

# NATURAL HERITAGE WOODLANDS – A FOREST DESIGNATION PROCESS WITHIN THE LONG POINT REGION CONSERVATION AUTHORITY

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## Abstract:

*The Long Point Region Conservation Authority (LPRCA) owns and manages approximately 4,655 ha (11,500 acres) of which, almost 3,845 ha (9,500 acres) is forestlands. The LPRCA watershed lies within the heart of the Carolinian Forest Zone, and contains some of the most significant tracts of Carolinian forest. After assuming responsibility for forest management from the Ontario Ministry of Natural Resources (OMNR) in 1995, the Conservation Authority recognized the need for a longer-term plan for its forests and their management. In 1999, a 20-year forest management plan was approved. One of the recommendations from that plan was for a portion of the Authority's forestlands, in addition to Backus Woods, to be designated and managed under a special protected category. The LPRCA undertook an ecological and physical inventory of its forests, under the guidance of an independent technical advisory committee. The Authority reviewed the list of properties or portions of properties to be designated as "natural heritage woodlands" (NHW) as recommended by the committee. In December 2002, the LPRCA decided to designate a total of 782 ha (1,933 acres) of forest in eleven different tracts or blocks as NHW lands. This represents about 20% of the Authority's entire forestland holdings. The decision represents an important commitment to enhancing biodiversity and older growth forests within the watershed, but also has financial implications for the Conservation Authority.*

## The Long Point Region Watershed

The Long Point Region Conservation Authority (LPRCA) has a rich history of forest management dating back to 1948 when the Big Creek Conservation Authority was formed as one of the earliest of the conservation authorities in Ontario. Since those early days, significant achievements have been made in flood control, natural area protection, environmental planning, erosion control, water supply and the provision of conservation areas for educational and recreational uses.

The Long Point Region's 2,782 square kilometre watershed includes the world renowned Long Point Biosphere Reserve, 170 km of Lake Erie shoreline, cold water streams, rich wetlands and Carolinian forests. In 1995, the Conservation Authority assumed primary responsibility for decision-making in regards to its approximately 3,845 ha (9,500 acres) of forestlands. Prior to this, the Ministry of Natural Resources held management responsibility through an agreement with LPRCA under the Forestry Act. Today, decisions regarding acquisition of new forest tracts, removal of timber or other forest products, des-

ignation of tracts to be “protected”, enhancement of biodiversity and significant species and public consultation on all of the above, now rest with the board and staff of the Long Point Region Conservation Authority.

In 1998, the LPRCA commissioned a forestry consultant to develop a 20-year forest management plan for the dozens of tracts of forestland that comprise the authority forest. The plan recommended that the authority develop a Natural Heritage strategy for protecting rare and unique forest communities and habitats. The plan further recommended that silvicultural systems should be suitably modified to ensure that forestry operations do not diminish these unique forest communities and habitats. The Long Point Region Conservation Authority recognizes that conservation efforts to protect our woodlands heritage are essential now.

Recently, the LPRCA has taken an innovative approach to identify and designate properties as natural heritage woodland areas. The natural heritage woodland designation process is an example of how the conservation authority works in partnership with the community for a healthy watershed. In 1999, when a 20-year forest management plan was being drafted, protection of natural heritage features emerged as one of the important themes during extensive stakeholder and public consultations.

Support for designating a portion of the LPRCA's forests came in 1999 when the LPRCA board approved the new 20-year Forest Management Plan. At that time, the plan recommended that 20% of the authority's forestlands be designated as Natural Heritage Woodlands within the plan's first five years. It is worth noting that the designation process being highlighted was completed in only the third year of implementing the forest management plan.

In 1999, the LPRCA's challenge was to develop a process that would consider natural heritage values of significant forest properties, while at the same time, address forest management operations. The decision to form a technical advisory committee (TAC) implemented one of the recommendations covered by the 20-year plan. The TAC was established to provide input and advise on specific items relating to the implementation of the forest management plan. This group of volunteers could also be requested to comment on specific management action and provide scientific advice.

In December 1999, a forest technical advisory committee consisting of ecologists, botanists, municipal staff and professional foresters was established. The following individuals who volunteered as members of the LPRCA Forest Technical Advisory Committee provided invaluable professional expertise: Dr. Dawn Bazely, York University; Dr. Jane Bowles, University of Western Ontario; Ken Elliott, Ministry of Natural Resources; David Holmes, LPRCA Field Superintendent; Dr. Richard Reader, University of Guelph; Steve Scheers, Norfolk County Tree Commissioner; Carol Tattersal, Oxford County, Tree Commissioner; Steve Williams, Ministry of Natural Resources; and, Dolf Wynia, Retired Professional Forester.

The Technical Advisory Committee developed evaluation criteria that were used to determine the quality and significance of woodlands prior to making recommendations on can-

didate properties. Using data collected from air photos, GIS mapping and field investigations, the TAC assessed the natural heritage values of several properties by using a quantitative scoring and ranking system. During the summer of 2002, a vegetation community assessment and breeding bird inventory were undertaken to assess the tracts with the most potential for Natural Heritage Woodland status. These reports provided necessary information for the TAC to undertake final prioritization. Connectivity, the degree of connectedness of tracts containing potential natural heritage values, to adjacent forests and the total area of interior forest were key ecological considerations used to develop the list of recommended properties. Several factors were considered in determining candidate NHW sites.

## Natural Heritage Woodland Selection Criteria

### 1. *Criteria from the 20-year Forest Management Plan*

- Minimum of 10% basal area of overstory composed of Carolinian tree species;
- Identification previously within Haldimand-Norfolk Natural Areas Inventory or other designation (Carolinian Canada site or Area of Natural and Scientific Interest); and,
- Stand has average age of 85 years or older.

### 2. *Criteria from Technical Advisory Committee*

- Stand contains significant percentage of interior forest;
- Stand is part of a large, contiguous block of forest (private and/or public);
- In regards to birds, the property or stand has high species richness (diversity); high conservation priority score (presence of identified priority bird species for the Long Point area) and/or high forest interior species score; and,
- In regards to plants, property or stand has high species diversity; presence of VTE (vulnerable, threatened or endangered) species; presence of species with coefficient of "conservatism" of 8, 9 or 10; high diversity of vegetation community types; presence of rare vegetation community types or presence of high numbers of trees with dbh greater than 50 cm.

The LPRCA's GIS technology was used to provide data and mapping in support of TAC's work. Staff calculated the total area of naturalized forest and forested lands for all authority-owned land. A new data layer illustrating interior forest cover was created and was used to determine the significance of several interior forests. The proximity of other forest blocks to LRPCA woodlots was calculated and the occurrence of significant linkages between forest blocks was determined. Interior area was defined as the area in acres of the tract that contained forest interior at least 100 m away from the edge of a forest block.

Based on recommendations received from the Technical Advisory in December 2002, the LPRCA board designated a comprehensive list of its forested properties as Natural Heritage Woodlands. The natural heritage approach identifies and evaluates natural heritage values and assesses the status of species and habitats. This approach to forest man-

agement identifies opportunities and actions for protecting significant natural heritage features within selected LPRCA forest properties. The final NHW selections represent a diversity of watershed forest sites and a maximum number of species and vegetation communities of high conservation value. In some cases, the entire forest was designated, while in other parcels, only areas of concern were identified for designation.

LPRCA Natural Heritage Woodlands (Figure 1):

- Backus Woods – 319 ha (788 acres)
- Watson Conservation Area – 124 ha (307 acres)
- Burwell Tract – 40 ha (100 acres)
- Carr Tract – 20 ha (50 acres)
- Anderson Tract (oak forest areas only) – 14 ha (35 acres)
- Harvey Tract (all but 4 ha) – 36 ha (90 acres)
- Earl/Danylevich Tract (core area only) – 14 ha (35 acres)
- McKay/Baker/Lipsett/Penner (core area only) – 43 ha (105 acres)
- Hepburn Tract (all but 9 ha) – 32 ha (78 acres)
- Harris/Harris/Floyd Tract – 61 ha (150 acres)
- South Walsingham Sand Ridges (LPRCA property mapped as area of concern) – 79 ha (195 acres)

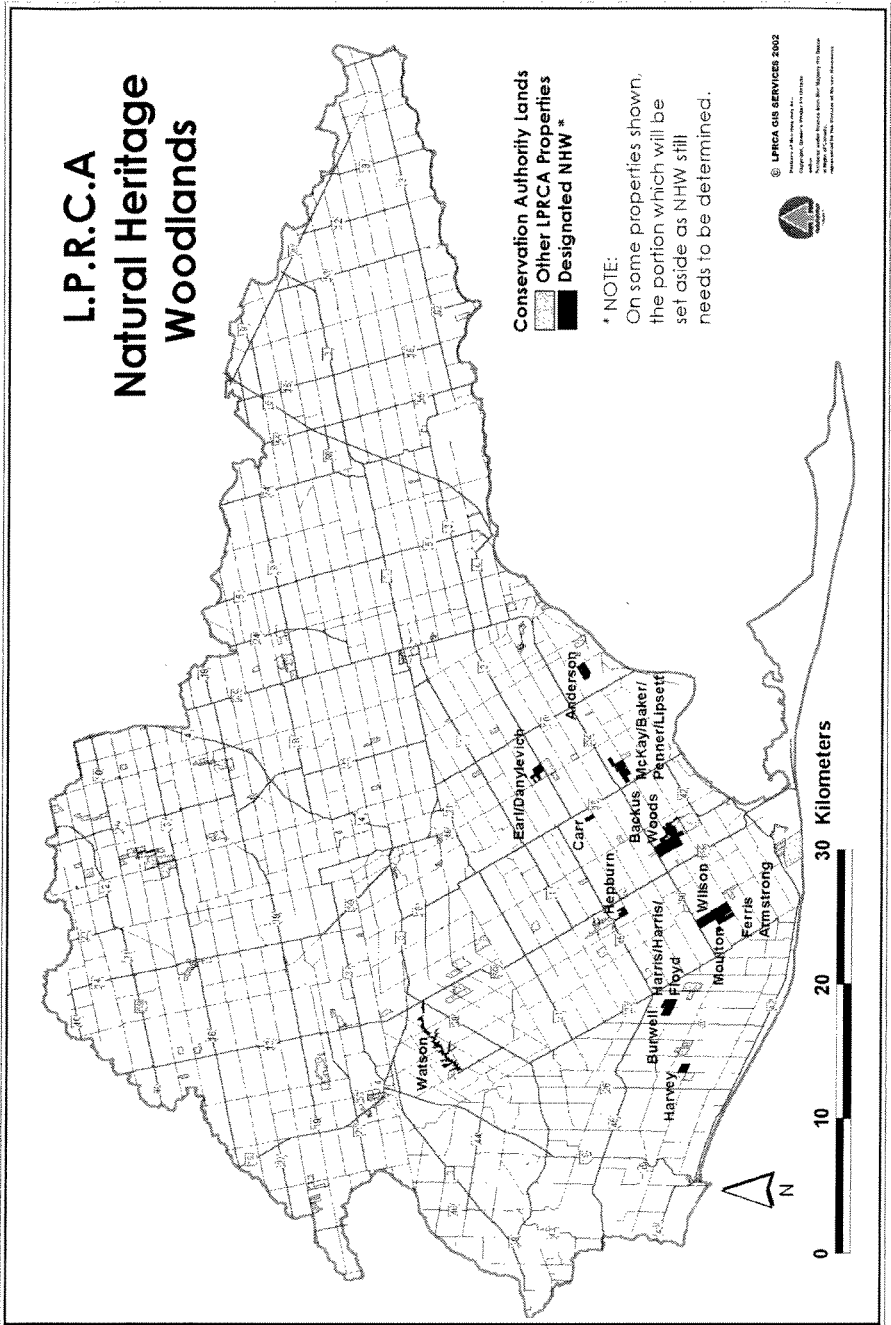
Since 1995, the LPRCA has been attempting to ensure that natural heritage protection was part of any forest management work on our property. The Authority has made a commitment to follow its 20-year *Forest Management Plan*. This forestry plan provides for sustainable timber harvest targets, while embracing the “made in southern Ontario” forestry guidelines produced by the province of Ontario. The Conservation Authority has adopted a protection strategy for a greater percentage of our forests at 20% as compared to 12% adopted by the province.

## Protecting Significant Woodlands in the Long Point Region Watershed

The LPRCA will develop a natural heritage strategy for protecting these rare and unique environments. Site-specific management plans will be developed to guide activities on individual NHW areas. The selected woodlands will be exempt from regular forest management operations, in an attempt to create and preserve old-growth forest. These sites will serve as core areas for the protection of rare, threatened and endangered species, as well as being examples of forests with limited human disturbance.

In 2002, the Authority revised its goals and objectives and updated its watershed strategies. The strategies document is intended as a tool for our board and staff, and as a working document it will guide conservation actions over the next five years. It is also intended to promote the authority's role in watershed management to a broad audience and be easily understood by partners and watershed residents. Within the revised objectives, several strategy statements address natural heritage values and specific programs will be developed to achieve these objectives.

Figure 1. Long Point Region Conservation Authority Natural Heritage Woodlands.



The LPRCA will work with our local communities and our many other partners to achieve the conservation, restoration, development and responsible management of our water, land and natural habitats through programs that balance human, environmental and economic needs.

For now, the work of the TAC is complete; however the committee members have agreed to come together whenever needed to provide input on forestry matters. In closing it is important to remember that the Natural Heritage Woodland process was carried out in partnership with a number of individuals and an external committee brought technical expertise to the process. Several factors were considered and an ecological review of the sites was used in determining appropriate NHW sites. It is hoped that the LPRCA can assume a lead role in protecting and restoring interior forest and mature forest habitats within the Long Point region watershed.

## References

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