IVY JAY COMMUNITY NATURE RESERVE

Design | Construction | Management

**It is time to be more imaginative.
The aim should be to give companies and voluntary organizations a new way to enhance biodiversity without the complex apparatus of state regulation.**

David Cameron, UK Prime Minister

ACHKNOWLEDGEMENTS
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DYSLEXIA
The Sylexiad typeface used in this report was designed by Dr. Rob Hillier (Norwich University of the Arts) to enable dyslexic people to read text more easily.

FRONT COVER
Nature Reserve air photograph by John Plow.

Summary

The Ivy Jay Community Nature Reserve was declared a provincially important wetland by the Ontario Ministry of Natural Resources. This wetland covers a wide range of habitats in a relatively small area of 70 hectares, from natural and stormwater ponds, marshland and shorebird scrape, to deciduous and coniferous woodland, scrubland and grassland. These habitats support a broad range of wildlife.

The master plan has been designed on the principle of European nature reserves that protect and enhance existing habitats, create new habitats and, most importantly, restrict human access to controlled trail routes and view points so that disturbance to wildlife is reduced to a minimum.

A major aspect of the design is habitat management to ensure that all habitats are maintained in the best condition to support the broadest range of wildlife species. It is intended that most of the management will be undertaken by citizen volunteers with assistance from a technical committee consisting of Town staff, professional biologists and engineers. A critical volunteer task will be to evaluate the long-term effectiveness of habitat preservation, habitat improvements, management strategies and other influences on habitat and wildlife within the Nature Reserve.

This approach will involve the training of citizen scientists by local experts. An extensive scientific data base already exists on the breeding bird population and this will need to be extended to cover mammals, amphibians, insects and other wildlife groups if this aim is to be achieved. Public education will also be a major goal and will include educational signage to illustrate each type of habitat highlighting specific groups of plants, birds, mammals, and insects. Further information will be provided by volunteer guided tours covering specific themes such as the dawn birdsong and frog choruses and the identification of plants, birds and insects.

Ultimately, the main goal will be to construct, monitor and manage this Nature Reserve as economically as possible to encourage other municipalities to create similar nature reserves within their own areas. This approach, if carried out on a national scale, would go a long way to ensuring the long-term protection of much of the critical wildlife habitat in Canada.

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Introduction

Land use changes in Aurora over the last 50 years have resulted in the disappearance of many wildlife habitats and has fragmented many others. In this era of rapid land development, the Town of Aurora's decision in 1999 to create a 70 hectare Community Nature Reserve between 2 urban expansion zones in the northeast corner of the town was a bold decision.

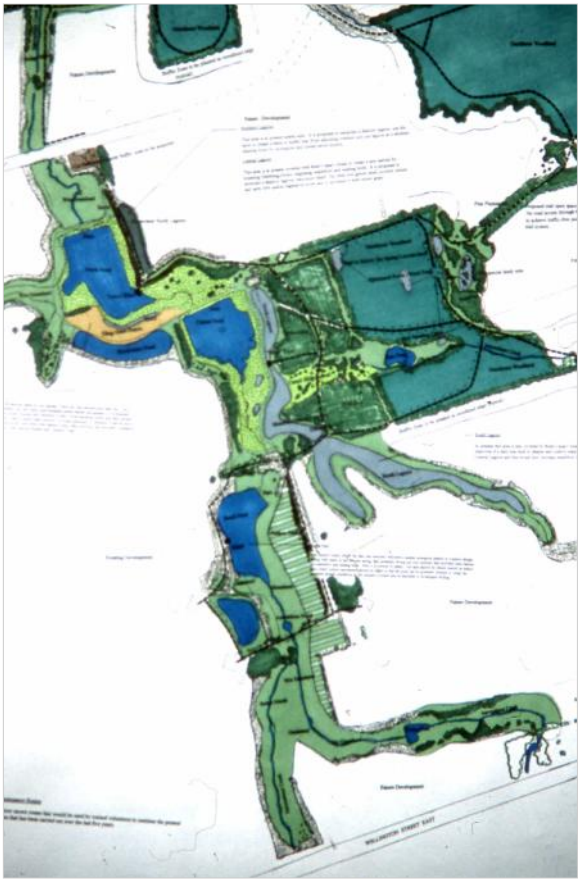
This was accomplished with the support of Ducks Unlimited who own 25 hectares of the Nature Reserve, and with the assistance of the Lake Simcoe Region Conservation Authority, Ontario Ministry of Natural Resources, Regional Municipality of York and other interested stakeholders.

The Nature Reserve covers most of the provincially important East Holland River Wetland Complex with adjoining buffer zones and natural linkages. It includes extensive blocks of existing wetland, woodland, scrubland and grassland which supports a broad diversity of plants, mammals, birds, amphibians, and invertebrates.

The Nature Reserve is located on an important flyway route between Lake Simcoe and Lake Ontario. During spring and fall migration, this area attracts many unusual and uncommon birds including, when water conditions are favorable, several species of northern shorebirds and waterfowl.

In the future, this Community Nature Reserve will become a centre for research, education and public enjoyment and will demonstrate the importance of protecting and managing local wildlife habitats as part of a viable public open space system.

The long-term success of the conservation management of the Nature Reserve will depend on knowing which species and communities are present and by understanding the ecology of these communities. Identifying and setting management objectives, with both long and short term goals, will determine the means of achieving them within economic restraints. The training, availability, and dedication of keen and skilled volunteer labour will be a critical factor in the long-term success of the Nature Reserve.



Master plan 2006, Ivy Jay Community Nature Reserve
D. Tomlinson Landscape Architect (Emeritus) Aurora.

General Information

LOCATION

The Ivy Jay Community Nature Reserve, named after Jim Spring's farm, is located in the northeast of Aurora, 1.5 kilometers west of the Highway 404 junction with the Aurora Road. This becomes Wellington Street East and forms part of the southernmost boundary of the Nature Reserve. The Nature Reserve extends northward along a shallow valley between 2 major blocks of housing development bounded by Leslie Street, Bayview Avenue, St. John's Sideroad and Wellington Street East.

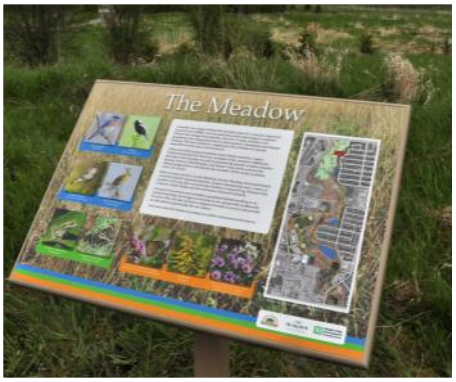
ACCESS

The main accesses to the Nature Reserve are to be located at the Stronach Aurora Recreation Complex on Wellington Street East and on Hartwell Way where off road car parking will be available. Several other pedestrian access points are proposed where limited on street parking may also be available.

LAND OWNERSHIP

Most of the land, 45 hectares, is owned by the Town of Aurora. A block of 25 hectares in the centre of the Nature Reserve is owned by Ducks Unlimited (donated to them in 1992 by Jim and Jean Spring), and consists of a block of coniferous and deciduous woodland, a central pond and wetlands. The 16 hectares McLeod Wood Nature Reserve, adjoining the eastern edge of the Ivy Jay Community Nature Reserve, was donated by the McLeod family to the Oak Ridges Moraine Land Trust in 2006. It is not proposed to include this woodland within the Nature Reserve but it is ecologically important. It supports several types woodland birds and amphibian species which use the ephemeral ponds in the Nature Reserve during the breeding season. There are no breeding ponds in the McLeod property. It is important to obtain agreements from Ducks Unlimited and the Oak Ridges Moraine Land Trust before any proposed habitat or management changes are approved or implemented on lands under their ownership.

Extent of Ivy Jay Community Nature Reserve.



Meadowland educational sign, Aurora Community Arboretum, Aurora.

Outdoor classroom school visits, Wetland Centre, London, UK.

Nature fairs attracts thousands of visitors, Rutland Water Nature Reserve, UK.

by guided walks on specific themes such as bird dawn tours, frog choruses tours, plant, fungi, bird, mammal or insect identification tours. These can be aimed at the general public and specific interest groups and used to enhance school curriculums where pond dipping activities could be included.

NATURE FAIR / FAUNA AURORA

A late summer fair to complement Flora Aurora in in the spring and the Home Show in midsummer could be developed, centered on the Nature Reserve and the Stronach Recreational Centre on Wellington Street East.

This could feature booths selling hiking and bird-watching clothes, cameras and optical equipment, wildlife art, nature books and videos, technical advice, plant and insect identification, eco-touring, bird feeders, bee keeping, monitoring equipment, education aids, etc.

These fairs are very popular and profitable in the U.K. and with the growing interest in wildlife conservation, they should become equally popular in Ontario.

ULTIMATELY

Over 80% of the United Kingdom's rare bird populations nest in managed nature reserves. One of the main goals of this project is to assist other naturalist groups to encourage their authorities to create managed nature reserves in their own towns and cities.

Buffer Zones Plant List

PLANTING ON BERMS SLOPE FACING HOUSES GROUP A

Trembling aspen	Populus tremuloides
Hop hornbeam	Ostrya viginiana
Showy mountain ash	Sorbus decora
Cockspur hawthorn	Gratagus crusgalli
White birch	Betula papyrifera
Alleghneny service berry	Amelanchier laevis
Downy serviceberry	Amelanchier arborea
Saskatoon serviceberry	Amelanchier alnifolia
Choke cherry	Prunus pensylvanica
Nannyberry	Viburnum lentago
Wild raisin	Viburnum cassinoides
Ninebark	Physocarpa opulifolius
Red cedar	Juniperus virginiana
Domestic apple	Malus sp.
Dolgo crabapple	Malus " Dolglo"
Donald Wyman crabapple	Malus "Donald Wyman"
Floribunda crabapple	Malus "Floribunda"
Royalty crabapple	Malus "Royalty"
Snowdrift crabapple	Malus "Snowdrift"
Sugar Tyme crabapple	Malus "Sutyzam"
Thunder Child crabapple	Malus "Thunder Child"
White Angel crabapple	Malus "White Angel"
Siberian crabapple	Malus baccata
Hopa crabapple	Malus "Hopa"

BERM SLOPE FACING NATURE RESERVE TREES GROUP B

Bur oak	Quercus macrocarpa
Black walnut	Juglans nigra
Red oak	Quercus rubra
Butternut	Juglans cinerea
Basswood	Tilia americana
Black cherry	Prunus serotina
Sugar maple	Acer saccharum
Hackberry	Celtis occidentalis
Kentucky coffee tree	Gymnocladus dioicus
Shag bark hickory	Carya ovata
Bitternut hickory	Carya cordiformis
Silver maple	Acer saccharinum
Trembling aspen	Populus tremuloides

GROUP C

White pine	Pinus strobus
European larch	Larix decidua
White spruce	Picea glauca
Norway spruce	Picea abies
White cedar	Thuja occidentalis

(Plant where screening is required in groups of 5 to 12 or to break up general deciduous planting)

SLOPE FACING NATURE RESERVE SHRUBS GROUP D

Cockspur hawthorn	Cratagus crus galli
Red mulberry	Morus rubra
Alleghneny serviceberry	Amelanchier laevis
Saskatoon serviceberry	Amelanchier alnifolia
Downy serviceberry	Amelanchier arborea
Choke cherry	Prunus virginiana
Pin cherry	Prunus pensylvanica
Nannyberry	Viburnum lentago
Wild raisin	Viburnum cassinoides
Ninebark	Physocarpa opulifolius
Smooth wild rose	Rosa blanda
Raspberry	Rubus idaeus
Prickly ash	Zanthoxylum americana
American elderberry	Sambucus canadensis
Beaked hazel	Corylus cornuta
Pussy willow	Salix discolor
Domestic apple	Malus var.

PLANTING ALONG EDGE OF WETLAND GROUP E

Red osier dogwood	Cornus stolonifera
American elder	Sambucus canadensis
Slender willow	Salix petiolaris
Highbush cranberry	Viburnum trilobum
Buttonbush	Cephalanthus occidentalis

PLANTING ON DRY SLOPES

Smooth wild rose	Rosa blanda
Prickly ash	Zanthoxylum americanum
Choke cherry	Prunus virginianus
Ninebark	Physocarpa opulifolius
Raspberry	Rubus idaeus
Gooseberry	Ribes var.
Downy arrowwood	Viburnum rafinesquianum
Gray dogwood	Cornus racemosa
Saskatoon berry	Amelanchier alnifolia
Cockspur hawthorn	Cratagus crus galli

WOODLAND EXTENTION GROUP F

Sugar maple	Acer saccharum
Bur oak	Quercus macrocarpa
American beech	Fagus grandifolia
Hop hornbeam	Ostrya virginiana
Basswood	Tilia americana
Shag bark hickory	Carya ovata
White pine	Pinus strobus
Black cherry	Prunus serotina
Black walnut	Juglans nigra

WET WOODLAND GROUP G

Tamarack	Larix laricina
White cedar	Thuja occidentalis
Black willow	Salix nigra
Peach leaf willow	Salix amygaloides
Beaked willow	Salix bebbiana
Black cottonwood	Populus trichocarpa
Black alder	Alnus glutinosa
Swamp white oak	Quercus bicolor
Tulip tree	Lirodendron tulipifera
Sycamore	Platanus occidentalis
Silver maple	Acer saccharinum
Red maple	Acer rubrum
Black ash	Fraxinus nigra
Pussy Willow	Salix discolor

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LEGEND:
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