



# planning for natural environment

draft

policy discussion paper

November 2011

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## **APPENDICES**

appendix 'a' – Location of Wetlands

note:

This draft policy discussion paper has been prepared to provide context, stimulate discussion and allow for comment by council, agencies and the public.

A draft direction in a policy discussion paper is a proposal to modify or enhance existing official plan content or propose new official plan content. The draft directions do not necessarily represent the position of the Town of Whitby or changes that may be considered to the official plan.

author:

This policy discussion paper has been prepared for the Town of Whitby by Meridian Planning Consultants with the assistance of GLPi.



GLPi

## 1.0 INTRODUCTION

An Official Plan is a general land use guide which is intended to provide Council with the basis for making decisions on development applications, changes in land use and community improvements. As set out in the Overview Paper, the Whitby Official Plan Review was initiated in 2007 and in addition to considering changes to Provincial and Regional policy as is required by the *Planning Act*, the Official Plan Review process provides the Town of Whitby with an opportunity to:

1. Re-inforce a number of key policies in the current Official Plan that have worked well and supported desirable development in the right places;
2. Incorporate new policies in the Official Plan that reflect society's desire to foster and encourage the establishment of both a healthy and complete community in Whitby; and,
3. Incorporate new policies on sustainable development that strike a balance between competing environmental, social and economic interests in order to ensure a high quality of life for future generations in Whitby.

The overall intent of the above has at its core the desire to enhance the quality of life for Whitby residents and establishing a very desirable community where residents can live, work and play. It is on this basis that the 'opportunities' identified above are the principal goals of the current Whitby Official Plan Review.

This Policy Paper is about planning for the natural environment, which is considered to be our natural heritage as set out in Provincial policy. Ensuring that the Town of Whitby has a valued and healthy natural environment is a key component of establishing and maintaining a healthy and complete community. The purpose of this Policy Paper is to review the natural heritage and the related natural hazards and water resources policy frameworks established at the Provincial and Regional levels and determine how the Official Plan for the Town of Whitby needs to be updated to ensure conformity with those documents.

The Provincial policies and plans that have an impact on the Town of Whitby are the Provincial Policy Statement, the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan and the Growth Plan. In response to particularly the Greenbelt Plan, the Region of Durham through ROPA 114 implemented policies at the Regional level to implement the Greenbelt Plan. These policies are reviewed in this paper and recommendations will be made on how the Town of Whitby Official Plan needs to be amended to bring it into conformity with ROPA 114.

## 2.0 NATURAL HERITAGE FEATURES IN WHITBY

The intent of this section of the Policy Paper is to provide a description of the natural heritage features that exist in the Town of Whitby such as wetlands, woodlands, habitat areas, fisheries and valleylands, as identified by the Province, the Region and/or Conservation Authority.

### 2.1 PROVINCIAL PLANS

There are three Provincial Plans that apply in Whitby - the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan and the Growth Plan - with the first two identifying and protecting specific natural heritage features using a systems approach.

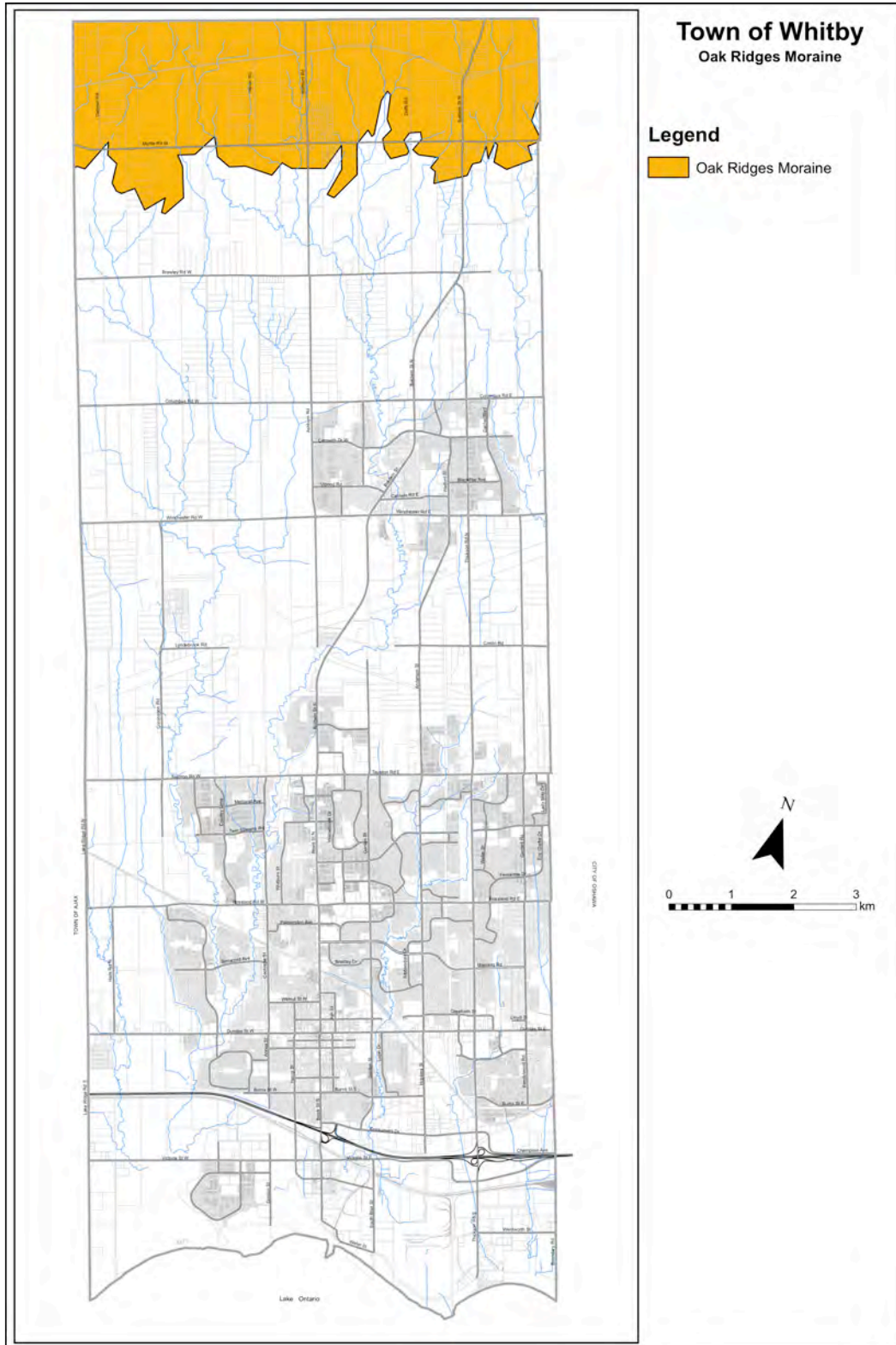
#### 2.1.1 Oak Ridges Moraine Conservation Plan

In 2001, the Province released the Oak Ridges Moraine Conservation Plan (ORMCP) to provide land use and resource management direction for areas located within the Moraine. All decisions made under the *Planning Act* or *Condominium Act*, including applications for consents and severances, are required to conform to this Plan. The ORMCP divides the Moraine into four land uses designations:

- Natural Core Areas;
- Natural Linkage Areas;
- Countryside Areas; and;
- Settlement Areas.

The Plan also provides policies for the identification and protection of key natural heritage features, hydrological features and landform features. Specific policies govern development both within and adjacent to these features. **Map 1** shows the location of the lands subject to the ORMCP.

**Map 1: Lands Within the Oak Ridges Moraine Conservation Plan**



In 2004, the Town of Whitby adopted a Secondary Plan (OPA 48) for the Oak Ridges Moraine Conservation Plan Area. This Amendment affects all lands located within the Town of Whitby defined by the Oak Ridges Moraine Conservation Plan (Ontario Regulation 140/02) and identified as the Oak Ridges Moraine boundary on Schedule “A” - Land Use, Schedule “C” - Environmental Management and Schedule “E” - Secondary Plans. OPA 48 inserted the policy below, which indicates how the policy framework is intended to work with the other policies of the Official Plan:

*5.3.6.1 The Oak Ridges Moraine is one of Ontario’s most significant landforms that have been identified by the Province of Ontario under the Oak Ridges Moraine Conservation Act, 2001 as having a unique concentration of environmental, geological and hydrological features. It is recognized that the Oak Ridges Moraine provides a wide range of environmental features critical to the maintenance of healthy water resources, landform features and natural heritage values in Durham Region and the Greater Toronto Area. The policies of this Plan are intended to implement the requirements of the Oak Ridges Moraine Conservation Plan in protecting the ecological features and functions of the Oak Ridges Moraine. Where the policies of this Plan contradict the Oak Ridges Moraine Conservation Plan, the more restrictive policies shall prevail with the exception of policies that apply to agricultural uses, mineral aggregate operations and wayside pits.*

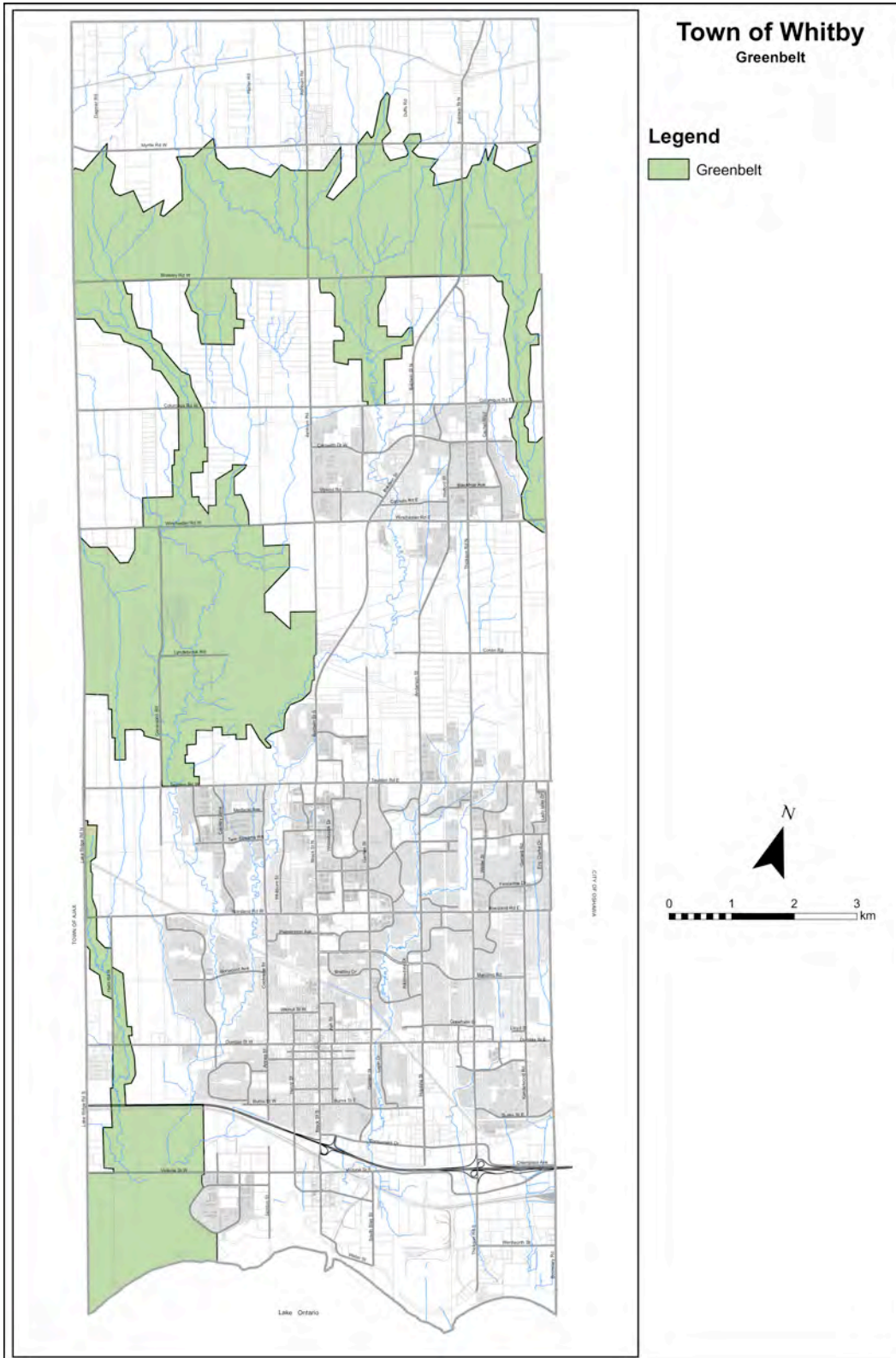
Given that the policies applying to the ORMCP area are in effect and the Province has made no changes to the ORMCP since 2003, it is not anticipated any changes to the Town of Whitby policy framework are required other than for editorial or structural reasons.

## 2.1.2 Greenbelt Plan

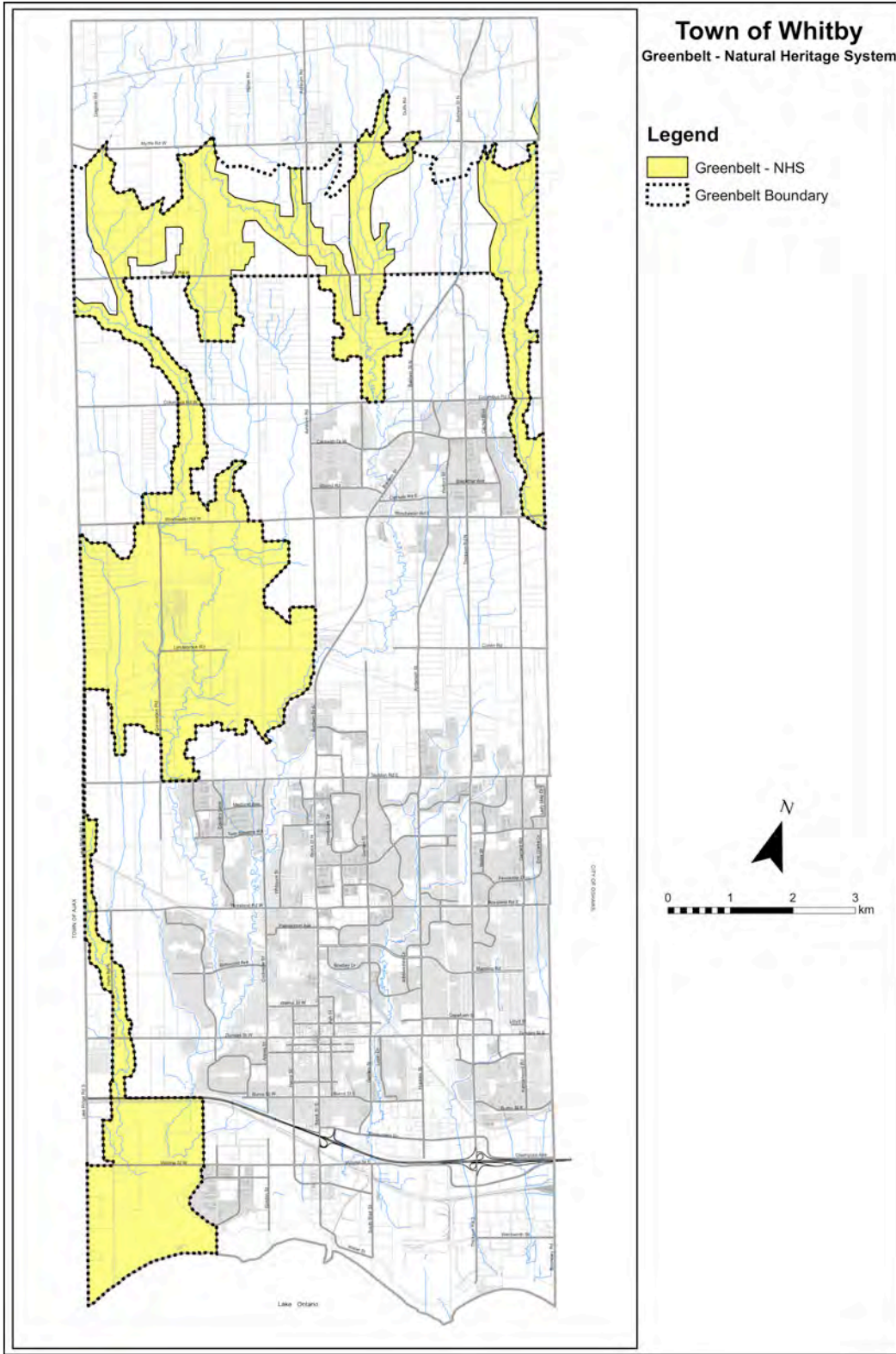
The area subject to the Greenbelt Act, 2005 includes the areas covered by the ORMCP as well as other additional lands. **Map 2** shows the location of the lands subject to the Greenbelt Plan in the Town of Whitby.

The Greenbelt Plan is comprised of lands within the Oak Ridges Moraine Conservation Plan (ORMCP), and lands designated as Protected Countryside. Within the Protected Countryside designation are the Agricultural System, the Natural System and Settlement Areas. **Map 3** shows the extent of the Protected Countryside and the Natural Heritage System (which is a component of the Natural System) in Whitby

**Map 2: Location of Greenbelt Plan in Whitby**



**Map 3: Extent of Protected Countryside and Natural Heritage System in Greenbelt Plan in Whitby**

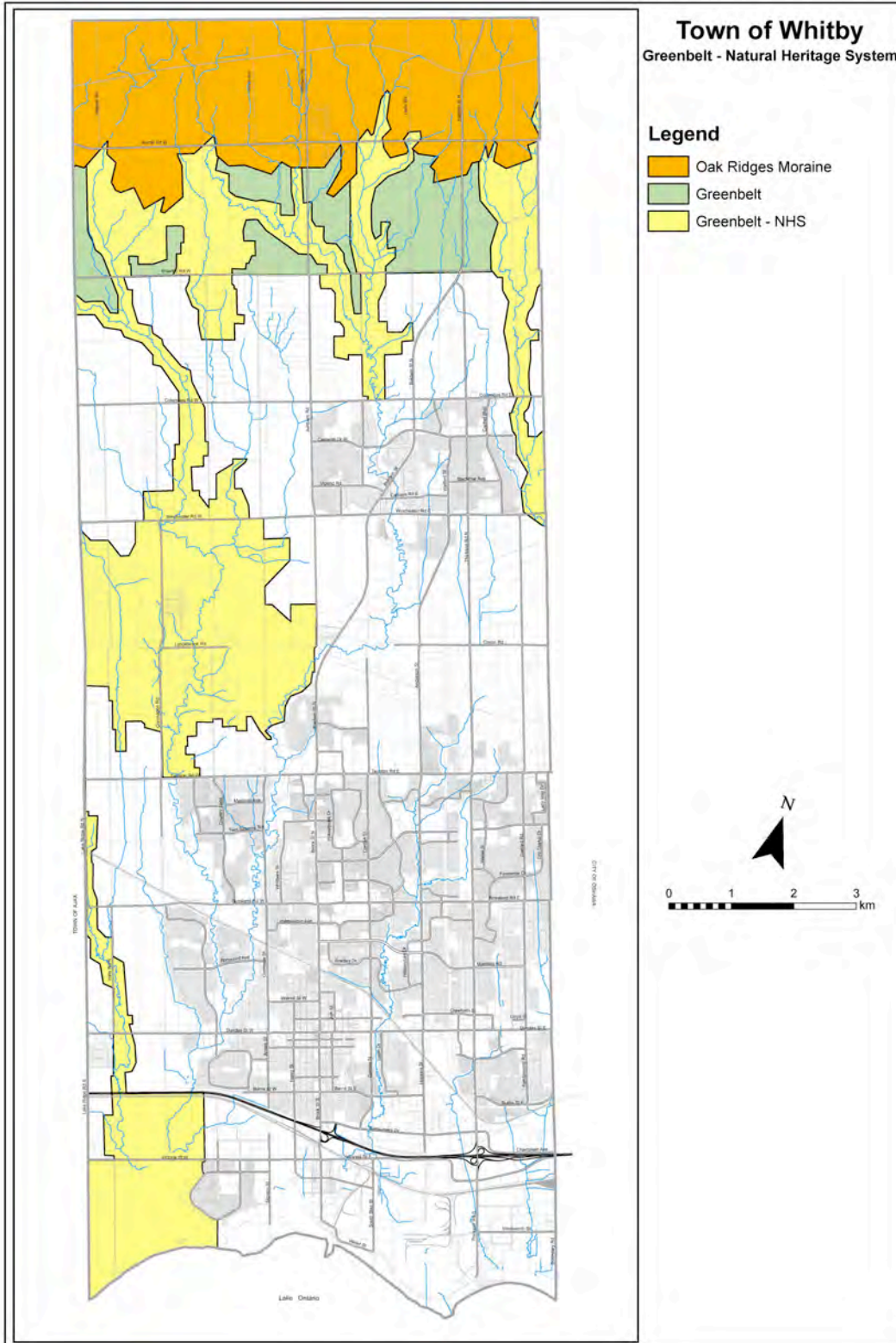


The Natural System in the Greenbelt Plan as mentioned above is comprised of a Natural Heritage System and a Water Resource System that often coincide given the ecological linkages between terrestrial and water based functions. The Natural Heritage System includes areas with the highest concentration of the most sensitive and/or significant natural features and functions.

The Water Resource System is made up of ground and surface water features and their associated functions. In addition to primary recharge areas, headwater and discharge areas associated with lands subject to the ORMCP, the Water Resource System includes the lands around the primary discharge zones along the base of the Oak Ridges Moraine, the major river valleys between the Oak Ridges Moraine and Lake Ontario, the portions of the Lake Simcoe watershed and the former Lake Algonquin Shoreline within York and Durham Regions and the former Lake Iroquois shoreline in Durham and Niagara Regions.

**Map 4** below shows the extent of the lands subject to both the Greenbelt Plan and the ORMCP in Whitby.

**Map 4: Location of the Greenbelt Plan and the Oak Ridges Moraine Conservation Plan in Whitby.**



## 2.2 LOCATION OF NATURAL HERITAGE FEATURES

### 2.2.1 Wetlands

The PPS defines wetlands as *“lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of wetlands are swamps, marshes, bogs and fens.”*

The Town adopted Official Plan Amendment #92 in 2010 to identify lands within the Town that are Provincially Significant Wetland Complexes (PSWC) and to adjust the boundary of the *“Environmentally Sensitive Area”, “Hazard Land”* and/or *“Environmental Protection/Conservation Lands”* designations on various schedules of the Official Plan. A discussion on when a wetland is considered to be *“significant”* according to Provincial policy is contained within Section 3.1 of this Policy Paper.

As noted in Town Recommendation Report # PL87-10, August 30, 2010, *“a wetland complex differs in comparison to a single wetland such as Cranberry Marsh. Is defined as a grouping of two or more wetlands along with their adjacent lands that are related in an ecological and functional matter. Adjacent lands, as defined by the Wetlands Policy Statement, are lands within 120 metres of the individual wetland area or lands connecting individual wetland areas within a wetland complex. The entire complex is evaluated and classified as a whole, as opposed to it being evaluated based on its individual wetland area components.”*

Town Council adopted Official Plan Amendment # 92 in September 2010 but deferred seven specific properties from the Amendment. OPA 92 did not require Regional approval and therefore, is final and binding, except for the properties subject to deferral. The four PSWCs identified in OPA 92 are as follows:

1. Whitby – Oshawa Iroquois Beach Wetland Complex – mainly located within the Goodman Creek and Pringle Creek Watershed.
2. Corbett Creek Coastal Wetland Complex – primarily located within the Corbett Creek Watershed.
3. Lynde Creek Coastal Wetland Complex – primarily located within the Lynd Creek watershed.
4. Whitby Harbour Wetland Complex – primarily located within the Pringle Creek Watershed.

The location of these wetlands is shown on attachments 1a to 1d to the Town’s staff report (PL87-10) and they are attached to this report in Appendix 1. The identification of

these PSWCs is as a result of a series of wetland evaluations completed by the Ministry of Natural Resources. The Basis section of OPA 92 notes that the majority of the above wetlands are already contained within the boundary of restrictive land use designations as discussed in Section 5.1 of this Policy Paper. However, minor boundary adjustments to the Schedules of the Official Plan were required to ensure that all four of the PSWCs were included within protective land use designations, in their entirety.

### 2.2.2 Areas of Natural and Scientific Interest

According to the PPS, Areas of Natural and Scientific Interest (ANSI) “means areas of land and water containing natural landscapes or features that have been identified as having life science or earth science values related to protection, scientific study or education.” There are two types of ANSIs: life science and earth science. Earth science ANSIs include areas that contain examples of rock; fossil and landform features while life science ANSIs are areas that contain examples of natural landscapes, communities, plants and animals. **Map 5** shows the ANSI'S that are located in Whitby.

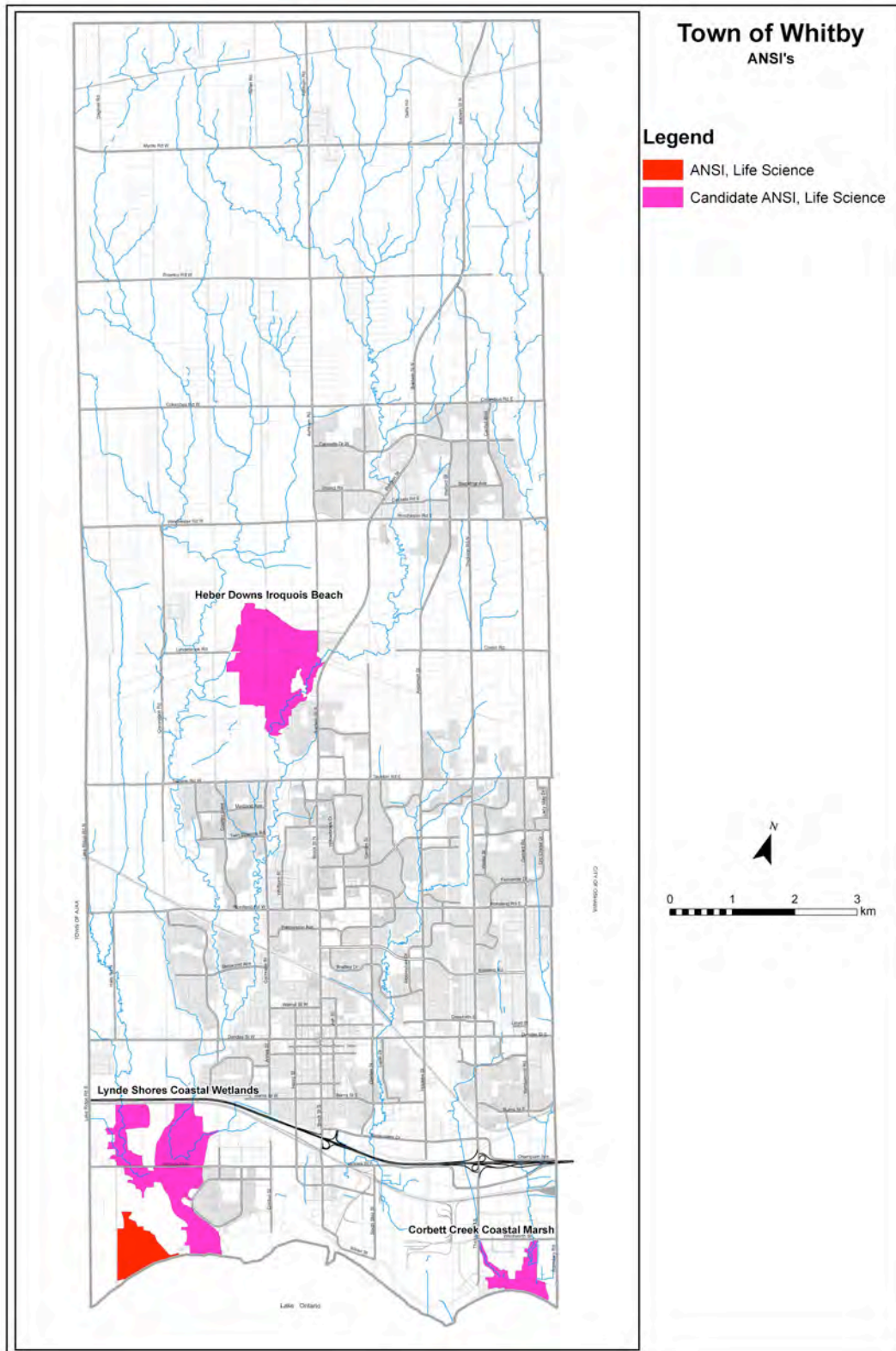
As shown on **Map 5**, there is one ‘confirmed’ ANSI is a component of the Lynde Shore Coastal Wetlands on the shores of Lake Ontario. Other components of the Lynde Shores Coastal Wetlands are identified as a candidate for their formal identification as an ANSI. Other candidates include a Corbett Creek Coastal Marsh and the Heber Downs Iroquois Beach area on the west side of Baldwin Street. These areas are generally located within the Hazard Lands designation or the Major Open Space designation the Town of Whitby Official Plan. Both of these designations are discussed in more detail in Section 5.1 of this Policy Paper.

### 2.2.3 Habitat of Endangered and Threatened Species

On May 16, 2007, the Province of Ontario passed the *Endangered Species Act, 2007* (ESA 2007), which came into full force and effect as of June 2008, replacing the former *Endangered Species Act, 1971*.

Under the ESA 2007, three times as many species are protected as in the former Act. Also under the new legislation, emphasis is given to science-based decision-making for the protection of species at risk and the protection of related habitat – a new and important change from previous legislation. The Act also establishes separate regulations aimed at identifying and protecting the habitat of key critical species identified by the Province. The Act also recognizes the importance of species recovery, private land stewardship activities as well as Aboriginal interests, and establishes a flexible permit system allowing certain exemptions from the Act. The ESA 2007 is binding upon citizens and/or landowners who undertake activities such as tree cutting or excavation that could place Endangered Species or their habitat at risk.

**Map 5: Location of ANSI's in Whitby**



The PPS directs that no development or site alteration be permitted in significant habitat of endangered or threatened species. The provisions in both the ESA and PPS with respect to the protection of threatened and endangered species are very similar and are intended to work together. The ESA states that no person shall damage or destroy the habitat of an endangered or threatened species. The ESA includes provisions that the MNR may use to balance social, economic and cultural considerations enabling the Ministry to issue permits, agreements and regulations.

The one endangered species of note in the area is the redbreasted dace, which require clear flowing water and vegetation overhanging the sides of streams. The red side dace live in the Heber Down subwatershed upstream of Taunton Road, the Main Branch subwatershed in the Brooklin area and the Ashburn subwatershed from Brooklin to Chalk Lake.

#### 2.2.4 Woodlands

The PPS defines woodlands as *“treed areas that provide environmental and economic benefits to both the private landowner and the general public, such as erosion prevention, hydrological and nutrient cycling, provision of clean air and the long-term storage of carbon, provision of wildlife habitat, outdoor recreational opportunities, and the sustainable harvest of a wide range of woodland products. Woodlands include treed areas, woodlots or forested areas and vary in their level of significance at the local, regional and provincial levels.”*

As will be noted in Section 3.1 in this Policy Paper, the PPS indicates that the criteria for determining significance for woodlands *“are recommended by the Province, but municipal approaches that achieve or exceed the same objective may also be used.”* It is noted that within the Greenbelt Plan, the Province is in the process of establishing these criteria, but they have yet to be finalized. Woodlands that would be considered to be ‘significant’ have been identified in the Taunton North Community Secondary Plan as ‘core woodlands’ and they have also been identified in the West Whitby Secondary Plan as well. In addition, a number of ‘mature woodlands’ have been identified on Schedule ‘C’ to the Official Plan as noted previously, a discussion of the Town’s policy framework is contained in Section 5.5 of this Policy Paper.

There is general acceptance that larger woodland patch sizes are better than smaller woodland patch sizes as fragmentation is a significant impediment to the success of biological diversity. Habitat fragmentation contributes to changes to local and broader climates, loss of habitat for species and negative impacts on the ability of animals to migrate. Woodland size is important as it provides habitat and certain species require larger woodland patch sizes than others. Larger woodlands are also able to deal with, from a conservation and long-term sustainability standpoint, natural disturbances. Maintaining biological diversity is important as it contributes directly to the loss of species and is mainly the result of converting natural habitats to urban areas.

There are a number of large wooded areas in the Town of Whitby, with the largest concentration of woodlands being located between the Brooklin and Whitby Urban Areas in the vicinity of Iroquois Beach. Many of the woodlands in this area are connected and many are located in the valleys associated with the many watercourses and the many streams that are located in this area.

#### 2.2.5 Valleylands

The PPS defines valleylands as *“a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of the year.”* Like woodlands, the PPS indicates that the criteria for determining significance for valleylands *“are recommended by the Province, but municipal approaches that achieve or exceed the same objective may also be used.”*

In the Town of Whitby, no 'significant' valleylands have been identified on the Schedules to the Official Plan. However, valley corridors have been identified in the Taunton North Community Secondary Plan.

#### 2.2.6 Wildlife Habitat

The PPS defines wildlife habitat as *“areas where plants, animals and other organisms live, and find adequate amounts of food, water, shelter and space needed to sustain their populations. Specific wildlife habitats of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species.”*

The PPS directs that the criteria for determining significance for wildlife habitat *“are recommended by the Province, but municipal approaches that achieve or exceed the same objective may also be used.”* No areas have been identified as 'significant wildlife habitat' areas on the Schedules to the Official Plan.

#### 2.2.7 Fish Habitat

The PPS defines fish habitat as *“spawning grounds and nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly in order to carry out their life processes.”* The PPS states that development and site alteration shall not be permitted in fish habitat accept in accordance with Provincial and Federal requirements (2.1.5). The protection of fish and fish habitat is a Federal responsibility and is administered by Fisheries and Oceans Canada (DFO). DFO administers the Federal Fisheries Act, which is the principle statute for the protection of fisheries and fish habitat in Canada.

### **3.0 PROVINCIAL POLICY**

#### **3.1 PROVINCIAL POLICY STATEMENT (PPS)**

There are a number of key policies in the PPS that reflect the Provincial interest in the natural environment. Policy 1.0 and 1.1.1 c) combined states that:

*Ontario's long-term prosperity, environmental health, and social well-being depend on wisely managing change and promoting efficient land use and development patterns. Efficient land use and development patterns support strong, liveable and healthy communities, protect the environment and public health and safety and facilitate economic growth accordingly, healthy, livable and safe communities are sustained by avoiding development and land use patterns which may cause environmental or public health and safety concerns.*



Section 2.0 of the PPS deals with wise use and management of resources. The preamble of this section indicates that “Ontario’s long-term prosperity, environmental health, and social well-being depend on protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits.” It is within this section that Section 2.1.1 indicates that natural features in the area shall be protected for the long-term.

Section 2.1.2 of the PPS deals with the importance of natural features in a wider geographic area. This section states:

*“The diversity and connectivity of natural features in an area, and the long term ecological functions and biodiversity of natural heritage systems, should be maintained, restored, where possible improved, recognizing linkages between and among natural heritage features and areas, surface water features and groundwater features.”*

This policy reflects the more recent interventionist approach of the Provincial government to natural heritage planning and is consistent with the approach it has taken with the Oak Ridges Moraine and the Greenbelt Plan. This policy, to a very large extent, establishes the basis for creating a Natural Heritage System, as will be discussed in Section 5.3 of this Policy Paper.

Section 2.1.3 of the PPS prohibits development and site alteration in significant habitat of endangered species and threatened species, significant wetlands and significant coastal wetlands. Section 2.1.4 of the PPS then prohibits development and site alteration in significant woodlands, significant valleylands, significant wildlife habitat and

significant areas of natural and scientific interest, unless *“it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.”*

The term *“significant”* is very important in the lexicon of Provincial policy, since it is only when a natural heritage feature is considered to be ‘significant’ that it is then afforded the protections provided for in the PPS. *“Significant”* is defined in the PPS according to the particular significant feature or area, as described in the following summary chart.

<b>SIGNIFICANT FEATURE</b>	<b>PPS DEFINITION</b>
<b>Wetlands, Coastal Wetlands &amp; ANSIs</b>	An area identified as provincially significant by the Ontario Ministry of Natural Resources (MNR) using evaluation procedures established by the Province, as amended from time to time.
<b>Habitat of endangered species and threatened species</b>	The habitat, as approved by the MNR, that is necessary for the maintenance, survival, and/or the recovery of naturally occurring or reintroduced populations of endangered species or threatened species, and where those areas of occurrence are occupied or habitually occupied by the species during all or any part(s) of its life cycle.
<b>Woodlands</b>	An area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history.
<b>Valley lands and wildlife habitat</b>	Ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system.

The PPS also states that development and site alteration shall not be permitted in fish habitat except in accordance with Provincial and Federal requirements (2.1.5).

With respect to adjacent lands, Section 2.1.6 of the PPS states that *“development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.3, 2.1.4 and 2.1.5 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.”*

Adjacent lands are defined by the PPS as *“for the purposes of policy 2.1, those lands contiguous to a specific natural heritage feature or area where it is likely that*

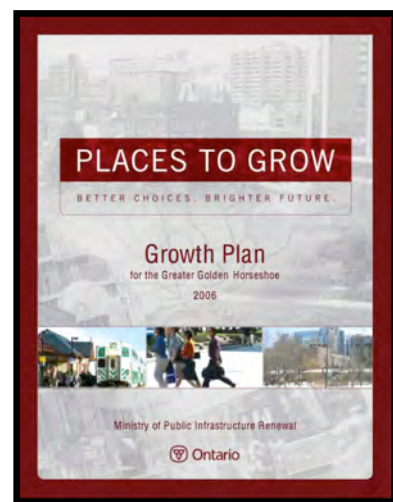
*development or site alteration would have a negative impact on the feature or area. The extent of the adjacent lands may be recommended by the Province or based on municipal approaches which achieve the same objectives;”*

This policy also prohibits development and site alteration on adjacent lands unless the 'no negative impact' test can be met. However, the policy also goes further and states that the ecological functions of the adjacent lands must be evaluated, which means that the ecological function must be clearly established first.

### **3.2 GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE**

The application of a new Provincial Plan to the Region of Durham and the Town of Whitby (Growth Plan for the Greater Golden Horseshoe) does add another dynamic to how Provincial Plans and policies respecting the natural environment are interpreted.

The Growth Plan requires that upper tier municipalities accommodate a certain amount of population and employment growth to 2031 in Section 2.2.1.1. Upper tier municipalities are then responsible for allocating that growth to lower tier municipalities according to the Provincial Policy Statement. The Growth Plan further indicates that the policies of Section 2.0 of the PPS (Wise Use and Management of Resources) are to be applied when considering a settlement area expansion. Section 4.1 of the Growth Plan then indicates *"unique natural heritage features and areas...are valuable assets that must be wisely protected and managed as part of planning for future growth."* Section 4.2.1.3 then indicates *"planning authorities are encouraged to identify natural heritage features and areas that complement, link or enhance natural systems."*



On the basis of the above, it is clear that the Growth Plan, while requiring municipalities to plan for growth, also requires municipalities to consider what 'is valuable' when planning for that growth. While balancing these two objectives in an appropriate manner is always considered 'good planning', the Province does highlight the importance of the natural environment in Section 14(4) of the Places to Grow Act, 2005 as set out below:

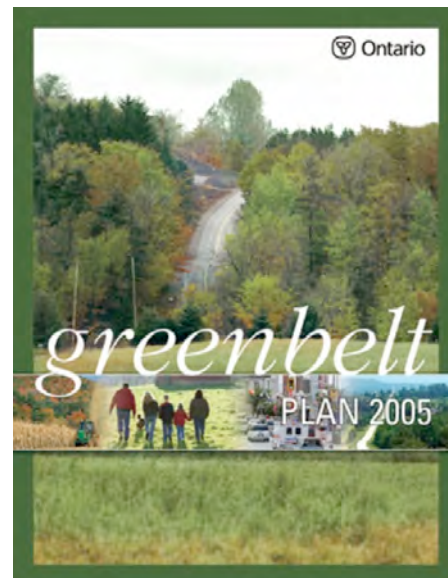
*"Despite any Act, but subject to a Regulation made under clause 18(1)(b), (c), or (d), if there is a conflict between a direction in a Growth Plan and a direction in a Plan or policy that is mentioned in subsection (5) with respect to a matter relating to the natural environment or human health, the direction that provides more protection to the natural environment or human health prevails."*

In this regard, Sections 2.1.2 of the PPS and Section 4.2.1.3 of the Growth Plan do provide the basis for the protection of the natural environment in the Town of Whitby and the establishment of a Town-wide Natural Heritage System, as will be discussed in Section 5.3 of this Policy Paper.

### 3.3 GREENBELT PLAN

The Greenbelt Plan establishes a policy framework that has at its core the protection of key natural heritage and key hydrologic features, most of which are included within the Natural Heritage System established by the Greenbelt Plan. The Greenbelt Plan includes the following features as key natural heritage features:

- *Significant habitat of endangered species, threatened species and special concern species;*
- *Fish habitat;*
- *Wetlands;*
- *Life Science Areas of Natural and Scientific Interest (ANSIs);*
- *Significant valleylands;*
- *Significant woodlands;*
- *Significant wildlife habitat;*
- *Sand barrens, savannahs and tallgrass prairies; and*
- *Alvars.*



The Greenbelt Plan also indicates that the following are key hydrologic features:

- *Permanent and intermittent streams;*
- *Lakes (and their littoral zones);*
- *Seepage areas and springs; and*
- *Wetlands.*

There are a number of specific policies that apply to the Natural Heritage System, the Water Resource System, and Key Natural Heritage and Key Hydrologic Features. Of particular note:

- Municipalities together with conservation authorities should ensure that watershed plans are completed to guide planning and development decisions within the Protected Countryside;
- Municipalities shall, in accordance with any Provincial directions on source water protection, protect vulnerable surface and ground water areas, such as wellhead

protection areas, from development that may adversely affect the quality and quantity of ground and surface waters;

- Development or site alteration is not permitted within key hydrologic features or key natural heritage features within the Natural Heritage System including any associated vegetation protection zone with the exception of forest, fish and wildlife management; conservation and flood or erosion control projects, infrastructure, aggregate, recreational, shoreline and existing uses as set out in the general policies of the Greenbelt Plan;
- Beyond the Natural Heritage System within the Protected Countryside, key hydrologic features are defined by and subject to the natural features policies contained in the Greenbelt Plan;
- Beyond the Natural Heritage System within the Protected Countryside, key natural heritage features are subject to the policies of the PPS;
- A minimum vegetation protection zone of 30 metres shall be required from the outside boundary of wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, lakes and significant woodlands;
- New development within 120 metres of Key Natural Heritage Features within the Natural Heritage System or a Key Hydrologic Feature anywhere within the Protected Countryside requires a natural heritage evaluation and hydrological evaluation which identifies a vegetation protection zone;
- Expansions to existing agricultural buildings and structures and farm and non-farm dwellings along with accessory uses are permitted in key natural heritage features subject to criteria; and,
- New buildings and structures for agricultural uses will generally be required to provide a 30 metre vegetation protection zone from a key natural heritage feature or key hydrologic feature.

A further discussion on the Greenbelt Plan is found within Section 5.7 of this Policy Paper.

#### **4.0 REGION OF DURHAM OFFICIAL PLAN**

The protection of natural heritage resources is recognized as a key consideration within the approved Region of Durham Official Plan (not including changes made by ROPA 128). According to Section 1.1.1(e), it is a basis of the Regional Official Plan that “*natural resources need to be protected for future generations, and managed to be sustainable.*” Further stressing their recognition of natural heritage features, a specific goal is included within the Official Plan which is “*to live in harmony with the natural environment and heritage of the Region.*” Specific directions of the Official Plan also include references to natural heritage features. For example, according to Section 1.3.1,

*“the goals of this Plan will be achieved through the following directions:*

- a) protecting significant features and functions of the natural environment;*
- b) encouraging development that will not have adverse cumulative impacts on the natural, built and cultural environments;*
- n) identifying and protecting resources in the Region.*

To implement the goals and directions listed above, a variety of policies for natural heritage features have been inserted throughout the Region’s Official Plan. The majority of the goals and policies for natural heritage features are contained within Section 2 (Environment) and Section 10 (Greenlands System).

Section 2 of the Official Plan identifies a number of goals and policies for natural heritage features. These goals are listed below.

- To ensure the preservation, conservation and enhancement of the Region's natural environment for its valuable ecological functions and for the enjoyment of the Region's residents.*
- To incorporate good community planning and design that enhances the Regional landscape and minimizes pollution of air, water and land resources.*
- To preserve and foster the attributes of communities and the historic and cultural heritage of the Region.*
- To undertake planning functions based on the understanding that there is a relationship between the natural and built environments and the principle of preserving resources and protecting the natural environment for future generations.*
- To promote good community planning and design that enhances public health and safety.*

A series of general and specific policies for natural heritage features are also contained within Section 2. Recognizing the key role that natural heritage features play in the Region, Section 2.2.1 states, *“In the planning and development of the Region, the natural environment, which includes areas designated as Oak Ridges Moraine, Waterfronts and Major Open Space Areas as well as the Greenbelt Natural Heritage System and key natural heritage and hydrologic features, shall be given paramount consideration in light of their ecological functions and scientific, educational and health values”*.

Similarly, Section 2.2.2 also states *“In the planning and development of the Region the cumulative impact on the environment shall be taken into account by assessing matters such as, but not limited to, the capacity of the natural environment to accommodate development, particularly ground and surface water resources, the maintenance of connected natural systems, and the impacts on environmental features and functions”*. Section 2.2.3 also states *“woodlands, wetlands and peat bogs shall be protected and managed to provide environmental, recreational and economic benefits to the Region”*.

Many of the Regional policies that apply to natural heritage are discussed in the analysis section of this Policy Paper in Section 5.0.

## **5.0 ANALYSIS**

The purpose of this section of the Policy Paper is to provide a description of the current environmental policy framework in the Town's Official Plan and discuss a number of issues that may have an impact on that policy framework on a go forward basis. A number of Directions are also presented in this section, with these Directions being suggested for consideration and discussion as part of the overall Official Plan Review.

### **5.1 LAND USE DESIGNATION FRAMEWORK**

The Town's policy framework with respect to natural heritage is located within three separate sections of the Official Plan. In addition, the Official Plan does not have an *“Environmental”* designation, although the Major Open Space designation has been established to both provide for and deal with lands that are considered to be environmentally sensitive. However, public parkland in addition to private recreational open space type uses are permitted in this designation.

In addition, the Hazard Lands designation exist to protect those lands that are predominantly within and adjacent to watercourse and the Lake Ontario Shoreline, but the Hazard Lands designation is also the site of other natural heritage features, such as wetland and fisheries.

As Secondary Plans were prepared for various parts of the Town, different approaches were taken with respect to the identification of environmental lands. In the Port Whitby Community Secondary Plan, there exists a Major Open Space, Hazard Lands and Low Hazard Lands designation. The Lynde Shores Secondary Plan contains a Major Open Space/Park designation and Low Hazard designation. The Brooklin Secondary Plan contains an Open Space designation and a Hazard Land designation. The Brock/Taunton Major Central Area Secondary Plan also contains a Hazard Land designation as does the Thickson/Taunton Community Central Area Secondary Plan.

The first time an ‘environmental protection type’ designation is applied is in the Taunton North Community Secondary Plan where a distinction was made between lands that were intended to be protected and enhanced from lands that were within flood plains and considered to be hazard lands, which were included within Hazard Lands

designation. The Major Open Space designation in the Taunton North Community Secondary Plan then was applied to areas that were to be used for open space purposes.

The approach adopted in the Taunton North Community Secondary Plan was then relied upon to a very large extent in the West Whitby Secondary Plan. It is our opinion that this approach should be considered as part of the Official Plan Review in terms of establishing an appropriate land use planning framework that provides adequate protections to environmental features in the Town.

On this basis, and on a go forward basis, the Town should consider the combining of the Environmental Protection/Conservation Lands designation created in Taunton North, with any Environmental Protection designation established in the West Whitby Secondary Plan with the Hazard Lands designation that applies throughout the Town, as appropriate. This new designation would then be combined, with certain modifications, with the Greenbelt Natural Heritage System. If this was to occur, one of the more significant objectives in the Town's current Official Plan, which is to *"establish a Greenway system consisting of major woodlands, conservation areas, valleylands, wetlands, the Lake Ontario Waterfront and the Oak Ridges Moraine"* would be implemented.

On the basis of the above, it is suggested that the following Direction be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 1 – that the Official Plan be restructured to include a new Environmental Protection/Conservation Lands designation that incorporates the lands within this designation in the Taunton North Community Secondary Plan, the lands within the Environmental Protection designation in the West Whitby Secondary Plan and the lands within the Hazard Lands designation, as appropriate.**

## **5.2 ENVIRONMENTALLY SENSITIVE AREAS**

Through the policies of Section 5 and the schedules of the Official Plan, the Town has identified various environmentally sensitive areas for protection. The Official Plan identifies environmental sensitive areas as being those areas *"identified as comprising natural landscape, including those lands and water of inherent biological sensitivity, such as those containing aquifer recharges, headwaters, unusual plants, wildlife or landforms, breeding or over wintering habitats, vital ecological functions, rare or endangered species, and/or other combinations of habitat and landform which could be valuable for scientific research or conservation education, including areas of natural and scientific interest"*.

Environmentally Sensitive Areas (ESA) are *"generally"* shown on Schedule C of the Plan and *"shall be retained wherever possible in a natural state."* Permitted uses in

ESAs are limited to single-detached dwellings, non-intensive recreation uses (example nature viewing and trails), woodlots, and wildlife and fisheries management and conservation areas. The Plan notes that natural features should be preserved “*to the maximum degree possible*” and buildings and structures should be minor in scale with no or minimal parking provided on site.

Based on a review of Schedule C of the Official Plan, the only ESAs that have been identified are Provincially Significant Wetlands as identified and evaluated by the Province of Ontario. Mature woodlands (outside of ESAs) are also identified on Schedule C and there are a number of those identified, with all being in close proximity to watercourses.

Environmentally sensitive areas are not identified as a Natural Heritage Feature in the PPS, the Greenbelt Plan nor the Oak Ridges Moraine Conservation Plan. Given that the ESAs that have been identified correspond to Provincially Significant Wetlands and “*mature woodlands*”, it is recommended that ESAs no longer be identified in the Official Plan and that lands that are so identified as such be included within the new Environmental Protection/Conservation Lands designation discussed in Section 5.1 of this Policy Paper. The woodland component is discussed in Section 5.5 of this Policy Paper.

On the basis of the above, it is suggested that the following Direction be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 2 – that the Official Plan no longer identify ESAs in the text and on the Schedules and instead, the lands within the ESAs so identified be included within the new Environmental Protection/Conservation Lands designation.**

### **5.3 ESTABLISHING A NATURAL HERITAGE SYSTEM**

On the basis of the recommendations made in Sections 5.1 and 5.2 of this Policy Paper that have to do with establishing a new Environmental Protection/Conservation Lands designation, the next step is to consider the new Environmental Protection/Conservation Lands designation to be the Natural Heritage System in the Town of Whitby, or as it is identified in the Region of Durham, as the Town’s Greenlands System. Creating both a new Environmental Protection/Conservation Lands designation and characterizing it as being part of a new Natural Heritage System in the Town would be a significant step forward in the evolution of the environmental policy framework in the Town of Whitby.

As has already been demonstrated in this Policy Paper, the Town has a number of significant environmental and topographical features that contribute to the ‘sense of place’ felt by many of the Town’s residents. These features include the Lynde Creek and other valley systems, the former Iroquois Beach area, and the vast forest tracts, smaller woodland areas and wetland areas that support diverse wildlife communities.

Establishing a Natural Heritage System could then be a key underlying principle in the Official Plan and would set the stage for the establishment of an 'environment-first' philosophy in the Town. The environment-first philosophy is a land use planning approach that would be considered in making all planning decisions whereby the importance of maintaining, restoring and where possible, enhancing or improving natural heritage features and ecological functions is recognized and promoted as a Town priority, to be considered in conjunction with other interests in accordance with Provincial policy and legislation.

Section 2.1.2 of the PPS establishes the basis for the establishment of a Natural Heritage System. This section states that *“the diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.”*

The PPS defines “*natural heritage system*” as:

*“a system made up of natural heritage features and areas, linked by natural corridors which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species and ecosystems. These systems can include lands that have been restored and areas with the potential to be restored to a natural state.”*

The basis for establishing a Natural Heritage System in the Town is also provided by the Greenbelt Plan, which firstly identifies an area that is to be protected from urban development and secondly identifies a Greater Toronto Area - wide Natural Heritage System.

The PPS section identified above introduces the concept of enhancement by stating that the ecological function and biodiversity of natural heritage systems should be maintained and that linkages between and among natural heritage features and areas, surface water features and groundwater features should be improved, where possible. Establishing a Natural Heritage System in the Town would be the Town's response to this policy in the PPS. Collectively, both the PPS and the Greenbelt Plan support enhancements of the natural heritage system, wherever possible. On this basis, there is a clear requirement in both Provincial documents that natural heritage features and functions should be enhanced when the opportunity arises.

Section 10 (Greenlands System) of the Region's Official Plan also contains a series of policies with respect to natural heritage features and areas that support the establishment of a Natural Heritage System in the Town. Goals found in this Section of the Region's Official Plan include:

- *To establish a continuous Greenlands System of open spaces (on and off the Oak Ridges Moraine, including waterfront areas) that weave through and between the Urban and Rural Systems to ensure ecological health and renewal, and to assist in creating distinct Urban Areas.*
- *To protect significant habitats of plants, fish and wildlife within natural, built and cultural environments.*
- *To provide opportunities for a variety of compatible recreational activities.*
- *To protect the ecological and hydrological features and functions of the Oak Ridges Moraine and Greenbelt Protected Countryside in perpetuity as a vital component of the Region's natural, built and cultural environment, and in support of the Province's vision of a continuous band of open space providing form and structure to south-central Ontario.*
- *To protect, sustain and enhance waterfronts within the Region as major and vital components of the Region's natural, built and cultural environments.*

On the basis of the above, it is suggested that the following Directions be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 3 – that the Official Plan includes a policy that supports the establishment, maintenance and enhancement of a Natural Heritage System through the Town. The Natural Heritage System would be made up of components of the Greenbelt Natural Heritage System, the Core and Linkage areas on the Oak Ridges Moraine and the lands located within the new Environmental Protection/Conservation Lands designation and any other lands identified as a consequence of further review.**

**NATURAL ENVIRONMENT DIRECTION 4 – that the Official Plan establish an ‘environment-first’ philosophy, which is a land use planning approach that would be considered in making all planning decisions whereby the importance of maintaining, restoring and where possible, enhancing or improving natural heritage features and ecological functions is recognized and promoted as a Town priority, to be considered in conjunction with other interests in accordance with Provincial policy and legislation.**

It is noted that once all of the above structural changes are made to the Official Plan, there will not be much land left in the Major Open Space designation as discussed in Section 5.1 of this Policy Paper, which is the designation that was originally designed to provide the basis for a Town-wide Greenway System. This Major Open Space designation should really only be used for public parkland and potentially for private recreational uses. One option to consider is to establish a ‘public open space’ and a ‘private open space’ designations to make this distinction. Once the layers of

environmental mapping have been combined and the lands that are either public or private open space identified, the remaining lands will need to be reviewed to determine what land use designation is the most appropriate.

On the basis of the above, it is suggested that the following Direction be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 5 – that the designation and policy framework that applies to lands that are currently within the Major Open Space designation be reviewed, once the boundaries of the new Environmental Protection/Conservation Lands designation have been established.**

#### **5.4 ADJACENT LANDS IN WHITBY**

Section 2.1.6 of the PPS states that:

*“development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.3, 2.1.4 and 2.1.5 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.”*

The Natural Heritage Resource Manual (NHRM) prepared by the MNR provides recommended distances for defining adjacent lands for the purposes of determining when an Environmental Impact Study (EIS) should be completed, if development is proposed near a natural heritage feature. The following chart is an abbreviated version of Table 4-2 from the NHRM.

<b>PPS Natural Heritage Feature or Area</b>	<b>Adjacent Lands Width (Distance from feature for considering potential negative impacts)</b>
Significant habitat of endangered and threatened species	120 metres
Significant wetlands and significant coastal wetlands	120 metres
Significant woodlands	120 metres
Significant valleylands	120 metres
Significant wildlife habitat	120 metres
Significant Areas of Natural and Scientific Interest – Life Science	120 metres
Significant Areas of Natural and Scientific Interest – Earth Science	50 metres
Fish Habitat	120 metres

It is noted that the recommended distances for many of the features above have been increased from the distances recommended in the 1997 training manual released by the MNR.

On the basis of the above, it is suggested that the following Direction be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 6 – that the Official Plan include policies that identify adjacent lands width for the purposes of determining when an Environmental Impact Study is required in accordance with the 2011 Natural Heritage Resource Manual.**

## **5.5 WOODLANDS**

Section 2.3.19 of the Region of Durham Official Plan contains specific policies relating to woodlands. According to this Section of the Official Plan:

*“the Region will, in cooperation with the area municipalities, conservation authorities and other agencies having jurisdiction, participate in managing the woodlands in the Region by:*

- a) conducting a woodlands inventory to identify significant woodlands;*
- b) encouraging expanding sustainable woodlands throughout the Region to improve woodland functions and linkages with other areas;*
- c) establishing a tree-planting program on Regional road allowances that encourages the use of indigenous species;*
- d)) requiring studies to be carried out on the impact of development on significant woodlands, in accordance with Policy 2.3.43;*
- e) encouraging land owners to take advantage of programs of the Ministry of Natural Resources and conservation authorities in the management of forests and woodlots;*
- f) establishing an overall woodland cover target of a minimum 30% of Durham's total land area. Recognizing that not all areas of the Region will be covered by woodlands, watershed plans will be utilized to assist in establishing woodland targets for a watershed or smaller geographical area that is in keeping with the Regional target. To assist in implementation, watershed plans may also identify the most suitable areas that should be targeted for enhanced woodland coverage, avoiding prime agricultural lands. The use of indigenous tree species to achieve these targets is encouraged; and*
- g) encouraging area municipalities to prepare Urban Tree Strategies.*

The above section encourages municipalities like the Town of Whitby to develop policies and protocols to support the goal of 30% woodland tree cover in the Region.

The Town of Whitby Official Plan currently does not identify Significant Woodlands, at least as it has been defined in the PPS. It is noted however that Schedule Q of the Taunton North Community Secondary Plan does identify Core Woodlands and these are generally located in the centre of a large wooded area that extends from the east of Baldwin Street to almost Thickson Road. Schedule C of the Official Plan also identifies a number of ESAs that are considered to be mature woodlands. All of these areas will be included within the Environmental Protection/Conservation Lands designation that has been already recommended in this Policy Paper. However, including these lands within this new designation does not necessarily mean that the wooded areas so identified are considered to be 'significant' as per the PPS. On this basis, further analysis will be required to determine where the 'significant woodlands' are located in the Town of Whitby, with this further analysis being carried out in conjunction with the Region of Durham as per Section 2.3.19 of the Region of Durham Official Plan.

On the basis of the above, it is suggested that following Direction be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 7 – that the Official Plan contain policies that support the Region’s policy framework with respect to Significant Woodlands and establishes the basis for identifying Significant Woodlands in the Town of Whitby in the future in accordance with Section 2.3.19 of the Region of Durham Official Plan.**

## **5.6 REQUIREMENTS FOR AN ENVIRONMENTAL IMPACT STUDY**

Also included within the Region of Durham Official Plan are policies requiring the preparation and submission of an Environmental Impact Study (EIS) that applies only to lands within and adjacent to the Greenbelt Natural Heritage System (Section 2.3.43). The new policy (which is under appeal as of November 2011), states the following:

*“Any proposal for development or site alteration in proximity to key natural heritage or hydrologic features shall be required to include an Environmental Impact Study as part of a complete application. The Region, in consultation with the respective area municipality, conservation authority and applicant, may select and retain a qualified environmental consultant to peer review the study at the proponent’s expense. Such a study shall apply to the area to be developed, or may be expanded to include additional lands, as may be deemed necessary by the Region, in consultation with the respective area municipality, conservation authority and any other appropriate agency, and it shall address the following:*

- a) *the location and nature of the development;*

- b) *the mapping of the location and extent of the environmental conditions, which may include key natural heritage or hydrologic features;*
- c) *the degree of sensitivity of the environmental conditions and an evaluation of such conditions;*
- d) *an assessment of the potential impacts including cumulative impacts on the environment;*
- e) *the need for any measures to protect and/or mitigate negative impacts to key natural heritage or hydrologic features and functions and the surrounding environment, and definitions of such measures;* f) *applicable environmental considerations of the Greenbelt Plan;*
- f) *where applicable, assess the significance of the key natural*
- n) *heritage and hydrologic features; and*
- g) *any other matters deemed necessary by Regional Council.*

*Such study may also include the requirements of a natural heritage evaluation and/or a hydrological evaluation, as detailed in the Oak Ridges Moraine Conservation Plan, in accordance with Policy 10B.2.7. For aggregate resource extraction proposals, an environmental impact study as required by the Aggregate Resources Act may be prepared by the proponent. Such study must address all relevant requirements of this Plan in addition to the requirements of the Aggregate Resources Act. In this circumstance, the Region, in consultation with the respective area municipality, shall select and retain a qualified environmental consultant to peer review the study at the expense of the proponent.*

The Taunton North Community Secondary Plan already contains in a significant amount of policy (Section 11.10.4) that establishes the basis for the preparation of Environmental Impact Studies. These policies were relied upon to a very large extent in the preparation of Environment Impact Study policies for the West Whitby Secondary Plan area. The policies of the Taunton North Community Secondary Plan also establish the basis for identifying areas where full Environmental Impact Studies are required and where scoped Environmental Impact Studies are required.

Given the other recommendations being made in this Policy Paper, it is recommended that an enhanced Environment Impact Study policy framework be included within the Official Plan to provide the basis for the carrying out of these types of studies in the future.

On the basis of the above, it is suggested that the following Direction be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 8 – that the Official Plan contain a new Environmental Impact Study policy section that would provide the basis for the**

**preparation of Environmental Impact Studies in accordance with Section 2.3.43 of the Region of Durham Official Plan and which build upon the policy framework established in the Taunton North and West Whitby Secondary Plans.**

## **5.7 IMPLEMENTING GREENBELT POLICY IN WHITBY**

Section 2.3.13 of the Region's Official Plan states, "*the Greenbelt Natural Heritage System of the Greenbelt Plan is shown on Schedule 'B' – Map 'B1'. The Greenbelt Natural Heritage System includes areas of the Greenbelt Protected Countryside with the highest concentration of the most sensitive and/or significant natural features and functions. This area is to be managed as a connected and integrated natural heritage system in accordance with the Greenbelt Plan and the relevant policies of this Plan. Area municipal official plans shall include a refined Greenbelt Natural Heritage System boundary, to be determined at the time of the area municipalities Greenbelt Plan conformity exercise*". Specific sections of the Region's Official Plan relating to the Greenbelt include Sections 2.3.14 to 2.3.18.

Below is a description of the how the Whitby Official Plan will need to be amended in the context of the Greenbelt Plan conformity exercise.

1. A number of references will need to be included in the Introductory Section of the Official Plan to reflect the passage of the Greenbelt Act, 2005 and the necessity for all planning decisions within the Greenbelt Plan Area to conform to the policies of the Greenbelt Plan.
2. The Schedules to the Official Plan will need to be modified to clearly show the boundaries of the Greenbelt Plan in the Town of Whitby Official Plan. Within the Greenbelt Plan Area, the following designations are proposed:
  - a) Protected Countryside (new);
  - b) Greenbelt Natural Heritage System (based on the Region) (new);
  - c) Hamlet Area (existing); and
  - d) Resource Extraction Area (existing).
3. As the above list indicates, two new designations will need to be added to the Official Plan. The Protected Countryside designation is new and would replace the Agricultural and any other designation in the existing Official Plan. The new Greenbelt Natural Heritage System (NHS) designation is intended to represent the extent of the Natural Heritage System in the Greenbelt Plan area in Whitby as set out as well by the Region of Durham Official Plan as amended by ROPA 114. It is noted that the Greenbelt Plan does permit refinements to the Natural Heritage System as part of the municipal conformity exercise.
4. The range of the uses permitted in the new Protected Countryside Area designation will have to conform to the Greenbelt Plan.
5. Additional criteria will need to be included within the Official Plan to deal with the

development of new golf courses and other recreational uses within the Protected Countryside designation. Specifically, the new criteria require that an appropriate Vegetation Enhancement Plan be prepared. Such a plan shall identify opportunities for maintaining or enhancing the amount of natural self-sustaining vegetation on the site. In addition to a Vegetation Enhancement Plan, there is now a requirement for the preparation of a Conservation Plan that is intended to demonstrate how water use and nutrient biocide will be kept to a minimum.

6. A number of general policies regarding the Natural Heritage System will need to be added to the Plan. These policies would indicate that:
  - a) new buildings and structures for agriculture, agricultural-related and secondary uses are not subject to the Natural System policies;
  - b) all development and site alteration within the Natural Heritage System shall demonstrate that there is no negative impact on key natural heritage features or key hydrologic features or their functions; and
  - c) the disturbed area of any site should not exceed 25% and the impervious surface on any site should not exceed 10% of the total developable area.
  
7. The Natural System policies will need to include references to key natural heritage features, which include:
  - a) significant habitat of endangered species, threatened species and special concern species;
  - b) fish habitat;
  - c) wetlands;
  - d) life science areas of natural and scientific interest;
  - e) significant valleylands;
  - f) significant woodlands;
  - g) significant wildlife habitat;
  - h) sand barrens, savannahs and tall grass prairies; and,
  - i) alvars.

Until mapping has been provided by the Province indicating where certain key natural heritage features are located, all applications under the Planning Act in the Natural Heritage System will be required to be supported by an Environmental Impact Study which identifies whether the lands are within a Key Natural Heritage Feature. A key component of any Environmental Impact Study will be an assessment of the criteria established by the Province relating to the identification of a feature as a key natural heritage feature. For example, criteria for identifying significant woodlands established by the Province will be very

important in determining whether a wooded area in the Protected Countryside is a Key Natural Heritage Feature according to the Greenbelt Plan. It should be noted that both the mapping of Key Natural Heritage Features and the criteria used to identify them are to be provided by the Province but at the time of the writing of this report, they were not available.

8. Key Hydrologic Features to be included in the new Official Plan include:
  - a) permanent and intermittent streams;
  - b) lakes (and/or littoral zones);
  - c) seepage areas and springs; and,
  - d) wetlands.
9. Mapping showing the location of Key Hydrologic Features has not been provided to the Town. At the time of writing this report, no area within the Natural Heritage System has been identified as a Key Hydrologic Feature.
10. A new section will be required that indicates that new development is not permitted within a Key Hydrologic Feature or Key Natural Heritage Feature with the exception of forest, fish and wildlife management, conservation and infrastructure, mineral aggregate extraction and existing uses.
11. A new policy will be needed that requires the establishment of a minimum Vegetation Protection Zone that has a width of at least 30 metres around all key natural heritage and hydrologic features.
12. A new policy will need to be added that requires that all development within 120 metres of a Key Natural Heritage Feature and a Key Hydrologic Feature shall be supported by an Environmental Impact Study.
13. A new policy will need to be added that indicates that single detached dwellings are permitted on lands within the Natural System, provided the Zoning By-law applying to such lands would have permitted the construction of such a dwelling when the Greenbelt Plan came into effect.
14. A new section on Infrastructure will need to be included. Given that public works are required to conform to the Official Plan as per the Planning Act, policies on infrastructure will also need to be included. The policies are general in nature and basically require that the location and construction of infrastructure:
  - a) minimizes, wherever possible, the amount of the Greenbelt, on particularly the Natural Heritage System traversed and/or occupied by such infrastructure; and,
  - b) minimizes the negative impacts and disturbance of the existing landscape, including, but not limited to, impacts caused by light intrusions, noise and road salt.

A number of exemptions are built into the policy to allow for infrastructure serving the agricultural sector.

15. A number of specific stormwater management infrastructure policies will need to be included within the Official Plan. Specific direction on the location of stormwater management ponds and the criteria that are required to be considered when reviewing or planning for the development of a stormwater management pond in the Natural Heritage System will be needed. The Greenbelt Plan indicates that naturalized stormwater management ponds are permitted in those portions of the Natural Heritage System that define the major river valleys that connect the Oak Ridges Moraine to Lake Ontario provided, provided they are located a minimum of 30 metres away from the edge of the river/stream and in the Vegetation Protection Zones of any abutting Key Natural Heritage Features or Key Hydrologic Features.
16. New policies on aggregate extraction will need to be included within the Official Plan. These policies will primarily deal with extraction within the Natural Heritage System in the Protected Countryside designation. Highlights of the proposed policy framework for aggregate extraction in the Protected Countryside designation is below:
  - a) New mineral aggregate operations are not permitted within significant wetlands, significant habitat of endangered species and threatened species and significant woodlands. Criteria identifying what a 'significant' woodland is have not been provided to the Town by the Province.
  - b) Notwithstanding the above, the policies do permit the expansion of an existing mineral aggregate operation into any Key Natural Heritage or Hydrologic Feature, but only if the decision is consistent with the PPS.
  - c) Applications to develop a new mineral aggregate operation in Key Natural Heritage Features or Key Hydrologic Features not identified above may be permitted provided certain criteria are met.
  - d) Specific criteria dealing with the connectivity between Key Natural Heritage Features and Key Hydrologic Features have to be satisfied before a new or expanded mineral aggregate operation is permitted.
  - e) New conditions of approval that deal with rehabilitation and the maximum allowable disturbed area associated with a mineral aggregate operations have been included. The policies also require that any excess disturbed area above the maximum allowable disturbed area permitted will be required to be rehabilitated. The policy further indicates that for existing operations, this shall be completed within ten years of the date of approval of the Greenbelt Plan and 50% completed within six years.
  - f) There are also a number of very specific rehabilitation policies that require rehabilitation as quickly as possible. In addition, the policies require that the

disturbed area of any site be rehabilitated to a state of equal or greater ecological value.

On the basis of the above, it is suggested that the following Direction be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 9 – that the Official Plan be updated by including new policies as set in Section 5.7 of the Planning for the Natural Environment Policy Paper that would apply to lands in the Greenbelt in accordance with the Greenbelt Plan.**

## **5.8 LAND SECUREMENT STRATEGY**

As urbanization is expected to continue in Whitby, there is a need to consider the establishment of a policy framework that provides the basis for the transfer of lands that are the site of environmental features into public ownership in new development areas such as Brooklin.

Section 2.2.9 of the Region's Official Plan contains land securement policies for environmental features. This section of the Official Plan states "*the use of various land securement tools is supported as a means of protecting and enhancing the Region's natural environment*". Section 2.3.50 contains further land securement policies for the Region. According to this Section,

*"the Region's involvement in potential land securement opportunities for conservation purposes shall focus on the following areas and considerations:*

- a) *key natural heritage and hydrologic features and hazard lands;*
- b) *establishment of a Regional trail network;*
- c) *damaged or degraded areas;*
- d) *nature and immediacy of threats to an area;*
- e) *proximity of area to existing property in public ownership;*
- f) *the overall cost of purchase and long term management of an area;*  
*and*
- g) *any other consideration identified through a Council approved Land Securement Strategy.*

There are a number of policies currently in the Town's Official Plan that deal with land securement. For example, Section 4.8.3.3 indicates "*that where any lands designated for Major Open Space are under private ownership, it shall not be construed that these sites are free and open to the public, nor that they will be acquired by the Municipality.*" However, Section 4.8.3.7 then indicates that "*the Municipality will encourage the acquisition, conservation, maintenance and renewal of Public Open Space Areas and related facilities as part of an ongoing comprehensive program of facilities management and community improvement.*" Section 4.9.3.4 which deals with Hazard Lands indicates

that *“where a Plan of Subdivision has been submitted, the dedication of Hazard Lands to the Municipality shall be encouraged.”*

However, Section 5.3.12.2 of the Official Plan makes it clear that significant mature woodlots within the limits of a proposed development will not be accepted as part of any parkland dedication. It is then indicated that in Section 5.3.12.5 that *“the retention by private landowners of ESAs and other significant mature woodlands indicated on Schedule C shall be encouraged rather than their dedication or purchase by the Municipality.”* This policy then further indicates that the Town may consider acquiring these lands where private ownership is not feasible nor desirable. In cases such as this, Section 5.3.12.5 further indicates that *“if these lands are to be dedicated, they will not be considered as part of a parkland dedication.”* However, the policies indicate that the bonusing provisions of the Planning Act may be implemented to encourage their retention or dedication.

The bonusing provisions discussed above are also carried forward into Section 11.10.4.4 of the Official Plan which deals with the Environmental Protection/Conservation Lands designation in the Taunton North Community Secondary Plan area. In this regard, Section 11.10.5.5 indicates as it relates to the Taunton North Community Secondary Plan that *“Hazard Lands as identified are encouraged to be transferred to the Municipality through the development review process.”* Section 11.10.6.7 indicates that within the Environmental Protection/Conservation Lands designation, the dedication of lands to the municipality or the provision of an environmental easement across some or all of the land shall be encouraged which would be in conflict with Section 5.3.12.5 as discussed above. Section 11.10.6.8 then indicates that any land acquired in this manner shall not be acceptable as part of the parkland dedication requirements under the Planning Act.

In a circumstance where an urban boundary expansion is proposed (as it is for Brooklin as per ROPA 128), it is recommended that the Official Plan contain policies that require the identification of the environmental lands to be protected and set aside up-front as non-development land as part of the Secondary Plan. Mechanisms could then be developed as part of that Secondary Plan process to provide for the conveyance of these lands into public ownership. As a condition of development approval, the Town could further require that Developer Group Agreements be secured to address the cost sharing of public conveyance of lands.

Mechanisms to secure lands through development approval or other processes include:

- land dedications/conveyance (as discussed above);
- voluntary sale and public purchase through funds allocated in the Town’s budget or from funds raised through the cash-in-lieu of parkland dedications, where appropriate;
- land swaps/exchanges;
- donations, gifts, bequests from individuals and/or corporations;

- density transfers and/or bonuses;
- through any applicable requirement relating to parkland or environmental resource area acquisition in the Town's Development Charges By-law;
- density transfers and/or bonuses;
- through any applicable requirement relating to parkland or environmental resource area acquisition in the Town's Development Charges By-law; and/or
- other appropriate land acquisition methods.

Conservation easements could also be considered to protect private lands within the Natural Heritage System.

It is recognized that the Town may not be able to secure in public ownership all of the lands that are within the Natural Heritage System in the Town. In these cases, the Town should negotiate with the landowners in an effort to protect the identified natural, environmental and cultural features and functions in private ownership and enhance environmental features and/or functions on private lands. In these instances, the Town could consider the following stewardship techniques to ensure the appropriate level of protection and, where appropriate, public access to the privately owned lands that are within the Natural Heritage System:

- municipal land use controls including zoning;
- information and education programs;
- stewardship agreements;
- charitable tax receipts;
- conservation easements; and/or
- any other appropriate agreements with the landowners.

On the basis of the above, it is suggested that the following Directions be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 10 – that the Official Plan include land securement policies that establish the basis for the consideration of a land securement strategy in new development areas as part of a Secondary Plan process.**

## **6.0 HAZARD LANDS**

The intent of this section of the Policy Paper is to review the Provincial policy framework that applies to natural hazards and make recommendations on how the natural hazard policy framework should be enhanced and/or changed as part of the Official Plan Review. The hazard land policy framework at the Provincial level is reviewed in the context of this Policy Paper that deals with natural heritage since natural heritage features and natural hazards often overlap.

## 6.1 WHAT ARE HAZARD LANDS?

'Hazardous lands' are defined in the PPS as *"property or lands that could be unsafe for development due to naturally occurring processes."* The PPS further defines hazardous lands based on along which shoreline or feature the lands are located, as summarized in the following table.

Hazardous land along....	...means land including that covered by water...
the shorelines of the Great Lakes - St. Lawrence River System	between the international boundary, where applicable, and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits.
the shorelines of large inland lakes	between a defined offshore distance or depth and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits.
river, stream and small inland lake systems	to the furthest landward limit of the flooding hazard or erosion hazard limits.

Section 3.1.1 of the PPS then states that:

*"Development shall generally be directed to areas outside of:*

- a) *hazardous lands adjacent to the shorelines of the Great Lakes - St. Lawrence River System and large inland lakes which are impacted by flooding hazards, erosion hazards and/or dynamic beach hazards;*
- b) *hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding hazards and/or erosion hazards; and*
- c) *hazardous sites."*

## 6.2 REGIONAL POLICY

Sections 2.2.6 to 2.2.8 of the Region of Durham Official Plan contain specific policies relating to development within and adjacent to hazard lands. According to Section 2.2.6, *"natural hazards are those lands exhibiting unstable or organic soils, poor drainage, steep slopes, flood, erosion or landslide susceptibility or any other physical conditions that would create risk to life and property or damage to the environment. They are primarily located in the Greenlands System. Hazard lands are often associated with various natural features. The primary use shall therefore be for preservation and conservation"*.

Section 2.2.7 of the Regional Official Plan states the following, which is intended to implement Provincial policy:

*Development and site alteration shall not be permitted within:*

- a) *the dynamic beach hazard;*
- b) *areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard; and*
- c) *a floodway regardless of whether the area of inundation contains high points of land not subject to flooding. However, development and site alteration may be considered in certain areas identified in a), b) and c) above, in accordance with relevant Provincial policies and regulations.*

### **6.3 ANALYSIS**

Section 4.9 of the current Official Plan sets out goals, objectives and policies relating to Hazard Lands within the Town and as described in Section 4.9.3.1 of the current Official Plan, *“Hazard Lands have inherent environmental hazards, such as poor drainage, unstable or organic soils, floods susceptibility, erosion, steep slopes or any other physical condition which could cause property damage, loss of life or lead to the deterioration or degradation of the environment, if developed.”* In Whitby, these Hazard Lands include streams and associated valleylands, and the shoreline erosion limit of Lake Ontario as identified by the Central Lake Ontario Conservation Authority.

The Whitby Official Plan currently states that Hazard Lands *“are intended primarily for preservation, conservation and enhancement of the natural environment but uses such as agriculture, passive recreation, conservation of soil, wildlife and fisheries habitats are also permitted. Conservation Areas or other outdoor recreational functions such as trails may also be permitted where Hazard Lands are integral with the Major Open Space designation.”* Like the Major Open Space designation discussed in Section 5.0 of this Policy Paper, golf courses are only permitted through an amendment to the Official Plan.

According to Section 4.9.3.2 of the Whitby Official Plan, *“The extent and exact location of Hazard Lands shall be determined in the zoning by-law in accordance with detailed flooding, soil and contour mapping in consultation with the Central Lake Ontario Conservation Authority, Ministry of Natural Resources and any other agency involved.”* The policies of the Plan also state that the Town will amend the Official Plan and zoning by-law when more detailed mapping becomes available.

As discussed in Section 5.0 of this Policy Paper, it has been recommended that the Hazard Lands designation be deleted and that it be replaced with a new Environmental Protection/Conservation Lands designation. This is being recommended because the Hazard Lands designation has been applied by the Town of Whitby to areas that are not only considered to be hazards, but to areas that are the site of natural heritage features as well.

It is recognized that there continues to be a public interest in identifying areas that are true hazards, such as lands that are located within floodplains. In this regard, it is recommended that the floodplain areas in the Town of Whitby and potentially the area adjacent to the Lake Ontario Shoreline be identified on the schedules to the Official Plan as a hazard policy area. Such a policy area would not be a designation. Instead, it would establish where these areas are located which will then assist with the review of development applications.

This approach was utilized in the West Whitby Secondary Plan in Section 11.12.7 which dealt specifically with floodplains. This new section indicated that a flood policy area was identified on Schedule 'V' to the Official Plan and that new development or site alteration is not permitted within the flood policy area, which is consistent with Provincial policy.

This new section in the West Whitby Secondary Plan also indicated that the implementing Zoning By-law shall place all floodplain lands in an appropriate Environmental Zone and that uses permitted in that zone would be limited to agricultural operations that existed on the date the implementing Zoning By-law is passed by Council and open space uses, excluding those uses that necessitate tree cutting. The zone would not permit buildings or structures, with the exception with essential structural works required for flood and/or erosion re-sediment control.

The changes being recommended above would have the effect of clearly differentiating a hazard from a natural heritage feature that should be protected. It is however recognized that in some cases, natural heritage features also overlap with the natural hazard.

On the basis of the above, it is suggested that the following Direction be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 11 – that the Official Plan not include a Hazard Land designation and that known hazard areas be identified on the schedules as a special policy area, as required.**

## **7.0 WATER RESOURCES**

The 2005 PPS indicates that there is a strong linkage between the water resources that are present in our community and the natural heritage features that they sustain. It is

on this basis that this Policy Paper also includes a discussion of the water resources policy framework at the Provincial and Regional level and a discussion on how the water resources policy framework in the Town of Whitby Official Plan should be enhanced and/or changed as part of the Official Plan Review.

## **7.1 PROVINCIAL AND REGIONAL POLICY**

### **7.1.1 Provincial Policy**

Section 2.2.1 of the PPS states that planning authorities shall protect, improve or restore the quality and quantity of water by:

- a) *using the watershed as the ecologically meaningful scale for planning;*
- b) *minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts;*
- c) *identifying surface water features, ground water features, hydrologic functions and natural heritage features and areas that are necessary for the ecological and hydrological integrity of the watershed;*
- d) *implementing necessary restrictions on development and site alteration to:*
  1. *protect all municipal drinking water supplies and designated vulnerable areas; and*
  2. *protect, improve or restore vulnerable surface and ground water, sensitive surface water features and sensitive ground water features, and their hydrologic functions;*
- e) *maintaining linkages and related functions among surface water features, ground water features, hydrologic functions and natural heritage features and areas;*
- f) *promoting efficient and sustainable use of water resources, including practices for water conservation and sustaining water quality; and*
- g) *ensuring stormwater management practices minimize stormwater volumes and contaminant loads, and maintain or increase the extent of vegetative and pervious surfaces.*

The PPS defines “*quality and quantity of water*” as:

*“measured by indicators such as minimum base flow, depth to water table, aquifer pressure, oxygen levels, suspended solids, temperature, bacteria, nutrients and hazardous contaminants, and hydrologic regime.”*

There are a number of components of Section 2.2.1 of the PPS that need to be considered in the context of preparing Official Plan policy in the Town of Whitby. Firstly,

the use of the word 'shall' in the PPS means that planning authorities must protect, improve or restore the quality and quantity of water.

Secondly, Section 2.2.1 c) indicates that water resource features must first be identified and that once identified, they must be protected, improved or restored if the feature is 'sensitive' which is defined in the PPS as *"in regard to surface water features and ground water features, means areas that are particularly susceptible to impacts from activities or events including, but not limited to, water withdrawals, and additions of pollutants."* As a result, if one of the surface water and/or groundwater features is determined to be sensitive, Policy 2.2.1 d) 2) then applies. Notwithstanding the above use of the word 'sensitive', Policy 2.2.1.e) does require that linkages and related functions among surface water features and ground water features (whether they are sensitive or not) and hydrologic functions and natural heritage features and areas be maintained.

It is noted that Section 2.2.2 of the PPS restricts development and site alteration in or near sensitive surface water features and sensitive groundwater features *"such that these features and their related hydrologic functions will be protected, improved or restored."* It is not clear why the PPS uses the word 'restrict' in this section instead of the word 'prohibit'. However, the use of the word 'restrict' does imply that certain development and site alteration may be permitted, such that these features and their related hydrologic functions will be protected, improved or restored. This section has been relied upon in the past where it has been proposed to remove a sensitive ground surface water feature and/or a sensitive ground water feature and restore that feature later.

### 7.1.2 Regional Policy

In addition to containing a series of natural heritage policies, the Region of Durham Official Plan contains a number of water resource policies.

General policies contained within Section 2.2 of the Region's Official Plan apply to water resources. According to Section 2.2.1 *"in the planning and development of the Region, the natural environment, which includes areas designated as Oak Ridges Moraine, Waterfronts and Major Open Space Areas as well as the Greenbelt Natural Heritage System and key natural heritage and hydrologic features, shall be given paramount consideration in light of their ecological functions and scientific, educational and health values"*. This policy treats environmental features, including key hydrologic features, as a paramount consideration in the planning and development of the Region.

Consideration of the impacts of development on water features is also recognized in Section 2.2.4 of the Region's Official Plan, which states, *"In the consideration of development applications, the impacts on surface water and groundwater resources shall be examined in order to maintain and/or enhance such resources in sufficient quality and quantity to meet existing and future needs of the Region's residents on a sustainable basis"*.

Sections 2.3.8 to 2.3.12 of the Region's Official Plan then contains a series of watershed planning policies. These policies support the preparation and implementation of watershed plans and other plans such as municipal Official Plans.

One policy that may have a significant impact on the planning process respecting new Greenfield areas is Section 2.3.10. This section states, "where a *watershed plan has not been completed for built-up areas or Greenfield areas designated for development in area municipal official plans on June 3, 2009, development may be considered where appropriate studies have been submitted to address the relevant components of a watershed plan that are necessary to assess the proposal to the satisfaction of the Region, in consultation with the area municipality and conservation authority*". While this section does permit development to be considered in the absence of the Watershed Plan, much of the work required to support a Watershed Plan would be required in any event in new Greenfield areas.

## **7.2 CURRENT POLICY FRAMEWORK IN TOWN'S OFFICIAL PLAN**

The Town of Whitby Official Plan currently does not have a dedicated section that deals with water resources. However, it is noted that Section 5.3.10, which deals with stormwater management, does contain some policies regarding the provision of stormwater management facilities. In particular, Section 5.3.10.2 indicates that "*acceptable stormwater management techniques (should be) employed in the design and implementation of all development, to control the affects of water quality and quality of run-off on the down stream aquatic environment.*" Section 5.3.11 contains a number of policies that deal with construction management plans that by definition also have an impact on how the impacts of development on water resources are mitigated in the context of developing a property or a series of properties.

Section 8.2.3 of the Whitby Official Plan also contains policies on stormwater management and this section establishes a number of objectives that are intended to require the implementation of stormwater management techniques and practices that will:

- Minimize increased levels of stormwater run-off;
- Maintain and improve where possible the water quality and base flow;
- Avoid the piping or channelization of water courses wherever possible;
- Minimize erosion, sedimentation and flooding; and,
- Protect environmentally sensitive areas.

Given that a significant amount of land in the Taunton North Community Secondary Plan was considered to be environmentally sensitive, a number of eco-system (and therefore water resource related) policies were included within Section 11.10 of the Official Plan. This approach is articulated in Section 11.10.2.1 of the Official Plan which indicates that one of the objectives of the Town is to "*employ an eco-system approach*

*and planning to ensure all of the components of the eco-system which are air, water, land and living organisms are considered as a whole and that balanced decisions are made with an understanding of the environmental, community and economic implications.”*

In addition, the Environmental Impact Study requirements set out in Section 11.10.4 of the Taunton North Community Secondary Plan also reflect the desire to consider the hydrogeologic impacts of development, in addition to environmental and other impacts.

Two types of Environmental Impact Studies are provided for in policy with the full EIS dealing with all matters and the scoped EIS focusing on maintaining “*recharge of precipitation to the surface aquifer and to the contributions of base flow to the Lynde and Pringle Creek Systems.*” It is clear that the Taunton North Community Secondary Plan integrates both water resources and natural heritage into the long-term planning for the area. In this regard, Schedule ‘Q’ to the Official Plan identifies areas that are the site of a major ground water resource and areas that are a site of a moderate ground water resource. These areas are located at the top of the slopes that are at the base of the Lake Iroquois Shoreline.

The Oak Ridges Moraine Secondary Plan also contains a number of policies that deal with the hydrological features and functions of the Oak Ridges Moraine. The policy framework in this section is intended to implement the policies contained within the Oak Ridges Moraine Conservation Plan. In this regard, Section 11.11.7.1 of the Official Plan contain specific policies regarding both key natural heritage and hydrologically sensitive features. Policies on watersheds and sub-watersheds are contained in Section 11.11.7.2 and policies on areas of high aquifer vulnerability are contained within Section 11.11.7.3. Generally, the policies that apply to lands in the Oak Ridges Moraine are unique to the Oak Ridges Moraine given that they are intended to implement the Oak Ridges Moraine Conservation Plan. A number of definitions were added to the Official Plan to implement the Oak Ridges Moraine Conservation Plan as well.

The policies of Section 11.12.2.8 of the West Whitby Secondary Plan are a further iteration of the policies dealing with environmental protection and water resources contained within the Taunton North Community Area Secondary Plan. The policies in the West Whitby Secondary Plan recognize the value of the Iroquois Beach Aquifer and the large woodlands that are associated with streams and/or larger wetlands in the area. The EIS requirements are significant and require an assessment of the potential impact of development on the function of both the economic and hydro-logic features and functions within the proposed development area. Groundwater recharge is also identified as an important issue to consider on a go-forward basis. The policies also require that a water balance calculation be included in all EIS reports.

Given all of the above, it is clear that the water resources policy framework has evolved from there being little mention of water resources in the Official Plan to it becoming a significant component of the environment and land use policy framework that applies in

the two most recent new Secondary Plans prepared by the Town – Taunton North and West Whitby. However, and notwithstanding the inclusion of policies in these two Secondary Plans, it is recommended that the Official Plan include a new dedicated section that deals specifically with water resources and which identifies the goals and objectives of the Town with respect to water resources to implement Section 2.2.1 of the Provincial Policy Statement.

On the basis of the above, it is suggested that the following Direction be considered for discussion purposes:

**NATURAL ENVIRONMENT DIRECTION 12 – that the Official Plan contain a new dedicated section that includes policies on water resources to implement Section 2.2.1 of the Provincial Policy Statement**

**7.3 SOURCE WATER PROTECTION**

The PPS calls for the protection of municipal drinking water supplies and designated vulnerable areas – source water protection. The 2006 Clean Water Act requires the preparation of Source Protection Plans (SPP).

The Clean Water Act received Royal Assent in 2006. The key component of the Act is the requirement for the preparation of Source Protection Plans (SPP). These Plans are managed by Conservation Authorities.

The Clean Water Act requires that SPP's be implemented through Official Plans, Zoning By-laws and other prescribed instruments relating to significant drinking water threats. Measures that can be used to ensure this occur include: Official Plan policies, restrictive zoning and conditional zoning, holding provisions and Risk Management Plans. Official Plan policies would prevent certain types of development from occurring in identified areas and implementing Zoning By-laws would ensure that the type of development not permitted by the Official Plan is not allowed through zoning. Consequently, any decision under the Planning Act and the Condominium Act will have to conform to a Source Protection Plan. If policies conflict between a Source Protection Plan and any other Provincial plan, the policy most protective of drinking water will prevail. If the Minister believes that any decision made under these Acts does not conform to a Source Protection Plan, he or she may amend the decision accordingly.

The Central Lake Ontario Source Protection Area (CLOSPA) Draft Proposed Updated Assessment Report was released in June 2011. The CLOSPA is comprised of 15 small watersheds, which include the watersheds of Lynde Creek, Pringle Creek, Corbett Creek and a small portion of the Oshawa Creek.

The Lynde Creek Watershed originates in the Oak Ridges Moraine and drains into Lake Ontario through Lynde Creek Marsh, a provincially significant wetland. The Heber Down Conservation Area is located in the middle of the watershed and the Lake Iroquois

Beach crosses through the centre of the watershed in an east west direction. As noted in Section 3.2.2 of the Report, *“the Oak Ridges Moraine represents the most significant groundwater recharge area in the watersheds and serves as the headwaters for Lynde, Oshawa, Bowmanville, and Soper Creeks”*. The Lake Iroquois Beach deposits are the second most important recharge area within the CLOSPA study area (CLOCA Watershed inventory 1979; Soo Chan 2006). *“Generally, shallow groundwater flow in the study area mimics the ground surface topography. Regionally, groundwater flows southward from the ORM towards Lake Ontario. The water table gradient decreases significantly south of Taunton Road in Whitby and Oshawa, and east of Bowmanville”*.

According to the draft report, the Iroquois Plain is a remnant of Glacial Lake Iroquois and the region can be separated into two areas:

- Iroquois Beach: a northerly, east-west trending band of sandy beach and shallow water lacustrine deposits (approximately 2 km in width)
- Iroquois Plain: a southerly plain formed by fine-grained lacustrine deposits

According to the report, *“the Iroquois Beach region is marked by low-lying bluffs and gravel bars. These beach sand deposits are an easily accessible source of groundwater for domestic use, and provide supplementary groundwater to streams”*.

The Pringle Creek Watershed originates in the Lake Iroquois Beach and also in northern surrounding lands, draining into Lake Ontario through the Whitby Harbour Provincially Significant Wetland. The Corbett Creek Watershed drains into Lake Ontario via the Corbett Creek Coastal Marsh Provincially Significant Wetland. The Oshawa Creek Watershed originates from the Oak Ridges Moraine and drains into Lake Ontario through the Oshawa Creek Coastal Wetlands and Oshawa Harbour.

The Draft Assessment Report notes that there are no municipal wells within the study area as municipal drinking water in this area comes from Lake Ontario. A few settlements however get their water from private wells including Myrtle Station, Almond Village, Ashburn and Macedonian Village.

The Draft Assessment Report provides a summary and conclusions including:

- There are increases in sodium and chloride associated with application of road salt or natural geologic formation in the shallow groundwater supplies that support private wells in the study area.
- Surface water quality is generally good with some elevated levels in phosphorous, nitrates and copper (decreasing or no trend) and increasing trends observed with chlorides. Chloride levels while increasing are below ecosystem-based standards. Nitrate, phosphorus, and copper levels are often above the standards and are likely associated with nutrient application in agricultural and nonagricultural lands for nitrate and phosphorus and historical industrial land-use for copper.

- Daily loads illustrate that a few large precipitation events occur each year that transport a significant proportion of the load to the lake.
- The surface water in streams in the study area is important for supporting the ecosystem and is also used for irrigation and other non-drinking water purposes. Lynde and Darlington Creek watersheds were found to have moderate groundwater stress levels, and the Lynde, Goodman, Oshawa, Darlington, and Soper Creek watersheds have significant surface water stress levels during summer months. All other catchments in the study area have low stress levels for both groundwater and surface water.
- There are no significant drinking water quantity or quality threats from activities, conditions, or issues identified in the CLOSPA HVAs (areas susceptible to contamination moving from the surface into the groundwater).
- There are no significant drinking water quantity or quality threats from activities, conditions, or issues identified in the CLOSPA SGRAs (important water quantity areas—replenishing the aquifers that serve as a source of drinking water, including both municipal and other drinking water uses, such as private wells).
- There are no significant drinking water quantity threats related to municipal drinking water supplies around the Lake Ontario drinking water intakes.

Given that the Source Protection Plan has not been finalized, the implications of the Source Protection Plan on Official Plan policy are not known. In addition, given that most of the water supply in the urban parts of the Region adjacent to Lake Ontario and most of the Town of Whitby is from Lake Ontario, it is unclear whether the Source Protection Plan will have much of an impact on land use planning policy as a consequence. On the basis of the above, it is recommended that no changes be made to the Official Plan at this time and that instead, the Town wait until the Source Protection Plan has been finalized to determine what course of action needs to be followed with respect to Town of Whitby Official Plan policy.

## **8.0 POTENTIAL OFFICIAL PLAN DIRECTIONS FOR CONSIDERATION**

On the basis of the review of Provincial and Regional policy, a number of Natural Environment Directions are suggested for consideration and discussion as part of the Official Plan Review. Specifically it is recommended that:

**NATURAL ENVIRONMENT DIRECTION 1 – that the Official Plan be restructured to include a new Environmental Protection/Conservation Lands designation that incorporates the lands within this designation in the Taunton North Secondary Plan, the lands within the Environmental Protection/Conservation Lands designation in the West Whitby Secondary Plan and the lands within the Hazard Lands designation as appropriate.**

**NATURAL ENVIRONMENT DIRECTION 2 – that the Official Plan no longer identify ESAs in the text and on the Schedules and instead, the lands within the ESAs so identified be included within a new Environmental designation.**

**NATURAL ENVIRONMENT DIRECTION 3 – that the Official Plan includes a policy that supports the establishment, maintenance and enhancement of a natural heritage system through the Town. The natural heritage system would be made up of components of the Greenbelt Natural Heritage System, the Core and Linkage areas on the Oak Ridges Moraine and the lands located within any Environmental designation is a Secondary Plan, lands within an ESA and lands within the Hazard Lands designation and any other lands identified as a consequence of further review.**

**NATURAL ENVIRONMENT DIRECTION 4 – that the Official Plan establish an ‘environment-first’ philosophy, which is a land use planning approach that would be considered in making all planning decisions whereby the importance of maintaining, restoring and where possible, enhancing or improving natural heritage features and ecological functions is recognized and promoted as a Town priority, to be considered in conjunction with other interests in accordance with Provincial policy and legislation.**

**NATURAL ENVIRONMENT DIRECTION 5 – that the designation and policy framework that applies to lands that are currently within the Major Open Space designation be reviewed, once the boundaries of the new Environmental Protection/Conservation Lands designation have been established.**

**NATURAL ENVIRONMENT DIRECTION 6 – that the Official Plan include policies that identify adjacent lands width for the purposes of determining when an Environmental Impact Study is required in accordance with Natural Heritage Resource Manual.**

**NATURAL ENVIRONMENT DIRECTION 7 – that the Official Plan contain policies that support the Region’s policy framework with respect to Significant Woodlands and establishes the basis for identifying Significant Woodlands in the Town of Whitby in the future in accordance with Section 2.3.19 of the Region of Durham Official Plan.**

**NATURAL ENVIRONMENT DIRECTION 8 – that the Official Plan contain a new Environmental Impact Study policy section that would provide the basis for the preparation of Environmental Impact Studies in accordance with Section 2.3.43 of the Region of Durham Official Plan and which build upon the policy framework established in the Taunton North and West Whitby Secondary Plans.**

**NATURAL ENVIRONMENT DIRECTION 9 – that the Official Plan be updated by including new policies as set in Section 5.7 of the Planning for the Natural Environment Policy Paper that would apply to lands in the Greenbelt in accordance with the Greenbelt Plan.**

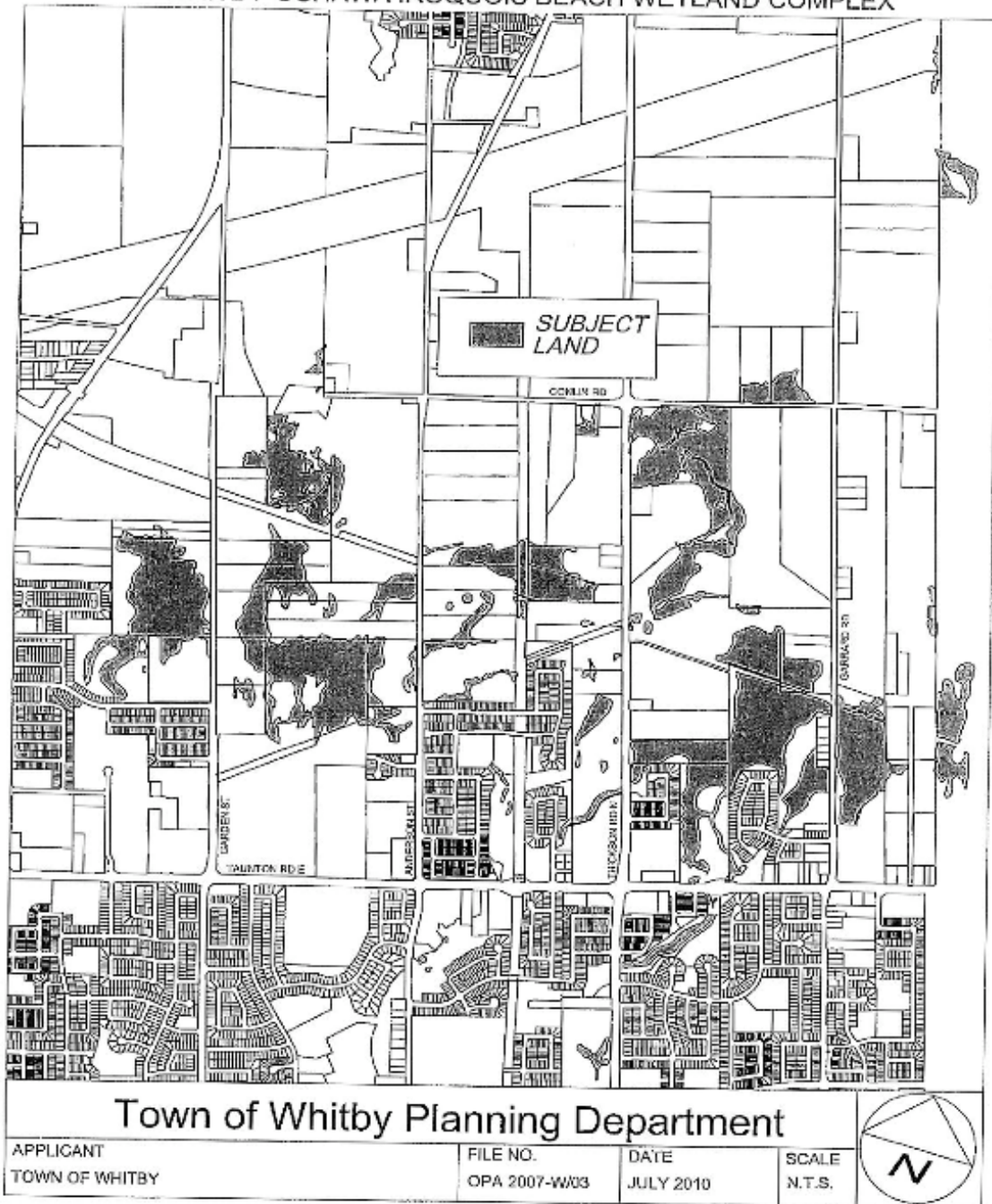
**NATURAL ENVIRONMENT DIRECTION 10 – that the Official Plan include land securement policies that establish the basis for the consideration of a land securement strategy in new development areas as part of a Secondary Plan process.**

**NATURAL ENVIRONMENT DIRECTION 11 – that the Official Plan not include a Hazard Land designation and that known hazard areas be identified on the schedules as a special policy area, as required.**

**NATURAL ENVIRONMENT DIRECTION 12 – that the Official Plan contain a new dedicated section that includes policies on water resources to implement Section 2.2.1 of the Provincial Policy Statement**

ATTACHMENT #1a)  
WHITBY-OSHAWA IROQUOIS BEACH WETLAND COMPLEX

PL 87-10



Town of Whitby Planning Department

APPLICANT  
TOWN OF WHITBY

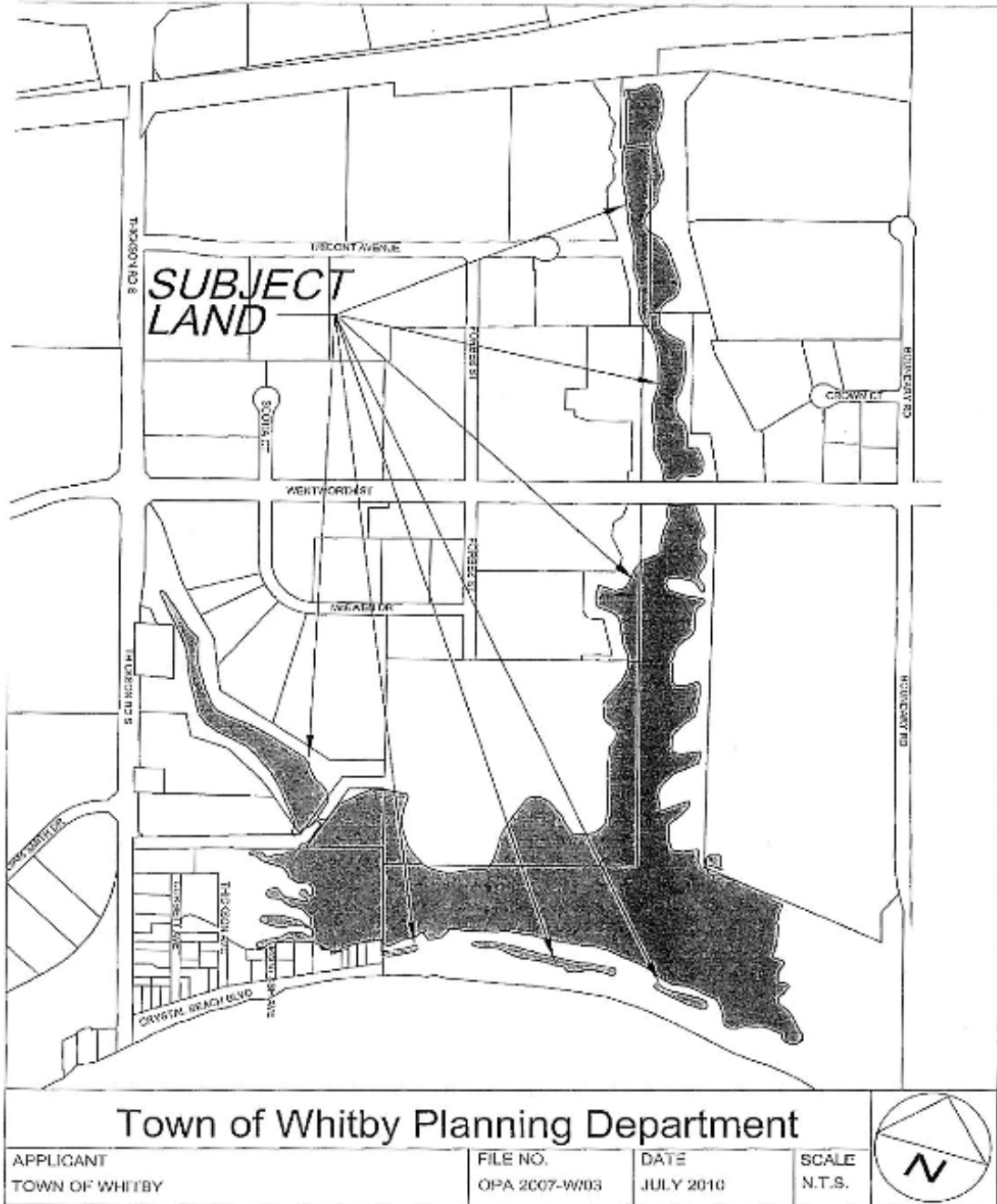
FILE NO.  
OPA 2007-W03

DATE  
JULY 2010

SCALE  
N.T.S.



ATTACHMENT #1b)  
CORBETT CREEK COASTAL WETLAND COMPLEX



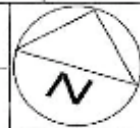
Town of Whitby Planning Department

APPLICANT  
TOWN OF WHITBY

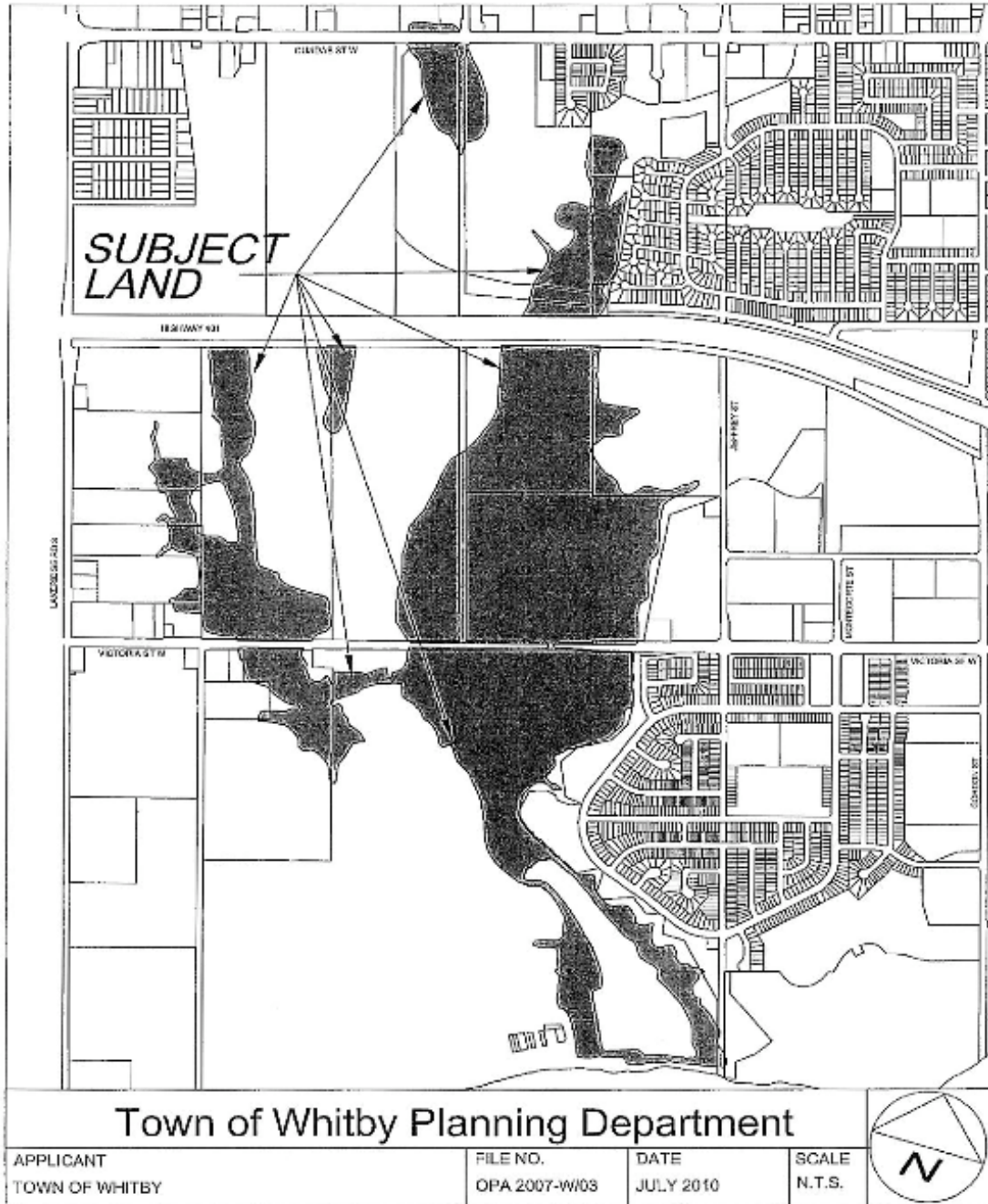
FILE NO.  
OPA 2007-W03

DATE  
JULY 2010

SCALE  
N.T.S.



ATTACHMENT #1c)  
LYNDE CREEK COASTAL WETLAND COMPLEX



ATTACHMENT #1d)  
WHITBY HARBOUR WETLAND COMPLEX

