

AMENDMENT NO. 166

TO THE

OFFICIAL PLAN

OF THE

CITY OF BRANTFORD

This Amendment was adopted by the Council of the Corporation of the City of Brantford by Bylaw No. 166 in accordance with the provisions of Sections 17 and 21 of The Planning Act, R.S.O. 1992, on the 7th day of March, 2011.

CORPORATE SEAL

OF THE

MUNICIPALITY


MAYOR


CLERK

BYLAW NUMBER 22-2011

-OF-

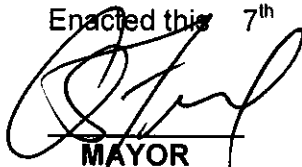
THE CORPORATION OF THE CITY OF BRANTFORD

Being a Bylaw to amend the Official Plan
of the City of Brantford

The Municipal Council of the Corporation of the City of Brantford,
in Accordance with the Provisions of Sections 17 and 21 of The
Planning Act R.S.O. 1992, hereby enacts as follows:

1. Amendment No. 166 to the Official Plan of the City of Brantford consisting of Part B of Schedule "A" and the map designated Schedule "B" and the legend on Schedule "C" is hereby adopted.
2. That the Clerk is hereby authorized and directed to issue a Notice of Decision pursuant to Subsections 17(35) and 21 of the Planning Act for the aforementioned Amendment No. 166 to the Official Plan of the City of Brantford.
3. This Bylaw shall come into force and take effect on the day of final passing thereof.

Enacted this 7th day of March, 2011.


MAYOR


CLERK

**CORPORATE SEAL
OF THE
MUNICIPALITY**

**AMENDMENT NO. 166
TO THE
OFFICIAL PLAN
OF THE
CITY OF BRANTFORD**

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**CONSTITUTIONAL
STATEMENT**

PART A – THE PREAMBLE

Part "A" does not constitute part of the Amendment, but identifies the lands affected by the Amendment and the basis for the Amendment.

PART B – THE AMENDMENT

The text, entitled Part "B", together with Schedule "B" and Schedule "C", constitutes Amendment No. 166 to the Official Plan of the City of Brantford.

PART C – THE APPENDIX

Part "C" does not constitute part of the Amendment. It consists of a description of the Municipal activities undertaken to advise the public of this Amendment and the public involvement associated with it.

MARCH 7, 2011

PASSED

MAYOR

CLERK

**THIS IS
SCHEDULE "A" TO
BYLAW NUMBER 22-2011
OF
THE CORPORATION
OF
CITY OF BRANTFORD**

PART C – THE APPENDIX

STATEMENT REGARDING PUBLIC MEETING

This is to certify that pursuant to Sections 22(1) and 17 of the Planning Act R.S.O. 1992, a public meeting regarding

OFFICIAL PLAN AMENDMENT NO. 166

was held by the Municipal Council of the Corporation of the City of Brantford on

February 22, 2011

in Council Chambers, City Hall, Brantford and that notices of invitation to attend said meeting were issued on:

January 28, 2011

In accordance with O.Reg.543/06.

Dated this 7TH day of MARCH , 2011.


CITY CLERK

**CERTIFICATION OF COMPLIANCE
WITH PUBLIC INVOLVEMENT
AND
NOTICE REQUIREMENTS
REGARDING OFFICIAL PLAN AMENDMENT NO. 166**

I, Darryl Lee, City Clerk, hereby certify that the requirements for the giving of notice, and the holding of at least one public meeting as set out in Subsection 17(15) of the Planning Act, R.S.O. 1992, and the giving of notice as set out in Subsection 17(17) of the Planning Act, R.S.O. 1992, have been complied with.



**DARRYL LEE
CITY CLERK
CITY OF BRANTFORD**

AMENDMENT NO. 166

TO THE

OFFICIAL PLAN

FOR THE

CITY OF BRANTFORD

PART A – THE PREAMBLE

Part A constitutes an introduction to the Amendment. It describes in general terms the purpose, the location of the lands affected, and the basis upon which the Amendment is formulated.

PURPOSE OF THE AMENDMENT:

The purpose of this Official Plan Amendment is three-fold:

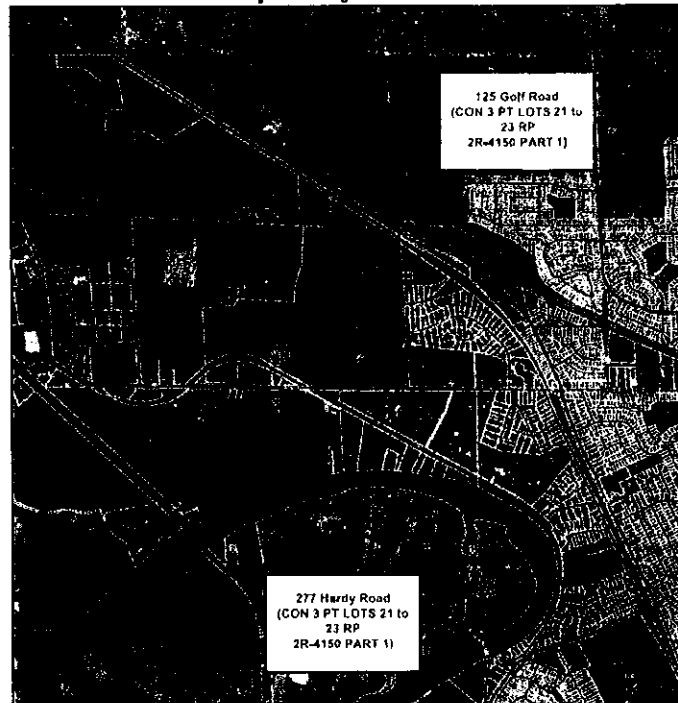
- First, to comply with the requirements of the Interim Control Bylaw (Bylaw No. 99-2010), approved by Council on September 7, 2010, as recommended by Staff in Report No. CD2010-131. A key requirement of the Interim Control Bylaw was the preparation of a Natural Heritage Impact Analysis (NHIA) to delineate the natural heritage features and their associated buffers on the Subject Properties, and to evaluate the appropriateness, if any, for the development of urban residential land uses on these properties. The Natural Heritage Impact Analysis (January, 2011) was prepared by Plan B Natural Heritage Consultants;
- Second, the conclusions of the Natural Heritage Impact Analysis (NHIA-2011) have led to the proposal of establishing a new land use designation and related policies in the City of Brantford Official Plan that recognize the findings of the NHIA-2011, and supports the key components of the Waterfront Master Plan-2010 (WMP-2010) overall. The WMP-2010 was prepared by The Planning Partnership, et al, and was approved in principle by Council on June 28, 2010. The proposed new land use designation is to be called "Grand River Heritage Waterfront"; and,
- Third, to redesignate components of the Subject Lands from their current "Low Density Residential Area" and "Major Open Space" designations to the new "Grand River Heritage Riverfront" designation, which excludes residential development.

LOCATION:

- The property located at 277 Hardy Road – approximately 42 hectares of land, Part Lots 21 to 23, Concession 3, being Part 1 on 2R-4150, Subject to Towpath, in the City of Brantford (the Sifton Property); and,

- The property located at 125 Golf Road – approximately 35 hectares of land, Lot 24, Concession 2, being Part 1 on 2R-777, in the City of Brantford (the Grandview Ravines Property).

Map 1 Subject Lands



BACKGROUND

In 2008, Council commenced the Waterfront Master Plan (WMP-2010) process. During that same time period, the Subject Lands were under active review by City staff for urban residential development. These development applications were proceeding through the planning approvals process, and were doing so in accordance with typical planning practices, and in consideration of available background data, including approved planning policy.

From the inception of the WMP-2010 process to December 2010, information with respect to the natural environment within the Grand River Watershed, and on the Subject Lands, was being researched. This research has identified that the Subject Lands encompass significant natural heritage features, and/or are key components of significant natural heritage systems.

As a result of this emerging environmental information, the City enacted an Interim Control Bylaw (ICBL No. 99-2010) to ensure that the WMP-2010 and additional environmental research could be completed to assist the City in its evaluation of the development proposals on the Subject Lands. Specifically, the purpose of ICBL No. 99-2010 was:

"To provide for the detailed consideration of the recommendations of the Waterfront Master Plan as they relate to the properties owned by Sifton Properties Ltd and Grandview Ravines Inc. at 277 Hardy Road and 125 Golf Road respectively and to control development on these lands until such time that the necessary implementation tools can be considered by Council."

It is the intent of the NHIA-2011 to delineate, in detail, the natural heritage features and their associated buffers, and, subsequently, to evaluate the appropriateness, if any, for the accommodation of urban residential development on the Subject Lands.

BASIS OF THE AMENDMENT

The environmental evaluation of the Subject Lands indicates that they be protected as significant natural features and areas, and that urban development not be permitted, notwithstanding currently approved Official Plan designations. The conclusion of the NHIA-2011 states, with respect to the Subject Lands:

"In light of the significance of the natural heritage features on both properties and the importance of the adjacent lands in sustaining the existing ecological and hydrologic features and functions of the site and in the larger landscape setting, it is recommended that; i) both properties should be preserved in their entirety as part of the Waterfront Natural Heritage System; and, ii) that the adjacent agricultural field areas should be restored to native plant communities such as prairie and savannah."

Much of the Natural Heritage Impact Analysis (NHIA-2011) is included within this preamble in order to provide some of the technical details with respect to the significant natural heritage features and their functions on and adjacent to the Subject Lands. It is the conclusions of the NHIA-2011 that identify the need to protect the Subject Lands from urban residential development that is currently proposed, and, consequently, support their proposed redesignation to "Grand River Heritage Waterfront".

The basis for this Amendment is, therefore, dependant upon the conclusions of the NHIA-2011, and is focused on conformity with the Growth Plan, and consistency with the Provincial Policy Statement (PPS-2005), the Community Strategic Plan – Shaping Our Future (CSP-2006) and the Brantford Waterfront Master Plan (WMP-2010).

Places to Grow: The Growth Plan for the Greater Golden Horseshoe, 2006

The Growth Plan for the Greater Golden Horseshoe was approved by the Province in 2006. It is a requirement that this Official Plan Amendment conform to The Growth Plan (2006). Further, in considering this Official Plan Amendment, The Growth Plan is to be read in its entirety and all of the relevant context sections, policies, definitions and schedules are to be applied.

Within the Growth Plan there are four primary themes that infiltrate the majority of the policy directions, including:

- Achieve an efficient land use and development pattern/compact form;
- Optimize existing and/or planned infrastructure in a cost-effective manner;
- Protect natural features and areas; and,
Represent an appropriate land use.

To properly apply the policies of The Growth Plan to this Official Plan Amendment, it is important to understand the phrase "relevant policies". This Official Plan Amendment responds to a need to protect significant natural features and their environmental functions. As such, policy statements that are focused on the third theme – "protect natural features and areas", are considered the most relevant. More specifically, Section 1.2.2 Guiding Principles states:

"The vision for the GGH is grounded in the following principles that provide the basis for guiding decisions on how land is developed, resources are managed and public dollars invested:"...

- "• Protect, conserve, enhance and wisely use the valuable natural resources of land, air and water for future generations."...*

The Official Plan Amendment as proposed, conforms with this guiding principle of The Growth Plan.

The Provincial Policy Statement, 2005

The PPS-2005 was issued under Section 3 of the Planning Act and came into effect March 1, 2005. Section 3 of the Planning Act requires that decisions affecting planning matters *"shall be consistent with"* policy statements issued under the Act. The PPS-2005 applies to all applications, matters or proceedings commenced on, or after March 1, 2005. The PPS-2005 states that:

"A policy-led planning system recognizes and addresses the complex inter-relationships among environmental, economic and social factors in land use planning. The Provincial Policy Statement supports a comprehensive, integrated and long-term approach to planning, and recognizes linkages among policy areas."

With respect to the Subject Lands, urban residential development is proposed by the current property owners. These proposals are based on existing Official Plan designations and Zoning that predate the PPS-2005. Planning decisions must be consistent with the PPS-2005.

Section 2.0 of the PPS-2005 deals with the *"Wise Use and Management of Resources"*. Section 2.0 begins:

"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 and social benefits."

In support of that statement, Sections 2.1 and 2.2 are particularly relevant to the Subject Applications and are reviewed in detail in the NHIA-2011, and as summarized later in this document. The Official Plan Amendment, as proposed, is consistent with the PPS-2005.

The Community Strategic Plan, 2006

In 2006, City Council adopted a Community Strategic Plan entitled Shaping Our Future. The Strategic Plan was prepared through a community-based consultation process that included residents, businesses, community organizations and staff. The process produced a collective vision, goals and actions valued by the community. It is the intent of Council to use the Strategic Plan as a guide in setting priorities, making budgetary decisions and providing the services and programs needed to achieve the community vision.

Of relevance to this proposed Official Plan Amendment, Goal 3 is "Managed Growth and Environmental Leadership". As one of the Long-term desired outcomes:

"Brantford will be recognized for its environmental stewardship and protection of its natural assets."

Strategic Actions include: *"3.10 Develop a multi-use master plan for the lands along the Grand River corridor within the City limits."* The proposed Official Plan Amendment, insofar as it

implements some of the recommendations of the Waterfront Master Plan (WMP-2010), is consistent with the Community Strategic Plan-2006.

The Waterfront Master Plan, 2010

The Subject Lands are included within the Study Area Boundary of the WMP-2010. As previously noted, the WMP-2010 was approved in principle by Brantford City Council in June of 2010. It is a non-statutory planning document, intended to guide Council decisions related to the development and/or securement of lands within the defined Study Area. It is anticipated that the WMP-2010 will be implemented, over time, through appropriate tools available to the municipality, including tools that are available through the Planning Act.

In 2008, Council commenced the Waterfront Master Plan process. That process resulted in:

- a Vision Statement;
- the Pillars of the Vision;
- a Master Plan; and,
- an Implementation Strategy.

The Vision Statement Recognizes the Importance of the Natural Environment - As stated in the WMP-2010, the "Vision Statement" for Brantford's waterfront recognizes that the Grand River and its tributaries are the lifeblood and a defining image of the City. The Grand River valley has a great diversity of natural features and is enriched with an extraordinary historic legacy, evident of the Aboriginal and European cultures that have settled this land for over 11,000 years. It is clearly stated that the WMP-2010 will set forth a clear framework to protect the Grand River and its tributaries as a fundamental public resource for the residents of Brantford, and that natural features will be protected and enhanced, and that the WMP-2010 will inspire all residents to embrace this Vision for sustainability and become Stewards of this vital environment.

Four of the Ten Pillars of the Vision Statement Include Strong Statements about the Environment - As noted in the WMP-2010, the Pillars of the Vision for the waterfront form the foundation for key directions and strategies for the environment, parks, access, heritage and culture, destinations and neighbourhoods and districts. The following four pillars emphasize the importance of the natural environment in the WMP-2010:

- ***Link & Enhance Natural Features Systems*** - The Grand River Valley and its tributaries are the framework for extensive natural features that include woodlands, wetlands, fens, cultural meadows and prairie landscapes. The significance of many of the natural features has been recognized through designation of Provincially Significant Wetlands, an Earth Science Area of Natural and Scientific Interest, a Life Science Site and Environmentally Sensitive Areas. A fundamental pillar of the Vision is to protect the natural features along the Grand River and its tributaries through buffers to adjacent development, and to further enhance them through restoring abutting fields that could provide critical connecting links among the natural features.
- ***Protect the Water Quality*** - The Grand River is the only source of drinking water for the City of Brantford. Protection and enhancement of water quality in the Grand River is of paramount importance to sustain both human and aquatic life, as well as other species, such as Bald Eagle and other waterfowl that depend on the River.

Of equal importance is the protection of groundwater quality/quantity and flow paths, particularly in the Northwest Sector of the City, encompassing the Subject Lands. The

Northwest Sector is identified as both a GRCA Source Protection Area (SPA) and an Intake Protection Zone (IPZ) for the Municipal Water Intake located just above Wilkes Dam.

The protection of groundwater quality and quantity is also critical to sustain natural features such as the prairie fen, Tufa Mounds ANSI, Provincially Significant Wetlands, coldwater fish habitat, stream baseflow/temperature, and other natural features and species at risk that are dependent upon the groundwater regime.

- *Be a Model for Environmental Stewardship* - Protection of the natural heritage system will be the responsibility of many stakeholders. It is not possible for a single agency or group to protect the natural heritage system alone. It is essential for agencies and groups to work together, and for members of the community to recognize their individual responsibility in reaching this goal.

The City, other government agencies, interest groups, as well as the 90,000 residents living in Brantford will all have a role to play in protecting, for example, vegetation communities, fish and wildlife habitat, water quality and ground water sources. Enhanced awareness, and information on eliminating use of pesticides, appropriate landscape planting, effects of human activity on wildlife habitat, etc. will be essential to building a community wide understanding of the imperative for protecting Brantford's natural heritage system.

- *Plan based on the Watershed* - The Grand River corridor within the City of Brantford is part of a 300 km long watershed that stretches from the Dundalk Highlands in Dufferin County to Port Maitland on Lake Erie. It is the largest watershed in southern Ontario. The watershed measures 6,800 square kilometers, 20% larger than the size of Prince Edward Island.

Within the City of Brantford, the River and its associated natural areas, including tributaries, represent the core natural heritage features in the Waterfront Master Plan Study Area. The protection, enhancement and restoration of the natural heritage system is based on an ecosystem and watershed approach, which recognizes the strong relationship to natural features outside of municipal limits. The WMP-2010 should serve to inform the objectives and initiatives for the ongoing protection and repair of the Grand River in other municipalities in the watershed.

The Northwest Sector of the City is Particularly Environmentally Sensitive - The entire length of the Grand River is designated as a "Canadian Heritage River". The stretch of the Grand River from Paris to Brantford has also been identified as "Exceptional Waters" by the Grand River Conservation Authority. The 35 km stretch of the Grand River through the City of Brantford supports some of the Province's most unique and sensitive natural heritage features. It is one of Southern Ontario's most significant valley systems, providing habitat for a rich diversity of terrestrial, wetland and aquatic species.

The Grand River also provides an important riparian corridor function, facilitating the dispersal of species among natural areas. During the spring and fall, the Grand River valley provides important stop-over habitat for neo-tropical songbirds and other migrants. The reaches of the Grand River through the City of Brantford support a diverse coolwater/warmwater fishery, including species that are protected under the Endangered Species Act.

The Subject Lands are located within the Northwest Sector of the Waterfront Master Plan Study Area which contains some of the most unique and sensitive natural heritage features found within the Grand River Watershed and the Province of Ontario, some of which are relics of environmental conditions that existed thousands of years ago during the post-glacial period. The highest

concentration of bio-diversity and rare species occurs within the Northwest Sector representing an essential element of Brantford's natural heritage legacy that should be protected, restored and enhanced.

Map 2 identifies the overall Natural Heritage System within the Northwest Sector, including the Subject Lands. The Northwest Sector exhibits unique and complex physiographic characteristics including former shoreline bluffs associated with post-glacial Lake Warren, river terraces and meander cut-offs, and hummocky topography associated with the Moffat Moraine. The sand and gravel deposits that occur in this area and the associated groundwater recharge/discharge function are strongly linked to the natural heritage features associated with the Northwest Sector.

Brantford is home to a large concentration of provincially significant plant communities such as perched fens, prairie, savannah and oak woodlands. The Brantford Perched Fens Provincially Significant Wetland (PSW) is dominated by a unique assemblage of plant species with affinities for prairie, fen and Great Lake shorelines. Brantford is one of only two known locations for this type of community in the Province. The perched fens are associated with groundwater discharge zones on calcareous sand and gravel slopes of the Grand River valley. Precipitates of calcium and magnesium from the groundwater have produced layers of marl in the wetlands. Over a very long period of time, accumulations of marl form a hard, concrete-like deposit known as "tufa".

Further, the Brantford Perched Fens support a large number of species, including several provincially tracked rare species that are typically restricted to Great Lakes shoreline habitats. This suggests that the Perched Fens are relics of shoreline vegetation that existed over 12,500 years ago in association with former Glacial Lake Warren.

Other notable natural heritage features in the Northwest Sector include the Grand River Forest Environmentally Sensitive Area (ESA), the Brantford Northwest (Davisville Swamp) Provincially Significant Wetland (PSW) Complex and the Tufa Mounds Provincially Significant Earth Science Area of Natural and Significant Interest (ANSI). Combined, the Grand River Forest ESA and the Brantford Northwest (Davisville Swamp) PSW represent the largest, most intact natural area that remains in the City of Brantford. The Tufa Mounds ANSI offers excellent educational, interpretive and scientific opportunities.

The presence of the perched prairie fens with marl deposits and other PSW features associated with valley slopes, terraces and cut-off meanders in the Northwest Sector is directly related to post-glacial geological processes and the unique and highly sensitive groundwater regime that occurs in this area. The high rates of infiltration within this area sustain the unique natural heritage features and hydrogeological processes associated with the Northwest.

The groundwater regime in the Northwest Sector is also very important for sustaining stream baseflow, temperature regime, water quality and the fish community in the Grand River, as well as the tributaries originating in the Davisville Swamp PSW. Maintenance of the quality and quantity of groundwater inputs to the river, as well as contributions from tributaries, such as Whiteman's Creek, are critical to protect and sustain Brantford's drinking water supply. This supply is drawn from a Municipal water intake located above Wilkes Dam, within the Northwest Sector.

The Northwest Sector also supports a wide range of species of fish including smallmouth bass, walleye, northern pike, resident rainbow trout, as well as several species at risk, including black redhorse and river redhorse. Sustaining the groundwater regime in this area is also important for maintaining ice-free wintering waterfowl habitat, as well as habitat for species such as bald eagle that over-winter in this part of Brantford.

Other noteworthy natural heritage features within the Northwest Sector of the City include the Brant Conservation Area and Waterworks Park. Both of these areas support floodplain wetlands as well as rare plant communities such as savannah and prairie that provide habitat for a variety of rare species. The mature cottonwood forests associated with the Grand River floodplain provide suitable nesting habitat for bald eagle, a species of Special Concern. The river provides an important source of food for birds of prey such as bald eagle and osprey, in the form of fish and waterfowl.

Deer wintering areas are identified by Ontario's Ministry of Natural Resources within the Northwest Sector (Grand River Forest ESA and Davisville Swamp PSW). Further, waterfowl wintering areas occur in traditional "ice-free" zones along the Grand River, mainly in association with groundwater influx to the River channel and coldwater tributary confluences, and the reach below Wilkes Dam, within the Northwest Sector.

In addition to the identified natural heritage features and their functions, there are a number of species of provincial interest within the WMP-2010 Study Area, which includes the Subject Lands. The NHIA-2010 provides further details with respect to species of provincial interest.

In summary, the City of Brantford contains some of the most unique and sensitive natural heritage features in the Grand River watershed and in the Province of Ontario. These features, many of which are present in the Northwest Sector, include:

- Grand River – Canadian Heritage River, Exceptional Waters designation (upstream of Wilkes Dam), habitat for a diverse assemblage of fish, wildlife and plants, and major species dispersal corridor;
- Habitat for numerous provincially tracked rare species, including several species protected under the Endangered Species Act;
- Coldwater tributaries to the Grand River supporting habitat for trout species (e.g. Whiteman's Creek, D'Aubigny Creek);
- Grand River Forest ESA and Brantford Perched Fens (12,500 year old relict of shoreline vegetation associated with former Glacial Lake Warren);
- Tufa Mound Earth Science ANSI – marl formations (tufa) associated with sensitive hydro-geological features and functions;
- Davisville Swamp PSW and associated Tufa Mound ANSI, and coldwater brook trout streams;
- D'Aubigny Creek PSW – linkage corridor function between Grand River and natural areas to the southwest (D'Aubigny Creek Swamp ESA);
- Mohawk Lake/Canal and Oxbow Wetlands PSW;
- Numerous remnant prairie, savannah, and oak woodlands (e.g. Hardy Road, Brantford Golf and Country Club, Brant Conservation Area, Mohawk Park);
- Deer wintering areas (Grand River Forest ESA, Davisville Swamp PSW, D'Aubigny Creek PSW);
- Waterfowl wintering areas - traditional ice-free zones on the Grand River (e.g. reach below Wilkes Dam, reaches in the northwest); and,

- Nesting and wintering habitat for bald eagle in the northwest.

The Establishment of the Waterfront Natural Heritage System - The WMP-2010 charts the course to protect, restore and enhance ground water, surface water, natural features, and habitat. Many of the significant features are already identified through policy: Provincially Significant Wetlands, Earth Science Area of Natural and Scientific Interest, Life Science Site and, Environmentally Sensitive Areas.

Following a watershed and ecosystem based approach, the WMP-2010 provides for a linked system of protected, enhanced and restored natural features associated with the Grand River corridor. The Waterfront Natural Heritage System established in the WMP-2010 is comprised of the following:

- The Grand River Conservation Authority Regulation Limit, a limit to control construction and building near watercourses, floodplains, slopes, and wetlands;
- Floodplain as mapped by the GRCA;
- Top of bank as mapped from the City of Brantford's GIS topographic data;
- Significant Ecological Wetland Units, which are wetlands that are not classified as provincially significant, but are nonetheless significant, as mapped by the Ontario Ministry of Natural Resources;
- Provincially Significant Wetlands, as identified and ranked according to the Ontario Wetland Evaluation System;
- Significant vegetation communities including prairie, savannah, oak woodland and the Perched Fen Provincially Significant Wetland;
- Woodlands including mixed, deciduous and coniferous forests;
- Grand River Forest ESA;
- Tufa Mounds Earth Science Area of Natural and Scientific Interest, an extraordinary geological feature with relic tufa mounds formed by precipitation of calcium carbonate from groundwater springs under artesian pressure;
- Warmwater fisheries habitat;
- Coldwater fisheries habitat;
- Deer wintering areas;
- Waterfowl wintering areas; and,
- Enhancements to core environmental features and linkages, including potential restoration areas.

In the Northwest Sector, the limit of the Natural Heritage System shown on Map 2 also includes a 30 metre buffer from the top of bank or edge of the identified natural feature, whichever is greater. The limit includes the top-of-slope adjacent to the Davisville Swamp PSW and associated upland areas north of Hardy Road, as well as the River terraces and meander cut-off south of Hardy Road.

The "limit" of the Natural Heritage System in the Northwest Sector recognizes the important connection between natural features, surface water features and the groundwater regime.

Enhancement opportunities for the natural features in the Northwest Sector, such as adjacent agricultural fields, aggregate extraction sites and cultural habitat, are identified. The lands within the 30 metre buffer also provide an opportunity for passive (natural succession) and active (naturalization) restoration.

The establishment of this Natural Heritage System identified on Map 2, over time will have tremendous benefits to the environment. It also has tremendous effects on the developability of the Subject Lands, the majority of which are seen as critical components of the comprehensive Natural Heritage System.

Natural Heritage Impact Analysis, 2011

As noted, the City enacted an Interim Control Bylaw (ICBL No. 99-2010) to ensure that the WMP-2010 and additional environmental research could be completed to assist the City in their evaluation of the development proposals on the Subject Lands. Specifically, the purpose of ICBL No. 99-2010 was:

"To provide for the detailed consideration of the recommendations of the Waterfront Master Plan as they relate to the properties owned by Sifton Properties Ltd and Grandview Ravines Inc. at 277 Hardy Road and 125 Golf Road respectively and to control development on these lands until such time that the necessary implementation tools can be considered by Council."

The required Natural Heritage Impact Analysis, (NHIA-2011) for the Subject Lands is a new analysis that builds upon previous work, but that also utilizes the policy framework of the PPS-2005 and its companion Natural Heritage Reference Manual-2005. It is the intent of the NHIA-2011 to delineate, in detail, the natural heritage features and their associated buffers, and, subsequently, the definition of the component or components, if any, of the Subject Lands that can appropriately accommodate urban residential development.

The following is a summary of the findings of the NHIA-2011 as it relates to the Subject Lands, including the Sifton Property and the Grandview Ravines Property.

The Sifton Property Includes Significant Natural Features - The natural features identified on the Sifton Property are identified within the NHIA-2011. The Sifton Property includes a wide variety of significant natural features that require protection. As noted, the PPS-2005 provides clear direction for the City, the Conservation Authority and other agencies having jurisdiction. The following provides an analysis of how the natural heritage policies (Sections 2.1 and 2.2) of the PPS-2005 apply to the Sifton Property.

"2.1.1 Natural features and areas shall be protected for the long term." (PPS-2005)

The Sifton Property contains the following natural heritage features and functions, which *"shall be protected for the long-term"*, namely:

- Significant valleylands – the entire Sifton Property is wholly within a defined portion of the Grand River Valley, and includes slope, terrace, ravine, cut-off meander channel, bottomland, floodplain and river bank features;
- Significant woodlands - associated with the valley wall, terrace slopes and bottomlands of the Grand River valley and associated tributary ravine;

- Significant wetlands - Davisville Swamp PSW associated with cut-off meander channel and Grand River floodplain;
- Significant areas of natural and scientific interest - Tufa Mounds Provincially Significant Earth Science ANSI associated with tributary, cut-off meander channel and floodplain;
- Significant fish habitat – brook trout associated with coldwater tributary to the Grand River (adjacent, receiving Grand River supports an Exceptional Waters designation);
- Significant wildlife habitat - associated with significant vegetation communities (oak woodland, prairie), local deer wintering habitat (wetlands and wooded bottomland), wintering waterfowl habitat (adjacent Grand River), habitat for species-at-risk (e.g. bald eagle) associated with Grand River riparian zone, corridor function – east-west movement along valleylands and north-south movement between Moffat Moraine;
- Significant habitat of endangered and threatened species – the oak woodland/savannah supports several provincially ranked S1 and S2 plant species (as identified in NHIA-2011), one of which are protected under the Endangered Species Act (i.e. common hoptree); and,
- The Sifton Property is located within a GRCA Source Protection Area, immediately upstream of the Municipal Water Intake. The Sifton Property performs an important groundwater recharge and discharge function which contributes to surface water quality and baseflow in the Grand River and its tributaries.

“2.1.2 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.” (PPS-2005)

The Sifton Property is part of a larger, diverse and connected natural heritage system associated with the Grand River Valleylands, which extend well upstream and downstream of the Property, encompassing the larger Northwest Sector and connected natural areas such as the Brant Conservation Area and Whitemans Creek. The Sifton Property is strongly linked to other natural areas in the landscape setting in terms of species dispersal, surface water connections and groundwater interactions. Restoration of disturbed areas and agricultural lands is strongly recommended to strengthen these connections and promote long-term protection of the Natural Heritage System identified on Map 2.

“2.1.3 Development and site alteration shall not be permitted in:

- a) significant habitat of endangered species and threatened species;*
- b) significant wetlands in Ecoregions 5E, 6E and 7E1; and*
- c) significant coastal wetlands.” (PPS-2005)*

The oak woodland on the Sifton Property supports several provincial ranked S1 and S2 plant species, as identified in the NHIA-2011, some of which are protected under the Endangered Species Act. The existing habitat of rare species should be protected in accordance with their respective habitat guidelines, as determined by OMNR. Given the potential for the Sifton Property to sustain rare species, the existing wetland, woodland and cultural habitat on the property should be protected.

Existing agricultural fields on the Sifton Property are well suited to the restoration of prairie, savannah, oak woodland, and marl meadow communities. The well-drained sandy soils on the valley terraces, combined with seed sources from plant species in adjacent natural areas, are conducive to the re-establishment of these rare plant communities.

The Sifton Property contains wetlands that are part of the Davisville Swamp PSW complex. The wetlands are associated with a cut-off meander channel and the floodplain of the Grand River. Groundwater recharge on the adjacent well drained terraces is important for sustaining the hydrology of these wetlands. Development and site alteration is not permitted within significant wetlands.

"2.1.4 Development and site alteration shall not be permitted in:

- a. significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;*
- b. significant woodlands south and east of the Canadian Shield ;*
- c. significant valleylands south and east of the Canadian Shield;*
- d. significant wildlife habitat; and*
- e. 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." (PPS-2005)*

The Sifton Property is located wholly within a significant valleyland which contains significant woodland, wetland and wildlife habitat features and functions, as well as the Tufa Mound Earth Science ANSI. Development of the Sifton Property would, in the long-term, result in irreversible negative impacts to the existing natural heritage features and their ecological functions. This is inconsistent with policy 2.1.1 and 2.1.2 of the PPS-2005, which makes specific reference to the long-term protection, restoration and improvement of ecological functions, biodiversity and connectivity within the landscape. To satisfy this policy the entire Sifton Property should be protected and restored/enhanced, as described above.

"2.1.5 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements." (PPS-2005)

Fish habitat, as defined by the PPS-2005, on the Sifton Property is associated with the tributary to the Grand River and the Grand River itself. The Sifton Property provides an important groundwater recharge function as it relates to water quality and baseflow in these watercourses. The lands contribute indirectly to fish habitat through groundwater inputs to the channel and sources of food.

"2.1.6 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." (PPS-2005)

The recommended Natural Heritage System for the Sifton Property is shown on Map 2. It includes key natural heritage features and enhancements to natural areas and linkages.

Since the Sifton Property is wholly contained within a significant valleyland, the adjacent land principle does not apply. As a result of the analysis carried out in the NHIA-2011, the open field components of the Sifton Property become inaccessible and "buffer locked" from the rest of the Property. This observation should underscore the importance of the adjacent open field areas for protecting and augmenting existing habitat, and enhancing the overall ecological function of the

valleyland and other natural heritage features. The rationale for applying the 30 metre buffer is provided in the NHIA-2011.

Given the overall significance/sensitivity of the natural heritage features on the Sifton Property, development or site alteration should not be permitted on adjacent lands (i.e. cultivated fields). Restoration of the cultivated fields is consistent with the overall goal of long-term protection of biodiversity and groundwater and surface water features.

"2.1.7 Nothing in policy 2.1 is intended to limit the ability of existing agricultural uses to continue." (PPS-2005)

To promote the long-term protection of the natural heritage features and their functions on the Sifton Property, the open fields should be restored to native plant communities such as prairie, savannah and oak woodland.

"2.2.1 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 which 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." (PPS-2005)*

The Sifton Property is located within a GRCA Source Protection Area located immediately upstream of the City of Brantford's Municipal Water Intake. The site contains groundwater recharge areas (i.e. well drained sandy soils in upland areas) and discharge features in the form of springs, seeps, wetlands and streams.

The majority of the GRCA Source Protection Area in the Northwest Sector is comprised of land uses such as industrial development, aggregate extraction, estate residential, golf course and provincial highway, which from a cumulative impact standpoint are not conducive to source protection due to a combination of impervious cover, altered groundwater recharge/discharge regime and potential source of contamination.

The Sifton Property is located wholly within a valleyland which contains groundwater discharge features in the form of wetlands, seeps and springs. The well drained sandy terraces and slopes within the valley promote infiltration, which contributes to the maintenance of these natural heritage

features. Moreover, the Sifton Property is directly adjacent to a reach of the Grand River that supports an *Exceptional Waters* designation.

Given the amount of development that has already occurred within the Northwest Sector, including land uses that are typically discouraged in GRCA Source Protection Areas (e.g. industrial, residential development), protection of the remaining natural areas and restoration of agricultural lands is of paramount importance to the long-term protection of water quality and quantity. This recommendation represents one of the few steps the City of Brantford can take to control and protect the quality of water in the Grand River. Other steps include:

- Stormwater and groundwater management retro-fits (as required) in the Northwest Industrial Area;
- Implementation of appropriate stormwater and groundwater management measures in future industrial development areas; and,
- Implementation of low impact development measures, restoration of disturbed areas, use of sustainable turf grass management practices on the golf course, and riparian buffer plantings.

"2.2.2 Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored.

Mitigative measures and/or alternative development approaches may be required in order to protect, improve or restore sensitive surface water features, sensitive ground water features, and their hydrologic functions." (PPS-2005)

The Sifton Property is located within a GRCA Source Protection Area and contains sensitive surface water and groundwater features in the form of wetlands, streams, springs and seeps located within the valley of the Grand River. The Tufa Mound earth science ANSI was created by hydro-geological processes which, to a lesser extent, still persist today. The groundwater discharge function that occurs on the lower valley terrace and adjacent floodplain also contributes to the maintenance of the "Exceptional Waters" designation in the Grand River. Groundwater inputs to the channel contribute to the maintenance of water quality in this reach of the Grand River and the fish and aquatic community it supports. Moreover, the Municipal Water Intake for the City of Brantford is located immediately downstream of the Sifton Property.

The hydrologic functions of the Sifton Property should be protected and restored through conversion of the agricultural fields to native plant communities.

The Grandview Ravines Property Includes Significant Natural Features - The location of the natural heritage features encompassed within the Grandview Ravines Property are identified in detail within the NHIA-2011. The Grandview Ravines Property includes a wide variety of significant natural features that require protection. As noted, the PPS-2005 provides clear direction for the City, the Conservation Authority and other agencies having jurisdiction. The following provides an analysis of how the natural heritage policies (Sections 2.1 and 2.2) of the PPS-2005 apply to the Grandview Ravines Property.

"2.1.1 Natural features and areas shall be protected for the long term." (PPS-2005)

The Grandview Ravines Property contains the following natural heritage features and functions, which shall be protected for the long-term, namely:

- Significant valleylands – small, defined wooded valleylands or ravines are associated with the tributaries on the Grandview Ravines Property;

- Significant woodlands – the woodlands on the Grandview Ravines Property are part of a larger mosaic of forest, wetland and cultural vegetation, which forms one of the largest remaining natural areas in the northwest sector and the City of Brantford as a whole;
- Significant wetlands - Davisville Swamp PSW associated with the tributaries and low-lying areas;
- Significant fish habitat – the tributaries provide direct and indirect habitat functions with the potential to support coldwater species such as brook trout due to groundwater inputs to the stream channels in the form of seeps and springs. Surface drainage from the property ultimately flows into the Grand River which supports an Exceptional Waters designation;
- Significant wildlife habitat – the woodlands on and adjacent to the Grandview Ravines Property (to the west) support a local deer wintering habitat function. The forest and wetland habitats associated with the moraine are well-connected to the Grand River to the south, providing a species dispersal corridor function;
- Significant habitat of endangered and threatened species – provincially ranked S1 and S2 plant species (see NHIA-2010), some of which may be protected under the Endangered Species Act, are identified in proximity to the Property in association with significant plant communities (i.e. prairie associated with railway line adjacent to the Property) and wetlands at the south end of the Property; and,
- The Grandview Ravines Property is located within a GRCA Source Protection Area, immediately upstream of the Municipal Water Intake. The rolling topography and well drained sandy soils associated with the Moffat Moraine are conducive to infiltration. The Grandview Ravines Property performs an important groundwater recharge and discharge function which contributes to the protection of surface water quality and baseflow in the Grand River and its tributaries. Groundwater recharge within the upland areas is important for sustaining the hydrology of the Davisville Swamp PSW.

“2.1.2 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.” (PPS-2005)

The Grandview Ravines Property is part of a larger mosaic of forest, wetland and cultural communities associated with the Moffat Moraine, which is directly connected to the Grand River Valley and other natural areas within the Northwest Sector. The Grandview Ravines Property is strongly linked to other natural areas in the landscape setting in terms of species dispersal, surface water connections and groundwater interactions. Restoration of disturbed areas and agricultural lands is strongly recommended to strengthen these connections and promote long-term protection of the natural heritage system.

“2.1.3 Development and site alteration shall not be permitted in:

- a) significant habitat of endangered species and threatened species;*
- b) significant wetlands in Ecoregions 5E, 6E and 7E; and*
- c) significant coastal wetlands.” (PPS-2005)*

S1 and S2 ranked plant species are reported from the vicinity of the extreme south end of the Grandview Ravines Property and to the northwest, near the existing railway line prairie (see NHIA-2011). Given the potential for the Property to sustain rare species, the existing wetland, woodlands and cultural habitat on the property is strongly recommended for protection. As with the Sifton Property, the existing agricultural fields on the Grandview Ravines Property, are well suited to the restoration of prairie, savannah, and oak woodland communities. Seed sources from plant species in adjacent natural areas combined with restoration plantings would assist in the re-establishment of these rare plant communities.

The Grandview Ravines Property contains wetlands that are part of the Davisville Swamp PSW complex. The wetlands are associated with tributaries and the hummocky topography associated with the Moffat Moraine. Groundwater recharge on the adjacent well drained upland areas is important for sustaining the hydrology of these wetlands. Development and site alteration is not permitted within significant wetlands.

"2.1.4 Development and site alteration shall not be permitted in:

- a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;*
- b) significant woodlands south and east of the Canadian Shield;*
- c) significant valleylands south and east of the Canadian Shield;*
- d) significant wildlife habitat; and*
- e) 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." (PPS-2005)*

The Grandview Ravines Property contains significant woodland and wildlife habitat functions. The wetlands and woodlands on the Grandview Ravines Property are part of a larger natural area on the Moffat Moraine which supports significant wetland, woodland and wildlife habitat functions (deer wintering area). The moraine forms the headwaters of several tributaries to the Grand River and is an important groundwater recharge area in the context of maintaining natural areas such as wetlands and streams but also from a Source Protection standpoint and Brantford's Municipal drinking water supply, which is the Grand River.

Development of the Grandview Ravines Property would, in the long-term, result in irreversible negative impacts to the existing natural heritage features (on and adjacent to the Property) and their ecological functions. This is inconsistent with policy 2.1.1 and 2.1.2 of the PPS-2005, which makes specific reference to the long-term protection, restoration and improvement of ecological functions, biodiversity and connectivity within the landscape. To satisfy this policy the entire property should be protected and restored/enhanced, as described above.

"2.1.5 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements." (PPS-2005)

The Grandview Ravines Property contains headwater tributaries to the Grand River which support indirect and direct fish habitat functions. The Grandview Ravines Property provides an important groundwater recharge function which contributes to the maintenance of stream baseflow and water quality.

"2.1.6 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." (PPS-2005)

The recommended Natural Heritage System for the Grandview Ravine Property is shown on Map 2.

Further, the adjacent lands on the Grandview Ravines Property (i.e. the agricultural fields) perform an important groundwater recharge function as it relates to the protection of headwater tributaries and provincially significant wetlands. The woodlands on the Grandview Ravines Property are part of a larger natural area that supports significant woodland, wetland and wildlife habitat functions. The rolling topography of the Grandview Ravines Property, including a former shoreline with a pronounced slope at the north end of the site, is associated with the Moffat Moraine and a GRCA Source Protection Area. In order to avoid negative impacts to the natural heritage features and functions, both on and adjacent to the Grandview Ravines Property, development and site alteration should not be permitted on adjacent lands.

As a result of the analysis carried out in the NHIS-2011, the southwest open field parcel becomes inaccessible and "buffer locked" from the rest of the property. The remaining open field compartments also become very small and irregular in shape due to the application of the 30 metre buffer. In light of this observation, and given the overall significance/sensitivity of the natural heritage features, the adjacent lands on the Grandview Ravines Property should be protected and restored.

From a natural heritage perspective, it is important to maintain the existing single-loaded road condition on Golf Road rather than introduce permanent residents on the landscape immediately adjacent to sensitive natural areas such as PSW's, tributaries, woodlands and deer wintering areas. Evidence of disturbance associated with existing development such as debris and yard waste dumping in natural areas is evident along the west edge of Golf Road. Other impacts include encroachment into buffers and natural areas (i.e. where existing lots abut the tributary ravine). It is therefore recommended that the existing agricultural fields on the Grandview Ravines Property be restored to habitats suitable for well drained sandy sites such as prairie or savannah. Protection of the Grandview Ravines Property in combination with restoration of existing agricultural fields to native plant community is consistent with the overall goal of long-term protection of bio-diversity, and groundwater and surface water features.

"2.1.7 Nothing in policy 2.1 is intended to limit the ability of existing agricultural uses to continue." (PPS-2005)

To promote the long-term protection of the natural heritage features and their functions on the Grandview Ravines Property, the agricultural lands should be restored to native plant communities such as prairie, savannah and oak woodland.

"2.2.1 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 which 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.” (PPS-2005)*

The Grandview Ravines Property is located within a GRCA Source Protection Area located immediately upstream of the City of Brantford's Municipal Water Intake. The Property contains groundwater recharge areas (i.e. well drained sandy soils in upland areas) and discharge features in the form of springs, seeps, wetlands and streams.

The Grandview Ravines Property is located on the Moffat Moraine and is part of the only undeveloped area in the Northwest Sector and the Source Protection Area where natural infiltration and recharge of the water table can occur. The majority of the GRCA Source Protection Area is comprised of land uses such as industrial development, aggregate extraction, estate residential, golf course and provincial highway, which from a cumulative impact standpoint are not conducive to source protection due to a combination of impervious cover, altered groundwater recharge/discharge regime and potential source of contamination.

Given the amount of development that has already occurred within the Northwest Sector, including land uses that are typically discouraged in GRCA Source Protection Areas (e.g. industrial, residential development), protection of the remaining natural areas and restoration of agricultural lands is of paramount importance to the long-term protection of water quality and quantity. This recommendation represents one of the few steps the City of Brantford can take to control and protect the quality of water in the Grand River. Other steps include:

- Stormwater and groundwater management retro-fits (as required) in the Northwest Industrial Area
- Implementation of appropriate stormwater and groundwater management measures in future industrial development areas;
- Implementation of low impact development measures, restoration of disturbed areas, use of sustainable turf grass management practices on the golf course, and riparian buffer plantings.

“2.2.2 Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored.

Mitigative measures and/or alternative development approaches may be required in order to protect, improve or restore sensitive surface water features, sensitive ground water features, and their hydrologic functions.” (PPS-2005)

The Grandview Ravines Property is located within a GRCA Source Protection Area and contains sensitive surface water and groundwater features in the form of wetlands, streams, springs and

seeps. The Property is located on the Moffat Moraine which forms the headwaters for several tributaries to the Grand River. The rolling topography and well drained sandy soils associated with the moraine support an important groundwater recharge function. The hydrologic functions of the Grandview Ravines Property should be protected and restored through conversion of the agricultural fields to native plant communities.

Conclusions

The approach to establishing the Natural Heritage System identified in the WMP-2010 and supported in the NHIA-2011 conforms with The Growth Plan-2006 and is consistent with the PPS-2005. The Natural Heritage System, as it applies to the Subject Lands is identified on Map 2.

The "Vision Statement" for Brantford's waterfront identified in the WMP-2010 recognizes that the Grand River and its tributaries are the lifeblood and a defining image of the City. Further the WMP-2010 sets forth a clear framework to protect the Grand River and its tributaries as a fundamental public resource for the residents of Brantford, and that natural features will be protected and enhanced, and that the WMP-2010 will inspire all residents to embrace this Vision for sustainability and become Stewards of this vital environment.

It is important to remember that four of the Ten Pillars of the WMP-2010 Vision that form the foundation for key directions and strategies within the Plan, emphasize the importance of the natural environment, including:

- Link & Enhance Natural Features Systems;
- Protect the Water Quality;
- Be a Model for Environmental Stewardship; and,
- Plan based on the Watershed.

The Subject Lands, including both the Sifton Property and the Grandview Ravines Property, contain natural heritage features and their functions that meet the test of significance under the PPS-2005 and the companion Natural Heritage Reference Manual-2005. The adjacent lands (i.e. agricultural fields) perform a variety of important functions including habitat protection, linkage connections and groundwater recharge, as it relates to the maintenance of on-site wetlands (PSW) and coldwater/warmwater tributaries to the Grand River. The adjacent lands also provide an excellent opportunity for habitat restoration and augmentation of existing habitat, and enhancement of corridor and infiltration functions.

The importance of the adjacent lands in protecting and improving the ecological integrity of the natural heritage system is recognized in over-arching PPS-2005 policy 2.1.2, which states:

"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."

Furthermore, the Subject Lands are both located in a GRCA Source Protection Area located immediately upstream of the City of Brantford's Municipal Water Intake at Wilkes Dam. Given the amount of impervious cover and the number of pollution sources that already exist within the Northwest Sector, protection of the groundwater infiltration and discharge functions is of critical importance from the standpoint of long-term protection of water quality and quantity.

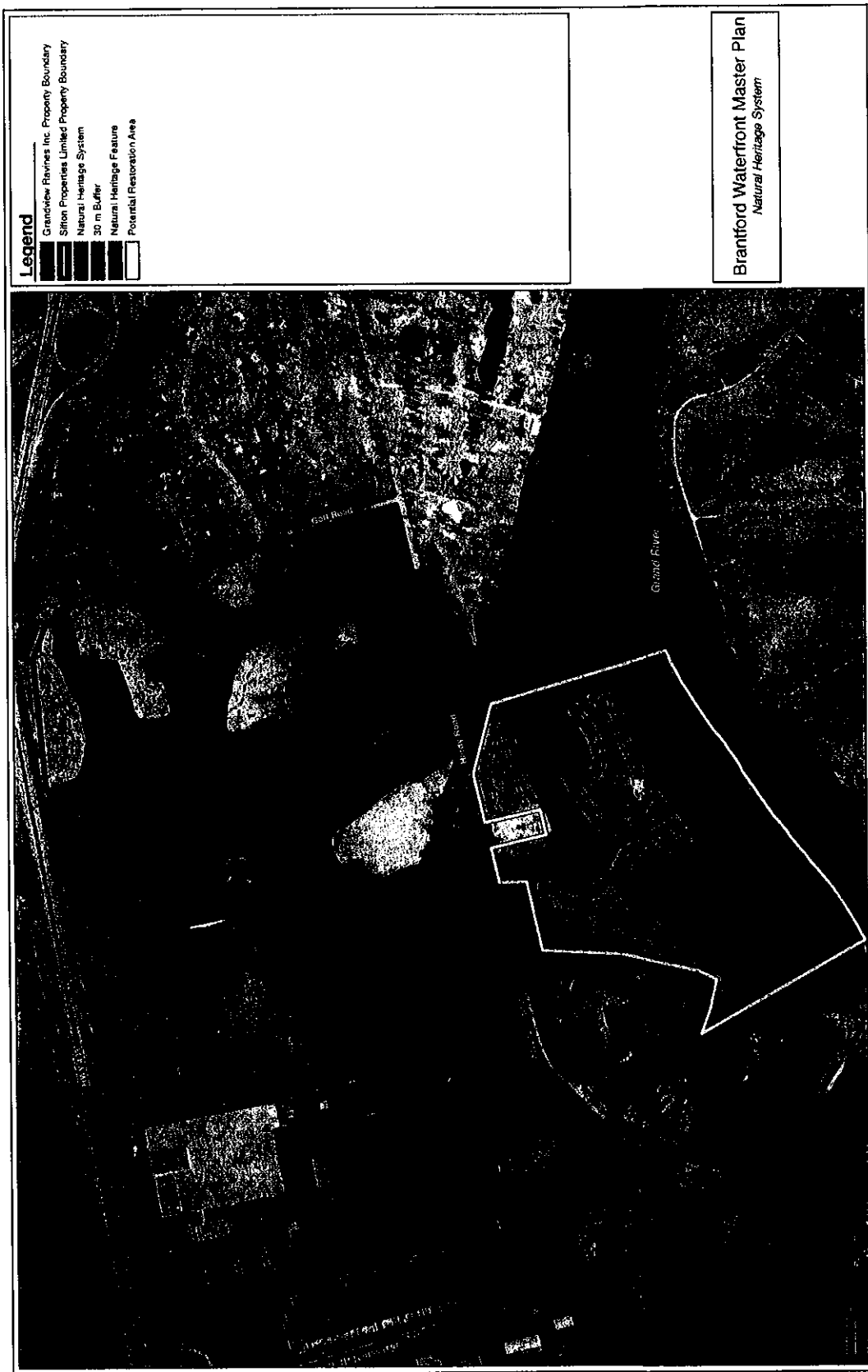
The NHIA-2011 recommended that:

"In light of the significance of the natural heritage features on both properties and the importance of the adjacent lands in sustaining the existing ecological and hydrologic features and functions of the site and in the larger landscape setting, it is recommended that; i) both properties should be preserved in their entirety as part of the Waterfront Natural Heritage System; and ii) that the adjacent agricultural field areas should be restored to native plant communities such as prairie and savannah."

The Natural Heritage System recommended by the NHIA-2011 is identified on Map 2.

In conclusion, the Official Plan Amendment, as proposed in this document, is considered to represent good planning, and is in the public interest because the Amendment is consistent with the PPS-2005 and helps to implement the WMP-2010.

The development proposals on the Subject Lands for urban residential development do not fulfill the intent of the WMP-2010, and they are inconsistent with the policies of the PPS-2005. Urban residential development on the Subject Lands, given the environmental significance and sensitivity identified by the NHIA-2011, is not considered good planning, nor would it be in the public interest.



PART B – THE AMENDMENT

All of this part of Schedule "A" entitled "Part B – The Amendment" consisting of the following text describing the change in designation and Schedule "B" and Schedule "C", constitute Amendment No. 166 to the Official Plan of the City of Brantford.

ITEM 1: Change the Section numbering of Section 7.7 to Section 7.9.
Change the Section numbering of Section 7.7.1 to Section 7.9.1
Change the Section numbering of Section 7.7.2 to Section 7.9.2

ITEM 2: Add a new Section 7.7 into the Official Plan, entitled Grand River Heritage Waterfront, to read as follows:

"7.7 Grand River Heritage Waterfront

7.7.1 The Vision

- .1 The Grand River Heritage Waterfront designation, as it is identified on Schedule 1 – Land Use, recognizes that the Grand River Watershed, an important cultural heritage landscape, was granted Canadian Heritage River status in 1994 because of the abundant nationally significant heritage and recreational features associated with the Grand River. The City of Brantford recognizes, and will continue to support and promote, the national significance of the watershed.*
- .2 The vision for the lands designated Grand River Heritage Waterfront also recognizes that the Grand River and its tributaries are the lifeblood and a defining image of the City of Brantford. The Grand River Valley has a great diversity of natural features and is enriched with an extraordinary historic legacy, evident of the Aboriginal and European cultures that have settled this land for over 11,000 years. It is the intent of the City that this Official Plan promote respect for, and reinforcement of this legacy.*

7.7.2 The 10 Pillars of the Vision

- .1 The City recognizes the important contribution that natural heritage features and their related ecological and hydrological functions make to the creation of a vibrant, livable city. The Grand River Heritage Waterfront designation is intended to protect and enhance natural heritage features and their associated ecological functions.*
- .2 The following ten pillars will assist the City in achieving the stated vision for those lands designated Grand River Heritage Waterfront:*
 - .i Link & Enhance Natural Features Systems;*
 - .ii Protect the Water Quality;*
 - .iii Protect the Integrity of the Dyke;*
 - .iv Value Heritage Resources;*

- .v *Manage Naturalized Riverside Parks & Plan for Recreation that Depends on a Waterside Location;*
- .vi *Celebrate & Leverage the Trails;*
- .vii *Create & Promote the Waterfront Cultural Corridor;*
- .viii *Plan for a Sensitive Urban Interface;*
- .ix *Be a Model for Environmental Stewardship; and,*
- .x *Plan Based on the Watershed.*

7.7.3 Permitted Uses

- .1 *Uses permitted on lands designated Grand River Heritage Waterfront may include:*
 - .i *conservation uses;*
 - .ii *public infrastructure;*
 - .iii *public parks and trails and other associated passive recreational opportunities and facilities that do not require substantial site alterations;*
 - .iv *buildings or structures appropriate and supportive of public parks and trails and other associated passive recreational opportunities and facilities;*
 - .v *buildings or structures necessary for flood or erosion control; and,*
 - .vi *existing lawful uses, restricted to their geographic location as of the date of the passing of this Bylaw.*
- .2 *The implementing Zoning Bylaw may further restrict the list of permitted uses on any given site.*

7.7.4 Site Alteration Policies

- .1 *No buildings or structures, nor the removal or placing of fill of any kind whether originating on the site or elsewhere, shall be permitted within an area designated Grand River Heritage Waterfront except with the approval of the City, in consultation with the Grand River Conservation Authority and any other agency having jurisdiction.*
- .2 *Development or site alteration shall not be permitted on lands within 120 metres of an identified natural heritage feature unless it has been demonstrated, through an Environmental Impact Study, that there will be no negative impacts on the natural heritage features or on their ecological functions.*

3. *Any required Environmental Impact Study shall be undertaken by a qualified professional on behalf of the proponent in accordance with the policies of this Official Plan, and shall be subject to the approval of the City, in consultation with the Grand River Conservation Authority and any other agency having jurisdiction.*

7.7.5 General Policies

- .1 *This Official Plan sets forth a framework to protect the Grand River and its tributaries as a fundamental public resource for the residents of Brantford. This framework is based on the following:*
 - .i *significant cultural heritage features and landscapes and natural heritage features will be protected and enhanced, and will be interpreted so that all residents of, and visitors to Brantford can understand and appreciate this area's rich cultural and natural history;*
 - .ii *the trails network will be comprehensive and easily identified and accessed, and the network will become a widely recognized destination;*
 - .iii *a diversity of places to access the water's edge will be offered, providing for a variety of educational, recreational and leisurely activities that celebrate the Grand River and engage residents and visitors alike; and,*
 - .iv *appropriate development on lands adjacent to the Grand River Heritage Waterfront designation will recognize the significance of the proximity to the River; be rooted in best practices in city building; strive for design excellence; and contribute positively to the riverfront and Brantford's image.*
- .2 *The City, in consultation with the Grand River Conservation Authority, and any other agency having jurisdiction, shall support and work cooperatively with private landowners to achieve the vision for the lands designated Grand River Heritage Waterfront. As such, decision making and development on the lands designated Grand River Heritage Waterfront shall proceed on the basis of the policies of this Official Plan and with regard to the Waterfront Master Plan (2010).*
- .3 *The City recognizes the transboundary nature of planning and resource management issues in the watershed, and will continue to support and participate in watershed-based planning activities, coordinated by the Grand River Conservation Authority and other authorities, where appropriate.*
- .4 *The City will continue to support and participate in appropriate events that celebrate and promote the Grand River as a Canadian Heritage River.*
- .5 *The City will continue to encourage and support the conservation and interpretation of cultural heritage and natural heritage resources by*

private landowners within the area designated Grand River Heritage Waterfront.

- .6 The City will continue to support and participate in appropriate economic development initiatives within the area designated Grand River Heritage Waterfront, particularly those which link outdoor recreational opportunities with built, cultural and natural heritage resources.
- .7 All of the lands identified as within the Grand River Heritage Waterfront designation may also be designated as a Community Improvement Area, and may be, in whole, or in part, subject to a Community Improvement Plan at some time in the future.
- .8 All of the lands identified as within the Grand River Heritage Waterfront designation may also be subject to Site Plan Control, in accordance with the policies of this Plan.
- .9 Existing lawful uses, including legal non-conforming uses, within the area designated Grand River Heritage Waterfront are permitted and may be replaced if destroyed by natural causes. An application for the expansion or enlargement of such structures and uses may be considered by the City, subject to the submission of an Environmental Impact Study, in consultation with the Conservation Authority and any other agency having jurisdiction. The application shall demonstrate no negative impact to the natural features and/or their supporting ecological and hydrological functions.
- .10 The establishment of any permitted use shall demonstrate no negative impact to the natural feature or the supporting ecological and hydrological functions of that environment. Where compensatory mitigation is proposed, it must be demonstrated that the mitigation results in no net loss of the natural feature and its function.

Where a proposed development requires mitigation, the mitigation shall result in no net negative impact on the significant natural features and their ecological functions. Where net negative impact is unavoidable, then the City at its sole discretion may accept a compensatory mitigation approach.

- .11 Where there is a conflict between the policies and schedules of this Section of the Plan with any other policies or schedules of this Plan, the policies and schedules of this Section shall apply.

7.7.6 Land Securement Policies

- .1 It is the intent of the City to work cooperatively with the Grand River Conservation Authority, the Province of Ontario, the Government of Canada and private property owners to establish ongoing financial, policy and legislative support for the protection and enhancement of all significant natural heritage features and their associated functions within the Grand River Heritage Waterfront designation, in accordance

with the policies of this Official Plan and with regard to the Waterfront Master Plan (2010).

.2 Mechanisms to secure lands for the purposes of protecting and/or enhancing significant natural heritage features and their associated functions within the Grand River Heritage Waterfront designation may include, but are not limited to the following property acquisition tools:

- .i land dedications/conveyance;
- .ii voluntary sale and public purchase through funds allocated in the City's budget or from funds raised through the cash-in-lieu of parkland dedications, where appropriate;
- .iii land swaps/exchanges;
- .iv donations, gifts, bequests from individuals and/or corporations;
- .v density transfers and/or bonuses;
- .vi through any applicable requirement relating to parkland or environmental resource area acquisition in the City's Development Charges By-law; and/or,
- .vii other appropriate land acquisition methods.

.3 It is recognized that the City may not be able to acquire or secure in public ownership all of the lands that are within the Grand River Heritage Waterfront designation for the protection of significant natural heritage features and their associated functions. Where lands designated Grand River Heritage Waterfront are not in public ownership, the City will work cooperatively with the landowners in an effort to protect the identified natural, environmental and cultural features and/or their associated functions on private lands.

In these instances, the City shall consider the following stewardship techniques to ensure the appropriate level of protection for the significant natural heritage features and their associated functions:

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

.4 The City may establish a Waterfront Land Securement Fund to be used to contribute to the costs of acquisition for specific properties that are within the Grand River Heritage Waterfront designation.

- .5 *Council may provide an annual budget allocation for a Waterfront Land Securement Fund and may authorize staff to pursue funding partners and other funding opportunities to achieve the vision for the lands designated Grand River Heritage Waterfront.*
- .6 *The lands identified as within the Grand River Heritage Waterfront designation includes substantial land areas that are owned by various public agencies and senior levels of government. The City shall enter into negotiations with these public agencies to ensure these lands remain in public ownership in the long term and are developed and/or managed in accordance with the policies of this Official Plan, and having regard for the Waterfront Master Plan (2010).*
- .7 *Nothing in this Official Plan shall be construed to imply that the lands within the Grand River Heritage Waterfront designation are free and open to the general public nor that such lands will be purchased by the City or any other public agency."*

1.0 SCHEDULES

.1 Schedule 1 – Land Use Plan

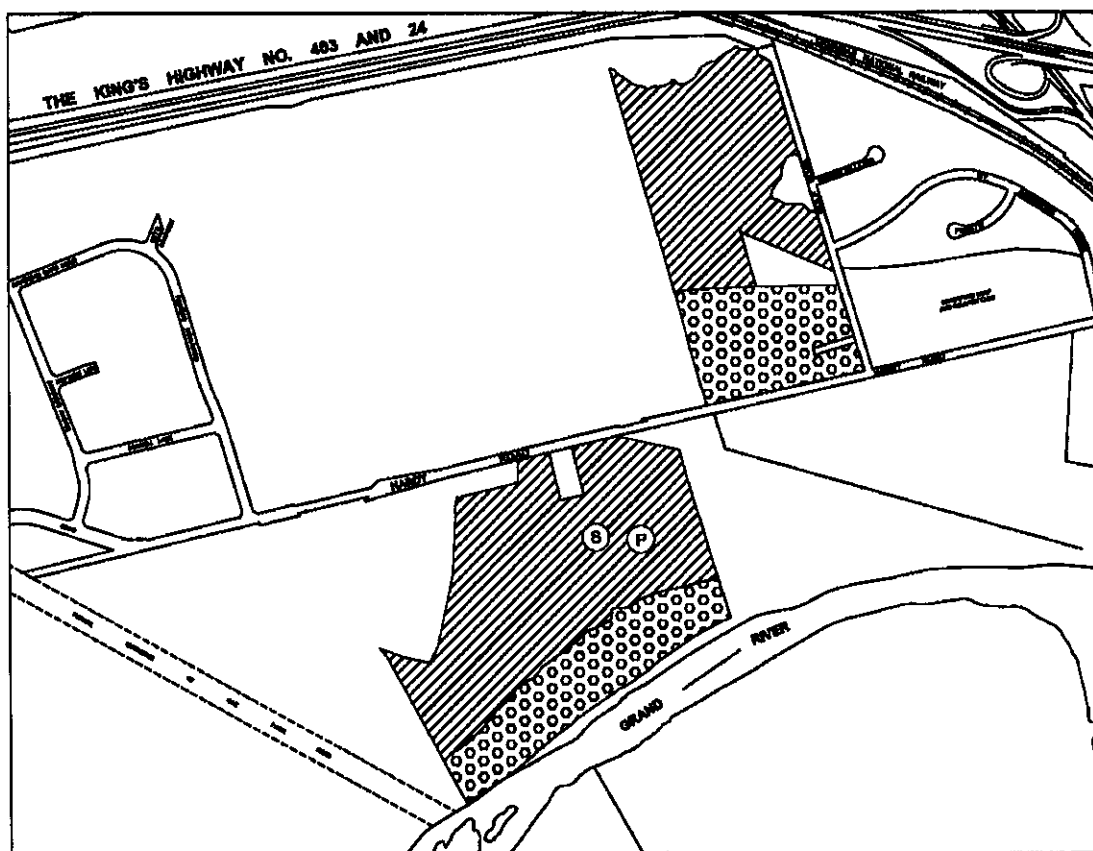
Schedule 1 – Land Use Plan of the Official Plan of the City of Brantford is hereby amended by changing the designation of the lands shown on Schedule "B" attached to and forming part of this Amendment from "Residential Area – Low Density" and "Major Open Space" to "Grand River Heritage Waterfront".

Schedule 1 – Land Use Plan of the Official Plan of the City of Brantford is hereby amended by deleting the legend and replacing it with the new legend contained in Schedule "C" attached to and forming part of this Amendment.

THIS IS SCHEDULE 'B' TO OFFICIAL PLAN
AMENDMENT NO. 166 FOR THE CITY OF BRANTFORD



MARCH 7, 2011
PASSED
MAYOR
CLERK



LEGEND:



AREA 1 AFFECTED BY THIS AMENDMENT CHANGED
from RESIDENTIAL AREA - LOW DENSITY to
GRAND RIVER HERITAGE WATERFRONT.



AREA 2 AFFECTED BY THIS AMENDMENT CHANGED
from MAJOR OPEN SPACE to
GRAND RIVER HERITAGE WATERFRONT.

NOTE:

THIS SCHEDULE FORMS PART OF THE AMENDMENT No. 166
TO THE OFFICIAL PLAN FOR THE CITY OF BRANTFORD AND
MUST BE READ IN CONJUNCTION WITH THE WRITTEN TEXT.

THIS IS SCHEDULE 'C' TO OFFICIAL PLAN
AMENDMENT NO. 166 FOR THE CITY OF BRANTFORD

MARCH 7, 2011
 PASSED
 MAYOR
 CLERK

**SCHEDULE 1
 LAND USE PLAN
 LEGEND**

RESIDENTIAL AREA

-  LOW DENSITY
-  HIGH DENSITY

-  MEDIUM DENSITY

INDUSTRIAL AREA

-  GENERAL
-  BUSINESS PARK

-  MIXED INDUSTRIAL COMMERCIAL

COMMERCIAL AREA






-  CORE COMMERCIAL
-  COMMUNITY CENTRE COMMERCIAL
-  GENERAL COMMERCIAL
-  MIXED COMMERCIAL-RESIDENTIAL

-  DISTRICT CENTRE COMMERCIAL
-  NEIGHBOURHOOD CENTRE COMMERCIAL
-  NEW FORMAT COMMERCIAL

MAJOR INSTITUTIONAL



SYMBOLS

-  CEMETERY
-  FREEWAY
-  SPECIALIZED PARK & OPEN SPACE
-  COMMUNITY PARK & OPEN SPACE
-  AREA EXCLUDED FROM OFFICIAL PLAN SIX NATIONS OF THE GRAND RIVER TERRITORY

MAJOR OPEN SPACE

-  GRAND RIVER HERITAGE WATERFRONT
-  ELEMENTARY SCHOOL
-  LONG TERM CORRIDOR PROTECTION
-  NEIGHBOURHOOD PARK & OPEN SPACE

**OFFICIAL PLAN
 OF THE
 CITY OF BRANTFORD**