continues west to Wisconsin.

Manitoulin has a rich and diverse natural heritage including high biodiversity of flora and fauna, as well as rare habitat types such as alvars. Total natural cover on the island accounts for 79% of the total area of Manitoulin. Based on a brief review of SOLRIS 3.0 data¹, natural cover is generally comprised of woodlands (67%), wetlands (4%), with some overlap between the two, and inland waterbodies (11%). While this doesn't capture Alvars and some other feature types, it provides a good general overview of natural cover. Manitoulin's natural cover supports many rare and endemic species, provides critical habitat for species at risk and provides significant wildlife habitat including important staging area for colonial nesting waterbirds and migratory birds.

Manitoulin is home to approximately 14,000 full time residents and supports many temporary and seasonal visitors and vacationers. Like many areas popular for cottaging and vacationing, the shorelines face much of the development pressure in the area. In addition, Manitoulin has seen increased pressures for permanent resident development (subdivisions) in recent years, potentially as a response to the COVID-19 pandemic.

We acknowledge that Manitoulin Island and surrounding islands are the ancestral and traditional territory of the Anishnaabek, the people of the Odawa, Ojibwe, and Potawatomi Nations. This land continues to be the traditional territory of the descendants of the signatories of the Manitoulin Treaty of 1836 (also known as the Bond Head Treaty), the descendants of the signatories of the Robinson-Huron Treaty of 1850 who moved here, and the descendants of the signatories of the Manitoulin Island Treaty of 1862.

1.2. Policy Context

The current scope is focused on policy foundations which inform land use planning with respect to natural heritage features and systems to address the requirement set out by Ministry of Municipal Affairs and Housing (M.M.A.H.) at the time the Manitoulin Planning Board Official Plan was adopted. Consideration for identifying (i.e., delineating and mapping) of a natural heritage system for Manitoulin, is not within the scope of this work. As such, the summary below is focused on applicable policy documents. Additional guidance documents and studies, relevant to setting criteria for and identifying a Natural Heritage System (N.H.S.) for Manitoulin should be considered at the time that an N.H.S. is identified / mapped.

¹ Southern Ontario Land Resource Information System (SOLRIS) 3.0. Land Information Ontario. 2019, October 4, 2021 Update. 'SOLRIS is a primary data layer that provides a comprehensive, standardized, landscape level inventory of natural, rural and urban lands in Ecoregions 7E, 6E, and 5E, 2000 to 2015'.

1.2.1. Provincial Policy Statement (2020)

The Provincial Policy Statement (P.P.S.) “provides policy direction on matters of provincial interest related to land use planning and development” and provides a policy foundation for land use and development. It also provides direction for appropriate development, protection of resources, public health & safety, and the quality of the natural and built environments (Part 1 Preamble).

Section 2 of the P.P.S. speaks to ‘Wise Use and Management of Resources’ and requires that a N.H.S. be identified in Ecoregions 6E and 7E (Section 2 of the P.P.S.). The P.P.S. recognizes Official Plans (O.P’s) as the most important vehicle for implementation of the Provincial Policy and through which matters of provincial interest are identified and protected (Section 4 of the P.P.S.).

Natural Heritage policies of the P.P.S. (Section 2.1) provide for the protection of natural heritage features through maintaining, restoring or, where possible, improving the diversity and connectivity of natural features, the long-term ecological function and biodiversity of natural heritage systems, as well as “recognizing the linkages between and among natural heritage features and areas, surface water features, and ground water features” (Policy 2.1.2, O.M.M.A.H. 2014). This language recognizes the connection between the natural heritage system and water resources (surface and ground water systems).

Identification of an N.H.S. is required in Ecoregions 6E & 7E, recognizing that these systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas (Policy 2.1.3, O.M.M.A.H. 2014). In accordance with the definition in the P.P.S, an N.H.S. is made up of the following natural heritage features and areas and linkages to connect them:

- Significant Wetlands and Significant Coastal Wetlands;
- Significant Woodlands;
- Significant Valleylands;
- Significant Wildlife Habitat;
- Significant Areas of Natural and Scientific Interest (A.N.S.I.);
- Other Coastal Wetlands;
- Fish Habitat; and
- Habitat of Endangered Species and Threatened Species.

However, it is important to note that Significant Woodlands and Significant Valleylands are excluded as a requirement for islands in Lake Huron and the St. Marys River. As such, these two feature types are not considered mandatory components for an N.H.S. for Manitoulin.

The P.P.S. definition also notes that the system “can” include:

- Natural Heritage Features and Areas;
- Federal and Provincial Parks and Conservation Reserves;

- Other Natural Heritage Features;
- Lands that have been restored or have the potential to be restored to a natural state;
- Areas that support hydrologic functions; and
- Working landscapes that enable ecological functions to continue.

It is interesting to note that the definition both states that the N.H.S. is “made up of natural heritage features and areas” and that it “can include natural heritage features and areas”, amongst other areas and features. While this implies that the natural heritage system is expected to include natural heritage features, it also implies that not all natural heritage features and areas are expected to be included or mapped as part of the natural heritage system.

This provides some discretion for the municipality on how the natural heritage system will be identified, so long as it follows the “recommended approach for identifying natural heritage systems” by the province or achieves or exceeds the same objectives as recommended by the province. Nonetheless, natural heritage features and areas that are not mapped or included as part of the system are still subject to applicable Provincial and municipal policies.

1.2.2. Growth Plan for Northern Ontario

The Growth Plan for Northern Ontario (G.P.N.O.) “provides guidance to align provincial decision-making and investment for economic and population growth in Northern Ontario” (G.P.N.O., Overview). At its southern extent, the G.P.N.O. area includes Manitoulin, Parry Sound and Nipissing, and extends northerly to encompass the remainder of province.

The G.P.N.O. is focused on economy, infrastructure investment, labour market and land use planning to provide direction for these inter-related areas. With respect to the natural environment, and natural heritage, there is relatively limited direction provided. Guiding principle five (Section 1.4) directs that delivering the plan's vision will include ‘demonstrating leadership in sustainable growth and environmental management’. This statement recognizes the need for wise use of resources consistent with the P.P.S.

The environment is the focus of Section 6 of the Plan. The Plan recognizes the role of natural resources as a prime historic driver and their continued role as a key component of Northern Ontario's economy. Shifts to less resource-intensive industries will depend on the sustainable use of natural resources and ensuring a healthy natural environment, continuing the relationship between the environment and economy. The Plan includes commitment to environmental protection and conservation through developing a culture of environmental leadership and conservation; this extends and is implemented through sustainability planning at the local level.

The Plan, through Section 6.3 (Environmental Protection) provides some guidance on how environmental protection is to occur; however, the policies are relatively broad, providing flexibility to

their development and implementation. There are no directive policies with respect to natural heritage features or natural heritage systems. As such, it is direction provided by the P.P.S. that will inform natural heritage system(s) for Manitoulin.

1.2.3. Manitoulin District Official Plan

The Manitoulin District Official Plan guides growth, land use planning and development within the Manitoulin Planning Area. It contains policies which set out the basic structure, permitted uses and policies which guide development to create more sustainable communities for its residents.

Overall, the O.P. contains a robust policy section for the natural environment (Section D), containing policies addressing:

- Water Resources
- Sourcewater Protection
- Energy Efficiency and Conservation
- **Natural Heritage System Features and Areas**
- Escarpment Area
- **Natural Heritage and Open Space Strategy**
- **Environmental Impact Studies**
- Renewable and non-Renewable Resources
- Risks to Public Health and Safety

Bolded policies are those of specific relevance to the current work, although interactions between and across these various sections form part of an overall approach and strategy for the natural environment and the interactions communities, industry and people interact with it.

As noted through Section 1.2.1, the P.P.S. requires that a natural heritage system (N.H.S.) be identified in Ecoregions 6E and 7E. Manitoulin falls at the northern limit of Ecoregion 6E and is therefore required, in accordance with the P.P.S. to identify an N.H.S.

The O.P. recognizes natural heritage systems and the need for them at several points throughout the Plan:

- Table A.1, *Natural Heritage Features and Areas* sets out the following objective: "To maintain, enhance or, where possible, restore the diversity and connectivity of natural features in the District, and the long-term ecological function and biodiversity of natural heritage systems, recognizing linkages between and among natural heritage features and areas, and surface water and ground water features."
- Section D.4 (a) Natural Heritage Systems provides a brief description of an N.H.S. and outlines a commitment to prepare a Natural Heritage System Strategy. It is stated that identification of

an N.H.S. for Manitoulin will *'be achieved through a comprehensive approach consistent with the definition of 'natural heritage system' in the Provincial Policy Statement 2014. Such an approach will involve the inclusion of the fundamental components and characteristics as well as the inclusion of landscape and features-based analyses outlined in the Natural Heritage Reference Manual and Traditional Indigenous Knowledge.*" Collaboration with Indigenous communities for the N.H.S. and the inclusion of Traditional Indigenous Knowledge is stated as a further commitment in the preparation and identification of the N.H.S.

The current project is intended to initiate the process of developing an N.H.S. through a review of existing policy for consistency with the P.P.S. with respect to natural heritage and natural heritage system(s) and to provide initial recommendations identifying an N.H.S. for Manitoulin. Where possible, examples of existing policies or system components to support recommendations is provided.

2. Review of Existing Manitoulin Natural Heritage Policies

A review of the District of Manitoulin Official Plan (2018) (O.P.) was undertaken with the primary objective of assessing consistency with the P.P.S. with respect to natural heritage and natural heritage system(s).

Section D.4 (a) provides a good overview of what a Natural Heritage System (N.H.S.) is, and the functions and benefits it provides. It is through this section that a commitment is made to identify an N.H.S. in accordance with definition provided in the 2014 P.P.S. and using guidance and analyses from the Natural Heritage Reference Manual, and traditional Indigenous knowledge. It should be noted that the 2014 P.P.S. has been superseded by the 2020 P.P.S.; however, with respect to Section 2.1 (Natural Heritage), no changes to the policies of the P.P.S. occurred, so they are compatible in this regard.

The work presented in this technical report will inform the next steps for identifying an N.H.S. It does not address the identified consultation and engagement with Indigenous communities to integrate traditional knowledge. Recommendations developed through this work plan can be used as input to the engagement process.

Section D.4 (b) identifies six categories of natural heritage features and areas:

- Wetlands:
 - Provincially Significant Wetlands;
 - Unevaluated Wetlands;
- Habitat for Endangered and Threatened Species;
- Fish Habitat;
- Significant Wildlife Habitat;

- Areas of Natural and Scientific Interest (A.N.S.I's); and
- Other Natural Heritage Areas.

These are generally addressed through **Sections D.4.1** through **D.4.6**. Review with respect to consistency with the policies of the P.P.S. are presented in **Table 1**.

Policies through these sections of the Plan are largely consistent with the P.P.S. in our experience as natural heritage practitioners. It is our opinion that some of the policies may be more complex than necessary that there may be opportunities to refine the policies at the time an N.H.S. is adopted into the plan. This may be achieved through modifications to policy language, consolidating similar and generally repetitive policies, or by moving some content into guidance documents outside of the Plan.

Based on our review, the following are wholly or partially inconsistent with the P.P.S.:

- **Identification of an N.H.S.** As noted, the identification of an N.H.S. is required for Manitoulin. The current work will partially fulfill this requirement by providing recommendations for policy revisions and clear guidance for next steps to identify an N.H.S. for Manitoulin. This will move the District towards consistency with the P.P.S. on this matter. Initial guidance is provided for the N.H.S. through Section 2 of this report.
- **Wetlands.**
 - Language around Provincially Significant Wetlands could be clarified to reflect the P.P.S. with respect to development and site alteration.
 - Significant Coastal Wetlands are not referenced in the policies. While they may be generally included as PSWs, express identification may be appropriate for clarity and consistency.
 - Other Coastal Wetlands are not discussed in the policies. While they may, at least in part, be captured under 'unevaluated wetlands', they should be specifically identified, particularly in the context of Manitoulin Island.
- **Significant Wildlife Habitat.** Generally, the policies related to S.W.H. are consistent with the P.P.S. It is inferred / understood that policies in S. D.4.5.1 are intended to set out guidance for achieving 'no negative impact' for Deer Wintering Areas. However, as written, they do not demonstrate consistency with the P.P.S. policy with respect to S.W.H. Rather, guidance for achieving consistency with a 'no negative impact' policy should follow an initial statement of compliance.
- **Fish Habitat.** Much of the intent behind P.P.S. policy 2.1.6 is addressed. However, clarity in the policy would assist in ensuring consistency (e.g., no reference to provincial or federal requirements explicitly).
- **Endangered and Threatened Species.** Implementation of the policy as written may be a challenge with reference to 'greater areas' that are undefined. Current policy may add

unnecessary complexity with the introduction of another study type (Ecological Site Assessment [Eco.S.A.]).

Overall, the policies are primarily consistent with the P.P.S., based on our experience as natural heritage practitioners. Some minor amendments can achieve consistency in areas discussed above. In considering policy implementation and clarity, there are opportunities to streamline policy which may be beneficial for supporting implementation and to assist with clarity for landowners and proponents for a range of development and site alteration activities.

A brief review of **Sections D.6** and **D.7** were undertaken as they have some direct relation to natural heritage management and policy implementation. **Section D.6** provides guidance for the preparation of a Natural Heritage and Open Space Strategy and is of relevance to the implementation of a Natural Heritage System. **Section D.7** provides guidance for Environmental Impact Studies used to assess the form and function of natural heritage features and areas and the potential impacts to features as a result of proposed land use(s) and activities.

Generally, we agree with and support the policies and approach to the Natural Heritage and Open Space System Strategy (N.H.O.S.S.S.) presented in policies of **Section D.6** and recognize that a system strategy can support the objectives and intent of a natural heritage system as part of the broader landscape matrix. Some general observations for consideration with respect to preparing an N.H.O.S.S.S. for Manitoulin from our review of policies of **Section D.6**:

- An integrated N.H.O.S.S.S. can align multiple interests. It is important that the protections and intent of an N.H.S. and associated policies are supported and clearly articulated through the strategy.
- The N.H.O.S.S.S. should be used as an implementation tool. Through it, guidance can be given for managing and protecting the N.H.S., buffers and other mitigation measures that should be considered, opportunities for enhancement and restoration, and linkages refined or further defined.
- An integrated N.H.O.S.S.S. may provide guidance for the ultimate fate of lands that may be identified in the N.H.S. process as undevelopable or unalterable
- Care should be taken in its preparation to:
 - Protect and where possible enhance the N.H.S.;
 - Avoid incompatible uses being recommended within or directed toward sensitive or protected features of the N.H.S.;
 - Direct uses which are expected to see greater or more intensive uses (e.g., due to the nature of the use or the number of visitors), away from sensitive features and areas;
 - Provide access to natural areas in ways that support the intent and purpose of the N.H.S. to develop a strong relationship with the natural environment

- Ensure that active transportation or trail networks are designed in consideration of natural corridors and their functions (e.g., the recommendation for trails along watercourses should also keep in mind where these function as natural corridors)

It is also important to note that the development of an N.H.O.S.S.S. is not, in our opinion, required in order to be consistent with the P.P.S. There are no policies in the P.P.S. that identify the preparation of an N.H.O.S.S.S., however it is understood that guidance for the management and implementation of an N.H.S. must be provided for within an Official Plan to support the system it identifies. In consideration of this, the creation of the N.H.O.S.S.S., while beneficial for thoughtful and holistic management, is not, in our opinion, required for the implementation of an N.H.S. We continue to support the preparation of an N.H.O.S.S.S. as an excellent resource and tool for the Planning Board.

Section D.7 provides guidance for the completion of Environmental Impact Studies. Policies and guidance provided in this section of the Official Plan provide a good overview of the requirements for an E.I.S. They address the primary expectations for an E.I.S. in sufficient detail to provide guidance.

The guidelines and policies associated with EIS's will need to be updated to reflect the N.H.S. upon its identification and adoption. For example, the role of N.H.S. features that are within or adjacent to a proposed development or site alteration and their potential influence on the overall form or function of the system (features and linkages) must now be studied. It is understood that this could not be included at the time of the E.I.S. text drafting as an N.H.S. had not yet been identified. Similarly, it is recommended that considerations for enhancement be expanded from the feature to include the system. These would constitute relatively minor refinements to the existing policies.

Larger potential changes to **Section D.7** relate to moving some policies, currently nested within feature-specific sections to this section of the O.P. Currently, several feature-specific sections, such as Provincially Significant Wetlands (D.4.1.2), Habitat of Endangered and Threatened Wildlife (D.4.3.2), and Fish Habitat (D.4.4.3), include guidance for study scoping within them; for consistency and ease of use, it may be valuable to move any policies pertaining to the E.I.S. process to **Section D.7**.

Finally, while there is no specific limitation on including guidance for E.I.S. being provided within the O.P., consideration could be given to moving these policies into a guidance document that is external to the Official Plan. In doing so, it provides greater flexibility for changes over time to address any new study requirements, approaches, and provide further supportive tools such as scoping or waiving forms, to help streamline and support the E.I.S. process.

Table 1. District of Manitoulin Official Plan (2018) compliance with the Provincial Policy Statement (2020).

P.P.S. (2020)		District of Manitoulin O.P. (2018)		P.P.S. Compliance (consistent / inconsistent)
2.0	Ontario's long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral, and cultural heritage, and archaeological resources for their economic, environmental, and social benefits.	D	Environment and Resource Policies In partnership with the Federal and Provincial governments, the Planning Board municipalities and the Indigenous communities strive to protect natural resources, Natural Heritage Features, Areas, and their functions, as well as the environment in general. It is a priority of the Planning Board and municipalities to ensure the sustainable use of resource assets, to protect and enhance significant natural features and functions, and to reduce the risk to public safety and property from hazards, such as flooding, unstable slopes, and human-made hazards.	Consistent
2.1.1	Natural features and areas shall be protected for the long term.	D.4 (b)	Natural features and areas shall be protected for the long term. The significant Natural Heritage Features and Areas are lands that represent the legacy of the natural landscape of the area and as a result have important environmental and social value. Natural Heritage Features and Areas in the District have been identified on Schedule D. The Planning Board and municipalities will work to conserve, restore, and enhance them, wherever possible.	Consistent
2.1.2	The diversity and connectivity of natural features in an area, and the long-term <i>ecological function</i> and biodiversity of <i>natural heritage systems</i> , should be maintained, restored or, where possible, improved, recognizing linkages between and among <i>natural heritage features and areas</i> , <i>surface water features</i> and <i>ground water features</i> .	Table A.1	Natural Heritage Features and Areas iii. To maintain, enhance or, where possible, restore the diversity and connectivity of natural features in the District, and the long-term ecological function and biodiversity of natural heritage systems, recognizing linkages between and among natural heritage features and areas, and surface water and ground water features.	Partially Consistent Consistent text is provided in the objectives for the O.P. but does not form a policy within the Plan.
2.1.3	<i>Natural heritage systems</i> shall be identified in Ecoregions 6E & 7E1, recognizing that <i>natural heritage systems</i> will vary in size and form in <i>settlement areas</i> , <i>rural areas</i> , and <i>prime agricultural areas</i> .	D.4 (a)	The identification and planning for the natural heritage system will be achieved through a comprehensive approach consistent with the definition of 'natural heritage system' in the Provincial Policy Statement, 2014. Such an approach will involve the inclusion of the fundamental components and characteristics as well as the inclusion of landscape and features-based analyses outlined in the Natural Heritage Reference Manual and traditional Indigenous knowledge. In this regard, the Planning Board and member municipalities will work collaboratively with the Indigenous communities regarding the inclusion of traditional knowledge in the establishment of the Natural Heritage System.	Inconsistent Currently, Manitoulin does not have an identified N.H.S.
2.1.4	<i>Development</i> and <i>site alteration</i> shall not be permitted in: a) <i>significant wetlands</i> in Ecoregions 5E, 6E and 7E1; and b) <i>significant coastal wetlands</i> .	D.4.1.1	Provincially significant wetlands (PSWs) and the contiguous land 120 metres adjacent to the P.S.W. will be protected from development or anything that may adversely impact the sensitive resource. As a result, no development or site alteration will be permitted within a P.S.W.	Partially Consistent While it is understood that Provincially Significant Wetlands will include both terrestrial and coastal wetlands, it may be of benefit to provide clarity on this matter in the O.P. given the landscape of Manitoulin.
2.1.5	<i>Development</i> and <i>site alteration</i> shall not be permitted in: a) <i>significant wetlands</i> in the Canadian Shield north of Ecoregions 5E, 6E and 7E1; b) <i>significant woodlands</i> in Ecoregions 6E and 7E	n/a	Re: Significant Woodlands and Significant Valleylands There are no policies in the Official Plan addressing these features.	Consistent In accordance with the P.P.S., Manitoulin, as an island in Lake Huron, is not required to identify significant woodlands or significant valleylands.

P.P.S. (2020)		District of Manitoulin O.P. (2018)		P.P.S. Compliance (consistent / inconsistent)
	(excluding islands in Lake Huron and the St. Marys River)1; c) <i>significant valleylands</i> in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1; d) <i>significant wildlife habitat</i> ; e) <i>significant areas of natural and scientific interest</i> ; and f) <i>coastal wetlands</i> in Ecoregions 5E, 6E and 7E1 that are not subject to policy 2.1.4(b) unless it has been demonstrated that there will be no <i>negative impacts</i> on the natural features or their <i>ecological functions</i> .	D.4.5	Re: Significant Wildlife Habitat The plan separates 'Deer Wintering Areas' (D.4.5.1), 'Other Significant Wildlife Habitat' (D.4.5.2) and 'Alvars' (D.4.5.3). Policies of the Official Plan are extensive with primary focus on Deer Wintering Areas as these are a mapped S.W.H. on Manitoulin and occupy a substantial land areas (per Schedule D).	Partially Consistent Deer Wintering Areas - Partially Inconsistent It is inferred / understood that policies in S. D.4.5.1 are intended to set out guidance for achieving 'no negative impact'. However, as written, they do not demonstrate consistency with the P.P.S. policy with respect to S.W.H. Rather, guidance for achieving consistency with a 'no negative impact' policy could follow the initial statement of compliance. Other Significant Wildlife Habitat - Consistent Policies of the Plan are consistent with the P.P.S. Alvars - Consistent Policies of the Plan are consistent with the P.P.S.
		D.4.6	Re: Areas of Natural and Scientific Interest Development and site alteration may be permitted within an A.N.S.I. subject to the following policies: 1. Applications for development and/or site alteration within an A.N.S.I. or within 120 metres of an A.N.S.I. must be accompanied by an Environmental Impact Study prepared in accordance with Section D.7 of the Official Plan to determine the potential impacts on the A.N.S.I. 2. Changes to the boundaries of an A.N.S.I. require the approval of the province.	Consistent. Policies of the O.P. are consistent with P.P.S.
		n/a	Re: Coastal wetlands There are no policies in the O.P. regarding 'other' coastal wetlands.	Inconsistent. Currently, there are no policies addressing coastal wetlands consistent with Policy 2.1.5 (f).
2.1.6	<i>Development and site alteration</i> shall not be permitted in <i>fish habitat</i> except in accordance with <i>provincial and federal requirements</i> .	D.4.4.2	Development will only be permitted provided that it does not harmfully alter, disrupt or destroy (H.A.D.D.) fish habitat. Through a fish habitat mitigation/compensation assessment, in consultation with the Planning Board and the Department of Fisheries and Oceans (D.F.O.), it is the Planning Board's objective to secure a "no net loss" of productive capacity of fish habitat, and where possible, secure a net gain of productive capacity of fish habitat.	Partially consistent The O.P. policy covers much of the intent behind P.P.S. policy 2.1.6. However, clarity in the policy would assist in ensuring consistency (e.g., no reference to provincial or federal requirements explicitly). We note that in part, the O.P. goes beyond the minimum requirements of the P.P.S. by establishing 'no net loss' and where possible net gains in productive fish habitat which we strongly support.
2.1.7	<i>Development and site alteration</i> shall not be permitted in <i>habitat of endangered species and threatened species</i> , except in accordance with <i>provincial and federal requirements</i> .	D.4.3	The following policies apply to Habitat of Endangered or Threatened Species: 1. Habitat of Endangered Species and Threatened Species will be defined based on the <i>Endangered Species Act</i> and the Species at Risk in Ontario (S.A.R.O.) list. 2. In accordance with common practices to protect the associated features from disturbance, the Habitat of Endangered or Threatened Species are not illustrated on the schedules to this Plan. Instead, a screening map, prepared by the Province	Partially Consistent D.4.3.4 of the O.P. provides partial consistency with Policy 2.1.7 of the P.P.S. While in many instances it is the provincial Endangered

P.P.S. (2020)		District of Manitoulin O.P. (2018)		P.P.S. Compliance (consistent / inconsistent)
			<p>showing areas of potential habitat of endangered and/or threatened species has been provided to the Planning Board for reference, which may be updated from time to time. Where the screening map identifies the potential habitat of endangered and/or threatened species, an ecological site assessment (EcoSA) will be required in support of a planning application. The EcoSA will assess the potential for habitat and delineate the extent of habitat of endangered and/or threatened species within or adjacent to an area proposed for development or site alteration. In cases where an environmental impact study (E.I.S.) is triggered by this Plan, the above requirements may be addressed as part of the E.I.S., provided it is undertaken by a qualified individual.</p> <p>3. The Province is the responsible authority to approve the delineation of habitat of endangered and/or threatened species identified by an ecological site assessment or as part of an environmental impact study.</p> <p>4. Development and site alteration will only be permitted in Habitat of Endangered or Threatened Species subject to the authorization under the <i>Endangered Species Act</i>.</p>	<p>Species Act (E.S.A.) that will inform the identification of Species at Risk relevant to land use planning, the federal Species at Risk Act (S.A.R.A.) will apply in some instances (e.g., aquatic species at risk).</p> <p>The current policies may also add complexity to assessment process(es) by introducing a new study type (EcoSA).</p>
2.1.8	Development and site alteration shall not be permitted on <i>adjacent lands</i> to the <i>natural heritage features and areas</i> identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the <i>ecological function</i> of the <i>adjacent lands</i> has been evaluated and it has been demonstrated that there will be no <i>negative impacts</i> on the natural features or on their <i>ecological functions</i> .	D.4.1.2	<p>Re: Provincially Significant Wetlands</p> <p>The contiguous land adjacent to PSWs represents an area where it is likely that development or site alteration would have a negative impact on the feature or areas. Development and site alteration will not be permitted on land adjacent to a P.S.W., unless the ecological function of the adjacent land has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological and/or hydrologic functions. For the purposes of this policy, the extent of adjacent land will be defined as 120 metres. An Environmental Impact Study (E.I.S.) will be required for all development proposals within 120 metres or abutting areas identified as being a Provincially Significant Wetland. Prior to considering development and/or site alteration, the Planning Board, in consultation with the province, will be satisfied that the E.I.S. demonstrates that there will be no negative impacts on the P.S.W. and the sustaining ecological and/or hydrologic functions.</p>	<p>Consistent</p> <p>Language may be more complex than necessary, but in our opinion, it is consistent with the P.P.S.</p>
		n/a	<p>Re: Significant Coastal Wetlands</p>	<p>Inconsistent</p> <p>As noted through previous section, Significant Coastal Wetlands are not included. These should be added to be consistent with the features and areas of the P.P.S.</p>
		n/a	<p>Re: Significant Woodlands and Significant Valleylands</p>	<p>Consistent</p> <p>These features are not required components of an N.H.S. for Manitoulin.</p>
		D.4.5.2.2	<p>Development and/or site alteration will not be permitted within other significant wildlife habitat unless it meets the following policies:</p> <p>a. Applications for development and/or site alteration within other significant wildlife habitat, within 120 metres, or potentially larger areas as determined</p>	<p>Consistent</p> <p>Policy is generally consistent with the requirement of the P.P.S. As above, the language may be more complex than</p>

P.P.S. (2020)		District of Manitoulin O.P. (2018)		P.P.S. Compliance (consistent / inconsistent)
			through consultation with the province of such habitat, must be accompanied by an Environmental Impact Study prepared in accordance with Section D.7 of this Plan to demonstrate that there will be no negative impact on the Habitat.	necessary and may lead to some confusion in implementation.
		D.4.6.1	Applications for development and/or site alteration within an A.N.S.I. or within 120 metres of an A.N.S.I. must be accompanied by an Environmental Impact Study prepared in accordance with Section D.7 of the Official Plan to determine the potential impacts on the A.N.S.I.	Inconsistent While the policy triggers a study, it does not preclude development where impacts occur.
		D.4.4.3	Any development or change in land use within or adjacent to an existing fish habitat area, or potential fish habitat area along lands adjacent to any lake, river, stream, or wetland, will be reviewed by the Planning Board in consultation with the D.F.O. with respect to the potential impact. Adjacent lands will be defined by the Planning Board, in consultation with the Province and D.F.O., and will generally be 30-120 metres from the edge of the identified Fish Habitat. Any such proposal may be subject to a scoped Environmental Impact Study, in accordance with Section D.7, to determine if proposed development will adversely impact the fish habitat. If it is determined that development will impact the fish habitat, development will not be permitted. If it is determined, through consultation with D.F.O., that development will not impact fish habitat then the requirement for an E.I.S. may be waived, in accordance with Section D.7. An example of this may include development on full municipal services and nearby, intervening development between the site and the identified fish habitat.	Consistent Policy is generally consistent with the requirement of the P.P.S. Language in the policy may be more complex than necessary.
2.1.9	Nothing in policy 2.1 is intended to limit the ability of <i>agricultural uses</i> to continue.	n/a	No policy or related text	Inconsistent Policy C.4.2.1 states that development within Agricultural Areas will be subject to the policies of Section D and Schedule D. While we agree that this is consistent with the P.P.S., it is important that specific consideration be given to agriculture and agricultural uses as being given some additional flexibility in order to promote and/or support its continued presence on the landscape. A statement, consistent with P.P.S. policy 2.1.9 should be included in Section D of the Plan.

3. Jurisdictional Review

In preparing the recommendations for this policy review, the following municipal Official Plans were used as the primary reference examples as part of the jurisdictional review:

- Bruce County (O.P. Review in Progress)
- Grey County Official Plan (Recolour Grey, 2019)
- District Municipality of Muskoka Official Plan (Consolidation 2019)
- St. Joseph Island Official Plan, Algoma District (2010)
- Niagara Escarpment Plan (2017)

In addition to these primary comparators, consideration was given to other municipalities for specific features, or policy approaches, where appropriate and relevant to recommendations made in this report.

3.1. Bruce County (New O.P. - in Progress)

Bruce County is the closest municipality to Manitoulin that is within Southern Ontario. Bruce County resides in the same Ecoregion, and has similar landform, landscape, and vegetation communities to Manitoulin. Bruce County also experiences similar development pressures albeit on a different scale. Additionally, Bruce County experiences similar tourism such as cottagers and seasonal-residents and recreation as Manitoulin. Bruce County is currently in the process of developing a Natural Environment System (N.E.S), comprised of both a Natural Heritage System (N.H.S.) and Water Resource System (W.R.S.), therefore the final system cannot be referred to, but the approved directions and option can be used as guidance.

For their N.H.S., Bruce County is using two different approaches. In Northern Bruce County, which is most analogous to Manitoulin, key features of the N.H.S. will be identified on the landscape, but the N.H.S. will be comprised of a subset of these features with the N.H.S. being defined as a series of Core Areas and Linkages connecting them. In this way, features will be protected in accordance with the P.P.S., with Core Areas being the focus for an increased level of protection and to direct more intensive development away from large, important areas for the ongoing maintenance of biodiversity, lower landscape fragmentation, etc.

Southern Bruce County has a landscape more consistent with other areas of rural Southern Ontario which have had a history of land clearing and agricultural use. Overall natural cover is notably lower, and features are more discrete and at least partially isolated on the landscape. For this portion of the County, a features-based system - i.e. one where all key features form the N.H.S., will be used. Criteria to identify key features in Northern and Southern Bruce County differ for some features (e.g., woodlands) to reflect the different landscape composition and degree of existing natural cover.

Bruce County continues to build a collaborative relationship with Indigenous communities with interests in the County. In the N.E.S. process, engagement of Indigenous communities occurred through several key approaches and points in the process:

- Communities with interests in Bruce County were communicated with to establish interest and approach to engagement in the project.
- Committee representation
 - A representative from the Saugeen Ojibway Nation was on the Planning Advisory Committee for the project.
 - An appointed ecological specialist was appointed on behalf of the Saugeen Ojibway Nation on the Technical Advisory Committee for the project
 - Advisory committees were engaged in discussion, review at key points in the project (goals & targets, mapping & data, options for the N.E.S.)
- Indigenous communities were contacted to solicit input and comment on Options for the N.E.S. This included direct contact and discussion between staff at Bruce County and members of Indigenous communities interested in providing feedback.

Through these efforts, Indigenous concerns and interests were considered in the preparation of the N.E.S., including identification of keystone species to use in informing the identification and mapping of Core Areas for northern Bruce County.

Bruce County is currently in the process of developing a new Official Plan, and it is through this process that the final N.H.S. and their associated policies will be adopted. Currently, draft policies are not available. As such, reference to this plan cannot be used for this review. Directions for policy as well as directions for the N.H.S. have been endorsed and are available in public documents; as such, these can be used as references and as providing an indication of the direction that Bruce County intends to use.

3.2. Grey County Official Plan (Recolour Grey)

Grey County is the next closest municipality within Southern Ontario to Manitoulin. Grey County similarly has rural communities and an agricultural landscape and is also located in Ecoregion 6E. Grey County has a high degree of natural cover, like Manitoulin, and has used a combination of feature-based identification and Core Areas & Linkages to define the N.H.S.

Areas are intended to protect very large natural areas in the County and ensuring that they are connected on the landscape through linkages (illustrated on Schedule C of the Plan). Generally, Core Areas are comprised of the largest pockets or concentrations of significant natural features, interior habitat, and natural function(s) in the County. As such, they encompass significant woodlands, significant wetlands, Areas of Natural and Scientific Interest, etc. The linkages connecting the Core

Areas are 200m in width and generally follow along existing natural corridors wherever possible while also trying to achieve the shortest distance between Core Areas.

While it appears that the Core Areas are quite isolated on the landscape when looking at Schedule C, when considered in the context of other features of the landscape that are protected through policies (e.g., P.P.S.) such as significant woodlands, significant wetlands, etc. it becomes clear that they exist within a landscape of features that receive some protection from development or site alteration. Feature-specific mapping is not included on Schedule(s) of the Plan but are provided as Appendices to the Plan (Appendix B - Constraint Mapping). As such, the purpose of the Core Areas is similar to the approach being taken in Northern Bruce County; they are to provide further restrictions on land use change within these specific areas to reduce fragmentation and minimize new human-induced impacts (direct, indirect, induced) within these portions of the landscape. Policies directing land use planning within Core Areas is provided in Section 7.1 of the Plan.

Policies of the Plan also provide consolidated direction on Adjacent Lands (Section 7), Hazard Lands (Section 7.2) and feature-specific policies (Sections 7.3 through 7.10). Of potential relevance to Manitoulin is the inclusion of Karst Areas (Section 7.5) and Hazardous Forest Types for Wildland Fire (Section 7.8). Section 7.11 of the Plan includes directive policies for implementation. Section 7.11.1 addresses Environmental Impact Studies (general), 7.11.2 provides guidance for scoping of these studies, and 7.11.3 provides direction for waiving ('When an E.I.S. is not Required').

3.3. District Municipality of Muskoka Official Plan

Similarly located on Georgian Bay in an area with many in-land lakes, making it a highly popular place for cottages, tourists, and seasonal residents in part due to waterfront properties, shorelines, and intact natural areas. Muskoka also has rural communities, and pressures for shoreline development. While the scale of pressures on shoreline areas is far greater in Muskoka, the principles and approaches to management may have considerations that are relevant. It is important to note that Muskoka falls within Ecoregion 5E and is not required to have an N.H.S. As such, it is beneficial as a comparator for shorelines and the types of development pressures but is less directly applicable in the requirement(s) for an N.H.S.

The District of Muskoka Official Plan came into effect in 1991 and has been subject to 47 Official Plan Amendments (O.P.A. 47 is the current O.P.). Over the course of its history, O.P.A.s have included secondary plans and area specific plan updates, additions of policies (e.g., Lake System Health Policy Update, Vision, Active Transportation, etc.).

Section C of the Plan - Ecosystems of Muskoka: Natural Heritage and Water Resources - sets out guidance for Natural Heritage (C1) including objectives, general natural heritage considerations (C1.2), development and site alteration in and around natural features (C1.3), feature-specific policies (C1.4) and environmental impact studies (C1.5).

3.4. St. Joseph Island Official Plan

As noted through Section 1.1 of this report, Manitoulin is in the uncommon position of being within Ecoregion 6E and being an island municipality within Lake Huron. As a result, and in accordance with P.P.S. policy 2.1.5 b and c, islands in Lake Huron and the St. Marys River are not required to protect significant woodlands or valleylands or to restrict development and site alteration within them. St. Joseph Island (Township of St. Joseph, Algoma District) northwest of Manitoulin, located in Lake Huron and St. Marys River, is in a similar position and applicable to this exclusion as the island is also in Ecoregion 6E. The remainder of Algoma District is in Ecoregion 5E and is therefore not required to identify an N.H.S. While this presents a similar policy requirement, the size and population of St. Joseph Island is significantly smaller than Manitoulin (St. Joseph Island had approximately 2,300 residents in 2021), making Manitoulin a unique and distinctive case.

Approved in 2010, this plan pre-dates the policy of the 2014 P.P.S. directing municipalities in Ecoregions 6E and 7E to identify an N.H.S. The 2005 P.P.S. recognizes natural heritage systems and that they should be protected in the long-term but did not require their identification. Policies of the St. Joseph Island Official Plan are reflective of this policy regime and are therefore not consistent with current policy directions of the P.P.S. As such, it provides limited opportunity as a comparative municipality, regardless of the similarities that are unique to these two areas of Ontario.

3.5. Niagara Escarpment Plan

While not a municipal plan, consideration was also given to the Niagara Escarpment Plan (N.E.P.) as a reference document for escarpment features and areas. As noted through Section 1.1 of this report, the geologic formations of the Niagara Escarpment extend through Manitoulin, but it falls outside the N.E.P. area. All other municipalities in Ontario which contain the Niagara Escarpment are within the N.E.P. area, as such, there is a lack of comparative examples at the municipal level for escarpment features and areas and the N.E.P. is the best available comparator.

The N.E.P. is intended to protect the geologic feature(s) of the Niagara Escarpment and lands in proximity to it that act together to form a continuous, largely natural environment. In this effort, the N.E.P. controls development and site alteration to ensure that any such activities are compatible with this goal. Designations within the Plan provide further differentiation between lands which are to be managed in accordance with the plan and refine the expectations and policies applicable to them. For example, recognizing a natural heritage system and its associated natural heritage features, and the rural and agricultural landscapes within the plan area.

For Manitoulin, it may be appropriate to consider the role escarpment areas play within the context of an N.H.S., and to provide a way to capture some of the protective intent of the N.E.P. for those areas. As part of a broad landscape, escarpment may form connections between many N.H.S. features, so consideration of policies pertaining to escarpment and the management of compatible uses, there

may be relationship(s) with policies for the N.H.S. (it is noted that escarpment areas are an existing part of the Manitoulin Official Plan).

4. A Natural Heritage System for Manitoulin - Considerations

While this current work will not identify an N.H.S. for Manitoulin, it is intended to provide guidance that will inform that next stage of the process. As communicated during the project start-up meeting, it is understood that the overall objective for the N.H.S. is to achieve compliance with the P.P.S. Informed by this direction and the policy review above, recommendations for system components are provided in **Table 2**. In limited instances, recommendations for the N.H.S. to exceed the minimum policy compliance; rationale for the recommendation is provided.

Where criteria are required to identify system components (e.g., Significant Woodlands), some analysis will be required to inform an N.H.S. This can be achieved with minimal effort using existing, available data (e.g., M.N.R.F. wooded area mapping). Opportunities and approaches to consultation and integration of Indigenous Traditional Knowledge have not been addressed through this current scope of work. Per Section D.4 (a) of the District of Manitoulin Official Plan, this is an additional commitment set forth in the Official Plan that will require further work to determine how consultation and engagement shall occur with Indigenous communities and how information can and should be used for the N.H.S.

Section 5 includes further discussion on preliminary recommendations for an N.H.S. and presents some additional discussion on next steps.

Table 2. Natural Heritage System (N.H.S.) Required and Optional Components and Recommendations in relation to the District of Manitoulin Official Plan (2018).

Feature / Area	Required / Typical / Optional N.H.S. Component	N.H.S. Recommendation	Policy Considerations
Provincially Significant Wetlands (P.S.W.)	Required	Include in System. Significant Wetlands are considered a 'required' component of an N.H.S. All PSW's are to be considered as components of the N.H.S.	Clarification in language of the O.P. may be beneficial. D.4.1 - 1. Development and site alteration shall not be permitted in Provincially Significant Wetlands and Significant Coastal Wetlands.
Significant Coastal Wetlands	Required	Include in System. While there are currently no Significant Coastal Wetlands identified for Manitoulin, it is important that they be recognized as a component given the position of Manitoulin within Lake Huron / Georgian Bay. This ensures that in the event of future identification, the policies of the O.P. are consistent with the P.P.S.	Policies from comparator municipalities are relatively consistent with language of the P.P.S.
Coastal Wetlands	Required	Include in System. Coastal Wetlands (non-significant) are protected from development and site alteration in accordance with P.P.S. policy 2.1.5. All coastal wetlands are considered part of the N.H.S.	Coastal Wetlands (non-Significant) receive protections consistent with features such as A.N.S.I., Significant Woodlands and Significant Wildlife Habitat. Grey County - understood to be a component of 'Other Wetlands' as the prohibitions on development are consistent with the requirement for this feature type set out in the P.P.S. They are not explicitly mentioned (s. 7.3.2). District of Muskoka - specifically references coastal wetlands (s. C1.2 i) and are explicitly addressed through policies of the Plan (e.g., s. C1.3) in a manner consistent with the P.P.S.
Unevaluated Wetlands and Non-Provincially Significant Wetlands	Optional ('Other Wetlands')	Include in System Currently all wetlands are treated equally in the Official Plan. It is recommended that 'other wetlands' wetlands form part of the N.H.S. in recognition of the form and functions they provide on the landscape, but that policies provide guidance for how each are managed through land use planning processes. This feature type includes: <u>Unevaluated Wetlands</u> include wetlands that have not been assessed to determine their significance per O.W.E.S. Some unevaluated wetlands may be deemed to be PSWs after assessment, others would be 'Non-Provincially Significant Wetlands'. Almost all wetlands on Manitoulin Island fall under this category. <u>Non-Provincially Significant Wetlands</u> include wetlands which have been assessment and determined to not meet criteria to be identified as Provincially Significant (per O.W.E.S.). At this time there are no non-Provincially Significant Wetlands known to occur on Manitoulin. Provincially Significant Wetlands are intended to identify those wetlands which are considered important at the provincial level. As such, it does not represent the area of wetlands on a landscape that should be protected or conserved to support and maintain the hydrologic, ecological, and other benefits provided by wetlands.	Because these are an optional component, there is flexibility in how these are addressed. It is recommended that a precautionary approach be used (in line with the current Official Plan policies) for Unevaluated Wetlands. Where a wetland is confirmed to be 'not significant' and is not a coastal wetland, general policies may be used to encourage protection of these features through avoidance and minimizing impacts to the extent feasible where impacts cannot be avoided. This may be addressed through general N.H.S. policies or as feature specific policies. It is important to note that these features and their functions are regulated in accordance with other applicable legislation (e.g., Source Water Protection, Hazard Lands, etc.) and their inclusion or exclusion from the N.H.S. does not absolve or otherwise indicate that these other legislation or policies are waived or addressed. Grey County uses a simple approach (s. 7.3.2) prohibiting development in 'other wetlands' unless it is demonstrated that there will be 'no negative impact'. Due to the 'core areas' approach to the N.H.S., this policy is feature-specific, rather than capturing any of these features within the N.H.S. The end result is similar in terms of policy and implementation; however, it excludes a more systems-based consideration across much of the landscape. District of Muskoka does not have an N.H.S. because it is within Ecoregion 5E, however feature-specific policies for 'other wetlands' is consistent with Grey County.

Feature / Area	Required / Typical / Optional N.H.S. Component	N.H.S. Recommendation	Policy Considerations
Significant Woodlands	Significant Woodlands are Typically required, optional for Manitoulin Optional to include 'Other Woodlands'	Include Woodlands in System. While not required for Manitoulin, woodlands are a fundamental feature type associated with the form and functions of a Natural Heritage System and it is recommended that they be identified as a component of the N.H.S. to ensure a complete system to ensure a resilient N.H.S. The protection of woodlands as part of a holistic system is important as woodlands provide many essential ecosystem services and provide habitat to numerous wildlife species thus supporting biodiversity. Woodlands improve air and water quality, reduce sediment movement and the loss of soil, and aid in carbon sequestration to contribute the negative effects of climate change. Options could include size or function criteria across the planning area or using proximity to other woodlands or other features. Considerations for how these features could be identified is further discussed in Section 5 (Recommendations).	While consistency with the P.P.S. for Manitoulin does not require the identification of Significant Woodlands , consideration should be given to including Woodlands. Because Manitoulin has flexibility with respect to woodlands, this could include identifying Significant Woodlands using guidance similar to that used in other jurisdictions (i.e., in their identification and management ['no negative impact']), or the general inclusion of 'woodlands' and providing general policies which encourage avoidance and minimization of impacts where avoidance is not possible. Given that identification of Significant Woodlands is not required, triggers for studies on adjacent lands could be excluded or reduced to be a smaller defined limit (e.g., 30m), depending on the selected approach to woodlands. There are no directly comparative examples because of the unusual situation of Manitoulin being within 6E, but an island in Lake Huron. In consideration of the size of Manitoulin and the rationale presented for their inclusion, it is recommended that policies for other municipalities in Ecoregion 6E with comparable natural cover be used as general guidance paired with available guidance documents from the province for their identification (Natural Heritage Reference Manual). In this regard, Grey County or Bruce County are good comparators. As noted elsewhere in this report, because they are not a required component, Manitoulin has a great deal of flexibility in how they are addressed. Both Grey County and Bruce County identify Significant Woodlands based on a series of criteria informed by existing cover and some ecological functional considerations (e.g., interior habitat).
Fish Habitat	Required	Include in System Fish habitat is a required component of an N.H.S. All Fish Habitat is considered part of the N.H.S.	Revise D.4.4.2 - revise to reflect P.P.S. language for consistency. Current policy goes beyond (to an extent) and is recommended to be retained. Policies in most municipalities of Ontario are consistent or very similar to the language of the P.P.S. for ease and clarity (e.g., s. C1.3, District of Muskoka, s. 7.9, Grey County O.P.). Some municipalities have policies which then go beyond this minimum policy requirement (e.g., Township of King Official Plan, 2019).
Significant Wildlife Habitat	Required	Include in System Significant Wildlife Habitat is a required component of an N.H.S. All Significant Wildlife Habitat is considered part of the N.H.S.	Consider reversing order of S.W.H. sections to have general S.W.H. policy and then follow with species-specific policy. Opportunity to revise slightly to reduce overall length of policy and assist with clarity. General policies in S. C1.3.1 and feature specific policies under section C.1.4.4 of the Muskoka District Official Plan have some similarity to those of the Manitoulin O.P.
Habitat of Endangered	Required	Include in System Habitat of Endangered Species and Threatened Species is a required	Language should be consistent with that presented in the P.P.S.

Feature / Area	Required / Typical / Optional N.H.S. Component	N.H.S. Recommendation	Policy Considerations
Species and Threatened Species		component of an N.H.S.	Comparator examples include Grey County s. 7.10 (2) and District of Muskoka s. C.1.3.1 (General Policies, Development and Site Alteration).
Alvars	S.W.H. - Required Others - Optional	<p>S.W.H. - Include in System Alvars form a component of Significant Wildlife Habitat and are protected through this designation. Currently, they are a sub-section of S.W.H. in the Manitoulin Official Plan (S. 4.5.3).</p> <p>Other Alvars - Optional Inclusion in System - Recommended to be included Not all Alvars meet the criteria to be identified as provincially Significant Wildlife Habitat. As such, consideration may be given to inclusion of 'other' Alvars within the N.H.S to recognize the rarity, highly sensitive nature of these areas and the high potential for Species at Risk to occur within them.</p> <p>Alvars are a rare vegetation community in Ontario. Manitoulin and the Bruce Peninsula boast the greatest representation of these communities in the Province. Alvars are home to a wide range of species and include species which are endemic to them, including many Species at Risk.</p>	<p>As currently written, Alvars which meet criteria as S.W.H. are protected in accordance with the P.P.S. ('no negative impact'). If this is the intended approach, then s. 4.5.3 is not required and Alvars are effectively addressed through the protection of S.W.H.</p> <p>In practice, Manitoulin treats all alvars with the same level of protection and thus applies a precautionary principle. In consideration of this, it is strongly recommended that policies for Alvars be pulled out to be a section separate from, rather than nested under S.W.H. to provide clarity in the intended management of these features.</p> <p>To assist in the identification of alvars and is therefore subject to the policies of the O.P for these features, it is recommended that a definition or criteria be added to the Official Plan. This will prevent confusion and argument over what is protected or not protected under the policy / policies.</p> <p>Alvars are not independently addressed in the Official Plans for Grey County or District of Muskoka. Bruce County has identified them as a unique component of the N.H.S. and will be capturing more than those which qualify as S.W.H. Alvars are mentioned as a unique feature in the Region of Halton Official Plan (s. 139.3.3) in reflection of their inclusion as a 'key natural heritage feature' of the Greenbelt Plan (s. 3.2.5).</p>
Areas of Natural and Scientific Interest (A.N.S.I.)	Required	<p>Include in System Provincial A.N.S.I.s are a required component of an N.H.S. A.N.S.I.s are considered part of the N.H.S.</p>	<p>All A.N.S.I.s (i.e., both Earth Science and Life Science) are afforded the same level of protection: no development or site alteration unless demonstrated that the proposed activities will have no negative impact for feature or its functions.</p> <p>The simplest policies simply address these with language consistent with the P.P.S. Language in the P.P.S. speaks to several feature types, as such, there is opportunity to streamline policy across these.</p> <p>Grey County addresses them through feature-specific policy section(s) (s. 7.6). District of Muskoka addresses several features collectively (s. C1.3.1).</p>
Linkages	Required	<p>Include in System Linkages are a critical component to a Natural Heritage System as they provide the pathways through which wildlife and plants move across the landscape.</p> <p>It is recommended that system-level linkages be mapped for the N.H.S. for Manitoulin. Mapping of linkages should be based on the location and types</p>	<p>Linkages should be recognized as a system component in policy.</p> <p>Policies should be added which inform land use planning within mapped linkages. Policy direction can include:</p> <ul style="list-style-type: none"> Linkage widths & general objectives to establish natural, self-sustaining natural vegetation as a long-term objective, achieved through land use planning or voluntary actions.

Feature / Area	Required / Typical / Optional N.H.S. Component	N.H.S. Recommendation	Policy Considerations
		of features within the system, existing knowledge of patterns and use (e.g., Deer Wintering Areas), and modelling (e.g., circuitscape or similar). These linkages should connect significant portions or areas of the N.H.S. Creation of site-specific linkages (such as through a draft plan of subdivision) should continue to be considered, identified and implemented, where appropriate through land planning processes.	<ul style="list-style-type: none"> Refined guidance on permitted development and site alteration (e.g., no negative impact to linkage function, limiting development (e.g., 30% of developable area, requiring enhancement or implementation through land use planning [primarily subdivision or similar]) <p>Direction on permitted uses can assist in land use planning. Generally, existing uses are not affected by the identification of linkages. New or alterations to uses may be permitted so long as it is demonstrated that the use does not limit or negatively impact movement of plants and wildlife, existing uses, trails, etc.). Linkages are key places to encourage enhancement and restoration; particularly through applications for development or site alteration as these represent points at which such things can be implemented.</p>
Shorelines	Optional	<p>For Consideration</p> <p>Natural Shorelines and natural heritage features in close proximity to shorelines play an important role in both aquatic (direct fish habitat, and indirect functions such as shading or allochthonous inputs), and terrestrial (e.g., wildlife movement, bird nesting, sunning and hunting opportunities for snakes, birds, small mammals, etc.). As such, conservation of shoreline areas may be important to maintaining biodiversity and form and function of an N.H.S.</p> <p>Proximity to shorelines can be used as a trigger for identifying features of the N.H.S. (e.g., as a trigger for significant woodlands, wetlands, etc.), or used as a trigger for further study (e.g., an E.I.S.) to assess the form or function of the shoreline and ensure that the functions provided are maintained or enhanced and development and site alteration avoid or minimize, where appropriate, impacts to these areas.</p>	<p>Various options exist for considering shorelines as part of an N.H.S. or to inform an N.H.S.:</p> <ul style="list-style-type: none"> Shorelines could be identified as a 'feature' to support land use planning and screening. Shorelines can be used as a criteria for identifying potential function or importance of other feature types (e.g., woodlands, wetlands). <p>Policies could be used to conserve and manage shorelines and their natural heritage functions, features in close proximity to shorelines.</p>
Escarpment Area	Optional	<p>For Consideration</p> <p>Features and areas associated with the Niagara Escarpment are addressed through the Niagara Escarpment Plan (N.E.P.) from Bruce Peninsula south to Niagara. However, the geologic formations associated with the Niagara Escarpment extend up through Manitoulin. As such, guidance could be taken from the N.E.P. to inform how escarpment areas could be treated in the context of an N.H.S.</p> <p>For example, known escarpment areas (mapped as linear features on Schedule D of the current Official Plan) could be used to identify important features (e.g., significant woodlands, 'other' wetlands, etc.) as a way to preserve their visual and ecological character. This would be generally consistent with 'Escarpment Natural Areas' under the N.E.P. Generally, this is addressed through the identification and protection of features (e.g., woodlands, wetlands), however proximity to an Escarpment Area may be used as an additional trigger for protection due to its relationship with and</p>	<p>The approach to managing escarpment areas has the potential to inform several policies or criteria related to an N.H.S., and an approach to be crafted would be uniquely for Manitoulin since it is not part of the N.E.P.A.</p> <p>For example, proximity to an 'Escarpment Area' might be a criteria for identifying important features (e.g., if Significant Woodlands are identified for Manitoulin) as part of the N.H.S. This would require minor addition to policies of the N.H.S. through feature criteria.</p> <p>If an area-based approach, similar to the NEPA's Escarpment Protection Areas is applied, this would be similar to existing Policy D.5.1 in the Official Plan. Updated mapping could be used to illustrate Manitoulin's escarpment as areas, rather than linear features to inform land use planning and screening. It should be noted that this is considering a similar approach; however, the management direction and outcomes would be unique to the context of Manitoulin and nomenclature and policy should reflect this for clarity.</p>

Feature / Area	Required / Typical / Optional N.H.S. Component	N.H.S. Recommendation	Policy Considerations
		<p>importance to the character of these areas in Manitoulin.</p> <p>Similarly, areas within which land use types should be managed to protect the landform, viewsheds and other considerations associated with these landform areas could be identified and managed in a way similar to 'Escarpment Protection Areas' under the N.E.P. The Province's N.H.S. includes both Escarpment Natural Area and Escarpment Protection Areas with the N.E.P.A.</p>	
Significant Valleylands	Typical (usually required)	<p>Not Included in System</p> <p>Not recommended to be included in the N.H.S. for Manitoulin. Generally, these include large valley systems; they are of more limited application to Manitoulin. Hazard lands (e.g., steep slopes, flood plain, etc.) as well as policies associated with fish habitat will capture many valley features present in Manitoulin.</p>	<p>n/a</p> <p>Significant valleylands are not a required component of an N.H.S. for Manitoulin Island.</p>

5. Recommendations

Informed by work presented in the preceding sections of this report, recommendations, and preliminary direction for identification of an N.H.S. for Manitoulin and revisions to policies associated with the N.H.S. have been developed.

Recommendation 1: Identify and Map the N.H.S. for Manitoulin

Components of an N.H.S.

In accordance with the P.P.S., a Natural Heritage System shall include:

- Provincially Significant Wetlands, including Significant Coastal Wetlands
- Coastal Wetlands
- Significant Wildlife Habitat
- Areas of Natural and Scientific Interest (A.N.S.I's)
- Fish Habitat
- Habitat of Endangered Species and Threatened Species
- Linkages (to create a connected system)

In addition, the following components are recommended for an N.H.S. for Manitoulin:

- Woodlands
- Other Wetlands
- Alvars

Preliminary recommendations on how to map each feature class, or analyses required to inform their identification are provided in **Table 3**.

At this time, it is recommended that woodlands be included as a general component to recognize their role in providing ecological functions as part of a holistic system. As Manitoulin is not required to identify *Significant Woodlands* this can be achieved by including general policies for the protection of the N.H.S. Opportunities to identify significant woodlands may be considered at a later time (refer to **Recommendation 3** for further discussion).

Other wetlands would be generally inclusive of 'unevaluated wetlands' and 'evaluated - not significant' wetlands. Currently, Manitoulin wetlands are predominantly 'unevaluated', as such their management is an important consideration. It is recommended that Unevaluated Wetlands, unless confirmed through an Ontario Wetland Evaluation System assessment as being 'evaluated - not significant' be managed as Provincially Significant. Any 'evaluated - not significant' wetlands would be managed in accordance with general policies applicable to the N.H.S.

Further discussion on wetlands is provided in feature-specific policy recommendations (**Recommendation 3**).

In consultation with representatives of the Planning Board, it is understood that while policies for Alvars are nested under Significant Wildlife Habitat (S.W.H), in practice all Alvars are treated consistently (precautionary approach). To reflect this, it is recommended that Alvars be included as a specific component of the N.H.S., rather than a sub-component of S.W.H and that feature-specific policies be added to inform their management (**Recommendation 3**).

In addition to the above recommended system, there are some additional features / areas for consideration in identifying the N.H.S., or as potential components of the N.H.S. It is important to note, that these additional criteria are not required to achieve consistency with the P.P.S.; rather, they are opportunities to be considered in identifying an N.H.S. to ensure that the natural heritage, history, and functions of the area are protected and preserved through an ecologically based analysis.

Shorelines. Natural shorelines are ecologically and hydrologically important. They help maintain natural shoreline processes (erosion, deposition) and help prevent excessive erosion, they provide habitat for or contribute to fish habitat (allochthonous inputs, thermal cooling), and provide habitat for a broad range of species (birds, reptiles, amphibians, insects). Natural shorelines also act as movement corridors for many species, are stopover areas for migrating birds, etc. As such, shorelines may be used as a 'feature' within an N.H.S. to support the protection of natural shorelines (e.g., as a way to trigger studies to protect natural shorelines or minimize impacts to them), encourage restoration, or as a criterion to identify features (e.g., woodlands, wetlands) which may be of great importance in terms of function on the landscape (i.e., features which are in close proximity may have greater functions or interactions). In addition, natural shorelines as part of a greater natural landscape are significant as iconic features that define Manitoulin Island, draw people to the area, and create a significant local economy.

Escarpment Areas. Similar to shorelines, escarpment areas are a physical feature on the landscape which has a relationship with ecological form and function. Escarpment features can be home to old growth forests (e.g., ancient cedars), can provide uncommon or rare cliff habitats, and provide habitat for a great diversity of species. Proximity of natural features and areas to the physical landform of the escarpment may, like shorelines, be of enhanced value in the context of Manitoulin and its natural heritage. As such, proximity to escarpment areas could be used as a criterion for the identification of features considered important to Manitoulin and therefore in identifying the N.H.S.

System Approaches

There are two primary approaches to identifying an N.H.S.: A Core Areas and Linkages approach, or a Features and Linkages approach. These are briefly outlined below.

An N.H.S. for Manitoulin could use a Core Areas and Linkages approach similar to that used for Grey County or what is being used for Northern Bruce County. A Core Areas and Linkages approach identifies a sub-set of features and intervening lands with the objective of capturing sufficient natural areas and portions of the landscape to maintain the ecological functions of an area. As this includes biodiversity, it is important that consideration be given to the representative diversity, overall size, and specific habitat size or compositional requirements of target species. Consideration may also be given to representation of different landforms or functions which are directly related to the form and functions of the N.H.S. If a Core Areas approach is used:

- Features which receive protections through policies of the P.P.S. (e.g., Significant Wetlands, Coastal Wetlands) must continue to be identified and protected / managed in accordance with those policies across the landscape (i.e., within and outside of the N.H.S.)
- ‘Other’ features may only be identified within, or in association with Core Areas and Official Plan policy protections would apply to features that comprise the N.H.S.; alternatively, they may be identified across the landscape, but the policies within vs. outside of the N.H.S. may differ (i.e., more restrictive policies within the N.H.S. vs. outside of the N.H.S.).
- Policies within the N.H.S. may be more restrictive with respect to land use. For example, prohibiting large-scale development, limiting ‘developable area’ that can become impermeable surface, requiring a percentage of lands to be restored or enhanced, etc. These types of policies are applicable for new or altered land uses; existing uses may continue and many of these more restrictive policies are generally not applicable to agricultural uses in order to encourage such land uses to continue on the landscape.
- Linkages are generally only identified / mapped to connect Core Areas. Connectivity across and within the N.H.S. is generally addressed through prohibitions on development that would cause fragmentation or through restoration and enhancement. Site-scale linkages and their implementation may also be an approach in Core Areas of an N.H.S.

Alternatively, the N.H.S. for Manitoulin could use a Features and Linkages’ approach, similar to many municipalities throughout southern Ontario (e.g., Southern Bruce County, Region of Halton, Region of Peel). This approach captures all features which meet the specified criteria as being part of an N.H.S. Large-scale linkages are generally identified and mapped. Small, site-scale linkages are assessed and identified through site-specific study, typically in response to land use planning (e.g., through an Environmental Impact Study). In this approach, policies are consistent across the landscape. Policies protecting natural heritage features and areas must be consistent with or exceed the P.P.S.

Table 3. Preliminary mapping and analyses considerations required to inform identification of features and areas.

Feature / Area	Preliminary Mapping Considerations	Analyses Considerations
Required Components		
Provincially Significant Wetlands, including Significant Coastal Wetlands	Already mapped on Schedule D of the District O.P.	No further analysis required. Mapping from province to be used. Updated dataset(s) should be obtained from time to time.
Coastal Wetlands	Not currently mapped. Would be beneficial to map, if possible.	Some datasets may be available to map coastal wetlands as a sub-set of existing wetland mapping (e.g., using criteria to identify them).
Significant Wildlife Habitat	Some areas mapped on Schedule D of the District O.P. Often not mapped on schedules as for many types, location or occurrence on the landscape is not known / mapped.	No further analysis recommended for mapping of the system (on O.P. Schedule). S.W.H. identified primarily through site-specific study and internal mapping information can be maintained for use in land use planning and screening.
Areas of Natural and Scientific Interest (A.N.S.I.)	Already mapped on Schedule D of the District O.P.	No further analysis required. Mapping from province to be used. Updated dataset(s) should be obtained from time to time.
Fish Habitat	Partially mapped on Schedule D of the District O.P. Fish habitat associated with shoreline areas is mapped. Watercourses and inland waterbodies typically considered as 'proxy' habitat mapping.	No analysis required to map / include in N.H.S. Existing datasets used to map. Confirmation or fish habitat or demonstration that an area is not fish habitat generally addressed through an E.I.S. (or equivalent study).
Habitat of Endangered Species and Threatened Species	Not typically mapped due to incomplete / inconsistent information and data sensitivity for some species.	Not recommended to be mapped on Schedule(s). Internal mapping could be maintained to inform land use planning and screening.
Linkages	No available mapping. Approaches to mapping linkages varies. If mapped, typically included on O.P. schedules.	Recommended that a modelled approach be used (e.g., circuitscape, omniscap) to identify where linkages should be identified on the landscape. Linkage modelling may be used to inform the identification of 'core areas' if this approach is chosen for the N.H.S.

Feature / Area	Preliminary Mapping Considerations	Analyses Considerations
Recommended Components		
Woodlands	<p>Not currently identified / mapped.</p> <p>For 'woodlands', existing dataset(s) can be used to generally map their location(s) and coverage.</p> <p>If Manitoulin chooses to identify Significant Woodlands, they are typically derived from available base dataset such as the M.N.R.F. wooded area layer, Ecological Land Classification or similar, based on a set of criteria for a specific geographic area (e.g., municipality, planning area).</p>	<p>Protection of woodlands as part of a holistic natural heritage system is important. Manitoulin is not required to identify <i>significant woodlands</i>, as such, woodlands can be addressed in different ways:</p> <ul style="list-style-type: none"> • Manage woodlands broadly through general system policies. • Identify Significant Woodlands (a subset of woodland cover and may include portions of woodland(s)) based on a set of criteria (e.g., size, function, proximity to other features, core areas). <p>These are further discussed in Recommendation 3.</p>
Other Wetlands <ul style="list-style-type: none"> • Unevaluated Wetlands • Evaluated, Not Significant Wetlands 	<p>Unevaluated wetlands already mapped on Schedule D of the District O.P.</p> <p>There are currently no known Evaluated-Not Significant wetlands on Manitoulin.</p> <p>It is recommended that unevaluated wetlands continue to be mapped as a flag for further assessment / policies.</p>	<p>No analysis required. Wetlands mapped to inform areas where policies of the plan apply.</p>
Alvars	<p>Already mapped on Schedule D of the District O.P., although some may occur on the landscape that are not currently known / mapped.</p>	<p>No further analysis required for mapping of Alvars. Any refinements of mapping or status of Alvars is completed through site specific study if / as applicable.</p> <p>Mapped features are a trigger for study (E.I.S.) and may indicate a constraint.</p>
Other Considerations		
Escarpment Areas	<p>Already mapped on Schedule D of the District O.P.</p>	<p>Optional as a feature or criterion for the N.H.S. Can be used to identify other</p>

Feature / Area	Preliminary Mapping Considerations	Analyses Considerations
		<p>features of the system.</p> <p>Can be addressed in policy and features with available datasets (woodland, wetland), minimal GIS-based analysis required to identify those proximal to them.</p>
Shorelines	Could be mapped or remain unmapped on O.P Schedule(s).	Optional inclusion in N.H.S. Shoreline areas could remain unmapped and serve as a trigger for study, as a criteria for other features, or in protecting natural shoreline functions by protecting natural shorelines, limiting shoreline alterations, and encouraging naturalization of shorelines where possible.

Recommendation 2: Engage and Consult with Local Indigenous Communities on N.H.S. in Manitoulin

As part of the P.P.S. (2020), planning authorities are required to engage with Indigenous communities and coordinate on land use planning matters (policy 1.2.2). The District of Manitoulin Official Plan makes a commitment that “the Planning Board will work co-operatively with interested Indigenous communities to help inform the delineation of the Natural Heritage System” and that Traditional Indigenous Knowledge will be integrated into the identification of an N.H.S.

We strongly support and encourage the District in establishing an approach to meaningful consultation to integrate and consider Indigenous voices, ways of knowing and knowledge into identifying and managing the natural heritage of Manitoulin. An approach to this should be established in collaboration with representatives from interested Indigenous communities.

Indigenous knowledge may be shared and made available; however, some or all may be considered confidential by Indigenous communities. Informed by this, opportunities for consultation and engagement will vary and should be established in collaboration with interested Indigenous communities. Some potential opportunities could include:

- Knowledge Sharing.** Knowledge sharing can take many forms. It can include sharing the history and values of the land (e.g., the importance of water and wetlands) which can inform planning and identification of the N.H.S. or may take more specific form by mapping or sharing of knowledge on, and of, the land (e.g., known locations of species, or functions).

- **Criteria Development.** If some more specific information is shared by knowledge keepers and elders, Indigenous knowledge could be used directly to develop one or more criteria to help identify Core Areas or features / areas that should be considered part of the N.H.S. This could include important habitat areas, areas with plants or animals with traditional uses, wildlife movement, seasonal uses, species of value to Indigenous communities could be used as criteria for assessing areas through an E.I.S.
- **Review and Comment.** Either in combination with the above, or in cases where sharing of specific information is not be possible or desirable, a role in reviewing and commenting on the N.H.S. can be explored. Indigenous communities can be provided with a draft version of the N.H.S. for review and comment. The approach to engagement should be developed collaboratively with representatives from the communities to ensure it is meaningful and has specific directive outcomes or influence on the process.
- **Ecological Expertise.** Many Indigenous communities have ecological or environmental experts or have engaged individuals who provide support in these areas. There is potential to engage these individuals in the identification, in advisory or review roles, etc.

It is recommended that any engagement and consultation be built collaboratively to set out clear expectations and timelines. This is to ensure that Indigenous communities can plan for and have resources to support this effort and to set out clear understanding of how the consultation will be used to inform the process.

Recommendation 3: Update and Streamline Natural Heritage Policy in the Official Plan

It is recommended that policies of the Official Plan be updated to:

- Support consistency with the P.P.S.
- Reflect the identification and implementation of an N.H.S.
- Simplify and/or streamline natural heritage policies, where possible to support implementation and improve ease of use

Recommendations for policy updates are outlined below. Rationale for the recommended update is provided and reflect the three basic considerations listed above. Where possible, analogous policies from municipalities considered in the jurisdictional scan are referenced to illustrate example policies implemented in other areas of the province.

The approach chosen to identify an N.H.S. for Manitoulin (i.e., Core Areas and Linkages vs. Features and Linkages) will inform the final approach to policy organization. As it is more closely aligned with the current policy approach and is generally a simpler approach, the Features and Linkages approach has been assumed in making recommendations for policy updates. In the event that a Core Areas and

Linkages approach is used, policies will need to be divided between 'general' with 'within the N.H.S.' to differentiate policy application and requirement for different areas of the landscape.

It is recommended that Section D.4 (a) be amended to include the majority of the policies applicable to the N.H.S. and that Section D.4 (b) be used to address feature-specific policies such as criteria for identification, or other specific considerations relevant to land use planning for the system component type. Currently many policies are highly repetitive across sections of D.4 (b); opportunities to streamline and simplify policy can be achieved by expanding the content of D.4 (a).

Section D.4 (a) Natural Heritage Systems

Recommendations for this section of the Plan are focused on integrating an N.H.S. for Manitoulin, reducing redundancy through subsequent sections of the Plan (Section D.4 (b)). In completing the identification of the N.H.S., informed by the work presented here, the changes will support consistency with natural heritage policies of the P.P.S.

Recommended updates:

- Retain paragraphs 1 & 2, no change
- Remove paragraphs 3, 4 and 5 (inclusive of sub-bullets)
- The goal and objectives for Natural Heritage in Table A.1 can form the basis of general policies for the N.H.S. – largely reflective of P.P.S., supporting consistency
- Add a policy which states the features and areas which comprise the N.H.S. Reference feature-specific criteria and policies provided in Section D.4 (b), where applicable.
 - This will replace the feature list currently found in the introductory section of D.4 (b).
- Move and modify policy D.4 (b) (1):
 - Modified policy recognizing that the limits of the N.H.S. and its component features have been identified and mapped to the extent possible. Accuracy of feature limits is based on that of available data.
 - Modified policy regarding feature delineation: identification of and refinements to feature limits are permitted to occur through site-specific study in accordance with Section D.7 (Environmental Impact Studies).
 - Example of a comparable policy from Region of Halton: (s. 116.1) "*The boundaries of the Regional Natural Heritage System may be refined, with additions, deletions and/or boundary adjustments, through: a)a Sub-watershed Study accepted by the Region and undertaken in the context of an Area-Specific Plan; b)an individual Environmental Impact Assessment accepted by the Region, as required by this Plan; or c)similar studies based on terms of reference accepted by the Region. Once approved through an approval process under the Planning Act, these refinements are in effect on the date of such approval. The Region will maintain mapping showing such refinements and incorporate*

them as part of the Region's statutory review of its Official Plan." A policy for Manitoulin could be simplified, but this illustrates a similar approach.

- Add policy which encourages enhancement and restoration of features of the N.H.S., including maintaining or re-naturalization of shoreline areas.
- Add new policy which recognizes that features and areas considered part of the N.H.S. may occur on the landscape that are not mapped or cannot be readily mapped. Any feature or area that meets the criteria set out in the plan (D.4 (b)) are part of the N.H.S. and subject to policies of the plan.
- Move policy D.4 (b) (2), (4), (6), (7), (8), (9) to this section of the Plan.
- Add streamlined policies associated with development and site alteration within and adjacent to Natural Heritage System Features. It is recommended that these be consistent with language in the P.P.S. for clarity, where applicable. For example:
 - Development and site alteration are not permitted within Provincially Significant Wetlands or Significant Coastal Wetlands.
 - Development and site alteration are not permitted within²:
 - Coastal Wetlands
 - Significant Woodlands³
 - Significant Wildlife Habitat
 - Areas of Natural and Scientific Interest

Unless demonstrated through an E.I.S. and equivalent study (per Section D.7) that there will be 'no negative impact' to the natural feature(s) or their ecological functions.

- Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.
- Development and site alteration shall not be permitted in habitat of endangered and threatened species, except in accordance with provincial and federal requirements.
- Development and site alteration shall not be permitted on adjacent lands to the features listed in policies (reference preceding policies) unless demonstrated through an E.I.S. or equivalent study (per Section D.7).
 - Given that 'adjacent lands' differs between feature types; a table can be added to provide direction with respect to distances in a clear and comprehensive manner.
- Development and site alteration proposed within other features or areas of the N.H.S. shall be considered in accordance with feature-specific policies of Sections D.4 (b)⁴.

² Note: The features listed here are for illustrative purposes. Confirmation of what features will be included in the N.H.S. for Manitoulin is required. The list of features is to be updated to reflect the selected system.

³ This recommendation applies if Manitoulin elects to identify Significant Woodlands. In this event, it is recommended they be managed in accordance with the P.P.S for consistency.

- Add policy or otherwise direct readers to Schedule(s) where the N.H.S. and Features and Areas are mapped.
 - Consideration may be given to having two Schedules. One showing the N.H.S. as a consolidated system (i.e., not differentiating between feature types), and one which maps all natural heritage features and areas. This approach can provide an opportunity to map natural heritage features on the landscape, while clearly mapping those which are known or confirmed to be part of the N.H.S. vs. those which are unconfirmed or do not form a part of the N.H.S.

Reference Examples: The District of Muskoka Official Plan uses a layout similar to that being recommended in the previous bullet to streamline policies with respect to development and site alteration (See Section C1.3 of the District of Muskoka Official Plan). As noted, if there is interest in using a Core Areas approach, some elements of the Grey County Official Plan will be good examples. Regardless of approach, it is recommended that policy be streamlined to avoid repetition where possible / reasonable.

Section D.4 (b) Feature-Specific Policies

Modified Section D.4 (a) addresses some of the policies that are currently found repeated through D.4.1 (Provincially Significant Wetlands) through D.4.6 (Areas of Natural and Scientific Interest). It is recommended that sub-sections of D.4 (b) focus on policies which are specific and unique to the feature type to provide a more streamlined policy framework. If there is a preference to retain all policies nested within the feature-specific sections, the general recommendations above can be reflected into the sections below. Recommendations for revisions to feature-specific policies are provided below.

D.4.1 Provincially Significant Wetlands

Protection of PSW's is required in accordance with the P.P.S. The following modifications are recommended:

- In paragraph 1, first sentence - replace 'conserved' with 'protected'. This terminology is more consistent with the expectations of the P.P.S. for PSW's.
- Clarify that this section includes Significant Coastal Wetlands, as identified by the province.
- Remove D.4.1.1, D.4.1.2 - addressed through amended policies of D.4 (a)

⁴ For example, this may include woodlands (if significant woodlands are not identified), other wetlands, linkages.

New Section: Coastal Wetlands

Per the P.P.S., development and site alteration are not permitted in or on lands adjacent to Coastal Wetlands unless it is determined (e.g., through an E.I.S.) that there will be no negative impact on the form or functions of the feature.

A definition of coastal wetlands should be added to the O.P. Criteria to assist in their identification (if not mapped) should be provided. It is recommended that the definition of *coastal wetlands* from the P.P.S. be added to the Official Plan as it provides some additional clarity around identification of these features⁵. Similarly, if there are any specific policies applicable to coastal wetlands (e.g., reference to shoreline or other policy sections), it may be valuable to add these here.

New Section: Other Wetlands

It is recommended that this section be renamed to be 'Other Wetlands' and that this section address all wetlands that aren't addressed through D.4.1 and New Section: Coastal Wetlands. Generally, this will include Unevaluated Wetlands, and Evaluated-Not Significant Wetlands.

Sub-Section: Unevaluated Wetlands (existing content from D.4.2)

Current policies apply restrictions consistent with those of PSWs – i.e., no development or site alteration – within unevaluated wetlands. It is inferred that this approach has been used as a precautionary approach to these wetlands, which have not been assessed to determine their significance status in accordance with the Ontario Wetlands Evaluation System (O.W.E.S.). In effect, because their significance is unknown, they are to be treated as though they are significant.

We fully support and encourage use of the precautionary principle; however, the policies of this section provide limited guidance on the evaluation and resulting management outcomes that may exist around this group of wetlands. For example, what occurs if an evaluation is completed and how policies of the plan then apply.

Note of clarification: Policy D.4.2.4 references the Natural Heritage Reference Manual for conducting a wetland evaluation. This should reference the Ontario Wetland Evaluation System (O.W.E.S.) for Southern Ontario assuming the evaluation is for the purpose of determining *significance* of the feature.

The following modifications are recommended:

⁵ From the 2020 Provincial Policy Statement, coastal wetlands are defined as: *a) any wetland that is located on one of the Great Lakes or their connecting channels (Lake St. Clair, St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers); or b) any other wetland that is on a tributary to any of the above-specified water bodies and lies, either wholly or in part, downstream of a line located 2 kilometres upstream of the 1:100 year floodline (plus wave run-up) of the large water body to which the tributary is connected.*

- Add brief preamble. For example: *"Unevaluated Wetlands (UW's) are those wetlands that have not yet been evaluated to determine their status or 'significance' in the province. It shall be the policy of the District / Planning Board that:..."*
- D.4.2.1 can be retained or removed. It is recommended that a general policy in D.4(a) direct users to the Schedule(s) showing N.H.S. and/or N.H.S. component mapping.
- Remove D.4.2.2. This is addressed through recommended policy updates in D.4(a) and through recommendations with respect to wetlands and N.H.S. through the current work.
- Remove D.4.2.3. This is replaced with the suggested new policies outlined below.
- Add new policies which provide guidance regarding management of UW's. For example:
 - The Planning Board encourages and may, in some instances require, that UW's be evaluated in accordance with the Ontario Wetland Evaluation System Manual for Southern Ontario, or other provincial guidance document as may be created or amended from time to time, to determine their status under policies of the P.P.S. and this Plan. Evaluations are to be accepted by the responsible provincial ministry.
 - Where an evaluation is completed and the U.W. is determined to be a P.S.W., policies applicable to PSW's shall apply.
 - Where an evaluation is completed, and the U.W. is determined to be 'Not Significant', policies in New Sub-Section: Evaluated – Not Significant Wetlands shall apply.
 - Where an evaluation is not completed or the status is not confirmed by the Province, UW's shall be managed in accordance with policies applicable to PSW's.

New Sub-Section: Evaluated – Not Significant Wetlands

Wetlands are ecologically and hydrologically important features of the natural environment of Manitoulin. Provincially Significant Wetlands are intended to identify those wetlands which are considered important at the provincial level. As such, it does not represent the area of wetlands on a landscape that should be protected or conserved to support and maintain the ecological functions and benefits provided by wetlands. It is recommended that wetlands confirmed as being 'not significant' (and that are not 'Coastal Wetlands') are still generally considered part of the N.H.S., but that additional flexibility is provided for the management in policy. These are not a mandatory component of the N.H.S.; however, it would ensure a comprehensive system and support long-term protection and biodiversity of natural heritage and its associated functions.

As noted through Section 4 of this report, there are currently no 'Evaluated – Not Significant' wetlands, however if / as wetlands are evaluated, it is expected that some will begin to be mapped.

It is recommended that policies be developed that:

- Encourage protection of wetlands on the landscape through avoidance. Where avoidance is not possible, impacts are to be minimized to the extent feasible.

- Wetlands may be subject to additional regulations or legislation. No policy of the Plan is intended to and does not imply waiving or permission, or authorization of any kind (e.g., as S.W.H., habitat for endangered or threatened species, etc.).

D.4.3 Habitat of Endangered and Threatened Species

It is recommended that the introduction of another study type (EcoSA) be reconsidered. While the purpose is understood - to reduce total potential work effort to a habitat and species screening - this could be achieved through scoping of the E.I.S., keeping all ecological / natural heritage assessment within a single section of the Plan. This revision is a recommendation only as scoping of studies is permitted to reflect the features, areas and functions present within or adjacent to a proposed development or site alteration.

The following modifications are recommended for policies in this section of the Plan:

- Retain D.4.3.1,
- Move & Modify D.4.3.3:
 - Suggest that this policy follow after D.4.3.1.
 - Remove reference to EcoSA.
- Modify D.4.3.2:
 - Remove from "Where the screening map identified..." through to the end.
 - Replace with "Where the screening map identifies the potential habitat of endangered and/or threatened species, an Environmental Impact Study (E.I.S.) is triggered by this Plan and policies under Section D.7 shall apply."
 - Refer to suggested modifications to
- Remove D.4.3.4. This is addressed through modifications to D.4 (a)

D.4.4 Fish Habitat

The following modifications are recommended:

- Retain D.4.4.1, D.4.4.5, D.4.4.6, D.4.4.7
- Modify D.4.4.2. The first sentence of this policy is addressed through modifications to D.4 (a). Retain the remainder of the policy.
- Modify D.4.4.3.
 - Retain the first sentence. This clarifies the role of D.F.O. with respect to fish habitat.
 - Recommendations for modifying D.4 (a) include general policies regarding development and site alteration within and on 'adjacent lands' to features of the N.H.S. As such, those aspects can be removed from this policy.
 - Scoping of EIS's associated with specific features should be addressed under D.7. It is recommended that these be removed from here and addressed through modifications to D.7.

- Remove D.4.4.4. Buffers or vegetative protection zones (V.P.Z.) are generally used as a mitigation measure to address potential impacts associated with a change in land use on adjacent land(s). As such, it may be most appropriate to address these through Section D.7. Buffers / V.P.Z.s are typically applied to a many different natural heritage features and areas (e.g., woodlands, wetlands); as such, referencing these in a section which addresses the N.H.S and its composite features more generally is appropriate.

D.4.5 Significant Wildlife Habitat

The identification of Significant Wildlife Habitat is to be guided by the Significant Wildlife Habitat Technical Guide (O.M.N.R. 2000) and in accordance with the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (M.N.R.F. 2015) or other Provincial guidance document as may be created, or as amended from time to time. Screening for and determination on presence of candidate or confirmed Significant Wildlife Habitat should be addressed through available mapping or information, or through an E.I.S.

It is recommended that general policies for S.W.H. be provided for at the beginning of Section D.4.5 as these would be applicable to all S.W.H. types as may occur in the Planning Area. Policies which may be applicable to specific habitat types can be addressed through sub-sections.

The following modifications are recommended:

- Add new, general policies for S.W.H.:
 - Significant Wildlife Habitat is to be screened for and assessed in accordance with the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (M.N.R.F. 2015) as may be amended from time to time.
 - S.W.H. is generally not mapped on Schedules to the Plan (with some exceptions)
 - A screening assessment for S.W.H. is to be completed to determine potential presence of this feature type in accordance with Section D.7.
- Policies re: development and site alteration are addressed through suggested modification to D.4 (a)
- Delete D.4.5.2 (Other Significant Wildlife Habitat) General policies (above) and modifications to D.4 (a) address.
- Modify D.4.5.1
 - Retain D.4.5.1.1 through D.4.5.1.4: It is understood that these provide local context and that deer wintering and habitat are frequently encountered concerns managed through land use planning in areas where this habitat occurs.
 - Policies D.4.5.1.5 through D.4.5.1.10: It is recommended that direction with respect to scoping, waiving and specific requirements of an E.I.S. be addressed through Section D.7 for consistency. This approach ensure that all considerations related to natural heritage assessment are clearly outlined in the same location, and it permits more

streamlined process and policy. To this end, it is recommended that these policies be modified as follows:

- D.4.5.1.5 be modified to the following (or similar) *"In areas identified as Core Deer Yards or adjacent lands, shown on the land use schedules to this Official Plan, and outside of the identified urban areas and village areas, development or site alteration may be permitted without an EIS where conditions, as set out in Section D.7 are met."* And subsections (a), (b), (c) be addressed under modified Section D.7
- D.4.5.1.6 through D.4.5.1.10 be addressed through Section D.7
- Regarding D.4.5.3 (Alvars): If the intent is that only those Alvars as meet the criteria as S.W.H. are protected in accordance with policies of the Plan, this section can be removed in its entirety. There are no additional feature-specific policies required beyond those modification recommended for Section D.4 (a) and new general policies recommended for D.4.5. Alternatively, if the intention is to protect all Alvars, then it is recommended that a separate section, not nested under S.W.H. be created. Given the rarity of this community type and high number of sensitive and protected species (i.e., endangered and/or threatened species) that use these areas, this approach may be deemed appropriate for Manitoulin. If more encompassing protections are intended, it is strongly recommended that a definition of 'Alvar' be defined and/or criteria provided to provide clarity in application of policies in the Plan.

D.4.6 Areas of Natural and Scientific Interest (A.N.S.I.)

All currently identified A.N.S.I.s should be mapped on Schedule(s) to the Plan.

A.N.S.I.s are understood to include Life Science A.N.S.I.s and Earth Science A.N.S.I.s. Life Science A.N.S.I.s are generally identified due to their natural heritage, biological and/or ecological function and as such, are comprised of features and areas which delineate and support the functions for which they are identified. Earth Science A.N.S.I.s are generally identified due to a physical formation (e.g., geological, glacial surficial geological features, etc.). As such, the land cover may be altered as long as the form and, where applicable, functions provided by those landforms is maintained. Both are to be protected in accordance with the P.P.S., however the threshold for 'no negative impact' can vary substantively and therefore can be addressed differently in terms of land use planning.

The following modifications are recommended:

- Introductory paragraph:
 - Clarification re: 'some A.N.S.I.s' being mapped. All known A.N.S.I.s should be mapped.
 - Remove last line of paragraph, development and site alteration are addressed through recommended modifications to D.4 (a) and through Section D.7 of the Plan.
- Remove D.4.6.1. This is addressed through recommended modifications to D.4(a).

- New Policy: All known and future A.N.S.I.s, as defined by the Province are subject to the Policies of this Plan.
- Retain D.4.6.2.

New Section: Woodlands

While not a mandatory component of an N.H.S. for Manitoulin, woodlands form an important part of a comprehensive system intended to maintain and protect biodiversity, ecological services, and other functions. As such, it is recommended that woodlands be identified as part of the N.H.S. in some manner. Because identification of Significant Woodlands is not required in Manitoulin, the Planning Board has a great deal of flexibility in how this is achieved.

Two options are presented here for consideration:

1. Inclusion of woodlands as a component of the N.H.S. and address through general policies which encourage protection and minimizing impacts.
2. Identification of *significant* woodlands as a subset of woodland cover and addressing in a manner consistent with the P.P.S.

In determining the most appropriate approach, it is important to consider the long-term maintenance of woodlands and their functions on the landscape. Care must be taken in land use planning to ensure that large tracts of forest, which Manitoulin currently has, are maintained in good condition (e.g., not fragmented, avoiding impacts and disruption of interior habitat functions, etc.). Both options can support this in Manitoulin, but care should be taken in land use planning with these objectives in mind.

Under both approaches, a new feature-specific policy section is recommended. It is presumed that permitted uses in woodlands is generally addressed through other sections of the Plan (e.g., forestry, forest management, etc.).

Option 1 - Woodlands, General Inclusion

Woodlands can be included in the N.H.S. as a broad category to recognize their role and functions on the landscape. General policies of the O.P., or feature-specific policies for woodlands can be used to guide the protection and management of these features. In recognition of the extensive existing woodland cover in Manitoulin, these policies may focus on avoidance where possible – thus directing development and site alteration away from woodlands to the extent possible as the first objective and minimizing impacts to the extent feasible as the second priority where avoidance cannot be achieved. It is recommended that enhancement and restoration opportunities be encouraged and that policy permit Manitoulin to require it in some cases, when impacts to features are unavoidable. This is currently encouraged in Policy D.4 (b) 2 of the O.P and we recommend this policy be retained.

Under this approach, the following policy recommendations for a **new “Woodlands” section** are recommended:

- Add pre-amble or statement on the value and importance of woodlands to the natural environment, health, and wellbeing of Manitoulin.
- Add policies which:
 - Direct development and site alteration away from woodlands (i.e., avoid them) to the extent possible.
 - Require that development and site alteration minimize impacts to woodlands to the extent feasible.
 - Encourage restoration and compensation for impacts and state that Manitoulin may require this in some cases.

These policies provide some flexibility in recognition of the fact that development and site alteration cannot in all cases avoid woodlands, but provides clear direction for avoiding or minimizing impacts wherever possible.

Note: this option should be considered as a ‘base’; we recommend that it also be implemented in conjunction with *significant* woodlands should these be identified for Manitoulin.

Option 2 – Identification of Significant Woodlands

Significant woodlands are a sub-set of woodlands / woodland cover in a planning area (watershed, municipal area, etc.). They represent areas that are of greatest importance for protecting the functions provided by woodlands on the landscape. Identifying significant woodlands doesn’t imply that other woodlands have no valuable functions, but does provide an opportunity to increase protections on those woodlands which are of highest value in the planning area. As noted above, identification of *significant* woodlands can be combined with general policies for woodlands.

As briefly discussed in preceding sections, there are various ways in which *significant* woodlands may be identified as part of an N.H.S. Further analysis is required to determine the preferred approach for Manitoulin. Options include, but are not limited to:

- Size and/or other criteria (informed by the Natural Heritage Reference Manual) applied across Manitoulin to identify significant woodlands.
- A subset or portions of woodlands may be identified based on their proximity or functional relationship(s) to other components of the N.H.S. (e.g., P.S.W.s, Other Wetlands, Shorelines, etc.) or through identification of ‘core areas’ of an N.H.S.

To support implementation, it is recommended that a corresponding section be added to the O.P to provide guidance on how these features are managed as part of the N.H.S.

This **new Significant Woodlands section** should:

- Outline criteria for identification of woodlands that comprise a component of the N.H.S. (i.e., 'significant woodlands')
- Provide clear direction on how woodlands are managed (i.e., no negative impact).
- It is recommended that adjacent lands be applied to significant woodlands, consistent with other significant features and areas (e.g., P.S.W., A.N.S.I).

If Significant Woodlands are identified for Manitoulin, policies for *significant* woodlands and 'other woodlands' could be nested under a heading for 'Woodlands' for ease of reference.

New Section: Linkages

Linkages (sometimes also referred to as corridors) are an integral component of an N.H.S. Features and areas which provide important function(s) must be connected across the landscape to create a holistic and integrated system.

It is recommended that 'landscape-level' or 'district scale' linkages be identified. These form the large linkages vital at the broad system scale; they are the major movement pathways and should be relatively wide (200m-400m wide). It is strongly recommended that these be mapped; mapping of these may be 'conceptual' in nature as the exact location of a linkage often has some limited flexibility on the landscape (e.g., minor shifts informed by more detailed assessment and land use planning).

Smaller, site-scale linkages intended to connect individual features to avoid fragmentation of features and areas on the landscape can be defined (criteria), but are not recommended to be mapped at the scale of the O.P. If site-scale linkages have been established through existing study (e.g., through an E.I.S) or are well known on the landscape (e.g., an established movement corridor for wildlife), then consideration should be given to including these on O.P. mapping (e.g., perhaps as an appendix rather than a schedule to permit more frequent updates if / as needed).

A section should be added with specific policies that:

- Identify and/or provide criteria for the identification of linkages (landscape and site-scale)
- Consider specific policies regarding development and/or site alteration within linkages.
 - Generally, for site scale linkages, these are identified and implemented through land development (conversion of land to a more intensive land use). As such, development or site alteration is generally not permitted. Some exceptions may be considered such as some portion of naturalized stormwater management facilities, but they should be limited in scope and extent.
 - Landscape-scale linkage are intended to maintain and where possible enhance landscape permeability and mobility of species through and across the landscape. As

linkages will be identified through the O.P., some flexibility for low-intensity uses may be warranted, and policies should reflect this.

- Development proposed within Linkages should be subject to an E.I.S. Scoping of the E.I.S. can occur based on the proposed land use. For example, some limited development would be permitted where it does not negatively impact the function of the linkage(s).

Section D.6 Natural Heritage and Open Space Strategy

In our opinion, preparation of an N.H.O.S.S. is not required for the identification and implementation of an N.H.S. although the preparation of an N.H.O.S.S. may still be beneficial to prepare. An N.H.O.S.S. would support system-wide review and planning, which would benefit both the N.H.S., and opportunities for recreation, parks, and an integrated approach to trails. We note that there is no specific policy in the P.P.S. that states an N.H.O.S.S. is a required deliverable. Through the identification of the N.H.S. and revised policies to support implementation (identification, assessment, etc.), a separate plan is not expressly required to achieve compliance with the P.P.S.

Some of the policies and directions of this Section of the Plan could be retained, outside of a formal Strategy to support implementation and long-term management. However, should there be interest in pursuing this as a management tool, we would not discourage its preparation. Preparing a comprehensive management strategy, which is intended to plan for and support implementation of the N.H.S. and long-term feature retention in the District of Manitoulin can provide direction to land use planning.

Section D.7 Environmental Impact Studies

As discussed in the policy review presented in this report; this section provides a good, basic overview of an E.I.S. and sets out clear, basic guidance for undertaking these types of studies. None of the recommendations for refinements to the E.I.S. process are required for compliance with the P.P.S. or identification of an N.H.S. They are provided as opportunities to be considered to support clear guidance, consistent process, and improved quality.

Recommendations for revisions or updates to this policy section are largely to streamline policies presented through Section D.4 (a) and D.4 (b). It is recommended that scoping considerations be added to this section and guidance given on when waiving the requirement for an E.I.S. may be appropriate or permitted. It is also recommended that policies providing general direction with respect to buffers be added to this section as it will primarily be through the land development process, and therefore the E.I.S. process, that buffers will be identified and implemented.

E.I.S. Scoping & Waiving

Policy D.7.2.2 indicates that the content and requirements of an E.I.S. can be scoped and, in some cases, waived. Similarly, policies through D.4 (b) provide some direction regarding scoping of an E.I.S. (e.g., for Deer Wintering Areas) or a scoped alternative study (i.e., Eco.S.A for Habitat of Endangered or Threatened Species). We support scoping of an E.I.S. to reflect the nature and extent of the proposed development or site alteration; the types of features a proposed development or site alteration is within or adjacent to; and a proposed development or site alteration's potential to have negative impact(s) on the feature(s) or its function(s).

As an immediate opportunity, an E.I.S. scoping checklist could be created and used by the Planning Board and parties involved in land use planning (landowners, development proponents, consultants, and municipalities) to support consistency and quality of work, as well as the efficiency of process by ensuring there is an understanding of expectations. Specifically, the purpose of a scoping checklist is to provide consistency and clarity on the expected level of study and content for an E.I.S. (or an Eco.S.A if this study type is retained). This will support improved quality and consistency for submitted studies and provide reduce potential timelines for further study requests to proponents (e.g., surveys needing to completed in a specific timing window the following field season, extending project timelines).

For clarity and to streamline these policies, it is recommended that Section D.7.2.2 refer to a New Subsection which will provide policies associated with scoping of an E.I.S. and/or waiving of the E.I.S. requirement. This New Subsection would capture the direction provided in current feature-specific policies and provide any further policies with respect to scoping and/or waiving deemed to be appropriate in the context of applicable policies to development and site alteration. Considerations with respect to scoping recommended include:

- Feature-Specific Scoping or waiving is assessed on a site-specific basis and in consideration of the proposed development or site alteration. Scoping can occur for any scale of development but is to be done in consideration of the potential impacts that may occur. Waiving is generally not considered to be appropriate for large-scale developments due to the increased potential for direct, indirect, and induced impacts.
 - **Endangered and Threatened Species.** Where the only trigger for an E.I.S. is potential habitat for Endangered and Threatened Species, a screening assessment to evaluate habitat potential and determine if more detailed study is required (species-specific surveys to assessment presence or a more detailed E.I.S.) may be considered acceptable. This is similar to the suggested approach to an EcoSA study in Section D.4.3, but could remove the need for another study type.
 - **Fish Habitat.** Where the only trigger for an E.I.S. is Fish Habitat, the requirements for an E.I.S. may be scoped or waived where certain conditions or criteria are met. Criteria to make this determination are in part discussed in D.4.4.3 and could be expanded

upon, as appropriate. As noted in policies of Section D.4.4, it is important that any requirements of the Fisheries Act be addressed. In some cases, the requirements of the Fisheries Act (e.g., implementation of Codes of Practice) may be sufficient to avoid or mitigate impacts, thus effectively replacing an E.I.S.

- **Significant Wildlife Habitat - Deer Overwintering Areas.** Where the only trigger for an E.I.S. is Deer Wintering Habitat, a scoped assessment focused on the form and function of that S.W.H. may be considered acceptable. Much of the content from policies D.4.5.5, D.4.5.6, D.4.5.7, D.4.5.8, D.4.5.9, and D.4.5.10 could be moved to this section (with modifications to suit layout of New Sub-Section).
- **Earth Science Areas of Natural and Scientific Interest.** Where the only trigger for an E.I.S. is an Earth Science A.N.S.I., an E.I.S. may be scoped to focus on the physical landform(s) or functions for which it was identified. Upon review of the proposed development or site alteration, it may be determined that the requirement for an E.I.S. could be waived where there is clear evidence or a set of criteria indicating that there will be no negative impact to the form and/or functions of the Earth Science A.N.S.I. It is noted that there are currently no Earth Science A.N.S.I.'s in Manitoulin; however inclusion of these within policy provides for the potential that they are identified in the future. This could be excluded until such time as it's required / if it becomes required or built into the process at this time.
 - Size, scale, and potential impacts associated with the proposed development or site alteration.
 - Complexity or sensitivity of the feature(s)
 - Scoping or waiving may also specifically consider agricultural activities (development or site alteration) where certain conditions are met.

These can be used to inform the type and extent of surveys required, for example, whether a single or multi-season survey is required, a general survey or detailed species-specific assessment, etc.

Waiving of the requirement for an E.I.S. may be considered for projects determined to have no and / or low risk of impact to the N.H.S. that can be addressed through common and easily identified mitigation measures (e.g., buffers). It is recommended that clear criteria be developed to inform waiving to ensure consistent application and to assist in project review without the need, in instances where the site conditions are not complex, for specialist review (ecologist, biologist, etc.).

Pre-Consultation and Terms of Reference

To ensure appropriate scoping and to consider potential for waiving of the requirement for an E.I.S., it is recommended that pre-consultation and/or the preparation of a Terms of Reference be considered as additional steps to the E.I.S. process.

It is understood that this additional level of effort is not currently feasible for Manitoulin. As such, it is provided here for information and as a future consideration if or when it is determined beneficial to land use planning processes (e.g., if/when development pressures increase, etc.).

Pre-consultation provides an opportunity to discuss a proposed development or site alteration holistically including zoning, scope and scale of the proposal, types of studies required and potential challenges. For an E.I.S., it is the time at which the requirements of an E.I.S. is determined and the study is scoped. This initial step is strongly recommended for future consideration.

A Terms of Reference is prepared by an E.I.S. practitioner to set out the studies, methods and expected general content of an E.I.S. It may include preliminary screening assessments (e.g., S.W.H., S.A.R.) to inform the scope of a study. An approved Terms of Reference is a common requirement in many municipalities as it provides, effectively, an agreement as to the scope of the E.I.S. as well as confirming that the proponent (or their consultant) understands the expectations for the content for an E.I.S.

Adding these as a requirement may increase the effort required by the Planning Board or its designate (e.g., an ecological professional on retainer to complete these reviews). However, the benefit of completing this is more consistency between EIS's and a higher standard of study quality, as well as increased confidence that a complete and appropriate study is completed, which is a benefit to both the Planning Board and the proponent in terms of constraining timing, costs, etc. In consideration of this and the development occurring on Manitoulin, pre-consultation may be appropriate and sufficient for much of the small-scale development that occurs (e.g., single family, small infill); a Terms of Reference may be requested or required for larger scale development. Through this approach, it limits additional cost and staff time, while ensuring that studies submitted meet expectations and requirements. The costs to provide pre-consultation / scoping comments and / or review a Terms of Reference may be borne by the Planning Board or the proponent and may be determined based on the complexity, and therefore effort and cost, of the review.

Buffers

It is strongly recommended that a policy be added to provide clear direction with respect to expectations around buffers as a key mitigation measure. Some municipalities set minimum buffers, others do not, and the size of buffers is determined through an E.I.S., or comparable study. Expectations on which feature types will be expected to have buffers applied may be identified, or a policy may simply state that they are required and/or must be considered through an E.I.S.

In the context of scoping and waiving, adhering to buffers may be a criteria or requirement in assessing the ability to scope or waive the requirement for an E.I.S.

6. Next Steps

The current scope of work includes a review of the current policy context for identifying an N.H.S., reviews existing policies in the Manitoulin Official Plan to identify gaps in consistency with the P.P.S. and identifies opportunities to refine policies at the time that an N.H.S. is adopted.

The current work also reviews the existing features and areas identified within the current Official Plan in the context of a Natural Heritage System to identify potential gaps in consistency with the requirements of the P.P.S. for components of a system, opportunities and considerations which may go beyond the minimum requirements of the P.P.S. and sets out recommendations and considerations for identifying an N.H.S.

Next steps to identifying and implementing an N.H.S. for Manitoulin generally include:

- Initiate consultation with interested Indigenous communities to establish a consultation approach / plan for identifying an N.H.S. for Manitoulin.
- Select a Preferred Approach to an N.H.S. for Manitoulin: Core Areas and Linkages or Features and Linkages.
- Review and consider optional features presented through this report.
- Undertake analyses and develop criteria, where required, to identify the N.H.S.
- Map the N.H.S. and update policies of the Official Plan.

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