



NATURAL HERITAGE COMPENSATION PLAN

TERMS OF REFERENCE

June 2025



INTRODUCTION

The Natural Heritage Compensation Plan is used to identify appropriate ecological compensation for the removal of parts or all of a natural heritage feature that cannot be avoided using the “mitigation hierarchy”. Natural heritage compensation is a tool of last resort and may only be used after all other options have been exhausted. A Natural Heritage Compensation Plan shall form part of an Environmental Impact Study which shall demonstrate how compensation is appropriate, in accordance with applicable policies and legislation, and how the mitigation hierarchy approach to natural heritage planning (avoid, minimize and mitigate impacts) has been applied. The City of Markham uses the TRCA’s Guideline for Determining Ecosystem Compensation to review and evaluate compensation plans.

WHY DO WE NEED THIS?

There may be circumstances where development proposals cannot fully avoid, minimize or mitigate negative impacts to natural heritage features. Where agreed to by the City in consultation with relevant agencies, compensation may be appropriate in limited instances such as impacts from infrastructure. The Markham Official Plan encourages the protection and enhancement of all natural features, while recognizing that compensation may be appropriate where protection and enhancement is not feasible. The Natural Heritage Compensation Plan identifies an approach to offset negative environmental impacts through ecological compensation and restoration in accordance with applicable policies and legislation including the Markham Official Plan.

WHEN IS A NATURAL HERITAGE COMPENSATION PLAN REQUIRED?

A Natural Heritage Compensation Plan shall be prepared where there are unavoidable removals of natural heritage features. Figure 1 of TRCA’s Guideline for Determining Ecosystem Compensation provides a useful decision tree to inform the appropriate use of natural heritage compensation. It may be required as part of the following Planning Act applications:

- Official Plan Amendment
- Zoning By-law Amendment
- Draft Plan of Subdivision
- Site Plan Control
- Consent Applications
- Minor Variances



WHO PREPARES THIS?

A Natural Heritage Compensation Plan is to be prepared by a qualified ecologist, biologist or environmental planner.

STRUCTURE AND FORMAT

HOW SHOULD THIS BE PREPARED AND WHAT SHOULD BE INCLUDED?

Submission Requirements

The following section provides a recommended outline for a Natural Heritage Compensation Plan. The Natural Heritage Compensation Plan is typically prepared under the direction of the ecologist/biologist/environmental planner. The Plan shall address the following:

- 1 Describe the impacted natural feature(s) including the area of land proposed to be removed from the natural heritage system and the area of proposed vegetation removal by Ecological Land Classification (ELC) type.
 - 1.1 Provide a qualitative description of each natural feature proposed to be removed from the natural heritage system.
 - 1.2 Provide a table identifying each vegetation community to be removed by area.
 - 1.3 Provide a figure showing the location of natural feature removals.
- 2 Determine the compensation required to offset natural heritage impacts, including the land area and ecosystem structure.
 - 2.1 The required compensation shall be determined based on the TRCA's Guideline for Determining Ecosystem Compensation. Compensation amounts are generally broken down into 'Land Base' and 'Ecosystem Structure' compensation amounts.
 - 2.2 For treed ecosystems, field surveys to determine the basal area may be necessary to confirm the appropriate compensation ratios.
 - 2.3 For encroachment or removals into minimum vegetation protection zones, compensation shall be provided at a 1:1 ratio for land base and ecosystem structure.
 - 2.4 Provide a table identifying the compensation requirements.

Compensation Requirements	
Step 1: Area of Habitat or Vegetation Protection Zones to be removed	ELC Type #1: [specify area] ELC Type #2 [specify area] VPZ: [specify area]
Step 2: Determine compensation ratios for treed ecosystems. Field surveys are to be undertaken to confirm the average basal area and to determine the appropriate compensation ratios	Ecosystem Structure: [identify average basal area of impacted ELC and identify compensation ratio]
Step 3: Determine Compensation Requirements.	Land Base: [provide Area of Greenway System/NHS removed] Ecosystem Structure: [provide area of habitat removed x compensation ratio]

- 3 Identify how the proposal meets applicable policies and regulations (e.g., Markham Official Plan/Secondary Plan, TRCA's Living Cities Policies, etc.).

- 3.1 Provide a policy conformity table that identifies applicable Official Plan/Secondary Plan and/or TRCA policies.

- 4 Identify the method of implementation.

- 4.1 Implementation may occur through one, or a combination of, the following methods: proponent-led restoration on-site, proponent-led restoration off-site, or, cash-in-lieu.

- 4.2 For Proponent-led restoration projects, provide a detailed map to identify the location of: land base compensation and/or ecosystem structure compensation. The maps shall provide detailed area calculations.

- 4.3 For Cash-in-lieu payments, applicants will work with the TRCA (wetlands and valleylands) or the City (all other natural heritage features/VPZs) to calculate the cash-in-lieu costs.

- 4.4 The City of Markham has established standard costs for both land base and ecosystem structure compensation which will be updated on a regular basis to reflect market conditions.

Cash-in-lieu Calculations	
<p>Amount of Cash-in-lieu for Ecosystem Structure</p> <ul style="list-style-type: none"> Area of Habitat Removed x Compensation Ratio x Restoration Cost in \$/ha¹ <p>¹ Typical Restoration Costs will be provided by the <u>City</u> by habitat type</p>	[provide calculation]
<p>Amount of Cash-in-lieu for Land Base Compensation</p> <ul style="list-style-type: none"> Area of Land Base Removed x estimated market value of land in \$/ha² <p>² Typical market value will be provided by the <u>City</u>. Alternatively, a land appraisal reviewed by the <u>City</u> can also be used.</p>	[provide calculation]

- 5 Identify conditions of approval, including preparation of detailed design drawings, development agreements and securities, where applicable
- 6 Identify requirements for monitoring and adaptive management to ensure the success of compensation works.

WHAT ELSE SHOULD WE KNOW?

Review of Natural Heritage Compensation Plans is the responsibility of the City of Markham and, where applicable, the Toronto and Region Conservation Authority. The NHCP will address compensation for impacts to woodlands, wetlands, valleylands, wildlife habitat and the Rouge Watershed Protection Area. For compensation requirements, please consult the TRCA's Guidelines for Determining Ecosystem Compensation.

For compensation requirements to address potential impacts to Habitat for Endangered and Threatened Species, contact the Provincial Ministry of Environment, Conservation and Parks. For compensation requirements to address potential impacts to Fish Habitat, contact the Federal Department of Fisheries and Oceans.

WHAT OTHER RESOURCES ARE THERE?

Toronto and Region Conservation Authority – Guidelines for Determining Ecosystem Compensation

NOTES

If the compensation plan is revised, the study/report shall reflect the revisions by an updated report or letter from the author that describes any changes to the compensation plan.

A peer review may be required. The cost of the peer review will be borne by the applicant.

The study requirements may vary depending on the nature of the proposal. Requirements will be determined through the pre-consultation process and in consultation with any applicable external agencies.

If the study is incomplete, is authored by an unqualified individual or does not contain adequate analysis, the applications will be considered incomplete and will be returned to the applicant.

