

C1 - CW(ws)

December 3 / 2013

Item 1

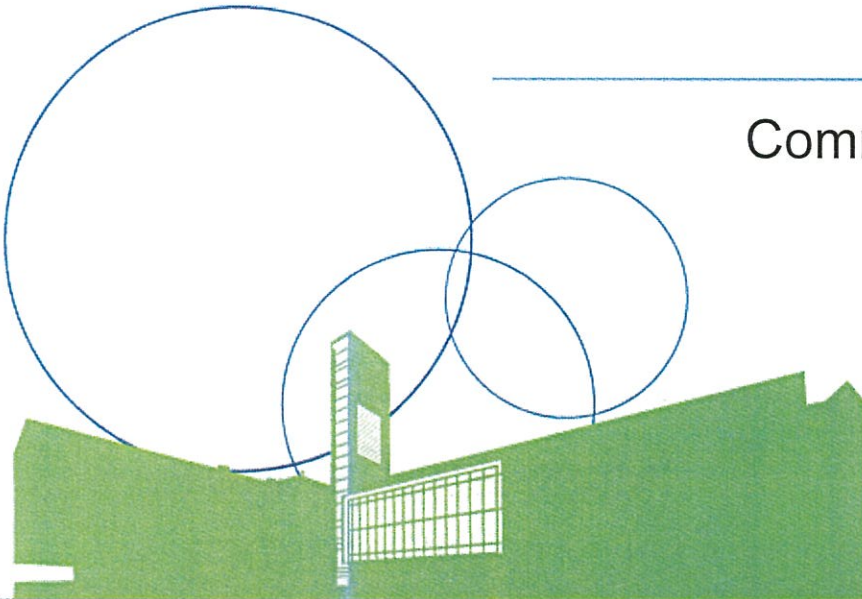
Natural Heritage Network

Study – Phases 2 - 4

Committee of the Whole (Working Session)

December 3rd, 2013

City of Vaughan



PURPOSE OF THE PRESENTATION

- Provide an update on the status of the NHN Study;
- Explain preliminary findings and the approach to refining the NHN;
- Describe the community engagement process to inform the Study findings; and
- Explain next steps.



PROJECT BACKGROUND AND STATUS

- NHN Phase 1 – 4 study steps were identified in a June 1st, 2010 staff report to CW, including the need to identify ecosystem targets and to conduct field work to assess Significant Wildlife Habitat (SWH) and Headwater Drainage Features (HDF);
- NHN Study providing input to help resolve VOP 2010 OMB appeals; and
- Provides increased certainty for developers and the City in planning for development (e.g. Secondary Plans, Block Plans).



PROJECT BACKGROUND AND STATUS

- Capital Budget request approved by Council in 2010 outlined justification for NHN Study including:
 - ✓ meeting Provincial policy and regulatory requirements, particularly ESA (e.g. Redside Dace)
 - ✓ conformity to Region policies regarding “Greenlands”;
 - ✓ understanding impact of the GTA West Corridor;
 - ✓ input to Secondary Plans including for New Community Areas;
 - ✓ input to the Greenbelt Plan and ORMCP review scheduled for 2015; and
 - ✓ an improved NHN database to more efficiently and effectively process development applications.



CORPORATE BENEFITS

- Implementing action items in Green Directions Vaughan;
- Link to IT strategy for electronic data management and GIS;
- Improved data for better decision-making regarding development approvals and infrastructure requirements;
- Integrated with the Active Together Master Plan to inform parks development and planning.



NHN PROJECT GOAL

To identify a Natural Heritage Network (NHN) consisting of **core areas** & **enhancement areas** that form a robust, linked ecological system of resilient natural habitats providing long term protection of native biodiversity



6



NHN PHASE 2 – 4 STUDY OBJECTIVES

There are three main study objectives....

- Assess ecological features (biodiversity) and ecological functions within the existing NHN
- Develop a comprehensive GIS database of natural heritage information for environmental planning
- Prepare a strategy for long term enhancement of the NHN



NHN PHASE 2 – 4 STUDY COMPONENTS

There are four main study components in the remaining phases:

- Field Investigations – Headwater Drainage Features (HDF) and Significant Wildlife Habitat (SWH)
- Develop a recommended approach to identify and map a Natural Heritage Network (NHN) for Vaughan
- Prepare a Land Securement Strategy
- Develop & implement a Community Engagement Plan



Field Work Examples



SAMPLE RESULTS OF HDF FIELD WORK

TRCA/CVC Management Recommendation



HUM 1308 - Mitigation



HUM 13036 - Mitigation



SAMPLE RESULTS OF HDF FIELD WORK

TRCA/CVC Management Recommendation



HUM 1305 – “Conservation”



HUM 1302 – “Conservation”



SAMPLE RESULTS OF HDF FIELD WORK

TRCA/CVC Management Recommendation



HUM 13033 - Mitigation



HUM 13032 - Mitigation



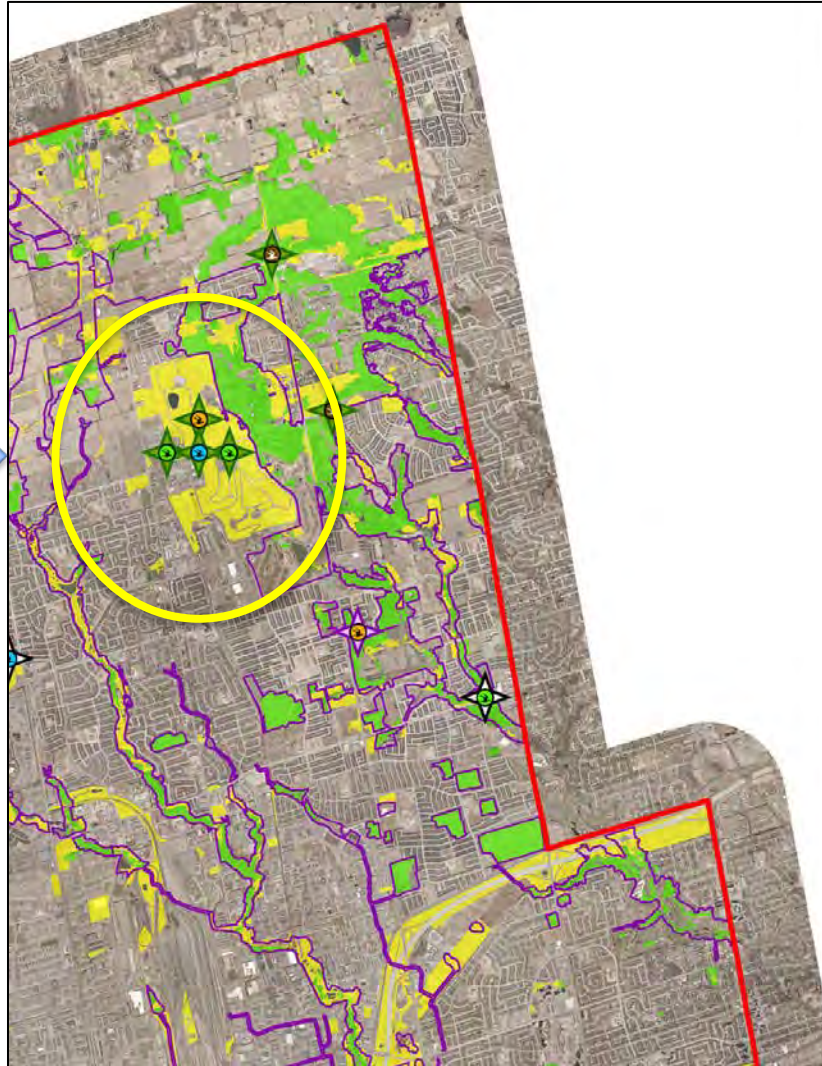
SAMPLE RESULTS OF HDF FIELD WORK

TRCA/CVC Management Recommendation



SAMPLE RESULTS OF SWH FIELD WORK

Open Habitat
Breeding
Birds in large
Meadow Area




Vaughan NHN Study Breeding Birds

Legend

Species

-  Barn Swallow
-  Bobolink
-  Eastern Meadowlark
-  Wood Thrush

Breeding Evidence

-  Confirmed Breeding
-  Probable Breeding
-  Possible Breeding
-  Other Wildlife Evidence
-  NHN Boundary
-  Forest
-  Meadows
-  Vaughan Boundary

Approach to Mapping NHN



IDENTIFYING NHN SCENARIOS BASED ON POLICY & REGULATION TARGETS

1. Species at Risk

- *Species Listed under the Endangered Species Act*

2. ORM Core Areas & Linkage Areas

- *Key Natural Heritage Features (KNHF)*
- *Hydrologically Sensitive Features (HSF)*

3. Greenbelt Natural Heritage System

- *Key Natural Heritage Features (KNHF)*
- *Key Hydrologic Features (KHF)*

4. York Region Greenlands

- *Key Natural Heritage Features (KNHF) & Key Hydrologic Features (KHF)*

5. Provincial Policy Statement

- *Significant Habitat of Endangered and Threatened Species*
- *Significant Woodlands*
- *Significant Valleylands*
- *Significant Wildlife Habitat*
- *Significant Areas of Natural and Scientific Interest*
- *Fish Habitat*
- *Adjacent Lands*

6. Toronto Region Conservation Regulations

- *Steep Slopes*
- *Wetlands*
- *Watercourses*



IDENTIFYING NHN SCENARIOS BASED ON “SYSTEM” TARGETS

1. Enhancement Areas

- *enhancement to create woodland interior*
- *enhancement to create core habitat clusters consisting of woodlands, wetlands, open habitat, watercourses, and water bodies*
- *enhancement to create regional centres for biodiversity*

2. Ecological Linkage

- *regional ecological linkages within and beyond the City of Vaughan*
- *local ecological linkages associated with woodlands, wetlands, open habitat and watercourses*
- *linkage providing connectivity between aquatic and terrestrial habitat*
- *linkage providing connectivity among watersheds*
- *multiple linkages providing redundancy of connectivity among features*
- *ecopassages where the NHN encounters barriers to wildlife movement (e.g. roads, railines)*

3. Buffers

- *provide protection of NHN features from impacts associated with adjacent land uses*
- *implement ORM, Greenbelt and York Region Greenlands criteria regarding Vegetation Protection Zones*
- *implement TRCA setbacks for wetlands, stable top of bank, floodplain, or meander belt*



IDENTIFYING NHN SCENARIOS

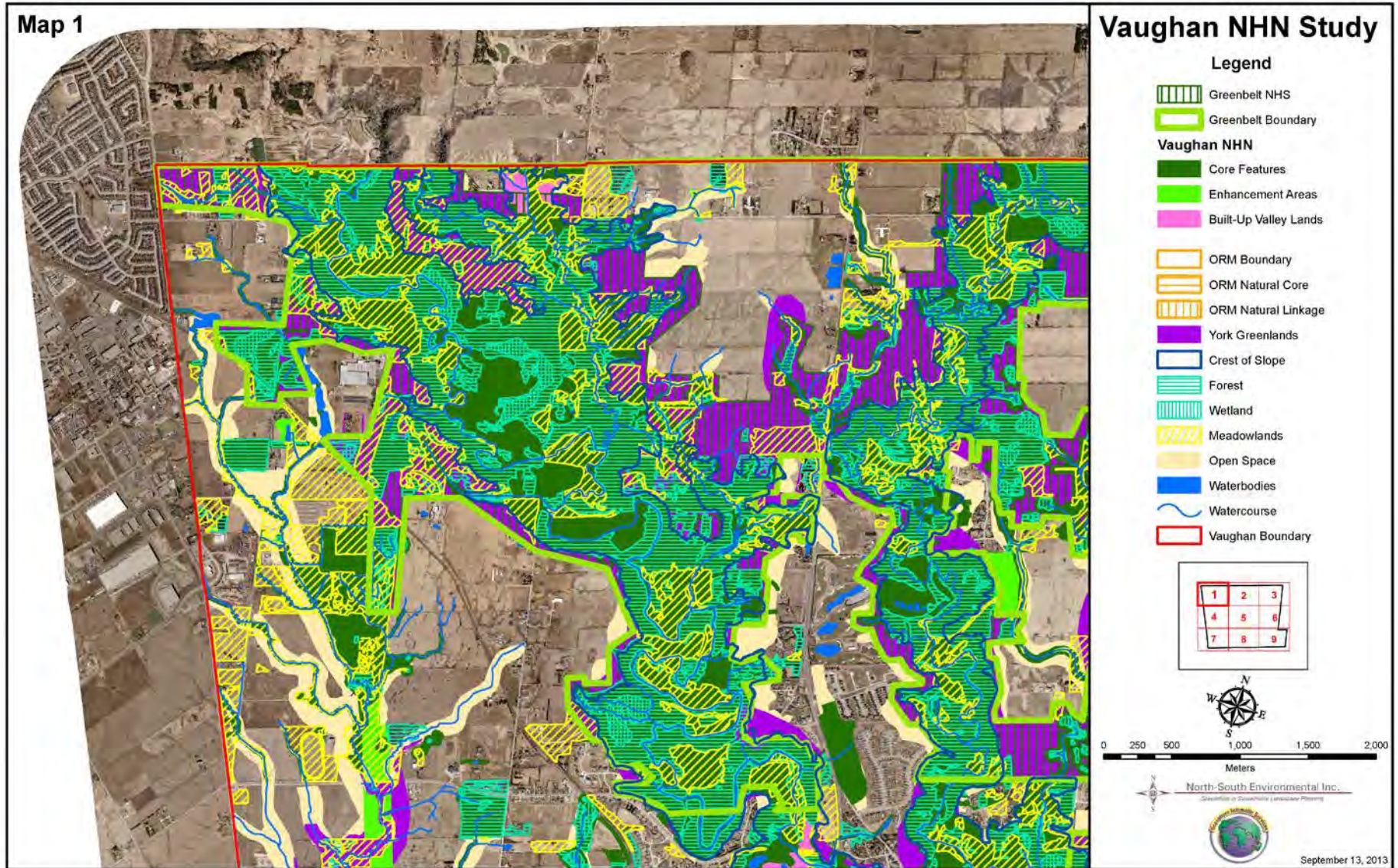
MAPPING STEPS

There are four main steps to mapping the NHN.

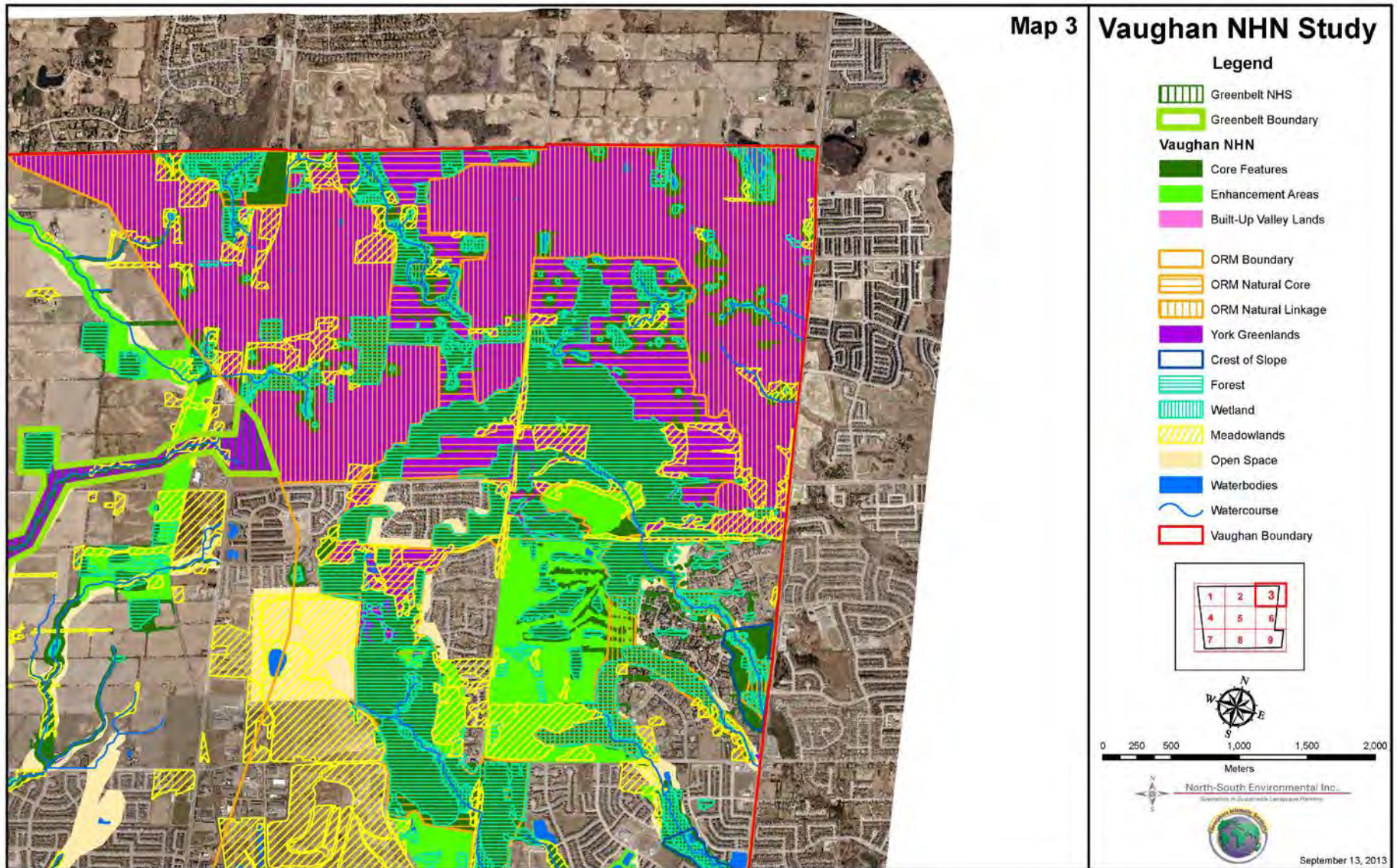
1. Delineate an accurate starting point based on:
 - a.) existing natural features present; and
 - b.) correction of past approvals where necessary
2. Identify NHN areas with significant ecological features & functions, including areas suitable for restoration.
3. Identify Greenbelt, ORM and York Greenlands areas that contribute to the NHN.
4. Identify other ecologically important areas for inclusion in the NHN



NHN SCENARIOS MAPPING STEP 1 a.) existing features



NHN SCENARIOS MAPPING STEP 1 a.) existing features



NHN SCENARIOS MAPPING STEP 1 b.)

Refining ANSI boundaries



NHN SCENARIOS MAPPING STEP 1 b.)

Refining existing Tableland Woodlots in OPA 600



NHN SCENARIOS MAPPING STEP 1 b.)

Refining existing NHN boundaries



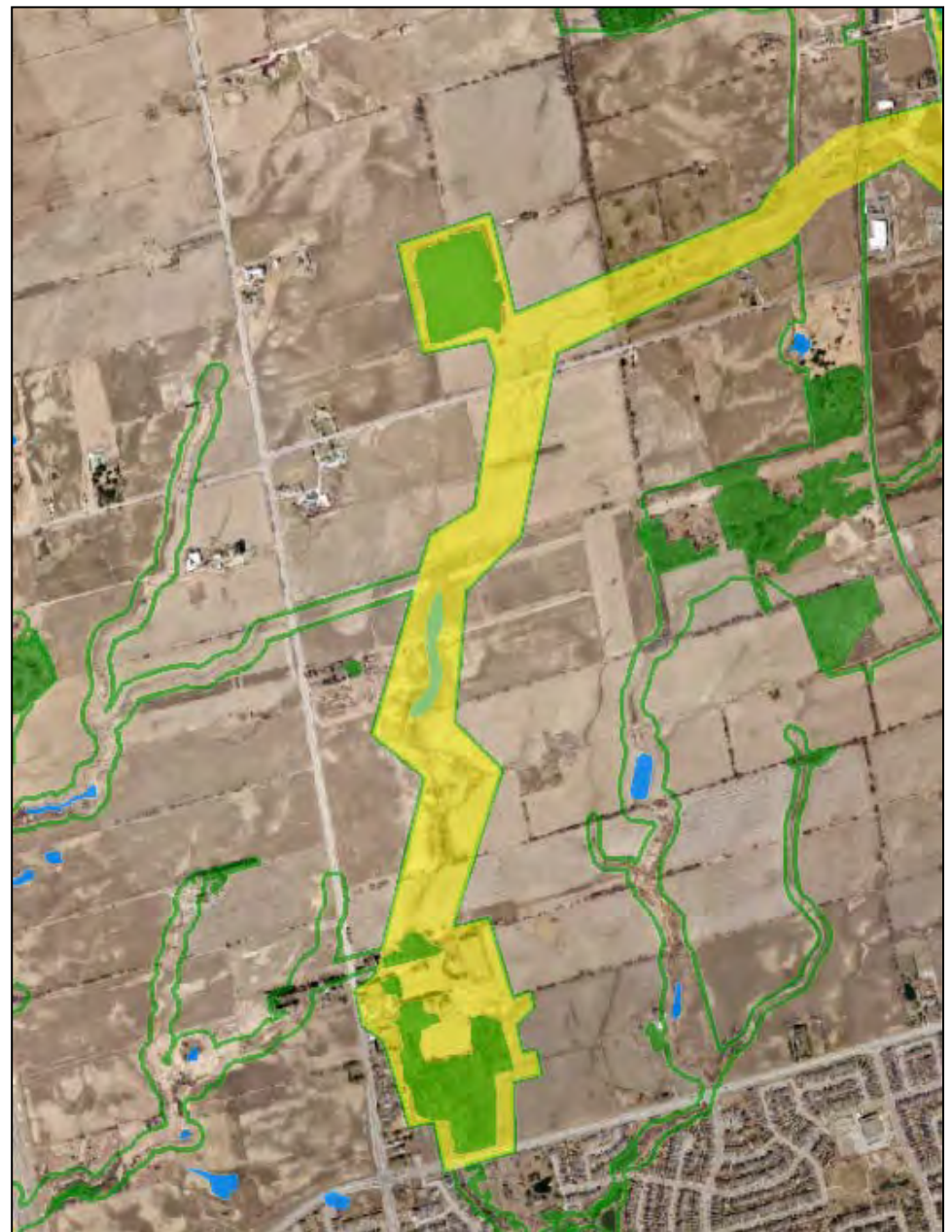
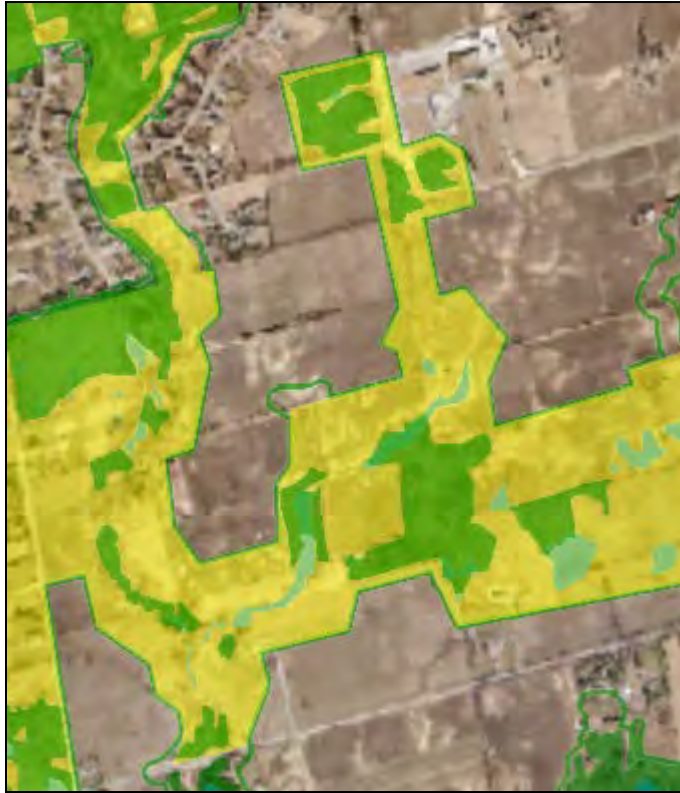
NHN SCENARIOS MAPPING STEP 2

Identify Areas with restoration potential within NHN



NHN SCENARIOS MAPPING STEP 3

Identify areas in the
Greenbelt NHS including
potential restoration
areas



NHN SCENARIOS MAPPING STEP 4

Identify other
ecologically
important areas such
as open habitat for
Species at Risk

- ★ Barn Swallow
- ★ Bobolink
- ★ Eastern Meadowlark



Community Engagement



VAUGHAN NHN COMMUNITY ENGAGEMENT

Community Engagement Objectives

- Raise awareness about the importance of Vaughan's natural heritage assets to the city's environmental, social and economic wellbeing;
- Provide opportunities for both individuals and groups to be engaged in meaningful discussion about the development of Vaughan's NHN;
- Actively engage and inspire key audiences in the creation of the NHN strategy through the use of innovative tools and techniques; and
- Inform the development of Vaughan's NHN Study through a collaborative and participatory process.



VAUGHAN NHN COMMUNITY ENGAGEMENT

Key Messages

- Balancing urban growth and natural heritage conservation is important to Vaughan's long-term development, and can be achieved in part through a NHN.
- Providing stakeholders and members of the public with the opportunity to participate in the development of Vaughan's NHN.
- Using feedback collected through the engagement process to inform the decision-making of the NHN Study.
- Recognizing everyone's voice is important. The City wants to hear from as many people as possible.



VAUGHAN NHN COMMUNITY ENGAGEMENT

Engagement Tools	Target Audience	Timeline
Presentations and Discussions with Senior Management	<ul style="list-style-type: none"> • Senior Management 	Sept. 2013 March 2014
Working sessions and Updates with Council	<ul style="list-style-type: none"> • Councillors 	November 2013 May 2014
Stakeholder Workshops	<ul style="list-style-type: none"> • City staff and Agencies • Environmental Groups • City Stakeholders • Aboriginal groups 	Fall 2013 Spring 2014
Landowner Meetings (1-on-1)	<ul style="list-style-type: none"> • Landowners (Blocks 27, 40/47, 41, 55, 59) 	Fall 2013 Spring 2014
Community Events and Meetings	<ul style="list-style-type: none"> • City staff and Agencies • Environmental Groups • Aboriginal groups • Community groups • Members of the public 	Fall 2013 Spring 2014
Project Website	<ul style="list-style-type: none"> • All 	Fall 2013
E-newsletters	<ul style="list-style-type: none"> • All • Councillors newsletters 	Fall 2013 Spring 2014
Staff Meeting Updates	<ul style="list-style-type: none"> • City staff 	Ongoing



Land Securement Strategy



VAUGHAN NHN LAND SECUREMENT TOOLS

- **Land donation** – simple & direct
- **Split receipt** – donate all of land receive \$ value for a portion of land
- **Conservation severance** – severe & donate a portion of land owned
- **Bequest** – donate land & estate receives tax benefits
- **Life interest agreement** – commit to protection while owning land
- **Conservation easement agreement** – protection registered on title for perpetuity



“...making a contribution to natural heritage protection”



Next Steps



CITY OF VAUGHAN NHN PHASE 2-4

Dec 2013 - Develop & evaluate NHN Scenarios

Jan 2014 - Conduct further stakeholder meetings (e.g. KARA)
- Internal Land Securement Strategy meeting
- Study Steering Committee meeting to review NHN Scenarios

Feb 2014 - Landowner meetings to review NHN Scenarios
- Stakeholder meetings (First Nations, ENGOS)
- Release Newsletter #2

Mar 2014 - Conduct second Public Meeting

Apr 2014 - Prepare recommended NHN scenario and draft report for CoW & Council consideration

May/June 2014 - Final Report for CoW & Council consideration

