



# Ecosystem Compensation

## TRCA Authority Meeting

June 22, 2018

Noah Gaetz, Senior Manager  
Research and Knowledge Management

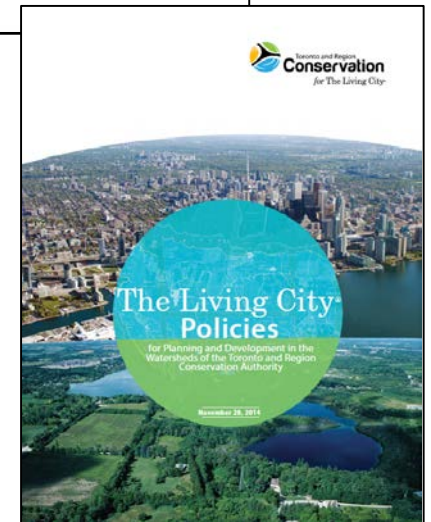
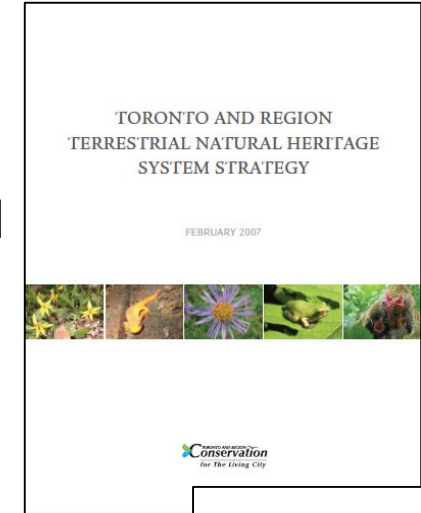


*Member of Conservation Ontario*



# Background

- Science has shown that the natural heritage system must be expanded to protect biodiversity and water resources; adapt to climate change and contribute to healthy communities
- TRCA and our municipal partners are committed to protecting and working to expand the natural system
- There is a strong protective policy framework within Ontario
- TRCA advises on natural heritage system protection in the development and infrastructure review processes

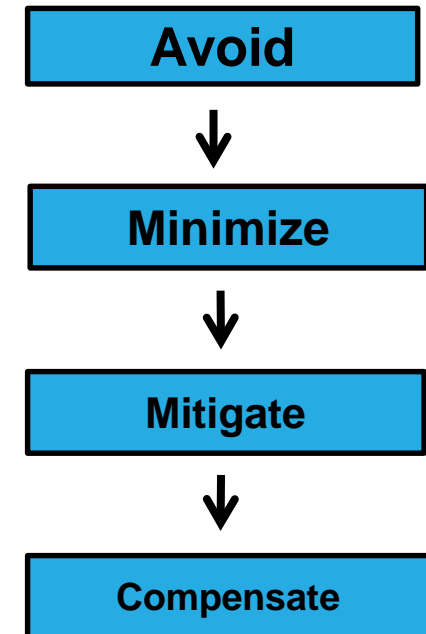


**Despite this, losses to natural features continue as our region develops**



# Background

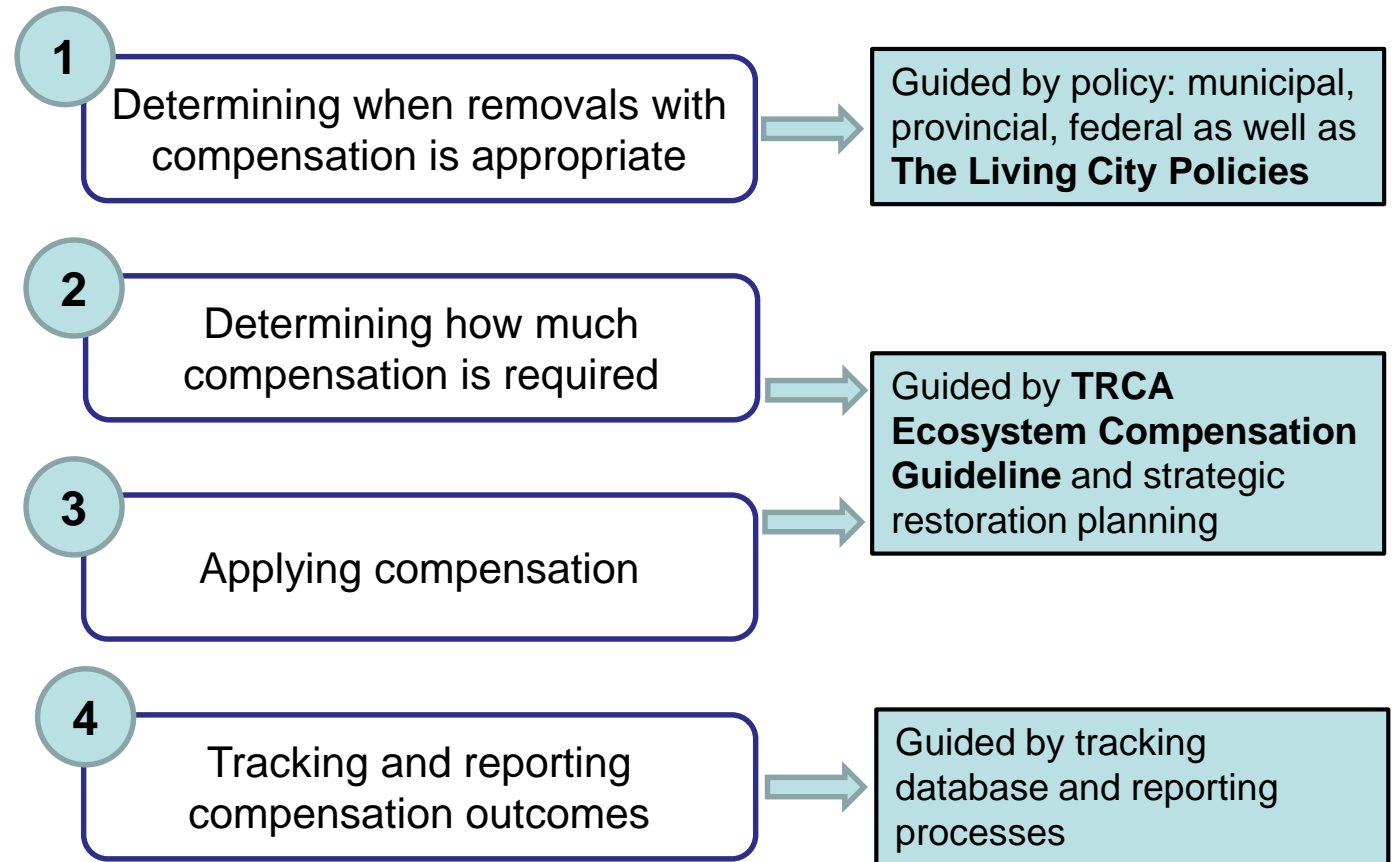
- TRCA is continuously working to eliminate these losses
  - Strengthening protective policy
  - Advocating for improved community design
  - Communicating the importance of natural systems
- In addition, ecosystem compensation has been used to help replace lost ecosystem functions and services.
- Partially successful, but has suffered from:
  - Lack of consistency and standards across the GTHA
  - Lengthy negotiations
  - Generally results in overall loss of ecosystem functions/services





# Improving Compensation Practice

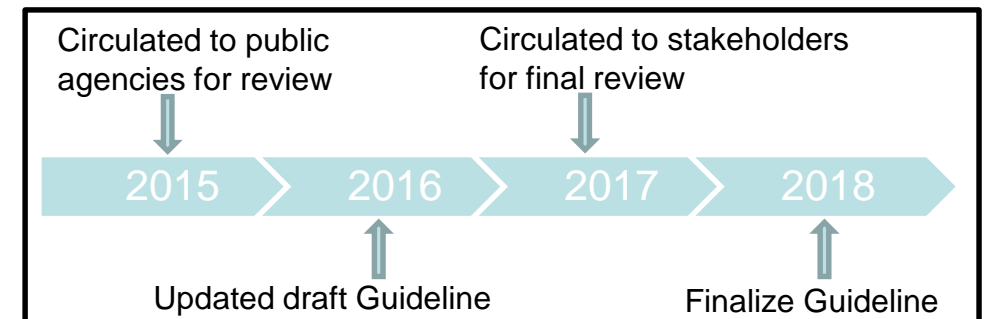
- TRCA, and other CAs recognized the opportunity to improve compensation practice
- In 2014, The Living City Policies was approved with a recommendation for compensation where features were being removed
- Staff have now developed guidelines and tools to inform the four stages of compensation planning and implementation





# TRCA Ecosystem Compensation Guideline

- The Guideline is a tool that supports The Living City Policies
  - Determines compensation requirements after the decision to allow removals has been made
  - Does not modify the existing review and approval processes
    - Can be applied to any natural feature removal that has been determined to require compensation through these processes
- The Guideline has gone through a collaborative and inclusive review process
  - Engaged numerous stakeholders including municipalities, CAs, the Province, BILD
  - Worked closely with Credit Valley Conservation
  - Balanced a number of different perspectives
  - Reviewed approaches used by other jurisdictions





# TRCA Ecosystem Compensation Guideline

## The Guideline:

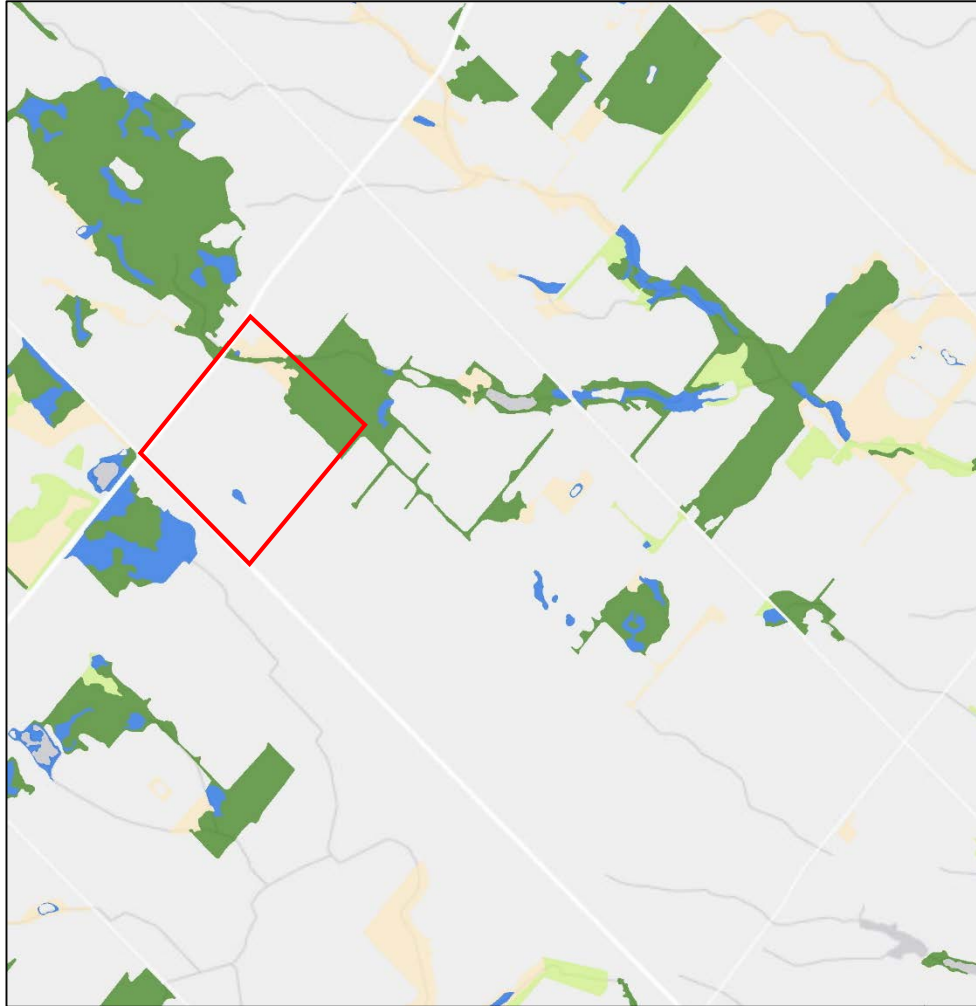
- Establishes a method for determining compensation requirements based on:
  - restoring the lost ecosystem structure; and
  - replacing the lost land area
- Uses increasing restoration ratios to help address the time required to restore some ecosystem types and functions
- Does not duplicate compensation requirements from existing municipal, provincial or federal processes





# Illustrative Examples

Residential development



1

Determining when removals with compensation is appropriate

2

Determining how much compensation is required

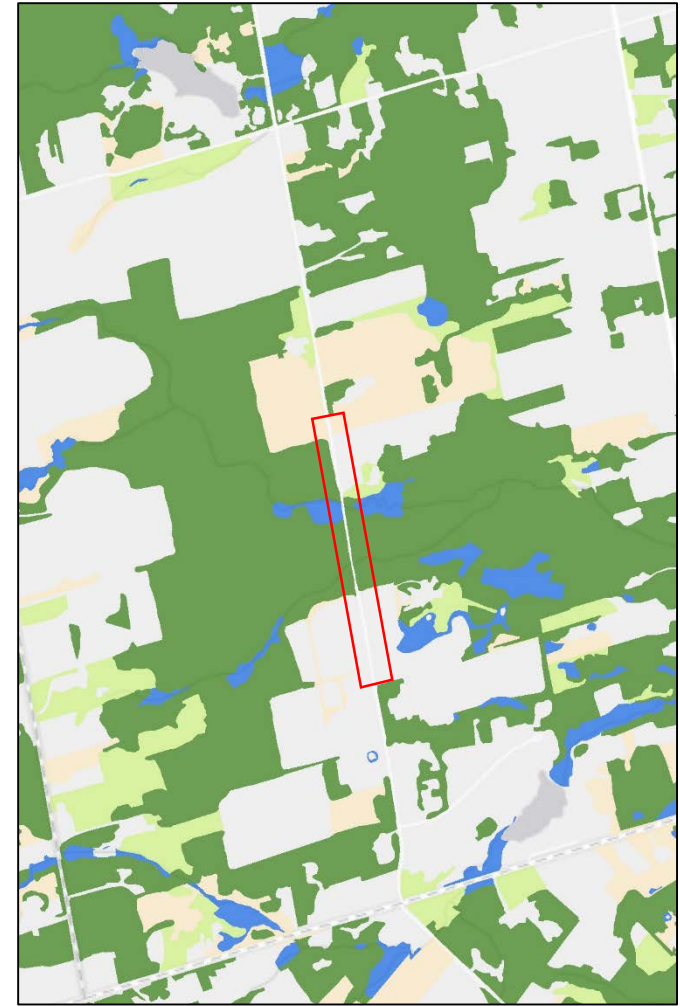
3

Applying compensation

4

Tracking and reporting compensation outcomes

Municipal road widening



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Residential development



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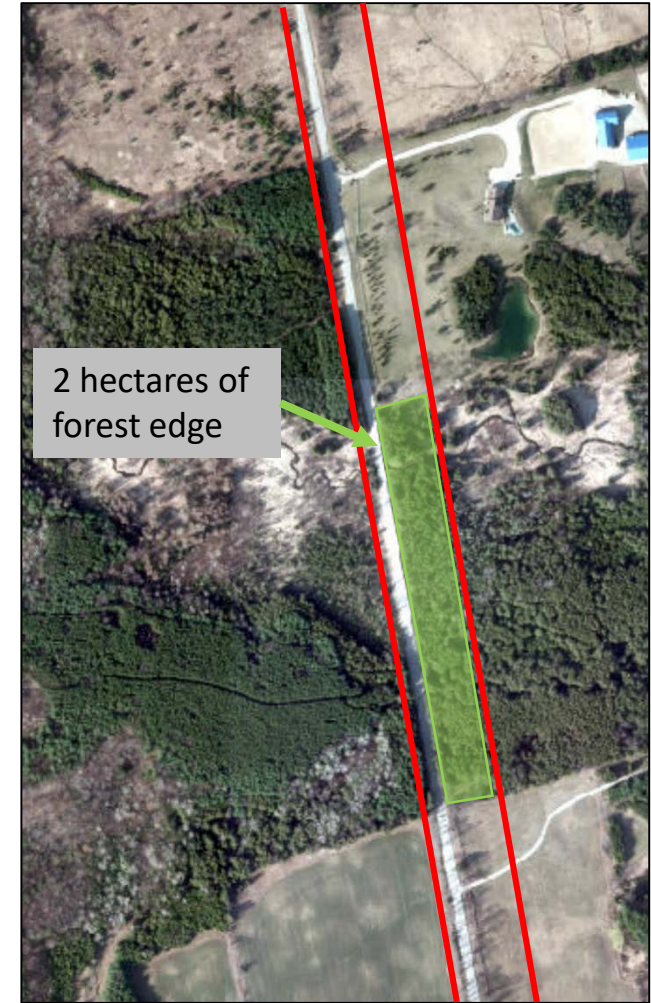
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# Illustrative Examples

## Residential development



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Determining how much compensation is required

Compensation requirements are based on:

- The type of ecosystem removed
- The size of the removal
- The length of time to re-establish the lost ecosystem functions

## Municipal road widening





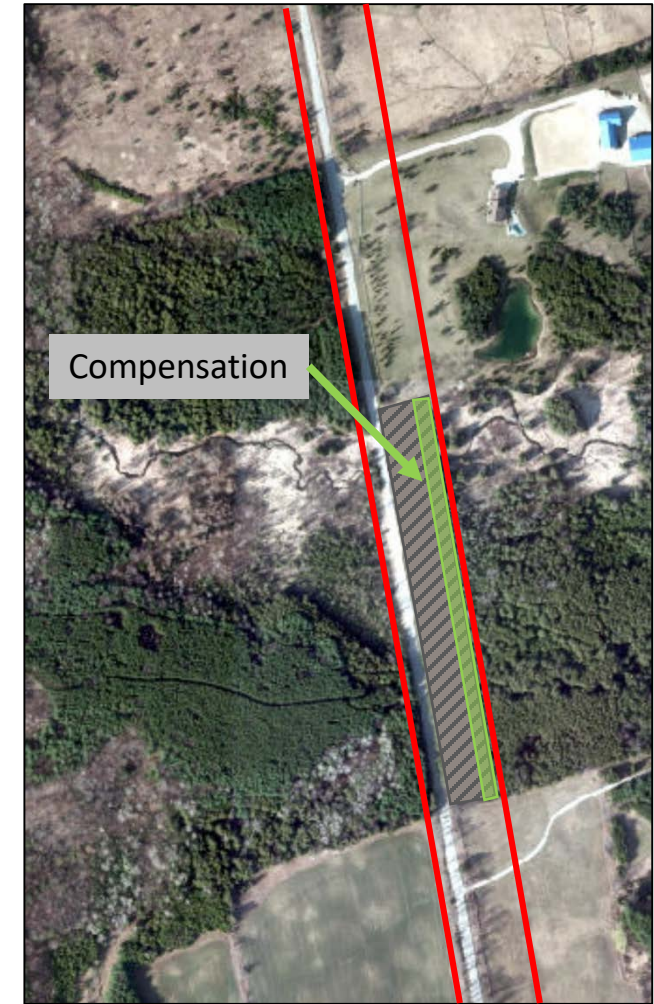
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Residential development



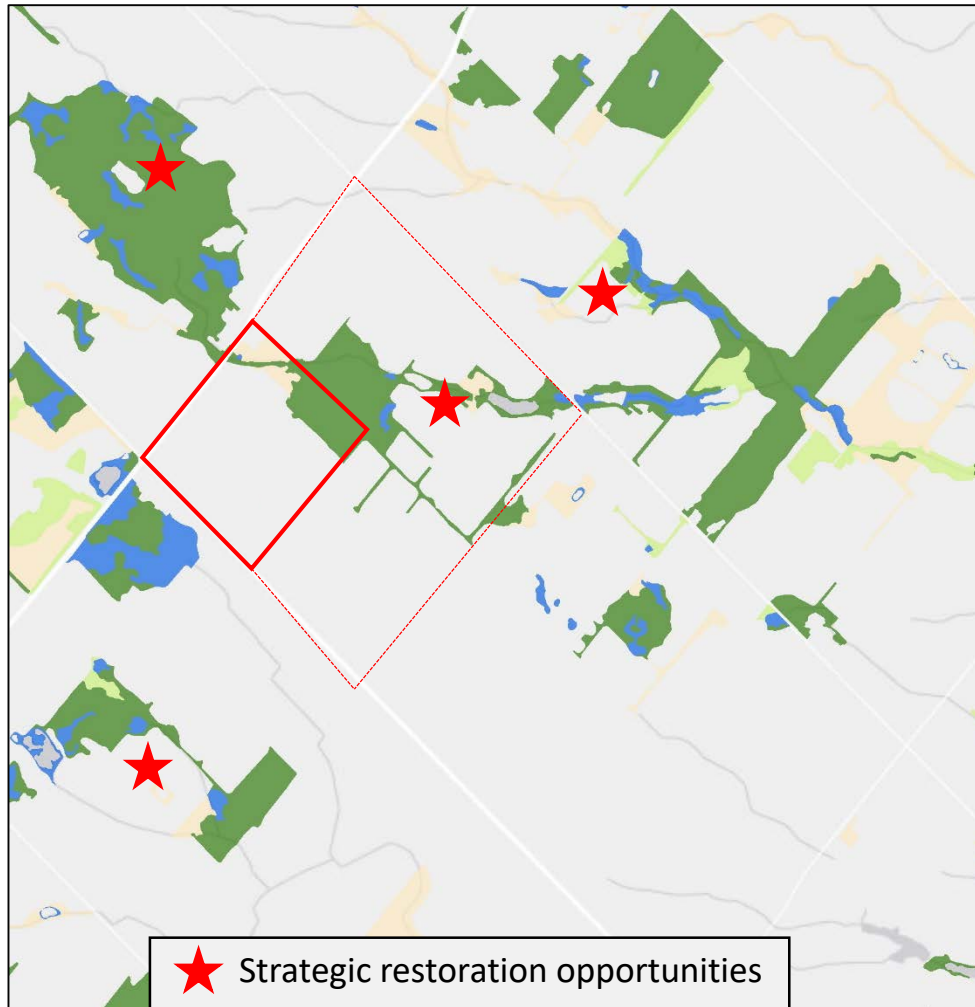
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- 2 Determining how much compensation is required
- 3 Applying compensation
- 4 Tracking and reporting compensation outcomes

Municipal road widening



# Illustrative Examples

## Residential development



- 1 Determining when removals with compensation is appropriate
- 2 Determining how much compensation is required
- 3 Applying compensation
- 4 Tracking and reporting compensation outcomes

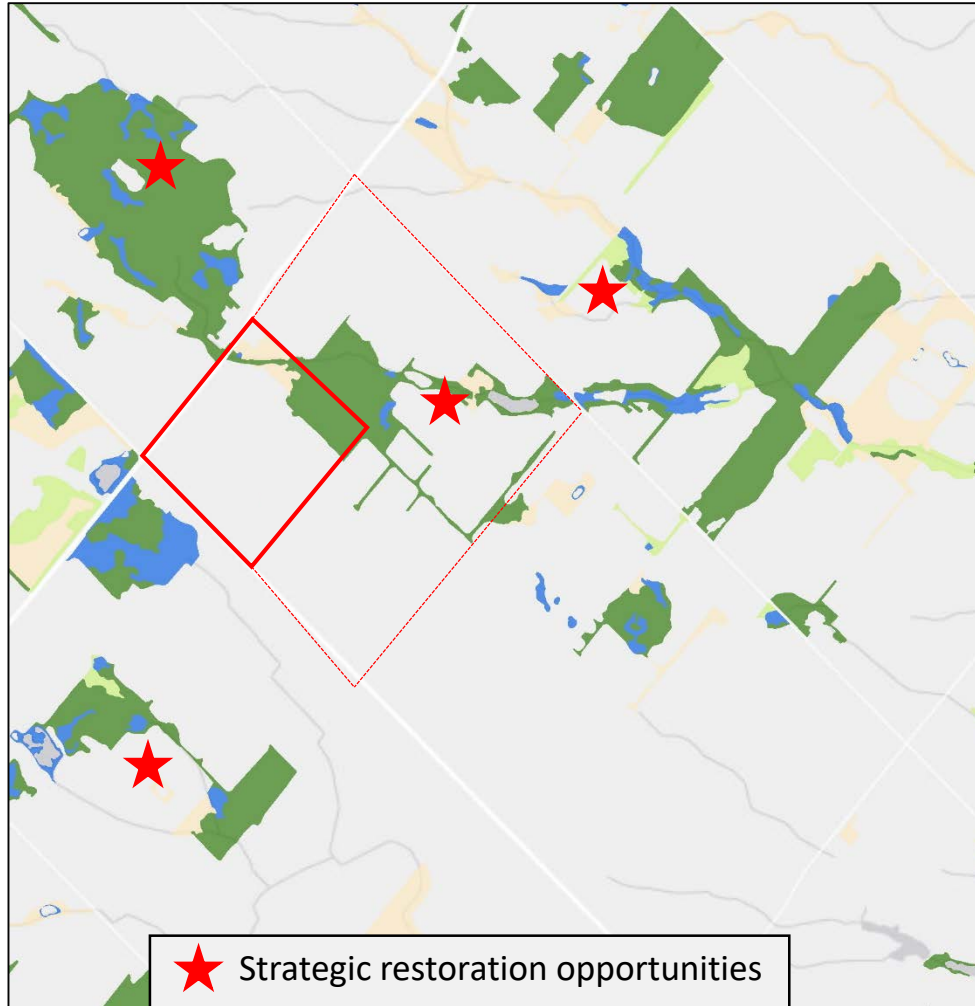
## Municipal road widening





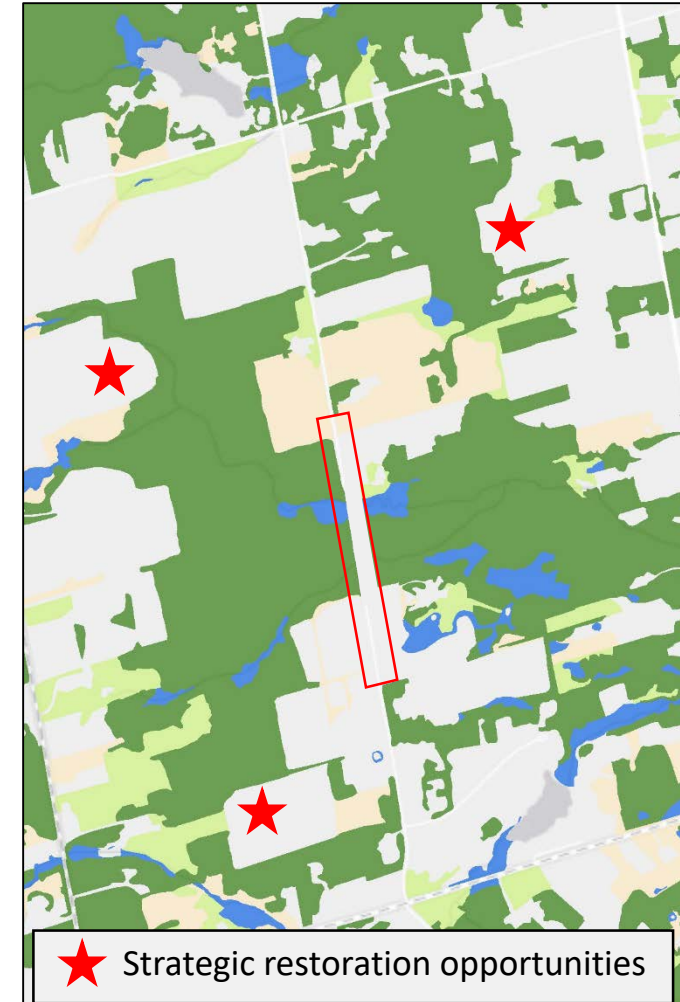
# Illustrative Examples

## Residential development



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- 2 Determining how much compensation is required
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## Municipal road widening



# Illustrative Examples

## Residential development

Database Apps

Restoration Database & Application

Reports

Project

RDP

Compensation

COMPENSATION

Compensation Step1: Identifying the Impact Site (Development & EA Planning)

P&D Application / Impact Name: Example Impact Site

Proponent/Owner: Private

P&D Team: EA

Contact: Joe Example

Year: 2016

CFN: 555555555

Watershed: Rouge River

SubWatershed:

Laserfiche Link:

Location of Loss:

Reason for Offset: Proposed residential development. Un avoidable losses include 1 Hectare of Wetland and 0.5 hectare riparian

Mechanism: TRCA Compensation Protocol

X-Coord: 643377.73

Y-Coord: 4865978.64

How TRCA will use Compensation Money:

Current Status:

Region: York

Municipality: Markham

Compensation Step2: Calculation the Compensation Required (Planning Ecology)

Map

Satellite

Search Box

Hammerstown

Strangely

King City

Gormley

Norleton

Lasky

Richmond Hill

Markham

Vaughan

Scarborough

North York

York

Mississauga

Brampton

Toronto

Pearson International Airport

- 1
- Determining when removals with compensation is appropriate
- 2
- Determining how much compensation is required
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- Applying compensation
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## Municipal road widening

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★ Strategic restoration opportunities



## Next Steps

- Work with partners and stakeholders in the early application of the Guideline
  - On new applications and applications in review not yet approved
  - On infrastructure project reviews
- Continue to track and report on ecosystem compensation outcomes
  - Annual reporting to the Authority
- Continue to stay on top of the latest science and developments in ecosystem compensation
- Update and improve as needed in consultation with stakeholders

