Delphi Waterfront Management Plan
Town of The Blue Mountains
P/N 3054 | FINAL SEPTEMBER 2018

County of Grey
Town of The Blue Mountains

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Part 1 – Management Plan Overview

1.0 Introduction

1.1 The Town of The Blue Mountains

The Town of The Blue Mountains (Town) is located along the scenic southern Georgian Bay shoreline in the County of Grey, southwestern Ontario. The Town is well-known for the visually prominent section of the Niagara Escarpment known as Blue Mountain as well as the rugged and picturesque shoreline of Georgian Bay. Due to its geographic location, nestled between the Niagara Escarpment and south shore of Georgian Bay, the Town serves as a tourist-hub for outdoor recreation activities, and is home to a number of large four-season Resorts. Popular recreational activities, include: skiing, watersport, hiking, and cycling.

The Town was officially formed in 1988 after the amalgamation of the Town of Thornbury and the Township of Collingwood and includes a total landmass of 287 km².

The Town of The Blue Mountains has a current population of approximately 7,025 (Statistics Canada, 2016) and hosts a large population of tourists and seasonal residents throughout the year. The area has undergone steady increase in population over the past 10 years, primarily due to strong growth in the local tourism-based economy. Outdoor recreation is the foundation of tourism industry centered around the parks, trails and beaches of the Town of The Blue Mountains.

Correspondingly, the development, management and growth of recreational and tourism opportunities has been incorporated into the policies of the Town’s Strategic Plan and Official Plan. The Town’s motto of “Recreation at it’s Peak,” reflects the Municipalities’ commitment to capitalize on the unique natural landscapes and identify of the Town as an outdoor recreation “mecca”. Parks, open spaces, shoreline areas, mature forests, and the UNSECO designated Niagara Escarpment form the natural landscape that make the area so desirable for outdoor recreational activities. The wise use, development, and management of these natural and recreational areas requires carefully considered land-use policies and long-term strategic planning.
This park management plan, in addition to others for the Town, strives to balance the development of parkland and open-spaces for public access with maintaining the integrity of significant natural features and their ecological function for present and future generations.

1.2 **Delph Point ANSI (Area of Natural and Scientific Interest)**

The Delphi Point ANSI (Area of Natural and Scientific Interest) is a narrow strip of Georgian Bay shoreline, located midway between Thornbury and Collingwood, off of Highway #26 (see Figure 1 – Delphi Point ANSI Location). The Delphi Point ANSI is part of the Lower Whitby Formation and consists of bituminous broken shale that contains a variety of significant invertebrate fossils that are estimated to be 455 million years old. The fossilized shale extending the length of the Delphi Point ANSI is designated as a Provincially Significant Earth Science Area of Natural and Scientific Interest (ANSI) by the Ministry of Natural Resources and Forestry (MNRF). The ANSI is located just to the west of Delphi Point Park – a municipally owned and maintained shoreline park.

As shown in Figure 2 – ANSI Ownership, the Delphi Point ANSI is owned by the Town of The Blue Mountains, three (3) private landowners, and the portions of the shoreline extending north into the lake are owned by the Crown.
Photograph 1: Easterly view of east section of ANSI waterfront at Delphi Point

Photograph 2: Westerly view of east section of ANSI waterfront at Delphi Point

Photograph 3: Westerly view of west section of ANSI at Delphi Point

Photograph 4: Easterly view of west section of ANSI at Delphi Point

Photograph 5: South view of Municipality owned greenspace below west section of ANSI at Delphi Point
The portions of the Delphi Point ANSI that are owned by the Town are sectioned into three pieces of land, separated by parcels of privately owned land. The publicly owned parcels were conveyed to the Town, by the developers of three separate residential subdivisions - Peaks Bay East, Peaks Bay West, and the Neighbourhoods of Delphi as part of an Ontario Municipal Board Decision (OMB) in 2005 (Decision 0727-PL020894) for a re-zoning application and plan of subdivision. The OMB Decision required that the Delphi Point ANSI lands dedicated to the Town, be re-zoned to Public Open Space OS-1h. The By-Law requires that the holding symbol “h”, not be removed until:

a) A Parks Management Plans has been completed and implemented through a Zoning By-Law Amendment in accordance with the Official Plan

b) Notwithstanding the provisions of Section 25.1 permitted uses, no uses shall be permitted prior to the removal of the “h” symbol in accordance with this Section.

The Town owned lands have not been maintained, nor have they had a formal use determined since the Town acquired the lands in 2010. Since 2010, the adjacent subdivisions (Peaks Bay East, Peaks Bay West, and the Neighbourhoods of Delphi) have undergone residential development and there is now substantial interest in the Town owned waterfront lands from the neighbourhood residents. Specifically, residents have raised concerns regarding potential use of the area, access, long-term protection and management.

1.3 Purpose

The purpose of this Management Plan is to identify and review options for the future use, protection and management of the Town owned Waterfront lands.

This Management Plan has been developed through extensive consultation with agencies (the Town of The Blue Mountains, the MNRF, the County of Grey, the Grey-Sauble Conservation Authority, and the Niagara Escarpment Commission) and the public. Through a comprehensive planning process which included site visits and ecological inventories, a public meeting as well as discussions with various stakeholder, and background research, several specific recommendations were to be identified regarding:

- The appropriate level of use and activities;
- The best options for most effective ownership of the lands;
- Access and connectivity; and,
- The provision of specific management approaches to ensure the long-term protection of the Town owned Delphi Waterfront Lands.
To determine relevant policies and objectives under the ANSI waterfront management plan, the following documents were reviewed:

- Provincial Policy Statement (2014)
- Greenbelt Plan (2017)
- Niagara Escarpment Plan (2017)
- County of Grey Official Plan (2013)
- Town of The Blue Mountains Official Plan (2016)
- Town of The Blue Mountains Corporate Strategic Plan (2015)
- Lower Whitby Formation ANSI Designation Background Information from the Ministry of Natural Resources and Forestry
- The Town of The Blue Mountains Subdivision Agreement – The Neighbourhoods at Delphi Point Inc. (2010)

Part 2 – Background Review

2.0 Delphi Point

2.1 Lower Whitby Formation ANSI Designation

Areas of Natural and Scientific Interest (ANSI) are areas of land and/or water containing natural landscapes or features which have been identified as having life science or earth science (or both) values related to natural heritage protection, scientific study or education. ANSIs can vary in their type, size, and level of significance. There are about 500 ANSI identified across the Province with the Ministry of Natural Resources and Forestry as the Provincial Agency responsible for identification of ANSI areas.

There are two types of ANSIs:

1) Life Science ANSIs include significant representative segments of Ontario’s biodiversity and natural landscapes including specific types of forest, wetlands native plants etc. They contain relatively undisturbed vegetation and landforms and their associated species and communities.
Earth Science ANSIs include are geological in nature and consist of some of the most significant representative examples of the bedrock, fossil and landforms in Ontario and include examples of ongoing geological processes.

To identify and confirm ANSI in Ontario, the Ministry utilizes a standardized procedure to evaluate the significance of natural landscapes against specific selection criteria. If ANSI candidacy is met, the Ministry will determine representative boundaries that provide appropriate levels of protection for the ANSI. A confirmed ANSI recognizes MNR’s interest in and commitment to the conservation of the identified features and values. The best examples of Life Science or Earth Science natural features receive the designation of a Provincially Significant ANSI. ANSIs deemed Provincially Significant receive protection under the Planning Act, Provincial Policy Statement, The Greenbelt Plan, The Oak Ridges Moraine Conservation Plan, as well as the Niagara Escarpment Plan.

As of 1978, the Delphi Point waterfront area has been identified as a Provincially Significant Earth Science ANSI (OMB:10 17 545049300). The shoreline area consists of exposed bedrock of the lower Whitby formation which contains highly fossiliferous shale. The shale bedrock contains a high diversity species and vast number of well preserved fossils (Ontario Parks 1996). The ANSI designation of the waterfront at Delphi Point was issued by the Ministry to prevent further reductions to the fossilized shoreline boundary. According to Ministry reports, damage and reduction to the shoreline was attributed to excessive use and removal by fossil collectors (Ontario Parks, 1996).

### 2.2 ANSI Protection and Management in Ontario

The identification of the significance of ANSI’s is the responsibility of the MNRF – ANSI’s can be identified as locally, regionally, or provincially significant. Once an ANSI is identified, MNRF’s role is to provide science support, information and advice to landowners, municipalities, Crown agencies and other affected parties, as requested, about the implications of provincially significant ANSIs on land use and resource management decisions. Once confirmed, these values will be considered in land use decisions made for both Crown and private land.

ANSIs play an important role in the protection of Ontario’s natural heritage, since they represent some of the best examples of biological communities, natural landforms and environments across Ontario outside of provincial parks and conservation reserves. In addition, ANSIs provide a focus for both public and private sectors to contribute to the protection of Ontario’s natural heritage.

The Provincial Policy Statement (PPS) and Natural Heritage Reference Manual provide direction on the protection of Provincially Significant ANSIs. Local planning authorities may choose to
included specific policies and designations regarding in regionally or locally significant ANSIs and their planning policies.

The Natural Heritage Reference Manual (NHRM) requires that implementation of Provincial policy to protect Provincially Significant ANSIs and adjacent lands. The Natural Heritage Reference Manual provides additional guidance on any decision-making that make affect or impact ANSI identified lands. The NHRM states that in order to be consistent with Provincial Policy planning authorities shall protect ANSIs by:

- Not permitting development and site alteration in a significant ANSI unless it has been demonstrated that there will be no negative impacts on the feature or its ecological function; and

- Not permitting development and site alteration on adjacent lands unless the ecological function has been evaluated and it is demonstrated that there will be no negative impacts on the feature or its ecological function.

Adjacent lands are the lands relevant to which impacts must be considered and the compatibility of a development proposal must be addressed. Adjacent lands can vary and depend largely on biophysical features and interactions such as wildlife movement, hydrology, soil conditions, and topography. The Province recommends that adjacent lands are those lands within 120m of a life science ANSI and within 50 metres of an earth science ANSI. The Natural Heritage Reference Manual notes that Earth Science ANSIs are generally less sensitive to development and site alteration than life science ANSIs and therefore have smaller adjacent lands width. The NHRM notes that the evaluation of adjacent lands of earth science ANSI’s, should focus on how best to retain the educational, scientific, and interpretive value of the ANSI and assessing the appropriate land use that conserve topography, stratigraphic exposures and other geologically defining features for which the area was identified.

Unlike national, provincial, or municipal parks, provincially significant ANSI’s can be entirely privately owned and managed. Some ANSI identified lands in Ontario are held by owned by public agencies, such as municipalities, conservation authorities, or conservation groups (e.g. Nature Conservation of Canada); however, many are located on private land with no public access or management. Although many ANSIs are privately owned the PPS protects these areas through specific development controls. The Delphi Point ANSI is located on a mixture of privately and publicly owned lands.

### 2.3 Town of The Blue Mountains Parks and Open Space System

The Town of The Blue Mountains is home to a number of municipally maintained parks, trails and beaches, including a number of waterfront parks. A number of these waterfront parks
include public access and amenities such as picnic tables, washrooms, and playgrounds (e.g. Council Beach, Delphi Point Park, Lora Bay Park, Northwinds Beach, and Peasemarsh Beach). Other municipal parks, include greenspace only and no infrastructure or access.

The Official Plan provides direction on the public parkland and open space system in the Town of The Blue Mountains and outlines the parkland and open space objectives of the Town, which are as follows:

a) establish and maintain a system of public open space and parkland areas that meets the needs of present and future residents;
b) enhance existing parkland areas wherever possible to respond to changing public needs and preferences;
c) ensure that appropriate amounts and types of parkland, and land along the shoreline and for access thereto, are acquired by the Town through the development process;
d) encourage the dedication and donation of environmentally sensitive lands into public ownership to ensure their continued protection;
e) protect and enhance the public open space and parkland areas in a manner that is consistent with the environmental objectives of this Official Plan;
f) promote the establishment of a continuous linear open space system connecting natural, cultural and recreational land uses within the Town and to surrounding municipalities;
g) coordinate with other public and private agencies in the provision of open space, recreational and cultural facilities;
h) encourage the development of a walking and cycling trail system within the open space system that is accessible to the public utilizing trails, paths, streets, and other public open spaces; and,
i) ensuring that the services, infrastructure, and facilities required to support these uses are in place.

The Official Plan also contains policies for the dedication and acquisition of land for public recreational purposes as part of the development process.

2.4 Subdivision Agreements & Development

Individual privately-owned lots within Peaks Bay East and Peaks Bay West are subject to the PB Holdings Subdivision Agreement. Likewise, lots within the Neighbourhoods at Delphi are subject to a Neighbourhoods at Delphi Point Inc. Subdivision Agreement.

The agreements were authorized by section 51(26) of the Planning Act and was imposed by the Approval Authority as one of the Conditions. The agreement defines the obligations and duties
of the Developers (P.B. holdings Limited and Neighbourhoods of Delphi Point Inc.) and the Town with respect to each subdivision, development, and servicing of Lands in accordance to the conditions.

### 2.4.1 Tree Preservation Zone

Subdivisions within the three Subdivision Agreements identified above, including residents of the Delphi Point waterfront, are subjected to a Tree Preservation Plan (TPP; section 2.31). Trees within the developments of The Neighbourhoods of Delphi, Peaks Bay East, and Peaks Bay West (including the ANSI shoreline) fall within a tree preservation zone (TPZ).

Section 2.31 of the Subdivision Agreements between the Developers (Neighbourhoods at Delphi Inc., PB Holdings) and the Corporation of the Town of The Blue Mountains provide requirements of the Developer regarding tree preservation.

The Developer Shall:

- **a)** preserve the existing trees and vegetation shown on the Tree Preservation and Landscape Plan to be preserved;
- **b)** install the tree protection fencing shown on the Tree Preservation and Landscape Plan to the satisfaction of the Town prior to the start of any construction activity within a Plan, which fencing shall remain in place until all grading, construction activity of any kind, and Landscape Works within the Plan are completed;
- **c)** not remove any trees or vegetation without the prior written approval of the Town except such trees and vegetation that are diseased or dead or such trees and vegetation that are designated for removal on the Tree Preservation and Landscape Plan;
- **d)** require the Consultant to supervise and approve the installation of the tree protection fencing and ensure that the tree protection fencing remains in place during the entire period of construction activity of any kind within a Plan and that the Consultant will notify the Town that this fencing has been installed in accordance with the Tree Preservation and Landscape Plan;
- **e)** undertake every precaution necessary to prevent damage to existing trees and vegetated areas, include the following:
  - **I.** areas within the tree protection fencing shall remain undisturbed and shall not be used for the storage of surplus soil, debris and building materials or equipment;
  - **II.** no contaminants will be dumped or flushed where feeder roots of vegetation exist;
  - **III.** no vegetation or tree limbs shall be removed, pruned or otherwise damaged during the course of construction; and
IV. no rigging cables shall be wrapped around or installed in trees to be preserved.

f) replace, to the satisfaction of the Town, any existing trees and vegetation shown on the Tree Preservation and Landscape Plan to be preserved which are removed without prior written approval of the Town except such trees and vegetation that are diseased or dead;

g) on the sale of any lot, block or unit, reserve such rights as may be necessary to enable the Developer or the Town or their agents to enter on the lot, block or unit at all times to install and maintain the tree protection fencing and replace any existing trees and vegetation removed in contravention to the provisions of this Agreement;

h) shall include in all agreements of purchase and sale for lots, blocks or units within each Plan, the covenant, identified in Schedule “J”, in which the purchaser agrees to comply with all of the provisions of this Section 2.31, except Section 2.31 (d);

i) provide Security in an amount shown in Schedule “E” to the Town to ensure compliance with the tree preservation and replacement requirements of this Agreement, which Security may be drawn upon and used up to its full amount in accordance with the provisions of Section 3.2.

2.4.2 Owner Agreements

An agreement and undertaken of the tree preservation plan by owners of lots within the Peaks Bay East subdivision is described in the Owner Agreement Registered Plan 16M-23, in which each owner shall confirm to Schedule “K” and “J” as well as Section 2.313 of the agreement. Owners in acknowledgement agree to the following:

1. **Preserve the existing tree and vegetation shown on the Tree Preservation and Landscape Plan (Drawings TP 1 to TP4)**

2. **Not remove any trees or vegetation without the prior written approval of the Town unless designated for removal on the Tree Preservation and Landscape Plan**

3. **Undertake every precaution as necessary to prevent damage during the course of construction including by not limited to:**
   a. **Areas within the tree protection fencing shall remain undisturbed and shall not be used for the storage of surplus soil, debris, and building materials or equipment;**
   b. **No contaminants will be dumped or flushed where feeder roots of vegetation exist;**
   c. **No vegetation or tree limbs shall be removed, pruned or otherwise damaged during the course of construction.**
d. No rigging cables shall be wrapped around or installed in trees to be preserved.

Within agreement 16M-23, Owners acknowledge criteria issued by the Niagara Escarpment for “viewing windows” to allow residents the provision to observe waters of Georgian Bay from their respective properties. Criteria for the creation of “viewing windows” include:

a) Viewing windows are defined as a specific zone within an individual lot, where understorey clearing and tree limbing is permitted to create an open zone where views to the shore and waters of Nottawasaga Bay may be available.

b) The specific location and size of the viewing window zone(s) must be identified on the site plan submitted for approval to the Town of The Blue Mountains.

c) Maximum horizontal extent to viewing window shall be 1/3rd or 33% of the total rear lot frontage. This may occur in one zone or in a number of narrower swaths that do not exceed 1/3 or 33% of the total rear lot.

d) Viewing windows shall not encroach into any side yard Vegetation Protection Zones as set out on the approved subdivision drawings TP-1 through TP-4.

e) Maximum limbing height of trees 60mm calliper DBH (Diameter at breast height) and larger shall be no more than 1/3rd of the total height of the tree with the retention of 2/3rd of the crown of the tree in one mass.

f) No healthy trees 60mm calliper DBH and larger can be removed within a viewing window.

g) Trees under 60mm calliper DBH and understorey shrubs may be cleared within the viewing window only.

2.4.3 Permitted Development – Peaks Bay East

Tree preservation plan requirements (including the set back, and preservation zone) do not apply to Lot 5 of Peaks Bay East due to damage caused by a Tornado in 2009, in where all of the natural vegetation was removed. Areas within the setback and preservation zone are to be replanted to represent a naturalized area, and grading is to occur to allow adequate site drainage on the property. Permitted development in this area is limited to a pedestrian/walkway to the shoreline; the pathway shall be developed using natural materials and native species that match the biodiversity and character of the surrounding area.

2.5 Tree Preservation By-Law

Tree Preservation By-Law (BY-LAW No. 2010-68) prohibits and regulates the destruction or injury of trees in the boundaries of the Town of The Blue Mountains. The by-law came into force in October, 2010.
In accordance to the by-law, a permit must be obtained for the injury or destruction of trees specified within an area of preservation, as referenced, and agreed upon by the Municipality or the County of Grey.

2.6 Fossil Protection

In the Town of The Blue Mountains, fossil protection is dealt with through the utilization of By-Law No. 2008-44, which provides for the management, controls, regulations, maintenance and usage of all parklands, trails, open space properties and other public facilities owned and leased by the Town of The Blue Mountains.

The ANSI is designated under the By-Law as an Environmentally Significant Area and is under public management by the Town of The Blue Mountains. Section 7.5 of the By-law pertaining to Hours and Code of Conduct, Injury and Damage, states that no person shall in any park:

“Destroy or remove any fossiliferous rock specimens”

Similarly, Section 10, states that unless authorized by a permit or otherwise, no person shall encroach upon or take possession of any park by any means whatsoever including;

a) The construction, installation or maintenance of any fence, storage shed, retaining wall or other structure of any kind;

b) Keeping of any composting receptacle or pile;

c) Placing of any string, wire, chain, rope or similar material; or,

d) Plantings, of any hedge, tree, shrub or garden on park property thereon.

3.0 Planning Review

3.1 Provincial Policy Statement

The Ontario Provincial Policy Statement (PPS; 2014) is issued under section three of the Planning Act and provides provincial direction for the efficient use and management of land and infrastructure.

Municipal Official plans in Ontario must be consistent with the policies of the PPS and all Planning Decisions must also be consistent with the policies of the PPS.

Policy 2.1.5 states that:

Development and site alteration shall not be permitted in e) significant areas of natural and scientific interest;
Policy 2.1.8 states that:

*Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5 and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.*

Because the Delphi Waterfront ANSI is identified as Provincially Significant the policies of the PPS apply to any proposed development in or adjacent to the ANSI.

### 3.2 County of Grey Official Plan

The Grey County Official Plan (2013) has been prepared for the whole county of Grey, and includes the following municipalities: Chatsworth, Georgian Bluffs, Grey Highlands, Hanover, Meaford, Owen Sound, Southgate, The Blue Mountains, and West Grey. In total, 11 goals endorse the key Mission Statement of the County; two of these goals are relevant to the development of the Management Plan for the Delphi Point ANSI.

Goal 2 of the Official Plan is to provide direction and assistance to municipalities within the county to ensure that environmental, social, public health, and economic considerations are considered and integrated within their planning process during decision-making and development. Goal 3 of the Official Plan is to minimize adverse impacts to the natural environment and to protect significant environmental features. Such features include the water quality of watersheds, archaeological sites, as well as sources of cultural heritage within landscapes.

The goals within the Official plan are further explained as objectives, which are broken down by Physical, Social, Environmental, Economic, and Administrative requirements.

Social objectives (section 1.6.2) encourage preservation, conservation, public accessibility and maintenance of natural, cultural or man-made historical or heritage features in local municipalities. Environmental objectives (section 1.6.3) aim to identify lands with environmental constraints and sensitive features. Once identified, the Plan will establish policies that protect, conserve, and provide ongoing maintenance and enhancement to these areas. Additionally, Environmental objectives will ensure development will not occur on lands with inherent environmental hazards, such as flood susceptibility or erosion.
Land Use Designations

As per Schedule A of the Grey County Official Plan, the land designation of Delphi Point is Recreational Resort Area. Settlement areas under this designation include lands developed to serve public interest by enhancing or adding to recreational and tourism activities provided by the Municipality.

Since the Recreational Resort Settlement Area is located within the Niagara Escarpment Plan boundary, policies for Escarpment Recreation Areas (Section 2.5.2) within the Grey County Official Plan as designated under Schedule A also apply.

Constraint Mapping

As per Appendix B of the Grey County Official Plan, the ANSI and area of Delphi Point are classified as containing Earth Science ANSI and Significant Woodland, respectively.

Development Policies

Significant Woodland Policy 2.8.4 (1) states that:

No development or site alteration may occur within Significant Woodlands or their adjacent lands unless it has been demonstrated through an Environmental Impact Study, as per section 2.8.7 of this Plan, that there will be no negative impacts on the natural features or their ecological functions. The adjacent lands are defined in section 6.19 of this Plan.

Notwithstanding the above, projects undertaken by a Municipality or Conservation Authority may be exempt from the Environmental Impact Study requirements, provided said project is a public work or conservation project.

Natural Function Policy 2.8.6 (3) states that:

No development or site alteration may occur within Areas of Natural and Scientific Interest or their adjacent lands unless it has been demonstrated through an Environmental Impact Study that there will be no negative impacts on the natural features or their ecological functions. The adjacent lands are defined in section 6.19 of this Plan.
In addition, Natural Function Policy 2.8.6. (5) states that:

No development shall be permitted within 30 metres of the banks of a stream, river, lake, or Georgian Bay. Where an Environmental Impact Study prepared in accordance with Section 2.8.6(4) of this Plan concludes setbacks may be reduced and/or where it has been determined by the appropriate Conservation Authority these setbacks may be reduced. Landowners are encouraged to forest the areas within 30 metres of any stream to maintain and improve fish habitat, ecological function of the stream and to increase natural connections.

As identified within Section 2.8, land widths of 50 m are considered adjacent lands from Significant Woodlands and Areas of Natural and Scientific Interest.

3.3 Town of The Blue Mountains Official Plan

The Community vision for the Town of The Blue Mountains is maintained by 14 guiding principals within the Town’s Official Plan (Section A1.1). Of the 14 guiding principals, three play a role in the development of the Delphi Point shoreline. The guiding principles are maintained by policies enforced by the Town of The Blue Mountains.

Guiding Principal Two of the Official Plan ensures that land-use planning decisions support and emphasize the town’s unique character, including diversity, civic identity, recreational based and rural life style, as well as natural heritage and cultural heritage. In addition, Guiding Principal Six aims to protect natural heritage features and areas, as well as their ecological functions for present and future generations.

Guiding Principal seven encourages the development of a wide range of recreational opportunities for the community that meets the needs of present and future residents. Section D.6.1 of the Official Plan, lists objectives for managing Public Parkland and Open Space. A priority of the official plan’s objectives is to ensure that parkland, including shoreline be acquired by the Town through the development process, and that environmentally sensitive lands be conveyed to public ownership to manage the long-term protection and integrity of the environmental function they provide.

Through the acquisition of parkland, the Town hopes to establish a continuous open space system that connects natural, cultural, and recreational land uses both within the Town and to adjacent municipalities under the Leisure Activities Plan (Section D6.2.1). Natural features are to be incorporated into the design of parkland whenever possible and should connect adjacent systems outlined by the Official plan (such as: trail systems, cycling routes, walkways, natural heritage corridors utility corridors; Section D6.3.1).
Land Use Designations

Schedule A of the Town’s Official Plan identify the ANSI at Delphi Point as a combination of Residential Resort/Recreational and Major Open Space. In addition, Schedule A consider lands of Delphi Point to be within the Niagara Escarpment Plan Boundary.

Constraint Mapping

Appendix 1 identifies the study area as a Provincially Significant Area of Natural and Scientific Interest natural heritage feature.

Appendix 1 includes a boundary indicating the 100 Year Flood Elevation within constraint mapping of Delphi Point and the ANSI. This boundary represents the 1% annual chance a flooding event within the subject area is subjected to being equaled or exceeded in any year.

Official Plan mapping for Land Use Designations and Constraint Mapping indicate that the Management Plan area falls within the Niagara Escarpment Plan (NEP) boundary.

Development Policies

Residential/Recreational
Residential/Recreational areas within the Town Official Plan are settlement areas extended along the Georgian Bay shoreline that can accommodate seasonal and permanent residential and recreational functions.

Permitted Uses (Section B3.7.3) within these lands include the construction of:

- *Single detached, semi-detached dwellings, Townhouses, and low-rise multiple units*
- *Accessory apartments*
- *Bed and breakfast establishments*
- *Home occupations*
- *Private home daycare*
- *Golf courses*
- *Recreational lands and/or facilities in appropriate locations (parks, open space, trail uses, equestrian facilities etc.)*

Landscape Analysis Development Policies within Section B3.7.4.3 state that:
Development proposals for a Plan of Subdivision, Plan of Condominium or other large development projects which are subject to site plan approval, shall be accompanied by a landscape analysis, prepared by a qualified professional, to address:

a) the suitability of the site for development;
b) the visual and physical complexities of the site, including areas of natural vegetation;
c) the measures proposed to ensure that the visual quality of the area is preserved and enhanced; and,
d) the proposed mitigation measures to avoid any adverse visual impacts, in a manner, which is consistent with the intent of this Plan to protect the open landscape character.

Major Open Space
Area identified as Major Open Space (Section B5.7) are available for use by all residents and non-residents within the Municipality. The Municipality maintains responsibility of these lands to minimize impacts to these areas to ensure residents of the Town have access to well designed parkland systems.

Permitted Uses (Section B5.7.3) of land designated as Major Open Space includes:

a) passive and active recreational uses including essential buildings or structures directly related to the use;
b) public parks;
c) conservation uses;
d) wildlife management;
e) interpretive centres; and,
f) forestry uses in accordance with good management practices and accessory uses.

Land Use Policy (a) of Section B5.7.4 states:

It is intended that lands designated Major Open Space be used in accordance with the management plans to be implemented by the body which owns and manages particular parcels.

Natural Heritage Features
The protection of natural heritage features is listed under Section B5 of the Official Plan. The intent of the Official plan is to maintain the ecological integrity of natural heritage features, areas and systems (including wetlands) for present and future generations.
Special Constraint Areas, such as Areas of Natural and Scientific Interest are identified in Section B5.5.1, however development and site alteration of or nearby these features must follow criteria identified within Section B5.2.1.

Under Section B5.2.1 (b):

\[ b) \quad \text{Development and site alteration shall not be permitted in:} \]
\[ i) \quad \text{significant woodlands;} \]
\[ ii) \quad \text{significant valley lands;} \]
\[ iii) \quad \text{significant wildlife habitat; and,} \]
\[ iv) \quad \text{significant areas of natural and scientific interest} \]
\[ \text{unless it has been demonstrated that there will be no negative impacts on the} \]
\[ \text{natural features or their ecological functions.} \]

Further, Section B5.2.1 states that for Earth Science ANSI, development and site alteration shall not be permitted within the boundary of natural heritage features or adjacent lands (50 metres) unless the:

\[ “\text{ecological function of the adjacent lands has been evaluated and it has been} \]
\[ \text{demonstrated, through an Environmental Impact Study (EIS), that there will be no} \]
\[ \text{negative impact on the natural features or their ecological functions.”} \]

Niagara Escarpment Plan Area
As stated in Section B6 of the Official Plan:

\[ \text{The land use designations and policies of the Niagara Escarpment Plan generally take} \]
\[ \text{precedence over local planning documents} \]

Further, Section B6 states:

\[ \text{In the event of a conflict between the policies of the Town’s Official Plan and the policies} \]
\[ \text{of the Niagara Escarpment Plan, those of the Niagara Escarpment Plan will prevail,} \]
\[ \text{unless the policies of the Town’s Official Plan are more restrictive, then the more} \]
\[ \text{restrictive policies will prevail.} \]

3.4 Niagara Escarpment Plan
Niagara Escarpment received national and international recognition as a UNESCO World Heritage Biosphere Reserve in 1990. The recognition was granted because the level of protection provided from land use planning and legislation met the criteria of the United
Nations. The Niagara Escarpment is protected by policies and designations of the Niagara Escarpment Planning and Development Act, and the Niagara Escarpment Plan (NEP). A total of 183,311 hectares ranging from Queenston to Tobermory are protected within the Niagara Escarpment Plan Area.

The Niagara Escarpment Plan (NEP), is a provincial environmental land use planning document that provides directives that protect the Niagara Escarpment Plan Area. The NEP ensures that development occurring within the Niagara Escarpment Plan Area is compatible with the natural environment and preserves the long-term integrity of the Escarpment lands. The protection and management of land use under Part One of the NEP is met under seven distinct designations.

**Land Use Designations**

Delphi Point falls within the Niagara Escarpment Plan Area (Plan Map 6 – Grey County) and is designated as Escarpment Recreation Area under the NEP (Section 1.8). The NEP acts to minimize negative impacts imposed by recreational development to the Niagara Escarpment. The designation compliments the goals of the Town of The Blue Mountains Official Plan, which encourages tourism and recreation in the surrounding provincial parks, trails, and lakeshore residential areas within the Craigleith-Camperdown region.

While Delphi Point is covered within the NEP, it is not within the area of Development Control Regulations, where a Niagara Escarpment Commission (NEC) Development Permit must be obtained prior to development. As a result, Municipal Zoning is in effect at the waterfront lands of Delphi Point.

However, lands of Delphi Point Municipal Park are classified as Escarpment Access Park and are apart of the Niagara Escarpment Parks and Open Space System (NEPOSS, Section 3.1.4). While the Town does not intend to extend the classifications of Delph Point Park to the adjacent waterfront lands of Delphi Point, relevant objectives identified of the NEP and NEPOSS are considered in the development of the Management Plan.

Under Section 3.1.4, Objective 1 of the NEP is to:

*To protect unique ecological and historic areas.*

Additionally, Objective 6 of the NEP states:

*To provide adequate public access to the Niagara Escarpment*
Further, Section 3.1.1 of the NEP lists the objectives of the NEPOSS. These objectives are:

1. To protect the Niagara Escarpment’s natural heritage resources and conserve its cultural heritage resources;
2. To provide opportunities for outdoor education and recreation;
6. To protect and enhance the natural environment of the Niagara Escarpment, including the protection of natural heritage and hydrologic features and functions;
7. To support tourism by providing opportunities on public land for discovery and enjoyment by Ontario’s residents and visitors;

Permitted Uses

Permitted Uses (Section 1.8.3) for lands designated by the NEP as Escarpment Recreation Areas include:

1. Existing uses.
2. Single dwellings.
3. Secondary dwelling units.
4. In ski centres, facilities such as ski runs, ski lifts, slide rides and toboggan runs that require the Escarpment slope.
5. Commercial development normally associated with a ski centre or a lakeshore residential area, such as marinas, lodges, retail stores and service establishments.
7. Trail activities.
8. Uses permitted in the Parks and Open Space System Master/Management Plans that are not in conflict with the Niagara Escarpment Plan.
9. The Bruce Trail corridor, including the pedestrian footpath and, where necessary, trail-related constructions (e.g., bridges, boardwalks), overnight rest areas and Bruce Trail access points.
10. Nature preserves owned and managed by an approved conservation organization.
12. Agricultural uses.
13. Agriculture-related uses and on-farm diversified uses.
14. Agricultural Purposes Only lot (APO lot)
15. Accessory uses (e.g., garage, swimming pools, tennis courts, ponds or signs).
16. Infrastructure.
Permitted uses within the Escarpment Recreation Area designation are subject to the Development Criteria in Part 2 of the NEP. The development objectives and lot creation policies of this designation, and the requirements of the applicable Official Plans and/or Secondary Plans and, where applicable, Zoning By-Laws that are not in conflict with the NEP.

Development Objectives

Development Objectives 9, 10, and 11 (Section 1.8.5) are relevant for the development of Escarpment Recreation Area at Delphi Point.

Development Objective 9 States:

_Growth and development in Escarpment Recreation Areas shall be compatible with and provide for:_

_a) the protection of natural heritage features and functions;_

_b) the protection of hydrologic features and functions;_

_d) the conservation of cultural heritage resources, including features of interest to First Nation and Métis communities;_

Development Objective 10 states:

_Recreational uses shall be designed to utilize existing site and topographical conditions. Minimum regrading, placement/excavation of fill and vegetation removal are allowed only if they are essential to the use and there are minimal negative impacts on the Escarpment environment._

Lastly, Development Objective 11 states:

_Municipalities are encouraged to pass sign by-laws to ensure that community character, open landscape character and scenic resources of the Escarpment are maintained and enhanced._

As stated in Section 1.8.6 of the NEP, as well as in Section B6 of the Town of The Blue Mountains Official Plan (mentioned in Section 3.3 of this document), amendments can be made to existing documents (Official plans, secondary plans, and by-laws) for Escarpment Recreation Areas, as long as no conflicts exist with policies and development criteria provided in the NEP.
3.5 Greenbelt Plan (2017)

The Greenbelt Plan (2017) permanently protects agricultural lands, as well as ecological and hydrological features, and areas and functions within the Greater Golden Horseshoe (GGH) by working with the Oak Ridges Moraine Conservation Plan and the Niagara Escarpment Plan (NEP). Together, the lands within the three plans are protected by a land use planning framework that identifies the limits of urbanization and where developments should occur.

Lands of Delphi Point are designated as Remaining Escarpment Designations (Appendix A) of the Niagara Escarpment Plan Boundary (Schedule 1), and therefore fall within the Greenbelt Plan. As such, the following section of the Greenbelt Plan is referenced.

Section 2.2, Lands within the Niagara Escarpment Plan Area states:

The requirements of the NEP, established under the Niagara Escarpment Planning and Development Act, continue to apply and the Protected Countryside policies do not apply, with the exception of section 3.3.

As noted previously, Section 3.3 of the Greenbelt Plan addresses the creation and maintenance of Parkland, Open Space and Trails within the Greenbelt to provide recreation and tourism to instill appreciation to cultural and natural heritage features.

Parkland, Open Space, and Trail Policies

The following policies of section 3.3.2 of the Greenbelt Plan should be adhered to by The Province, municipalities, conservation authorities, and non-government organizations:

1. Encourage the development of a system of publicly accessible parkland, open space and trails where people can pursue the types of recreational activities envisaged by this Plan, and to support the connectivity of the Natural Heritage System and the achievement of complete communities in settlement areas across the Greenbelt.

2. Encourage the development of a trail plan and a co-ordinated approach to trail planning and development in the Greenbelt to enhance key existing trail networks and to strategically direct more intensive activities away from sensitive landscapes.

3. Promote good stewardship practices for public and private lands within the Greenbelt, including clear demarcation of where public access is permitted.
In addition, policies within Section 3.3.3 should be adhered to by municipalities for lands within the Protected Countryside:

1. Provide for a full range of publicly accessible, built and natural settings for recreation, including facilities, parklands, open space areas, trails and water-based activities.

2. Develop and incorporate strategies (such as community-specific levels of provision) into official plans to guide the adequate provision of municipal recreation facilities, parklands, open space areas and trails.

3. Include the following considerations in municipal parks plans and open space strategies:
   a) Providing for open space areas for current and future populations and promoting stewardship of open space areas;
   b) Providing facilities, parklands, open space areas and trails that particularly support an active, healthy community lifestyle;
   c) Identifying key areas or sites for the future development of major facilities that avoid sensitive landscapes;
   d) Identifying and targeting under-serviced areas for improved levels of protection;
   e) Protecting the recreation and tourism values of waterfront areas as a high priority; and
   f) Supporting urban agriculture and other local food initiatives.

4. Include the following considerations in municipal trail strategies:
   a) Preserving the continuous integrity of corridors (e.g. abandoned railway rights-of-way and utility corridors);
   b) Planning trails on a cross-boundary basis to enhance interconnectivity where practical;
   c) Incorporating the existing system of parklands and trails where practical;
   d) Restricting trail uses that are inappropriate to the reasonable capacity of the site (notwithstanding the ability to continue existing trails/uses);
   e) Providing for multi-use trail systems which establish a safe system for both motorized and non-motorized uses;
   f) Protecting farmland and supporting and ensuring compatibility with agriculture; and
   g) Ensuring the protection of the key natural heritage features and key hydrologic features and functions of the landscape.

3.6 The Town of The Blue Mountains Corporate Strategic Plan, 2015 - 2020

The corporate Strategic Plan by the Town of The Blue Mountains identifies key goals to help achieve the needs of the community. The goals within the plan reflect the town’s long-term...
commitment to continual improvement and sustainability, while maintaining the towns unique features and motto of "recreation at its peak."

Over the five-year period of the strategic plan, the corporation devised five goals with strategic actions to be implemented by the municipality. One of the five goals involve the management of parks and recreation.

Goal three of the Town of The Blue Mountains Corporate Strategy is to recognize and preserve natural ecological features for future generations. To accomplish this, the Town will make informed and appropriate land use decisions that consider sustainability, to meet the needs of present and future residents.

4.0 Public & Agency Consultation

The following outreach initiatives were undertaken to notify the public, stakeholders, and First Nation’s regarding the development of the Management Plan for the waterfront Earth Science ANSI. More information relating to the public consultation conducted for the Management Plan can be found in Appendix A.

4.1 Public Consultation

4.1.1 Public Notification

Flyers advertising the development of the Management Plan for the waterfront earth science ANSI were sent to residents in May 2017. Flyers provided contact information where inquiries could be made, as well as information on when the first public information session was held.

4.1.2 Public Information Sessions

A public information session was held on June 28, 2017 to notify the public of the development of the Management Plan, discuss concerns regarding the protection of the ANSI, and to gain feedback relating to how the ANSI is currently used by residents. Flyers containing information regarding the public meeting were sent to residents in advance.

Residents included at the meeting included those inhabiting waterfront properties as well as residents of the Town who use the ANSI for recreational purposes. Additional stakeholders in attendance at the meeting included representatives from the Blue Mountain Resorts, as well as from developers for the Neighbourhoods of Delphi, Peaks Bay East, and Peaks Bay West. Feedback from attendees at the public information session was obtained through verbal conversation occurring at the meeting as well as through a survey.

In brief, key results from the attendee feedback and survey indicated:
• The maintenance of the ecological integrity of the ANSI is very important.
• The maintenance of invasive species within the ANSI is very important.
• Access to the ANSI is very important. Access to the ANSI is achieved primarily through Delphi Point Park, or from residential waterfront properties.
• There are alleged incidents of encroachment of private property onto ANSI lands from waterfront residents.

The survey was made available in hard-copy to attendees of the public information session, as well as online. All hard-copy and online survey responses were collected and reviewed by Skelton Brumwell and Associates. Attendees who expressed an interest in receiving information and updates regarding the Management Plan were added to a mailing list.

Sign-in sheets provided at the public information session indicated that representatives from the Ministry of Natural Resources and Forestry (MNRF) and Niagara Escarpment Commission (NEC) did not attend. However, consultation with these groups took place through subsequent correspondence.

4.1.3 Site Meeting with Waterfront Residents

Representatives from Skelton Brumwell and Associates attended a site meeting at the ANSI shoreline with waterfront residents from Peaks Bay East on July 21, 2017 at their request. The meeting was organized by Peaks Bay East residents.

The site meeting was intended to further discuss concerns regarding the protection of the geologic formations within the ANSI adjacent to residential properties, requirements for protection and proper stewardship of the ANSI, private versus private ownership, as well as current risks to the ANSI by residential properties and recreational activities.

4.1.4 Consultation with Blue Mountain Resorts

Representatives from the Blue Mountain Resorts noted that the ANSI lies within Municipality owned greenspace adjacent to resort beach property. While the ANSI and the beach property are not contiguous, further consultation was requested by the Resort in the event that the scope of the Management Plan extends further west to accommodate pedestrian trails and connections to adjacent trail systems.

4.2 Agency Consultation

4.2.1 Site Meeting with Ministry of Natural Resources and Forestry

A site meeting with a District Planner and Geologist from the MNRF took place on August 28, 2017 with representatives from Skelton Brumwell and Associates. The purpose of the meeting was to discuss the significance of the waterfront ANSI, the current state and condition of the
ANSI, as well as stewardship requirements recommended by the MNRF to the Town for the continued protection and maintenance of the ANSI.

The MNRF stated that the site is of National significance due to the rarity and condition of the site.

Based on conditions observed during the site meeting, it was recommended by the MNRF that the protection of the ANSI continue to fall under the responsibility of the Town of The Blue Mountains. Further, the MNRF recommended limited public access be permitted at the waterfront containing the ANSI, to ensure the long-term protection of the geologic formations.

4.2.2 Niagara Escarpment Commission

Email correspondence with a representative from the Niagara Escarpment Commission (NEC) confirmed the designation and development requirements of the study area, discussed earlier in sections 2.2 and 3.4.

It was emphasized during correspondence that consultation with the MNRF and NEC is required throughout the development of the Management Plan. The NEC is required to review and endorse the final draft of plans to ensure conformity with the NEP before review by the MNRF.

4.2.3 Grey Sauble Conservation Authority

Phone and email correspondence with Conservation Authority representatives provided background information regarding the contents of Tree Preservation Plans, past ecological land classification work performed within the study area, as well as the general history of development on the site. This information has been incorporated into the analysis and the recommendations of this report.

4.3 Engagement with Indigenous Communities

Representatives from Skelton Brumwell and Associates Inc reached out to Saugeen Ojibway Nation (SON) community throughout the development of the ANSI Management Plan. While community members were reached, none were available to comment on the content of the Management Plan. Engagement will continue to accommodate any culturally sensitive or additional ecologically significant features within the ANSI.
5.0 Delphi Point Earth Science ANSI Existing Conditions

5.1 Biophysical Setting

5.1.1 Topography

Elevation is consistently 175.8 metres throughout the area of the ANSI. Elevation increases as you move south, towards the north face of the Niagara Escarpment (located approximately 0.84 kilometres south of the ANSI and Georgian Bay). Topographic maps and notes documented from site visits to the ANSI confirm that the topography of the ANSI and area immediately surrounding the study area is relatively flat.

5.1.2 Geology

Formed during the Upper Ordovician, the Whitby Formation sits above limestone and shale (Lindsay Formation) and is found throughout Durham, York, and Simcoe Counties of Southern Ontario. In addition, the formation includes a continuous band extending from north of Lake Ontario to Collingwood and the Nottawasaga Bay (Barker et al. 1983; Hewitt, 1972).

Within this range, the Whitby formation is subdivided into Upper, Middle, and Lower categories. All categories consist of shale, ranging in colour and thickness. Green-grey shales ranging from 36 and 52 metres are typical of the Upper Whitby. The Middle Whitby is brown-grey shale ranging between 5 and 26 metres in thickness. Lastly, the Lower Whitby is the shallowest, ranging between 1.5 to 7 metres thick. The dark brown-black and calcareous shales of the lower Whitby are commonly mixed with raudstones, cannon pyrite, and grey limestone (Barker et al., 1983; Hewitt, 1972).

The bedrock of Collingwood, the Town of The Blue Mountains, as well as the waterfront study area of Delphi Point classified under the Lower Whitby Formation, and consists of a dark grey fossiliferous dolostone and bituminous shale (Hewitt, 1972; Verma, 1979; Tuffnell and Ludvigsen, 1984). The bedrock is consistently 10 metres thick throughout the area and is uniformly calcareous. The shale is exposed along the Georgian Bay waterfront of Delphi Point, exposing fossils of the Late Ordovician period (Hewitt, 1972; Verma, 1979; Tuffnell and Ludvigsen, 1984).

5.1.3 Fossils

As identified by Verma (1979), the fossils found at Delphi point are similar to those identified within the surrounding Craigleith area. Fossils embedded within the shale waterfront are approximately 445 million years old and represent aquatic marine animals which inhabited a warm shallow sea present in the area during the Paleozoic and Mesozoic periods.

Trilobites (arthropods) are the most abundant fossils found along the waterfront; the dominant triolobite species present include Pseudogygites and Triathrus (Verma, 1979; Tuffnell and
Ludvigsen, 1994). In addition, the waterfront contains three species each of Nautiloids (*Endoceras proteifome*, *Geisonoceras tenuistriatum* & *Spytoceras bilineatum*) and Gastropods (*Hormoroma genera*), as well as four species of Graptolites (primarily *Climacograptus*), five species of Pelecypods (genus *Ctenodonta*), and seventeen species of Brachiopods (Verma, 1979).

![Trilobite fossils in exposed bedrock within Delphi Point ANSI.](image)

5.1.4 Soil

Soils found within the study area belong to the Brighton Series, and are classified as grey-brown podzolic. The sandy soils, developed on lime sands, are well sorted and stone free. Within the study area a shallow overburden exists. The composition of podzolic soils consist of 7.5 centimetres of dark grey sand loams which fall above 25 – 30 centimetres of yellow-brown sand, 5 - 7.5 centimetres of red-brown sandy loam and grey calcareous sand, respectively (Gillespie and Richards, 1954).

Unlike adjacent areas, relatively no overburden exists along the Delphi waterfront and ANSI. Continuous wave action from Georgian Bay prevent the settlement of Brighton sands on the shoreline and expose a shelf of shale bedrock.

While the inland shallow soils are well drained, high volumes of surface water run-off can lead to ponding in areas.

5.1.5 Hydrology

Delphi Point and surrounding areas fall within the Southwest Georgian Bay Watershed, regulated by the Grey-Sauble Conservation Authority (Grey-Sauble Conservation Authority, 2013).
A review of well water records within the study area indicate the presence of groundwater at approximately 6 metres. Fresh water acquired from shallow wells within the study area are used for residential purposes (Ministry of Environment and Climate Change, 2017).

Surface and ground water flow north, following downward sloping topography to drain into Georgian Bay. The elevation decreases approximately 200 metres from the southward laying Niagara Escarpment to the waterfront area (Grey County Topographic Maps, 2017).

The Indian Brook River and its associated tributaries are the nearest natural watercourse to the study area (approximately 6 kilometres North-West of the Delphi Waterfront; Grey-Sauble Conservation Authority, 2013). While this river system has low riparian forest cover, results from the latest watershed report card indicate high surface water quality (Grey-Sauble Conservation Authority, 2013).

Three small recognized watercourses within the study area assist with the diversion of surface water run-off (watercourses 25, 26, and 27).

The watercourses are located similarly to three storm water drainage easements (one located on each end, as well as middle of the study area), which divert surface water run-off from Highway 26 and from neighbouring residential subdivisions northward to Georgian Bay (Grey-Sauble Conservation Authority Regulations Mapping, 2017). Restoration of the pavement surfaces and drainage of storm water catchment systems within and adjacent to the study area was last completed in 2016 (The Town of The Blue Mountains, 2016).
5.1.6 Shoreline Water Levels

To ensure the safety of ships navigating through the great lakes, a Chart Datum elevation reference is assigned to monitor shoreline water levels. For non-tidal systems like the Great Lakes, Chart Datum reference elevations are determined using The International Great Lakes Datum 1985 reference system. A Chart Datum is chosen to reflect the lowest safe water depth that provides optimal continuity for navigation within a body of water. The water level should rarely fall below the Chart Datum reference point (Fisheries and Oceans, 2017).

For Lake Huron-Michigan, the Chart Datum has been set at 176.0 metres. For safety, the preferred guideline dictates that the daily water level should not fall below 0.2 metres of the Chart Datum reference point during navigation (175.8 metres for Lake Huron-Michigan; Fisheries and Oceans, 2017a & b).

Seasonal fluctuations in water levels are normal; the annual range in shoreline water level is between 0.28 metres – 0.51 metres (Fisheries and Oceans, 2017a). Low shoreline water levels observed during winter months are considered typical. The majority of precipitation during colder seasons are contained as snow and ice.

During late spring, summer, and fall seasons, water levels rise in the great lakes due the increased collection of surface water run-off during periods of increased precipitation and seasonal snow melt (Fisheries and Oceans, 2017a).

Over the past 25 years, average annual water levels for Lake Huron-Michigan have not fallen below an elevation of 175.8 metres. As of 2013, there has been an increasing trend in annual average water levels for the Lake Huron-Michigan shoreline. Aerial photographs of Delphi Point provide further evidence of increasing water levels of Georgian Bay. Greater sections of the shale bedrock shoreline are exposed in photographs taken in 2006 and 2009, versus photos taken in 2014 and 2017. Cropped versions of aerial photographs for these years can be reviewed below:


5.2 Flora and Fauna Inventories

An inventory of the flora and fauna was completed within the ANSI.

The Ecological Land Classification System (ELC) was used to determine the composition of plant communities within the study area (Lee et al., 1998). The ELC system identifies communities within areas based on the plant species and an area’s physical characteristics. Keys utilized by the ELC consider the soil type, texture, and moisture content, in addition to what species are present, the amount of canopy cover and understory growth, site condition, level of disturbance and seasonal changes.

During multiple site visits, lists of vascular plant species present were identified to aid in designation of ELC ecosites, determine if rare or species at risk are present and to identify the presence of invasive and exotic species that may threaten the ecological integrity of the ANSI.

In addition, wondering transect surveys for birds were performed. The wandering transects took place in the breeding season, and accounted for residents and migratory species. All species identified by sight or sound during the survey were documented by experienced biologists. Wandering transect survey took place on June 14th and July 7th, 2017 and encompassed all habitats included within the study area.

No additional surveys were performed to determine the presence of mammal, reptile, amphibian or fish species within the study area, however incidental sightings, including tracks, calls, and scat, were recorded during all site visits.

In addition to conducting multiple site visits to identify seasonal changes to species communities, the following resources were consulted prior to site visits to ensure ecosite classifications were accurate for the study area:

- Review of historic aerial photographs
- Review of previous reports for the surrounding area, including Craigleith provincial park and Delphi Point Park
- Review of data present under the Natural Heritage Information Center, Ministry of Natural Resources and Forestry
- Review of data presented by interactive maps under the Department of Fisheries and Oceans and Ministry of Natural History and Forestry
- Review of soil, geology and topography of the study area available in maps completed by the Ministry of Natural Resources and Forestry
5.2.1 Vegetation Communities (ELC)

ELC classifies vegetation communities using alpha-numeric habitat codes; each code has a unique habitat description. The ecosites and corresponding codes identified for the study area by the ecological land classification system available for review in Figure 3, include the following:

**Great Lakes Coastal Meadow Marsh Ecosite;** Graminoid Coastal Meadow Marsh Type (MAM4-1) - The shale shoreline, including ANSI is best represented as a coastal meadow marsh. This area contains species tolerant of intermittent and prolonged flooding. Emergent hydrophobic macrophytes are the primary vegetation within this ecosite, rushes and reeds are the dominant vegetation and coverage is sparse. According to Lee et al., (1998), this ecosite represents the wetland – terrestrial interface. Coastal species were observed during site visits, which included Kalm’s St. John’s Wort (*Hypericum kalmianum*), Kalm’s Lobelia (*Lobelia kalmia*), Ohio Goldenrod (*Solidago ohionensis*), Prairie Loosestrife (*Lysomachia quadrifolia*), along with other wetland species such as Cattail (*Typha latifolia*), Rattlesnake Manna Grass (*Glyceria canadensis*), Hard-Stemmed Bullrush (*Schoenoplectus acutus*), Common Ninebark (*Physocarpus opulifolius*), and Speckled Alder (*Alnus incana)*.

**Anthropogenic** – Represents land disturbed by anthropogenic (i.e. human) causes and use. Site visits to Delphi Point, as well as responses from public surveys indicated that there are incidences of alleged encroachments onto the ANSI from private waterfront properties.

These encroachments, including the construction of private gardens, infrastructure supporting watersport equipment and recreational use, induce anthropogenic transformations to the vegetation communities within the waterfront and exclude native species. While incidences of encroachment were observed and mapped in Figure 3, further examination is required by the Town to confirm the extent of the impact to the ANSI.

5.2.2 Vegetation Survey Results

While the exposed shale shoreline offers little strata to support the growth of vascular plants and trees, there are areas within and surrounding Delphi Point that provide habitat for vegetation communities.

Plant species were observed and identified over three site visits. Site visits took place in spring, summer and fall seasons to accommodate the peak growth of different plant species and to ensure a complete species list was created for the area.
Non-Native Species

Exotic species were observed within the ANSI; however, the life history, current density, and distribution of these plants do not impose significant risks to the integrity of the ANSI or habitat surrounding the study area. The majority of these species identified consist of garden plants commonly grown in residential areas; the spread of these species is confined areas abutting residences and anthropogenically disturbed areas. Additional exotic plant species identified within the ANSI and surrounding study area include: sweet pea (*Lathyrus odoratus*), lily of the valley (*Convallaria majalis*) and common vetch (*Vicia sativa*).

Invasive Species

Of the 1200 alien plant species in Ontario, 121 are considered invasive. Invasive species are categorized by the degree at which they dominate habitats against native species. Invasive plant species requiring management within the ANSI study area include Purple Loosestrife (*Lythrum salicaria*) and Common Reeds (*Phragmites*; *Phragmites australis*).

Purple Loosestrife and Common Reeds are known to persist in shoreline and wet environments. When unmanaged, the two species dominate all areas within habitats prohibiting growth of native species. The impacts of these species are well known.

Common reeds are classified as restrictive species under the section 4 of the Invasive Species Act (2015). Under section 8, no person shall bring common reeds into provincial parks or conservation reserves. It is also prohibited to release restricted invasive species in Ontario under section 8 of the Act.

While both Common Reeds and Purple Loosestrife were observed within the ANSI, the overall density and coverage of growth for these species was low. Limited substrate is available within the exposed shale shoreline, inhibiting the growth of all plants. Vegetation growth may increase in this area overtime, as water levels increase and detritus is permitted to cover the exposed shale.

5.2.3 Wildlife and Wildlife Habitat

**Bird Species**

As described previously, a wandering transect survey was performed on June 14 and July 7, 2017 to identify resident bird species within the ANSI and immediate surrounding study area. During the survey, all species, as well as the numbers of each seen and heard by surveyors were
recorded. To maximize the number of species identified, the transect included all habitats found within the study area.

In total, 32 species of birds were identified within the study area. A list of all species can be reviewed in Table 1. The species identified are commonly associated with open, semi-open aquatic habitats as well as canopy habitats and forest edges identified earlier by the Ecological Land Classification system (ELC).

The most abundant species found throughout the open shoreline and ANSI study area include ring-billed gulls (Larus delawarensis) and spotted sandpipers (Actitis macularius). The sparse vegetation on the shale bedrock shoreline provides limited nesting habitat for ground nesting shorebirds. Both shore bird species identified on site are known to feed within open waters along shorelines, such as those found within the study area.

Species frequently noted in semi-open shrub land surrounding the ANSI include red-winged blackbirds (Agelaius phoeniceus), song sparrows (Melospiza melodia), american goldfinches (Spinus tristis), and killdeer (Charadrius vociferous). The open shrub habitat, including rock and driftwood debris, provide good habitat for low-nesting and ground nesting species. Vegetation included within this habitat (millet, thistles, goldenrod) also provide food for the species listed above (with the exception of insectivorous killdeer).

**Avian Species at Risk**

While the majority of birds identified on the study are commonly found throughout Southern Ontario, two of the species documented during the wandering transect (bald eagles and barn swallows) are currently listed under the Ontario Endangered Species Act (2007). The Committee on the Status of Species at Risk in Ontario (COSSARO), identify bald eagles and barn swallows as of Special Concern and Threatened, respectively (Schedules 4 and 3, O.Reg 230/08, 2007).

As a species of Special Concern, bald eagles (Haliaeetus leucocephalus) are not considered endangered or threatened. However, if a combination of identified threats persists, the species is at risk of becoming threatened or endangered. Special Concern listed species and their habitats do not receive protection but are monitored by recovery plans developed by the Ministry of Natural Resources and Forestry to prevent further population decline.

During the wandering transect survey, adult bald eagles were seen perched in mature trees along the shoreline of the study area. While the shoreline of the study area offers feeding habitat for bald eagles, surveyors noted that no breeding behaviours were observed by the birds, and no nests were seen within the study area at Delphi Point or in the surrounding areas, nor is nesting habitat present in the ANSI.
As a Threatened Species, barn swallows (Hirundo rustica) are at risk of becoming endangered if identified threats to the species continue. Threatened species are protected from harm and harassment, and damage or destruction to their habitats is prohibited. Multiple barn swallows were seen feeding throughout the ANSI and open shrub habitat of the study area, however no nests or breeding behaviour were observed during surveys of the site, nor is any nesting habitat available.

Mammals

Fresh white-tailed deer (Odocoileus virginianus) and raccoon (Ursus lotor) tracks were observed in the municipality owned greenspace adjacent to the ANSI and shoreline.

Additional mammal species, such as eastern cotton tail, skunk, opossum, are also likely species found in the study area due to their prevalence/success in urbanized areas and recreational. None of the species identified or suspected to inhabit the study are listed under the Ontario Endangered Species Act.

Amphibians

Calls of green frogs (Rana clamitans) were heard during the wandering transect survey within the municipality owned greenspace adjacent to the ANSI waterfront. In addition, a single American toad (Anaxyrus americanus) was observed within the same habitat. Neither species observed is listed under the Species at Risk Act or the Ontario Endangered Species Act.

Reptiles

Two observations were made for the Eastern Gartersnake (Thamnophis sirtalis sirtalis) within the study area during site visits, the open canopy and wood debris within the municipality owned greenspace and the ANSI provides good habitat for basking and nesting snakes. Previous natural heritage reports by the Ministry of Natural Resources and Forestry indicated that eastern milk snakes (Lampropeltis Triangulum) have been documented within the study area (last observed in June, 1995). This species of snake is listed as of Special Concern under the Endangered Species Act.

Fish

No fish species were observed along shallow waters of the shale shoreline in Georgian Bay; the exposed bedrock immediate shoreline does not contain detritus or vegetation to provide good fish habitat. A review of the Department of Fisheries and Oceans Aquatic Species at Risk
5.2.4 Conclusions

The findings of the desktop literature review and site surveys indicate that the waterfront study area at Delphi Point, containing the earth science ANSI, does not contain significant habitat for plant or animal species at risk. No plant species at risk were documented at Delphi Point. While bird and snake species at risk have been observed within and surrounding the ANSI, there are few areas within the shale shoreline that provide significant breeding or feeding habitat.

Invasive species present within and surrounding the ANSI include two restricted species (Common Reed and Purple Loosestrife). While the exposed shale provides limited opportunities for vascular plant species to grow, long-term ongoing maintenance will be provided by the Town to prevent encroachment of these species at Delphi Point. Initiatives may also include the maintenance of additional alien plant species present within the study area.

5.2.5 Existing Anthropogenic Features

The subsequent features are present within the study area and provide the following functions and restrictions:

- Seven waterfront residential properties are currently located adjacent to the shoreline. One of these properties is located between the Neighbourhoods of Delphi and Peaks Bay West; This property owns the adjoining section of waterfront and corresponding ANSI area within the property boundary. Six additional waterfront residences are located within Peaks Bay East.

- Gardens, recreational sporting equipment, and private yard materials and possessions have been alleged to encroach onto ANSI limits from waterfront residents, however further confirmation regarding all encroachment allegations be required.

- Drainage channels divert storm water from Highway 26, residential areas, roads, and parking lots into Georgian bay. Three channels are located on both east and west boundaries, as well as in the middle of the study area. These drainage culverts cross the ANSI on the path to Georgian Bay.

- Delphi Point Park is located directly east of the study area and contains a section of ANSI available for public access. The park provides the public with a parking lot and trails for
public recreation and access to Georgian bay. The park has been made accessible under the Accessibility for Ontarians with Disabilities Act, 2005 (AODA).

6.0 Current Access to Delphi Point

6.1 Vehicular Access

No vehicular access is provided to the public at Delphi Point. Parking is only available to the public at Delphi Point Park.

6.2 Trail Access

Existing Trails

Official public access does not exist along the shoreline of Delphi Point; however, the study area and ANSI are utilized frequently by Delphi residents as a walking trail.

Shoreline and ANSI access is achieved primarily through Delphi Point Park (796401 Grey County Rd 19, The Blue Mountains, ON L9Y 0N8). Located along highway 26, Delphi Point Park provides parking, facilities, and maintained city trails through a naturalized woodlot and picnic areas. Trails within the park also provide access to the waterfront and shale shoreline of the ANSI.

Trails within Delphi Point Park connect to the Georgian Trail through the Len Gerter Memorial Loree Forest (managed by the Ontario Ministry of Natural Resources and Forestry). The Georgian trail extends from the east end of Collingwood’s Harborview Park western to Meaford Harbour along highway 26. The Georgian trail connects several public recreational areas, including Northwinds Beach, Craigleith Provincial Park, as well as Bayview Park.

Waterfront Residents

Access is also achieved by Delphi lakeshore residents who own properties backing onto the shoreline and ANSI.

6.3 Trail Options

The following access points and options for connectivity were reviewed for the purpose of exploring potential waterfront trails within the ANSI.
Access options

- Access to the east side of the ANSI is currently achieved through existing trails and shoreline areas of Delphi Point Park.

- Conditions of the Subdivision Agreements and owner agreements within the Tree Preservation plan (TPP) for residents of Peaks Bay East do not apply to Lot 5; a drainage easement is located immediately west of the property boundary of Lot 5. Visitors can access the east section of ANSI north of Peaks Bay East by foot by following the municipality drainage easement north to shoreline.

- Access for visitors to the west end of the ANSI could be achieved through municipality owned greenspace north of the Neighbourhoods of Delphi.

Connectivity

- The east end of the ANSI can connect to the Georgian Trail through Delphi Point Park. Delphi Point Park trails are already connected to the Georgian trail through Len Gerter Memorial Loree Forest.

- The west end of the ANSI could potentially connect to the Georgian Trail through municipality owned greenspace adjacent to the Neighbourhoods of Delphi (same as access point). Signs and signalling will be required at the entry point of the Georgian trail to notify visitors of the connection; highway 26 lies between access/connecting points.

No options exist to connect the east and west sections of ANSI, currently separated by privately owned lands.

7.0 Encroachment of Private Property

As mentioned previously in section 5.2.1, there are alleged incidents of encroachment from private waterfront properties onto the Delphi Point ANSI shoreline owned by the Municipality. Property lines of the Town’s waterfront lands are designated as the High-Water Mark. Since no deed for the property is available for review, it is assumed that property boundaries of the Town will vary with fluctuating water levels of the lake. In most cases the ANSI falls below the High-Water Mark onto Town owned lands. Observed alleged encroachments of landscaping include the construction of gardens, and placement of infrastructure for private recreational use and access to Georgian Bay.
The encroachments violate the agreed to development conditions and requirements including restrictions on title to adjacent private lands. The encroachments also violate planning requirements and relevant by-laws intended to protect the environmental features as well as control activities on public lands. Unauthorized use of, and alterations to, municipal lands create serious liabilities and legal concerns for the municipality and it is therefore recommended that the municipality take steps to fully enforce the existing requirements including the removal of any unauthorized works and restoration of site conditions.

Part 3 – Management Plan Requirements

8.0 Opportunities for Delphi Point

To determine appropriate actions for the long-term management of the ANSI, a list of potential uses for Delphi Point Park were developed using information collected from the literature review of planning policies, natural history, field surveys, as well as from feedback collected from the public and agencies.

8.1 Potential Alternatives

The following potential options for the management of Delphi Point and the ANSI were determined through the assessment of goals and objectives of the Town’s Official Plan and Corporate Strategy, Policies within the Niagara Escarpment Plan, Grey County Official Plan, and Provincial Policy. In addition, conditions which would negatively impact the valuable fossils of the ANSI were considered to arrive at the following three alternatives to a management approach for the ANSI:

1. Installation of a Waterfront Trail Extension

2. No Permitted Access to the ANSI

3. Limited Permitted Access to the ANSI ("as is" scenario)

The table below examines each of the proposed alternatives, providing a brief description, a list of requirements for each, as well as an assessment of pros and cons.
1.0 Installation of a Waterfront Trail

Description

An extension of recreational trail should be constructed to permit public access to the ANSI shoreline. Access to the east end of the trail would be achieved through the parking lot and existing trail system at Delphi Point Park. However, no access could be provided to the ANSI on the west end, where publicly owned greenspace and ANSI are separated by privately owned land.

Interpretive signs, facilities, and boardwalks would be provided to the trail to encourage use, promote education and appreciation of the fossils, and to ensure accessibility standards are met.

Requirements:

- Installation of a boardwalk to keep visitors above the broken shale to improve accessibility and reduce incidences of slipping in wet weather.
- Access points and development of adjacent municipal land may be required to achieve connectivity to east and west ends of the ANSI.
- Installation of trash cans and implementation of regular maintenance. Maintenance schedule should match existing schedule to that of Delphi Point Park.
- Maintenance required for removal of noxious and invasive species – maintenance schedule should match that of Delphi Point Park.
- Installation of signs for interpretation and education to inform public of valuable ANSI fossils.
- Installation of signs for By-Laws to notify and warn visitors of By-Laws that protect fossils and vegetation.

Pros:

- Adheres to goals in the town official plan, corporate strategy, and the NEP
  - Provides additional recreational activities for public
  - Provides additional public access to the waterfront
  - Promotes education and appreciation to ANSI fossils
- Can be easily connected to existing trails – broaden network of trails offered by the Town of The Blue Mountains

Cons:

- Increased risk to visitors due to high water levels and uneven and flooded shale
- Increased risk of damage to ANSI due to promoted access and high visitor traffic, poaching of fossils, and construction of boardwalk on ANSI
- Increased resources and staff required for maintenance of waste, vegetation removal, repairs of boardwalk.
- Limited access in Winter due to ice and snow – increased safety risk to visitors
- Temporary construction on waterfront will occur near residential homes causing temporary disruption and inconvenience, and may impact the ANSI
2.0 No Permitted Access to the ANSI

No access to the shoreline would be permitted by the public to provide maximum protection to the ANSI and the valuable fossils.

Requirements:
- Enforcement and monitoring to ensure restrictions are met by public.
- Regular maintenance for the removal of invasive species within the ANSI.
- Required online species inventory and special access request for fossil research.
- Restrict all public access including current direct access from adjacent lots.

Pros:
- Protects ANSI from most, if not all damage from visitors, and waterfront residents
- Traffic within ANSI will be far less than promoted access
- Provides limited education and research opportunities for researchers

Cons:
- Reduces trails available to public – goes against goals and objectives of the Town’s Official Plan and Corporate Strategy
- Reduces ability to educate and inform public/visitors of rare fossils
- Inhibits waterfront residents from accessing Georgian Bay from their properties
- Will require significant enforcement efforts on an ongoing basis

3.0 Limited Permitted Access with Protection and Enforcement Measures

Limited permitted public access would be available to the ANSI; however, no signs would encourage or advertise access to the ANSI by the public. The public would be able to access the shale shoreline when water levels are low. In addition, no facilities, waste receptacles, or maintenance would be provided at the shoreline; facilities would remain accessible at Delphi Point Park. Interpretive signs would be made available to the public to promote education and appreciation. Signs would also inform visitors of protection and enforcement measures in place by listing relevant By-Laws that protect the fossils and vegetation.

Requirements
- No access signs will be provided to discourage access to the ANSI.
- No trails or boardwalks will be built along waterfront.
- No waste receptacles, facilities, or maintenance will be provided along the shoreline.
- No new access points will be provided.
- Signs will be installed to educate and inform residents and visitors of valuable fossils.
- Required online species inventory and special access request for fossil research.
**Pros:**

- Meets requirements of Town Official Plan and Corporate Strategy
- Requires little resources for upkeep and maintenance
- Allows public to access lands and Georgian Bay
- Provides educational opportunities to public and researchers
- Allows waterfront residents to access Georgian Bay from their properties
- Low impact of walking without trail or boardwalk will not negatively impact ANSI
- Traffic to ANSI will be far lower than promoted public access

**Cons:**

- Visitors may be at risk due to high water levels, slippery bedrock – Access for emergency vehicles is only available at Delphi Point Park - some signage may be required to warn of potential hazards
- Trail is not officially connected to existing trail network systems in the Town and the Niagara Escarpment
- ANSI fossils are subjected to some damage and negative impacts due to public access and unauthorized removal

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### 8.2 Common Recommendations

Regardless of the management option selected, to common recommendations have been identified as follows:

- The ANSI should remain under the public ownership and management of the Town to ensure its long-term protection;

- Municipal investigation of alleged property encroachments and appropriate enforcement action to remove encroachments and restore the lands;

- Regular monitoring and enforcement of development restrictions and conditions as well as Town By-Laws; and

- Regular maintenance/removal of invasive species.

These recommendations are made with respect to:

- proper protection of the ANSI and shoreline environment;
- appropriate management of public lands; and
- Municipal liability management.
8.3 Conclusions

The information obtained within Part 2 of the Management Plan as well as analysis of potential options for management present three primary findings:

1. Fossils within ANSI are valuable and require protection.

2. There are safety concerns for providing public access to the Delphi Point shoreline and ANSI due to increasing lake levels within Georgian Bay.

3. Allegations of the encroachment of private property onto the ANSI requires confirmation and enforcement action by the Town to protect the ANSI and limit municipal liabilities.

As such, the Management Plan should focus its efforts to develop actions in accordance to option three, which offers “Limited Permitted Access with Protection and Enforcement Measures in Place”.

Due to the value and fragility of the ANSI fossils, use of the area should be restricted: No one should be permitted to walk within the ANSI. However, goals and objectives identified by the Town, as well as existing agreements in place with waterfront residents currently warrant access to the waterfront. If access is limited to residents of Delphi Point, the level of traffic imposed to the ANSI will be far less than that of a promoted public access scenario under Option 2.

9.0 Implementation

Following the community vision and guiding principals of the Official Plan for the Town of The Blue Mountains, the Delphi Point ANSI Management Plan should set out a goal and corresponding objectives that protect the natural environment, provide appropriate public access to recreational lands, and limit municipal liabilities.

9.1 Goal

To provide protection to the ANSI, ensuring the long-term integrity of fossil formations for the future generations in the Town of The Blue Mountains while at the same time providing an appropriate level of public access and control of municipal liabilities.

9.2 Objectives

There are two appropriate primary objectives for the use and management of the Delphi Point shoreline and ANSI in the context of this goal. These objectives are set out with the intent of
ensuring the protection of natural features, and providing education opportunities and heritage appreciation.

9.2.1 Protection of Natural Features

To reduce negative impacts to the shale shoreline containing fossil formations and provide limited appropriate access.

This objective would be achieved by the following actions:

- Protection of the ANSI should be strengthened and enforced through the amendment of existing municipality by-laws.
  - By-laws should specifically offer protection to the fossils and ANSI area, prohibiting access and damage to shale, as well as prohibiting the removal of fossil specimens.

- Public access to the shoreline should remain limited to reduce negative impacts to fossils within the earth science ANSI.
  - Limited access to the shoreline will reduce physical damage to shale occurring from frequent visits.
  - Reducing public access to the ANSI will also prevent further reductions to fossil abundance through removal.

- No development should be permitted to support public recreation to the shoreline, as the construction of infrastructure will likely will impose negative effects to the ANSI.

- Management strategies should be implemented to reduce impacts to the ANSI from the encroachment of invasive species at the Delphi Point.

- The ANSI should remain under the public ownership and management of the Town to ensure its long-term protection;

- Municipal investigation of alleged property encroachments and appropriate enforcement action to remove encroachments and restore the lands;

- Regular monitoring and enforcement of development restrictions and conditions as well as Town By-Laws; and

- Regular maintenance/removal of invasive species.
9.2.2 Education/Heritage Appreciation

To provide information regarding the unique geologic formations of the ANSI and encourage an appreciation for the *sensitive natural heritage* of the Town of The Blue Mountains.

This objective would be achieved by the following actions:

- Resources pertaining to the species richness and species diversity of fossils (Museum specimen archives, digitized information, etc.) should be provided to researchers.

- Information regarding the ANSI should be made accessible to the public by the Town.
  - Data and information should include natural history pertaining to the ANSI, as well as policies ensuring their protection.
  - Information should be available on interpretive signs installed at the ANSI, adjoining to Delphi Point Park.
  - Information should be available in digital formats for review offsite and should be made accessible on the Town’s website.

- Permits from the Town should be provided to researchers and school groups requesting access to the ANSI upon notification and approval.
  - Access should only be permitted when external resources and fossil information provided do not accommodate the needs of the study.

9.3 Priorities

To most effectively achieve the stated goal and objectives a series of priorities are set out below.

1. Protection of the ANSI should be strengthened through an amendment to existing sections of By-Law No. 2008-44 to specifically protect fossils within the ANSI from removal and other negative impacts.

2. Notifying residents of the Town of The Blue Mountains of the limited access recommendation. Primary groups of people involved in the consultation process (waterfront residents at Delphi Point, as well as other community members who provided their contact information) should receive notices regarding the Town’s decision. Information should also be posted on the Town of The Blue Mountains Website, and notices should be advertised within public newspapers.
3. Investigation of alleged encroachments onto municipal property and appropriate enforcement action and restoration to protect the ANSI and associated shoreline environment and to limit municipal liabilities.

4. Implement a schedule for the management of invasive species at Delphi Point. The schedule should include seasonal monitoring for purple loosestrife and common reeds, as well as the periodic removal of invasive species if required. This initiative should also provide the public and waterfront residents with information regarding the identification and removal of invasive species to increase awareness, reporting, as well as reduce the encroachment of garden plants from neighbouring plots within the ANSI.

5. Provide for appropriate education and appreciation of the ANSI. This should be established through creating resources for public use, such as species inventory lists, references to museum samples and options for school groups to attend supervised visits to the ANSI. These resources should be managed by the Town of The Blue Mountains and should be advertised on the Town’s website.

6. Placement of signs within the boundaries of the ANSI to educate and notify visitors of access limitations and applicable by-laws. Signs installed should identify the boundary of the ANSI and should identify which species of fossils are present. Signs should also identify what by-laws are in place to prohibit damaging activities to the ANSI and removal of fossils to the notify visitors of potential hazards present at the shoreline. Signs should also warn visitors of potential shoreline hazards and encourage responsible use of public lands and respect for adjacent private property.

Further information regarding implementation of the goal, objectives and priorities recommended by the management plan are set out in the following sections of the report (Sections 11 to 15).

10.0 Protection of the ANSI

The two municipal By-Laws are in force within the Town of The Blue Mountains and place restrictions on activity within the area of the ANSI.

10.1 Enforcement

10.1.1 Fossil Protection

Once necessary amendments to the current By-Law (No. 2008-44) are made by the Town, the Director shall enforce prohibitions under Section 2.5 by undertaking the following actions:
• Post signage of the regulation where applicable, to provide warnings, or restrictions to the public regarding the use of or permitted activities within the park, trail, or open space.

• Accept the submission of applications for restricted activity under the by-law. Applications are to be approved by Council.

Under By-law No. 2008-44, police officers, provincial offences officers, municipal law enforcement officers, or any employees of the municipality designated by the Director are authorized to inform any person of the provisions of this by-law.

To ensure the long-term protection of fossils, additional signage will be placed at the borders of the ANSI to warn visitors of restrictions to activities occurring within the area. In addition, frequent and regular monitoring of the ANSI will occur to ensure public adherence to the By-Law.

10.1.2 Tree Preservation

Additional protection of the ANSI can be provided through continued enforcement of the Tree Preservation By-Law (BY-LAW No. 2010-68), including regular monitoring and inspection of the ANSI by Municipality staff.

Under the By-law, an officer may carry out an inspection on any land to which this By-Law applies, once producing a certificate of designation. If a person is found guilty of an offence and is found liable upon conviction, the following fines are applicable:

First conviction: $10,000.00 or $1,000.00 per tree

Second conviction: $20,000.00 or $2,500.00 per tree

Once convicted, the court may order the charged person to replant or have trees replanted, as well as provide any required silviculture treatment to the area under inspection.

10.2 Restricted Access to the Waterfront and ANSI

The existing trail along the drainage course, adjacent to the west side of Delphi Point Park provides limited access to the waterfront, which should be enhanced. The development of a trail/path is permitted in this area through the existing tree preservation zone because of previous damages cause to vegetation within Lot 5 by a tornado in 2009. Natural materials should be used in the construction of the pathway to match the Town’s character and existing
biodiversity present at the shoreline. Planting of native species will occur at the opening of the trail at the waterfront to prohibit access to the protected area.

The pathway/trail originates at Ellis Drive and terminates at the headwall of the subgrade drainage ditch. Currently, the grade from Ellis Drive to the top of the headwall is ~3%, which is acceptable under the AODA as an accessible trail. Informal access to the shoreline exists on the west and east sides of this trail. The western access is achieved through users crossing the open drainage ditch, while the eastern access provides a subtler grade to the waterfront. As access through the drainage course should be discouraged, access should be improved to the east. This access is currently ~12% grade and of a surface that is not accessible under the AODA.

Waypoint signs will be installed at each end of the trail. Signage requirements of the *Illustrated Technical Guide to the Accessibility Standard of the Design of Public Spaces* (2014) should be implemented by the Town. These requirement state that the sign notify users of the trail surface trail widths, and average and maximum slopes to assist trail users in deciding if the trail is appropriate for their needs.

Given the erosive nature of the shoreline, as well as the ecological and cultural significance, the maintenance of an AODA compliant trail access to the shoreline area is not advisable. AODA compliant access should be provided to the headwall and improvements should be made to this area to provide a viewing platform. Signage should be provided at wayfinding points 1 and 2 that provide detail about

- The slopes and surface conditions that will be encountered;
- The trail linkage opportunities in each direction;
- Approximate distances to the next trail intersection; and
- Information about the ANSI.

A cross-section of the proposed pathway along the drainage easement can be reviewed in Figure 4. No public parking is permitted on Ellis Drive to access the proposed pathway along the drainage easement; this information will be included in Waypoint signs. Figure 4 illustrates a proposed barrier to prevent pedestrian access to the west through the drainage ditch. The recommendation to limit access to the west and install appropriate signage to direct pedestrian traffic is intended to eliminate pedestrian access through the ditch. The success of these measures will be monitored. If pedestrian access through the ditch is successfully curtailed a barrier will not be necessary. However, if pedestrian access continues through the ditch a barrier will be required to reduce the potential for trespass and land use conflicts as well as for safety reasons.
Figure 5 contains an additional cross-section which describes public access to the waterfront areas adjacent to the ANSI at different shoreline levels. To ensure public safety, no access will be permitted to the shoreline during periods of snow, ice, or high water. Permitted and cautionary access will be available to the public during dry periods or periods of low water, respectively. The public is to use the shoreline at their own risk; caution should always be taken by visitors to the shoreline due to the sharp, slippery, broken shale.

11.0 Education and Public Outreach

11.1 ANSI Research Opportunities

To support future research on the ANSI, the Town of The Blue Mountains should create a catalog of existing geologic formations in collections at the Royal Ontario Museum. In addition, a repository should be made to provide researchers with information regarding each fossil type found within the ANSI, as well as information of where examples of each fossil type are located in museum collections. With proper notification and approval, the Town should provide visiting researchers permits to access the shoreline to perform studies on the ANSI and fossils.

11.2 Signage and Interpretive Features

As mentioned previously (under section 10), the integrity of fossils and preservation of vegetation should be enforced through Municipal By-Laws and other legal avenues related to management of public lands.

To ensure that the public acts within the requirements of the By-Laws, additional signage should be posted along the borders of the ANSI and access areas notifying visitors that the removal of fossils and vegetation from the ANSI is prohibited. Signs should also identify the broken shale areas, and request visitors to stay off shale to reduce damage to the valuable fossils and avoid potential shoreline hazards such as the broken shale, slippery rocks, flooding and wave action.

Since limited access should be provided and no new trails should be constructed in the ANSI shoreline, no signs should be installed to direct public access to the area adjacent to the private lots west of the current park boundary.

To accomplish the educational objectives outlined by this plan, interpretive signs should be installed at the borders of the ANSI near Delphi Point Park to inform the public of the types of fossils present in the shale shoreline. Interpretive signs should contain samples of each fossil species, which should allow visitors to observe pristine examples of specimens without entering and disturbing the ANSI.

A total of three signs should be installed at the ANSI: one interpretive sign for educational purposes and two signs notifying the public of Municipal By-Laws and potential site hazards.
11.3 **Online Information**

Additional web pages on the Town of The Blue Mountains website should be created to provide information to the public regarding the natural history of the ANSI, as well as policies ensuring their protection. Natural history information included on the town website should include downloadable PDFs of Geology and Fossil information from Craigleith Provincial Park (subject to permission from the MNRF).

11.4 **Permits for Research and Educational Visits**

With proper notification, the Town should approve and provide permits that allow supervised visits to the ANSI for researchers, school groups, or clubs. For certain circumstances, visits should be supervised by knowledgeable municipal staff.

12.0 **Safety/Liability**

The safety of residents and visitors is the primary concern of the Town of The Blue Mountains.

Increasing lakeshore levels and seasonal flooding at the shoreline cause shale to become slippery. Since stable walking conditions are inconsistent within the shale shoreline at Delphi Point, no additional trails or access should be provided to the ANSI. Current public trails to the ANSI should not exceed the boundaries of Delphi Point Park; emergency responders should have close access to the ANSI shoreline through the Delphi Point Park parking lot. Signage should contain appropriate information to inform visitors of potential hazards.

13.0 **Accessibility**

Accessibility enables persons with disabilities to use facilities and areas without assistance. Due to the conditions of the subject lands and recommended limited access, no accessibility should be offered within the boundaries of the ANSI at Delphi Point. Partial access to the ANSI (including wheelchair access to trails, picnic tables, and washrooms) is currently offered through infrastructure at Delphi Point Park. In addition, the design and development of the second access trail along the drainage easement should accommodate wheelchair access. This is sufficient to meet accessibility requirements related to public access to this feature.

14.0 **Maintenance**

14.1 **Waste Management**

In an effort to reduce access to the ANSI, no waste receptacles should be added to Delphi Point. Waste management operators should not be required to frequently walk within the ANSI to retrieve waste. By reducing the frequency of required visits, valuable fossils within the ANSI should be subjected to less damage. Visitors to Delphi Point can appropriately and adequately dispose of trash at receptacles available at Delphi Point Park.
14.2 Facility Maintenance and Repair

No facilities should be provided to the ANSI, as access to Delphi Point should be limited. By removing the need to maintenance facilities, fewer negative impacts will be imposed onto the valuable fossils since less traffic and equipment will be required to visit Delphi Point.

14.3 Vandalism

Since access to the site should be limited and no facilities should be provided to Delphi Point, vandalism is not anticipated to be a major problem at the ANSI. The proposed limited private access to the lands will assist in control of vandalism by promoting an appropriate level of public monitoring of activities on the lands.

14.4 Invasive Species Management

Invasive species do not pose an immediate threat to the ANSI, as the current density and distribution of species observed was low. The sparse distribution of these plants can be attributed to low levels of substrate available on the exposed shale shoreline. As water levels of Georgian Bay continue to increase and periodically cover the exposed bedrock, it is expected that detritus will settle and form larger areas of substrate for invasive species to colonize.

The ANSI and surrounding area should be monitored every three years to document changes in vegetation coverage. If the coverage and density of vegetation increases, removal strategies should be implemented by the Town.

Monitoring and removal initiatives should be coordinated to follow those currently existing for Delphi Point Park. To implement monitoring strategies, staff should be required to inspect the ANSI and mark the presence of any invasive species.

Requirements for removal strategies should depend on the density and cover of invasive species within the ANSI. In general, budgets should consider the costs required to hire trained staff, clothing and personal protective equipment (gloves, boots, glasses), opaque garbage bags, and basic gardening tools (trowels and shovels).

To reduce potential negative impacts to the ANSI, and prevent spills of chemicals to Georgian Bay, only low-impact mechanical removal strategies will be used to eliminate invasive and alien plant species. Best Management Practises (BMPs) for the management of Invasive Species have been developed by the Ontario Invasive Plant Council and are recommended by the Ministry of Environment and Climate Change.
Purple Loosestrife

Individual Purple Loosestrife plants can be removed by pulling or digging. Plants must be removed gently, without breaking the taproot to discourage re-sprouting. Removal strategies for Purple Loosestrife should take place during summer before plants go to seed. Removed plants should be placed in tightly sealed opaque black plastic garbage bags. Plants collected in bags should be left in the sun for one to three weeks in direct sunlight to ensure all plant material has died. Dead plant material can be added to regular compost or landfill (Warne, 2016).

Common Reed (Phragmites)

While labour intensive, Common Reeds (Phragmites) can be removed by hand-pulling. This method is most effective when plants are less than two years old and found in loose soils. During removal, all portions of the rhizomes must be removed from the ground. All pulled plant parts should be contained in sealed, thick plastic bags; sealed bags should be left in the sun to kill all viable seeds and rhizomes. Dead plant material can be burned or sent to appropriate municipal disposal locations. All clothing should be cleaned on-site to avoid accidentally transporting seeds of Common Reeds (OMNRF, 2011).

As deemed necessary, additional alien plant species found growing on the ANSI will be extracted and disposed of during regular scheduled monitoring and removal. The methods used to remove alien plant species will be similar to those used for Purple Loosestrife and Common Reeds.
References


Grey Sauble Conservation Authority Regulations Mapping https://www1.greysauble.on.ca/mapping-gis/grey-sauble-conservation-authority-regulations-mapping/#


Figures

Figure 1 – Delphi Point ANSI Location
Figure 2 – ANSI Ownership
Figure 3 – Ecosite Map of ANSI and Surrounding Area
Figure 4 – Delphi Point ANSI Waterfront Access Concept
Figure 5 – Delphi Point ANSI Intermittent Waterfront Access Cross Sections
Figure 4: Delphi Point ANSI Waterfront Access Concept

1. Plan view concept of the waterfront access point and features

   - Intermittent waterfront access point
   - Accessible viewing point
   - Permanent waterfront access point
   - Wayfinding location #1
   - Signage should be placed along the road indicating no on-street parking. Parking should be redirected to Delphi Point Park.
   - Accessible waterfront access
   - ~3% grade to top of headwall
   - Optional barrier
   - Proposed replanting of opening to prohibit access to protected area

2. Add an AODA compliant railing along the top of the headwall

3. Add a single course of armour stone

   - Raise trail tread to ~5cm below the top of the headwall
   - ~12% slope

   Refer to Figure 5

   Add AODA compliant railing along the top of the headwall
   Raise trail tread to ~5cm below the top of the headwall
   Add a single course of armour stone

   NTS

   1:500
No access on the broken shale

No access due to high water levels

No access on the broken shale

Access at own risk where solid shelf is available

No access on the broken shale

No access where ice is present

Figure 5: Delphi Point ANSI Intermittent Waterfront Access Cross Sections
Table 1 - Incidental sightings of birds, mammals, and amphibians observed within the study area Delphi Point of the Town of The Blue Mountains.
Table 1 - Incidental sightings of birds, mammals, and amphibians observed within the study area Delphi Point of the Town of the Blue Mountains. Species (identified by common name, scientific name, and family) are organized by Order. Listed species at risk are highlighted in yellow.

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<tr>
<th>ACCIPITRIFORMES</th>
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<tr>
<td>Bald Eagle¹</td>
<td><em>Haliaeetus leucocephalus</em></td>
<td>Accipitridae</td>
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<td>Cathartidae</td>
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<tr>
<td>Ring-billed Gull</td>
<td><em>Larus delawarensis</em></td>
<td>Laridae</td>
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<tr>
<td>Herring Gull</td>
<td><em>Larus argentatus</em></td>
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<td>Bombycillidae</td>
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<td><em>Corvus brachyrhynchos</em></td>
<td>Corvidae</td>
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<tr>
<td>Blue Jay</td>
<td><em>Cyanocitta cristata</em></td>
<td>Corvidae</td>
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<td>American Goldfinch</td>
<td><em>Spinus tristis</em></td>
<td>Fringillidae</td>
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<td>Barn Swallow²</td>
<td><em>Hirundo rustica</em></td>
<td>Hirundinidae</td>
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<td>Baltimore Oriole</td>
<td><em>Icterus galbula</em></td>
<td>Icteridae</td>
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<td><em>Molothrus ater</em></td>
<td>Icteridae</td>
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<tr>
<td>Common Grackle</td>
<td><em>Quiscalus quiscula</em></td>
<td>Icteridae</td>
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<tr>
<td>Red-Winged Blackbird</td>
<td><em>Agelaius phoeniceus</em></td>
<td>Icteridae</td>
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<td>Gray Catbird</td>
<td><em>Dumetella carolinensis</em></td>
<td>Mimidae</td>
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<td><em>Poecile atricapillus</em></td>
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<td>Black-throated Green Warbler</td>
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<td>Chestnut-sided Warbler</td>
<td><em>Setophaga pensylvanica</em></td>
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<tr>
<td>Common Yellowthroat</td>
<td><em>Geothlypis trichas</em></td>
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<tr>
<td>Ovenbird</td>
<td><em>Seiurus aurocapilla</em></td>
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<td>Yellow Warbler</td>
<td><em>Setophaga petechia</em></td>
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<td><em>Melospiza melodia</em></td>
<td>Passerellidae</td>
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<td><em>Sitta carolinensis</em></td>
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<tr>
<td>European Starling</td>
<td><em>Sturnus vulgaris</em></td>
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<td>House Wren</td>
<td><em>Troglydtes aedon</em></td>
<td>Trogldytidae</td>
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<td>American Robin</td>
<td><em>Turdus migratorius</em></td>
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<td>Eastern Phoebe</td>
<td><em>Sayornis phoebe</em></td>
<td>Tyrannidae</td>
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<td>Red-eyed Vireo</td>
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<td>Vireonidae</td>
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<td>Order</td>
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<td>Spotted Sandpiper</td>
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<td>Killdeer</td>
<td><em>Charadrius vociferus</em></td>
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<td>White-tailed deer</td>
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<td><em>Procyon lotor</em></td>
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<td>Striped Skunk</td>
<td><em>Mephitis mephitis</em></td>
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<td>Eastern Cottontail</td>
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<td>RODENTIA</td>
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<td><em>Tamias striatus</em></td>
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<td>Grey Squirrel</td>
<td><em>Sciurus carolinensis</em></td>
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<td>DIDELPHIMORPHIA</td>
<td>Virginia Opossum</td>
<td><em>Didelphis virginiana</em></td>
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<td>ANURA</td>
<td>American Toad</td>
<td><em>Anaxyrus americanus</em></td>
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<td>Green Frogs</td>
<td><em>Lithobates clamitans</em></td>
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<td>SQUAMATA</td>
<td>Garter Snake</td>
<td><em>Thamnophis elegans terrestris</em></td>
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<tr>
<td></td>
<td>Eastern Milksnake$^1$</td>
<td><em>Lampropeltis Triangulum</em></td>
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1. Listed as of Special Concern under the Ontario Endangered Species Act (Schedule 4, O.Reg 230/08, 2007).
2. Listed as of Special Concern under the Ontario Endangered Species Act (Schedule 3, O.Reg 230/08, 2007)
Appendix A

Public Consultation Documents
1. Public Information Session PowerPoint Presentation
2. Public Survey Questionnaire
3. Summary of Public Feedback
4. Summary of Agency Feedback
June 28th, 2017

Public Information Session

Delphi Waterfront Management Plan

Presented by: Caitlin Port, RPP and Landon Black, BLA, ISA Skelton Brumwell & Associates Inc.
Agenda

Purpose of the Public Information Session

1. Introduce the Project to the Public
2. Present Initial Findings
3. Determine Management Goals
4. Gather Information and Public Input
5. Provide Information on “Next Steps” for the Development of the Park Management Plan
History

Background

• The Delphi Waterfront is comprised of three parcels of waterfront, separated by privately owned parcels of land

• As part of development of the Peaks Bay East, Peaks Bay West, and Neighbourhoods of Delphi subdivision, waterfront land was conveyed to the Town.
Development

Background

- There is currently a “H” Hold on Town owned properties, which prohibits development on these lands until Park Management Plan can be completed and implemented.

- The Town owned waterfront lands are part of the Provincially Significant Delphi Point (Lower Whitby Formation) Area of Natural and Scientific Interest (ANSI).
Delphi Point ANSI

Lower Whitby Formation

• Consists of bituminous shale
• Contains a variety of significant invertebrate fossils estimated to be 455 million years old
• Designated as significant by the OMNRF
Project Objectives

1. Prepare a management plan, which will:
   • Protect the ANSI and wetland areas
   • Support the appropriate level of use and activities in Delphi Waterfront and public lands
   • Coordinate closely with the Community Services Department and other Town Staff.

2. Consult with and engage all Stakeholders during the development of the Management Plan, including the:
   • Blue Mountain Resorts
   • Grey-Sauble Conservation Authority
   • Ministry of Natural Resources and Forestry (OMNRF)
   • Niagara Escarpment Commission
   • Niagara Parks and Open Space Systems Committee (NEPOSS)
   • First Nations
   • The Public
Project Objectives

3. Review options for land ownership, protection, sustainable land use practices, and future development on adjacent lands

4. Determine requirements and options to reflect compliance with the Accessibility for Ontarians with Disabilities Act (AODA)

All of the above will compliment the Goals and Objectives for the Town of The Blue Mountains ANSI Waterfront Designation in the Town's Official Plan.
Management Issues

1. Public access and use of public waterfront areas
2. Ownership of the waterfront area
3. Control of invasive species
4. Protection of ANSI features (i.e. fossils & shale)
5. Restoration and rehabilitation on private and public land
Ecological Assessment

Preliminary Findings

Two species of Trilobites (Arthropods)
- Vast numbers of Pseudogygites & Triarthrus species

Other Common Fossils
- Three species of Nautiloids (Squids) and Gastropods (Mollusc)
- Four species of Graptolites
- Five species of Pelecypods (Bivalves)
- Seventeen species of Brachiopods (Lamp Shells)
Ecological Assessment

Preliminary Findings

Species at Risk
- No previous observations or records to date
- Limited habitat in shale or pavement beach

Invasive Species
- No significant populations to date
- Garden plants along waterfront may be an issue
Access to the Waterfront

Preliminary Findings

No existing official trails in the ANSI Delphi Point Park

- Public parking, managed trails to waterfront, picnic areas, access to Georgian trail
Human Disturbance

Preliminary Findings

By-law No. 2008-44 for the protection of fossils
• “No person shall remove or destroy any fossiliferous rock specimens”

Disturbance and encroachment adjacent to existing residences in the ANSI
Next Steps

1. Resident engagement & Consultation
   - Mail list
   - Public Survey
   - Future Public Information Session and Council Sessions

2. Site Visits & Design Consideration
   - Continue with an ecological assessment of the area
   - Further assessment of access and use options for the ANSI
   - Explore the application of AODA requirements

3. Consultation with Agencies

4. Draft Management Plan
Questions & Discussion
Town of the Blue Mountains
Delphi Waterfront Management Plan Public Questionnaire

Thank you for taking part in our survey. The information collected from the public will assist in the development of the Delphi Waterfront Management Plan.

Please answer the following questions regarding the Delphi waterfront Area of Natural and Scientific Interest (ANSI) – see attached map showing the Study Area. Where you would like to leave more information, please fill out the additional comment section below each question.

1. How Important to you is access to the ANSI?  
   - Not Important
   - Important
   - 1 2 3 4 5

   Comment:

2. How frequently do you use/visit the ANSI?  
   - No Visits
   - Occasional Visits
   - Frequent Visits
   - 1 2 3 4 5

   Comment:

3. How do you currently access the ANSI/waterfront?

4. How often do you visit Delphi Point Park?  
   - No Visits
   - Occasional Visits
   - Frequent Visits
   - 1 2 3 4 5

   Comment:
5. How important is the maintenance of ecological integrity of the ANSI?

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Comment: ________________________________________________________________

6. How Important is the management of invasive species?

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Comment: ________________________________________________________________

7. What would you like to see happen, if anything, with these waterfront lands?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
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____________________________________________________________________
____________________________________________________________________
8. Is there anything else you would like to add?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

To join the mailing list please leave your contact information below.

Name:____________________________________________________________________

Address:________________________________________________________________

Email:__________________________________________________________________

Would you like to receive updates about the Delphi Waterfront Management Plan  Yes ☐  No ☐

Please return the completed copy of this survey to:

mail@skeltonbrumwell.ca

or

Skelton Brumwell & Associates Inc.
93 Bell Farm Road, Suite 107
Barrie, Ontario
L4M5G1

Attn: Kyle Fleming
Study Area
5. Summary of Public Feedback - Delphi Point ANSI Survey Results

Total Responses: 63

Summary:

- Access to the ANSI is very important to survey participants
- The ANSI is visited frequently by survey participants
- Access to the ANSI is achieved primarily through Delphi Point Park, or from residential waterfront properties
- Delphi Point Park is visited frequently by survey participants
- The maintenance of the ecological integrity of the ANSI is very important to survey participants
- The maintenance of invasive species within the ANSI is very important to survey participants
- Most survey participants would like to receive updates regarding the development of the ANSI management plan

Question 1: How Important to you is access to the ANSI?

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<tr>
<td>Somewhat Important</td>
<td>7.94% (5)</td>
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<tr>
<td>Very Important</td>
<td>88.89% (56)</td>
</tr>
<tr>
<td>Comment</td>
<td>12.70% (8)</td>
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Reponses:

- This is a beautiful where families enjoy the view as well as surfers participating in that specific area.
- This is one of the most used aspects Collingwood has to offer for locals
- Important but we must understand its good to leave the environment unscathed.
- It is a beautiful peaceful place to enjoy the water
- We have been coming to what was once a quiet beach since 2012.
- We believe it is extremely important for the residents of Peaks Bay East, Wexford, Tabone/Lees and Peaks Bay West
- My wife and I live at 113 Ellis Drive and back onto this area. It is very important that we continue to have access
- There is not much community access to Georgian Bay and every space we do have is important

Question 2: How frequently do you use/visit the ANSI?

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<tr>
<td>Occasional Visits</td>
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<tr>
<td>Frequent Visits</td>
<td>61.90% (39)</td>
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</table>
Comment 14.29% (9)

Responses

• Very often
• We surf there on the regular basis as it's one of the best surf spots in Georgian Bay
• Year-round visits
• Living only two blocks away I use it at least three days a week
• I live on Craighlieth beach.
• Frequently during the summer and also throughout the year to admire the view.
• Almost daily
• As the Developer, we are aware that residents in Peaks Bay East frequent the ANSI on a daily basis.
• We sometime walk in this area and other time sit on the shale in front of our house

Question 3: How do you currently access the ANSI/waterfront?

Total: 49; Skipped: 14

Summary of Responses: Access achieved primarily through Delphi Point Park, or from residential waterfront properties

Responses:

• By driving to the town park and walk along the water front
• Delphi park
• drive or ride to the access point
• By car, by bike using the Georgian Trail
• Park and walk down
• From the path at Delphi park
• through delphi park
• walk
• Parking lot
• By using the parking lot and the trail
• Walk/paddle
• Via the trail from the park
• Parking lot
• Delphi Point Park
• Bike
• walking/jogging/kayak/paddleboard
• walk
• Parking lot and pathway
• Weekly at least
• Road
• Walking
- Walk
- From the parking lot of highway 26 provided
- On foot
- By car, foot, boat
- Bike along Georgian trail and walk along waterfront
- Walk
- By foot
- Walking
- drive/walk
- From Hwy 26
- walk
- By foot
- through the parking lot
- By bike and running most often and sometimes by car (park in parking lot).
- through Delphi park and Wards Road ROW
- Parking lot
- Via the granular surface within Block 29 - the approach to the Bay between Lots 5 & 6.
- We walk down from our property
- Thru neighbouring undeveloped property.
- By foot
- Through the not clearly marked pathway
- Through the path
- Path by Marc Anthony
- park in the Park and walk
- walkway
- walk
- We like to walk there.
- off hwy 26 at Delphi

Question 4: How often do you visit Delphi Point Park?

Total: 63; Skipped: 0

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Responses:
- Very often
- A few times a month even during the winter months
- Whenever I can and the weather is nice
- Walk my dog and bring my kids to the beach.
- We have been coming to what was once a quiet beach since 2012.
- Daily walk along the water
- We walk into this park from our house
• I live in Clarksburg and work in Collingwood, so I consider this part of "my local area!"

Question 5: How Important is the maintenance of the ecological integrity of the ANSI?

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Responses:
- If we consider the lake to be a public asset for ourselves and future generations, then ecological integrity is very important. But if we think that the lake shore should be controlled and enjoyed ONLY by those who currently own property adjacent to it, then what would it matter? Under the latter scenario, ecology is probably something that can be bought and sold to and by the highest bidder. The management of the shore line by the town is oddly hypocritical because several hundred meters down the shoreline is a golf green situated right at the high water mark - how can we seriously call this an area of scientific importance if we allow a homeowner to pump weed-and-feed on the shoreline. To me, the ecological integrity of the lake is VERY IMPORTANT - and I am quite sure that both mine and your great grandchildren would agree with me.
- Very important. We understand that this ANSI area is one of the only areas that contain 450-million-year-old fossils that will be destroyed, if not controlled by limiting access.
- We try to keep it clean and pick up any litter if we see it.
- CANT PREVENT BIGGEST DESTROYER, mOTHER NATURE
- I worry if bringing equipment in will damage the ecosystem.

Question 6: How Important is the management of invasive species?

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<td>Very Important</td>
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Responses:
- As a tax Collingwood tax payer, yes it is very important but this would be a very reasonable delegation of funds in my opinion
- How can you even ask a question like this? Managing invasive species in paramount for a diverse and sustainable eco system
- Nature will always take its course without the help of humans
- THERE ARE ALREADY PLANTS AND EARTH NOT PART OF ECOSYSTEM THAT SHOULD BE DESTROYED!!!!
We have advised Grey Sauble of invasive species and followed their advice on how to remove

**Question 7: What would you like to see happen, if anything, with these waterfront lands?**

**Total: 53; Skipped: 10**

**Summary of Responses:**
1. Do nothing and leave as is
2. Leave accessible to public for recreational purposes
3. Do not allow access, and allow residents to purchase lands

**Responses**
- Allow the public to visit and enjoy this amazing ecosystem.
- They are preserved for all the public to experience
- nothing leave in its natural state
- Continue to allow public access to the shale beach.
- Leave it alone!
- Keep public access open.
- Public Access should be granted. Our waterfrots should not be privately owned.
- Leave it as is
- Minimal development maybe a trail with a lookout - more important though is protection and invasive species management
- Remain accessible.
- For them to remain just as they are
- Year round access to the parking lot at Delphi
- The land should be kept free for everyone to enjoy with proper maintenance
- Remain the same or parkland
- I would like for them to be protected but remain open to the general public
- I feel strongly as a local that this area should be kept available for open access to the full area for water access/sport [used frequently by locals] and viewing fossils, flora and fauna. Its a special place.
- Left open to use and explore year-round. Natural features and formations left in place and access provided year-round - car park snow plowed in winter. Facilities of Delphi Park increased to encourage proper disposal of litter and access to washrooms.
- Maintenance and prevention measures for the invasive species. Limited non-local access.
- Left alone
- Stay as they are, Nature created it not for humans to "fix" it. Through time, it will reclaim itself, our money and time will be wasted on something that's already beautiful
- I would like too see more family fun for families as children don’t have many good parks here to play they have gotten to run down
- Kept open for all to enjoy and have access to.
- Keep it as is.
- Left as a beach front
• Ecological zones deemed not for development
• Not be built on, and for all citizens to enjoy
• Keep maintained for public use
• NO CONDOS
• Official access and parking locations to mitigate the potential for off trail travel
• Stay public for recreational purposes
• For no housing developments to be built and sold to tourist who have no love for the beauty of the land.
• kept as is at the very least/ halt encroaching property development
• Make sure they are accessible to the public
• I AM 86 AND IT IS TOO DIFFICULT TO WALK THERE IT SHOUD BE MADE MORE ACCESSIBLE FOR SENIORS AND IT WOULD BE GREAT IF SOMETHING COULD BE PUT THERE THAT WOULD BE SEEN AS HERITAGE FOR FUTURE GENERATIONS
• parking area created, not visible from waterfront area.
• Delphi Point is an excellent place to swim. The water is clear and clean. When I am swimming there I feel like I am in "nature's swimming pool"
• I would like to see this beautiful place remain accessible to the public but I would also like to see limits on how people use this public space. What was once a quiet beach that people enjoy is now overrun with off-leash dogs and owners who don't control them. The beach and area has become more crowded and at risk because people believe it's an off-leash park now for their dogs. We would like this park to remain open to the public to enjoy and share with each other and we believe dogs should be off the beach. There are other parks in Collingwood where people can bring their dogs.
• Leave the shoreline accessible to the public, and leave it in it's natural state. It is a public asset that can and should be shared by both the public and the private owners.
• Minimal development create access trails to the area
• That they remain available to residents, and their visitors, to the local area (i.e. between Delphi Point Park and the Water Crossing to the west of Peaks Bay West).
• We would like to strongly discourage any decision by the Town that would increase the traffic in this ANSI designated area
• Have limited public access points to view the fossils. Do not construct any walkways or structures that would destroy or damage these lands.
• Maintain public access.
• For the public to have access
• Be accessible to the public.
• I would like to see the waterfront left available for public access
• Keep public, allow for use for water entry, fossil discovery, animal watching
• I would like to access it without being cut off. I love to take my dogs for walks along there. Some of the people aren't being nice by trying to block the access.
• Not developed, remain open to the public
• Allow the public to access the area
• maintain Public usage and being more accessible, connecting east and west parts of the waterfront
• We hope to continue enjoying their use.
• remain public

**Question 8: Is there anything else you would like to add?**

**Total Responses: 19; Skipped: 44**

**Responses:**
- Took a group of kids to hunt for fossils.
- Thanks!
- Places like this are rare and make this area so alluring. Waterfront Development is valuable for the financial gain of only a few. Many people will continue to benefit from full use and access to this area forever. Thank you.
- I think we need a splash pad for kids
- N/a
- Don’t touch the beach
- No
- Southern Georgian bays front line is diminishing to private lands. Ruining the public’s chance to enjoy the waterfront. Also destroying important bird habitat
- We have good intentions, but sometimes we go too far with what we think is good, and up doing harm or damage.
- No
- Too many off-leash dogs are on the beach and in the water
- I would like to understand more fully what possible argument there could be cede control and management over to the adjacent property owners. This would be like the town allowing property owners to build on and obstruct the sidewalks in the town and claim it as their own. What possible sense does that make? Again, my future grandchildren, and yours, would agree with me.
- Restrictions should be in place related to the unauthorized removal of fossils, use of the shoreline by heavy equipment that could damage the fossils and any type of furniture/equipment or non-natural landscaping/plantings.
- We would like to suggest that Skelton and Brumwell and the Town of Blue Mountains consider, that due to the necessity to limit traffic on this ANSI designated area and to eliminate the Towns liability and the nuisance they have experienced, that you consider a proposal from the shoreline residents, to purchase this property and we become stewards of this ANSI area.
- Like you to consider the Study to extend westward towards Blue Mountain Beach before any potential damage is done by insensitive development along this Point.
- If we want our natural environments to be valued, we have to let people to play in them, otherwise they will be out of site and out of mind.
- It should not be blocked off, we should all be able to access the waterfront
- there is educational value of the fossils

**Question 9: Would you like to receive updates about the Delphi Waterfront Management Plan?**

**Total: 61; Skipped: 2**
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Correspondence:

- Completed survey from Public Information Session (June 28th, 2017): where email was obtained
- July 20th, 2017: emailed with (no response)
- August 3rd, 2017: Follow-up email (no response)
- October 11th 2017: Follow-up email (response received October 20th, 2017)
  - Noted that the westernmost portion of the Municipally-owned ANSI does connect to Municipally-owned green space located adjacent to BMR’s beach property. Any potential pedestrian trail, etc. connections of the ANSI to this green space would certainly be of interest to BMR going forward.
  - Do not have any specific comments re: policies or recommendations associated with the Delphi Management Plan for the waterfront ANSI at present.
  - Have requested to be kept informed as the project moves forward and if the project scope extends further west (closer to our property). They will get further involved at that time.

Correspondence:

- Contacted by office phone on July 20th, 2017 (9:23 – 9:40 am)
  - Asked if a terms of reference had been submitted
  - Recommended acquiring tree preservation plans and past ELC work from the Town of the Blue Mountains
  - Mentioned sensitive switch grass and dune community in area surrounding ANSI
  - Would like to receive a summary of public comments from first public information session
  - Would like to receive a timeline for the project
  - Recommended that we speak to contact of Niagara Escarpment Commission
  - Provided email address
- Followed-up with responses to information requests via email (July 20th, 2017)
Correspondence:

- Contacted by office phone on July 20th, 2017 (3:41 pm)
  - Out of office until August 1st, 2017
  - No response: left message on voicemail
- Received call from Shawn Carey on August 2nd, 2017 (approximately 11:00 am)
  - Referred us to speak to MNRF District Planner (provided contact information)

Correspondence:

- Contacted by office phone on August 2nd, 2017 (2:38 pm)
  - Expressed interest in performing a site visit with SBA staff
  - Requested information about site details and ANSI history be sent to him via email
  - Mentioned he would contact Regional Geologist about providing guidance on ANSI and attending site visit
- Followed up with email (same day, August 2nd) containing project details, map of ANSI study area, as well as MNRF Ontario Parks Natural Heritage Report for Delphi Point ANSI (1994).
  - Site meeting at Delphi Point was scheduled
- Site Meeting took place on August 28th, 2017
  - Summary: site is very unique and rare. High distribution of fossils, diverse presence of species and overall quality of fossils is high. Requires high level of protection; recommended that ANSI remains in Municipal ownership for ongoing maintenance and protection.

Correspondence:

- Contacted by phone on July 20th, 2017 (4:04 – 4:14 pm)
  - Asked if ANSI falls is considered a "park" or an "open space" under NEPOSS
  - Requested if the NEC had any comments, recommendations or policies that should be implemented within the management plan
- Followed up with email (same day, July 20th) containing project details, map of ANSI study area (no response)
- Contacted by phone on August 2nd, 2017 (approximately 3:00 pm)
  - No response: left message on voice mail
- Received response through email on August 8th, 2017
Study area is within NEP and is designated as Escarpment Recreation Area
  ▪ outside area of Development Control Regulation and does not require a development permit prior to development or change in use

ANSI is not part of NEPOSS within NEP 2017
  ▪ Municipal parks and open spaces not identified in Appendix 1 or Map 10 of the NEP may, upon request by the municipality and agreement of the MNRF and NEC be included in the NEPOSS

Municipally owned greenspace (east of Delphi Point) is included in NEPOSS as Delphi Point Park is classified as an Escarpment Access Park.
  ▪ Escarpment Access parks are intended to provide opportunities for park access to the Escarpment
  ▪ Asked if Delphi Point and ANSI will become part of Delphi Point Municipal Park?

Part 3 of the NEP describes NEPOSS objectives, Master/Management Planning Policy, Park Classification Policy and Zoning Policy
  ▪ Management plan should ensure protection of the natural heritage resources and recognize that a park or open space is part of the Niagara Escarpment UNESCO World Biosphere Reserve and include policies that recognise the Biosphere Reserve designation.

NEP Development Criteria 2.7:
  ▪ Earth Science ANSIs as key natural heritage areas
    • Development is prohibited with several specific exceptions

NEP Part 2.6:
  ▪ Lakes and their littoral zones are considered a key hydrologic feature
    • Development is prohibited with specific exceptions

NEC and MNRF should be consulted throughout the development of the Management Plan. The NEC is required to review and endorse final draft plans to ensure conformity with the NEP before forwarding to MNRF for final approval.

Correspondence:
  • Contacted SBA staff through email to set up site-meeting with Delphi Point shoreline residents on July 9th, 2017
    ▪ SBA staff responded and set-up site meeting for Friday July 21st, 2017 (confirmed on July 11th, 2017 via email)
    ▪ Official invitation for site meeting sent to shorefront residents (July 14th, 2017)
    ▪ Site Meeting included SBA and Town of the Blue Mountains staff as well as Waterfront Residents.
      ▪ Summary: Shoreline residents would prefer option to buy ANSI land adjoining to their property. They will take over management and protection duties for the ANSI. SBA notified residents of issues regarding the protection of the ANSI
and assessed current ANSI conditions present in areas where residential properties encroached onto municipal land. In brief, there were many instances where property fell onto the ANSI.
Appendix B

1. First Addendum May 29, 2018
2. Second Addendum June 20, 2018
1.0 Introduction

A formal public meeting regarding the Draft Delphi Point Management Plan was conducted on May 14, 2018. This public meeting followed extensive public consultation where feedback was collected during multiple public information sessions (June 28, and November 22, 2017), as well as from online and hardcopy surveys. Feedback was also collected during a site meeting with waterfront residents of Peaks Bay East (July 21, 2017). While no response was provided from contacts of the Saugeen Ojibway Nation (SON), multiple engagement attempts were made by Skelton Brwell and Associates Inc. to accommodate culturally or ecologically significant features of the Delphi Point ANSI within the management plan.

During the May 14, 2018 public meeting several issues were raised. These were not new issues and they had been considered in the preparation of the management plan. Although the issues were considered in the management plan and the recommendations, to provide full and complete information for Council in regard to taking a decision regarding the management plan, the following outline of the issues raised and a response to each is provided.

1.1 Responses to Raised Issues

Issue 1:


Response 1:

The Ministry of Natural Resources and Forests (MNRF) is responsible for delineating the boundaries of ANSIs. Over time the boundary of the ANSI may be adjusted as better information becomes available. The MNRF is in the process of modifying the current boundaries of the ANSI to better reflect the extent of the fossil deposit. However, at the time of the preparation of the Delphi Waterfront Management Plan, the boundary is as illustrated in the management plan. Similarly, the Delphi Point Park Management Plan prepared by Envision Tatham in 2008 also illustrated the boundary of the ANSI as extending to the west limit of the Delphi Point Park (Figure 1).
Expected alterations to the boundary of the ANSI do not impact the findings or recommendations of the report.

**Issue 2:**

Are the shale ridges part of the ANSI and sensitive to disturbance? Does walking on the shale ridges damage the ANSI?

**Response 2:**

The shale ridges are created by the force of waves and ice acting on the bedrock known as the Lower Whitby Formation. As shale is broken off of the deposit it is pushed on shore by the action of waves and ice. During high water conditions this action creates high ridges of shale deposits. During low water periods there may be more ridges, they may be smaller or they may not be present.

The loose material in the shale ridges contains fossils of the Late Ordovician Period. These broken fragments of shale provide some of the best visibility of the fossil formations as the exposed fossils are less weathered than those present on the surface of the exposed bedrock. The shale ridges are part of the ANSI feature (Figure 2 and 3).
Figure 2 – Evidence of high fossil abundance on fractured shale.

Figure 3 – Fossil diversity on exposed, unfractured bedrock.
Traffic on the shale ridges creates a number of issues related both to the protection of the ANSI as well as to recreational access considerations.

Increased traffic results in direct damage to fossil bearing rocks and accelerates the natural process of erosion of this material. While natural processes do result in further fracturing of loose shale, walking on the relatively fragile shale material accelerates this process in direct relationship to the amount of foot traffic (Figure 4 and 5).

Increased traffic also increases the potential for removal of the fossils or other vandalism. Although signage and by-laws are intended to control the removal of fossils, it is likely that some removal will continue to occur and this will likely be in proportion to the degree of public access. Limiting public access limits the potential rate of fossil removal (Figures 6, 7 and 8).

The loose shale forms an unstable surface with sharp edges posing a risk to pedestrian traffic. It also does not provide an accessible surface. In the absence of the ability to create a complete trail parallel to the shoreline (due to private properties preventing a trail linkage), and with appropriate access already being available in the immediately adjacent Delphi Point Park, there is not a compelling reason to promote pedestrian traffic on the shale ridge.

The management plan was intended to address the Delphi Point Earth Science ANSI west of Delphi Point Park. The fossil bearing rock extends throughout the shoreline of Delphi Point Park and well to the west of the Park. The signage recommended in the management plan to educate the public about the fossil formation, and the importance of not damaging it or removing fossils, will also benefit the management of this unique feature of Delphi Point Park. Ideally, additional interpretive signage would also occur within the Park.
Figure 4 – Evidence of anthropogenic damage to shale within the ANSI.
Figure 5 - Evidence of anthropogenic damage to shale within the ANSI.
Figure 6 – Example of observed anthropogenic damage to shale within the ANSI.

Fossil destruction due to collection activity.

Figure 7 - Example of observed anthropogenic damage to shale within the ANSI.

Fossil removal.
Issue 3:

Is the shoreline adjacent to residential development being treated differently than the shoreline at Delphi Point Park?

Response 3:

The conditions at Delphi Point Park and the shoreline adjacent to residential lots are different and this does result in a different approach. The shoreline area adjacent to the residential lots is constrained, particularly during higher water levels (Figure 9). This shoreline area contains a tree preservation area, a significant shale ridge and an inimal to non-existent bedrock shelf during high water levels. During low water levels the bedrock shelf is exposed and provides a more appropriate opportunity for pedestrian access.
At Delphi Point Park there is a substantial public backshore area and associated public amenities including a parking area. The public, as a result, has the opportunity to access the shoreline by crossing the shale ridge rather than walking on the ridge parallel to the shoreline (Figure 10).

Due to the presence of private property, pedestrian access to the shoreline adjacent to the residential units would be required to occur parallel to the shoreline. During high water levels, this would force pedestrians to utilize the shale ridge. As there is no east-west trail linkage potential and there is a ple opportunity to access the shoreline at Delphi Point Park, there is no reason to encourage pedestrian access to this area during high water levels. During low water levels access is ore appropriate.

Private lots are able to access the waterfront by crossing the shale ridge perpendicularly to the shoreline in the same anner that the public can access the shoreline at Delphi Point Park.
Figure 10 – Public Access to shoreline of Delphi Point Park

Issue 4:

Why is the study required? There is no development, so there is no need to remove the Hold symbol on the zoning.

Response 4:

The zoning by-law established a Hold symbol on the public waterfront lands until an appropriate management plan could be prepared. The management plan was undertaken without any pre-conception as to the extent of potential appropriate development activities. The options included exploring enhanced public access which would have required the construction of trails and other possible facilities, and associated permitting.

As the investigations and analysis for the management plan progressed it became clear that encouraging public access along the waterfront was not desirable. Increased public access would require the construction of an appropriate trail. Due to the constriction of the area during high water levels, this is not feasible. It would require potential disruption to the tree protection zone, other vegetated areas which include coastal arsh communities, and potential negative impacts to the shale ridge and bedrock in the ANSI. Due to the dynamic nature of the shoreline, any formal trail structure would also likely be subject to damage by waves and ice.
The management plan therefore suggested no development in this ANSI along the waterfront. Technically, this does not require that the zoning by-law be amended to remove the Hold symbol since no development is to occur. However, it may be desirable to remove the Hold symbol to reflect that fact that a management plan has been completed and to provide a clear indication of management objectives and approach. It would also be desirable to ensure that the permitted uses reflect a non-development approach to this area.

**Issue 5:**

The proposed fence will block public access and create a new hazard for pedestrians. It is not required.

**Response 5:**

The fence is intended to prevent public access to the shoreline through a ditch constructed for drainage purposes (Figure 11). It is also intended to restrict access to the tree protection zone where supplemental planting is proposed to reinstate desirable vegetation cover on public lands within and adjacent to the ANSI.

Public access to the west of Delphi Point Park is intended to occur through intermittent access along the immediate shoreline when conditions are appropriate.
Issue 6:

Non-waterfront lot owners are being treated differently than other lot owners in the plan of subdivision.

Response 6:

In the management plan there is reference to waterfront lots. The lots backing onto the shoreline have been termed waterfront lots because they back onto publicly owned waterfront.
These lots do not own to the waterline, however, for reference purposes, they are considered waterfront lots.

The design of the subdivision resulted in some lots having preferential status by backing lots onto the waterfront. These lots were permitted to clear viewing “windows” in the tree protection zone and were also subsequently permitted to construct minimal access points through the tree protection area. It is noted that the tree protection area was impacted by a weather event which resulted in extensive removal of tree cover in the protection area. Vegetation cover is regenerating in this area and should be allowed to continue regeneration.

The original subdivision design therefore established a preferential situation in regard to shoreline views and shoreline access.

It is important to note that access to the shoreline should not be considered in isolation for the plan of subdivision. The subdivision was constructed immediately adjacent to Delphi Point Park which provides a ple opportunity to access public shoreline. Access through this area is more appropriate with regard to management objectives for the Delphi Point Earth Science ANSI and for facilitating appropriate safe and accessible public access.

Access to the shoreline to the rear of the waterfront lots is not being prohibited. It is also not being encouraged. Instead access is being discouraged during times where access would require the public to walk parallel to the shoreline on the shale ridges (i.e. during high water levels). Access to the shoreline is preferred to occur in Delphi Point Park, where the public can cross the shale ridges rather than walking along the . The recommendations therefore involve encouraging the public to access the waterfront at Delphi Point Park and informing the public that access west of Delphi Point Park is not safe or appropriate during high water conditions or unfavorable winter conditions (i.e. ice coverage).

2.0 Conclusion

All public comments have been considered in regard to the recommendations as set out in the management plan. Comments at the most recent public meeting reflect earlier comments and analysis of those comments suggests that the recommendations do not require alteration.
3.0 Disclaimer of Responsibilities to Third Parties

This report was prepared by Skelton, Bru well & Associates Inc. for the account of The Town of The Blue Mountains.

The material in it reflects Skelton, Bru well & Associates Inc.’s best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.

Skelton, Bru well & Associates Inc. accepts no responsibility for damages, if any, suffered by a third party as a result of decisions made or actions based on this report.

All of which is respectfully submitted,

SKELTON, BRUMWELL & ASSOCIATES INC.

per:

Kyle Flewing, B.Sc. (Wildlife)  Michael Wynia, MCIP, RPP
Senior Ecologist  Senior Land Use and Environmental Planner
Addendum - Draft Delphi Waterfront Management Plan
Response to Ministry of Natural Resources and Forests Comments and Proposed Access Options
The Town of The Blue Mountains

1.0 Introduction

The Ministry of Natural Resources and Forests provided a response to the enquiry of a resident regarding proposed limitations to access along the shoreline shale ridges. The Ministry provided further clarification in response to information provided by Skelton, Brumwell and Associates. This exchange of information is reviewed in the following analysis and the recommendation that the current draft management plan not be altered is explained.

The issue of limited shoreline access has also resulted in a re-examination of access options original considered in 2016. Recent changes in water levels provide altered considerations of those options and the ability to provide a safe and appropriate shoreline access, particularly in the absence of the ability to create complete west-east connection and the ample opportunity for waterfront access at the Delphi Point Municipal Park.

1.1 Responses to Ministry of Natural Resources and Forests Comments

The Ministry of Natural Resources and Forests initially provided the following response (email: Shawn Carey, District Manager, Midhurst District) to a resident who had expressed concerns with respect to limited waterfront access recommendations in the draft management plan:

“Further to your request below, the ministry’s position is that passive uses (e.g. walking, swimming, windsurfing, surfing, fishing, etc.) do NOT pose potential impact to the integrity or function of the ANSI. Given the sensitivity of the ANSI, we do NOT recommend development or non-passive activities that removes or obstructs the bedrock units and that could pose an impact (i.e. construction of shoreline erosion features such as groynes, docks, sea walls, marina facilities, boathouse, anchors/mooring blocks, motorized use, etc).”

The Ministry then further clarified this with the following position:

Agreed that the site has provincial significance... It’s the ministry’s position that passive uses will have little long-term impact on the ANSI compared to “non-
passive” activities or development (see attached for examples). It’s my understanding that during the site visit with the ministry staff referenced below, there were several options provided and discussed. It’s ultimately the Town’s decision via the management planning process and other municipal planning tools on how they want to manage the property given our collective understanding of the ANSI and the information provided in the attached email.

The Ministry’s response reflects a general approach to the protection of Earth Science ANSIs which focusses on the protection of the geological landform, which, in this case would be the bedrock formation.

An approach favoured in the preservation of sites containing fossils, as opposed to general landforms, is to extend the protection to the fossil deposits, including unconsolidated or fractured material. It is a normal practice to prevent damage to and removal of fossils, and this is consistent with the municipality’s actions in regard to the passing of a by-law for such purposes.

It continues to be our recommendation that the appropriate protection of the Delphi Point ANSI features include a reasonable level of protection to all fossil deposits, not just those within the bedrock. These fractured shale deposits provide the greatest level of visibility of the fossil deposits and are also more sensitive to damage and removal. A previous addendum illustrated examples of damage caused by collecting and pedestrian traffic. In just a few weeks between the preparation of that addendum and the current addendum, there is further ample evidence of destruction and removal of fossils.

If the current shoreline was the only available public access, there might be a more compelling case to weigh the negative consequences of increased access against the need for protection of the fossil formations. However, in this instance, there is ample shoreline access immediately adjacent to the study area at Delphi Point Park.

The MNRF comments recognize that it is the municipality’s decision on how to manage the ANSI as long as that does not conflict with the protection of the ANSI.

While the protection of the fossil formation is a paramount issue, there are other reasons to restrict access to the shoreline within the study area. These include:

- Safety in relation to the accessibility and hazards associated with the shale deposits as well as high water levels;
Photograph in area with limited access illustrating large fractured blocks with fossils and little damage to those features of ANSI.

Contrasting recent damage and disturbance in area with high public access.

**FIGURE 1**
• Potential damage to shoreline vegetation; and,

• The narrow width of the shoreline area during high water levels.

Access to the shoreline is not as constrained in the adjacent park. During high water levels the immediate waterfront width is restricted, however there is an ample backshore area. Additionally, access to the shoreline can be achieved by trails leading down to the waterfront rather than trails paralleling the waterfront.

1.2 Consideration of Access Alternatives

A review of access alternatives was undertaken in 2015-2016. This review provided a series of options for providing waterfront access to the study area from the east. However, water level changes have significantly impacted the feasibility of these options.

Current water levels conflict with many of the original access concepts. The issue of achieving access is further complicated by vegetation growth (which is desirable), and the resulting constriction in the width of public land along the shoreline.

Current pedestrian access involves crossing a ditch and accessing the shoreline immediately adjacent to private property which introduces the potential for conflict and inadvertent trespassing and privacy issues.

Significant shoreline alteration works would be required to provide continuous accessible access. Those shoreline alterations would have the potential to conflict with protection of the ANSI.

The currently recommended option of informal public access during lower water levels as conditions permit is the preferable option, particularly with ample access being available in the adjacent municipal parkland.

The currently recommended limited access maintains a reasonable opportunity for public access; provides enhanced protection of the ANSI and fossil deposits by maintaining existing low pedestrian traffic conditions; minimizes disturbance to shoreline vegetation; does not require extensive works within the ANSI; and, minimizes the potential for land use conflict.
EXISTING CONDITIONS

PHOTO SHOWING GRANITE BOULDER GROIN, SHALE ROCK SHORELINE AND EXPOSED BEDROCK

Existing conditions during 2015/2016 study.

FIGURE 2
FIGURE 3 Existing pedestrian access.
Earlier option A and B involved access through area now under water. Option A remains appropriate – during lower water levels.
Option C would require extensive alterations to shoreline works and may create a potential safety issue with pedestrians having to negotiate “stepping stones”, particularly during wet conditions as a result of high water levels and wave action (see Figure 4 for photo of area).

Option D avoids high water conditions but other issues arise (see subsequent figures).

FIGURE 5
Option E avoids high water conditions but other issues arise (see subsequent figures).

Various constraints limiting access during high water levels.

**FIGURE 5**
Constraints to moving access in-land. Again, option A which provides informal access during lower water levels remains appropriate.

FIGURE 6
2.0 Conclusion

The recommendations of the draft management plan for the Delphi Point shoreline continue to be the most appropriate approach to managing the ANSI and providing appropriate and reasonable access to the site. It is therefore recommended that limited public access as set out in the Delphi Waterfront Management Plan March 2018 be the preferred option.

All of which is respectfully submitted,

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Per:

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