

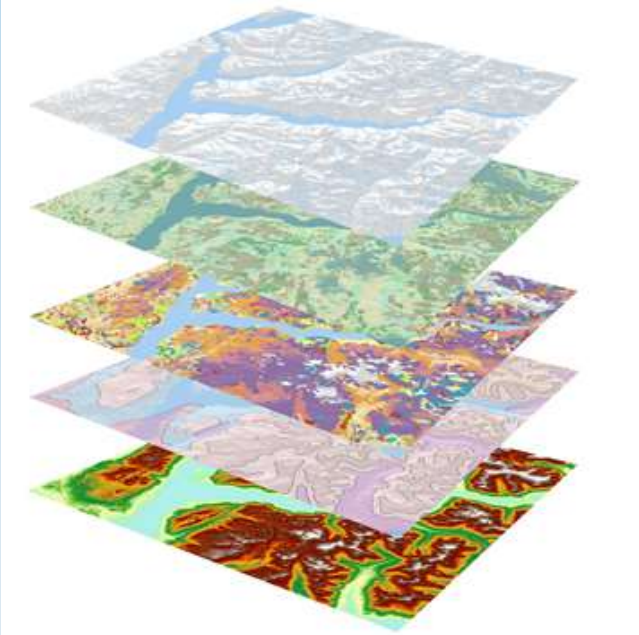


Impact Assessment: A Balancing Act

February, 2020

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Senior Ecologist (Ottawa)

About Me



Context



Context

My Reality

My Job is to help our clients negotiate the **environmental approvals** processes relevant to their projects AND provide **Solutions** to natural environment constraints.



Why do people use environmental consultants?

- Independent Opinion
- Specific Knowledge:
 - Technical
 - Policy
 - Process

Policies, Guidelines, & Legislation!



REGULATION OF DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATIONS TO SHORELINES AND WATERCOURSES (ONTARIO REGULATION 174/06 UNDER SECTION 28 OF THE CONSERVATION AUTHORITIES ACT, R.S.O. 1990, c. C.27)

WETLAND POLICIES

South Nation Conservation: Watersheds



SOUTH NATION CONSERVATION
DE LA NATION SEPT

REGULATION POLICIES

Pursuant to Section 28 of the Conservation Authorities Act, R.S.O. 1990, c. C.27

Ontario Regulation 170/06: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses



City of Ottawa Official Plan Consolidation



ottawa.ca

3-1-1
OTTAWA

2014 Provincial Policy Statement

Under the Planning Act



Environmental Impact Statement Guidelines



BEFORE proposed amendments

Protection for commercial recreational or Aboriginal fisheries

Uncertainty around requirements for development projects

No provisions referencing the independence of nature fishes

No provisions to create or re-configure

AFTER proposed amendments

Protection for all fish and fish habitat

Clearer permitting for development projects

New ability to prohibit some fishing policies into regulations

Better to provide in the long term

Natural Values Protected

General Habitat Description for the Bank Swallow (*Riparia riparia*)

A general habitat description is a technical document that provides greater clarity on the area of habitat protection based on the general habitat definition found in the Endangered Species Act, 2002. General habitat protection also includes an area where the species formerly occurred or has the potential to re-introduce colonies, as well as members of the species depend on that area to carry out their life processes. A general habitat description also includes the species' habitat has been compromised, as per the policy "Compensating and Protecting Habitat under the Endangered Species Act", and is based on the best scientific information available.

HABITAT CATEGORIZATION

- 1 The Bank Swallow breeding colony, including the congregation of burrows and the substrate between and around them
- 2 The area within 30m in front of the breeding colony bank face to allow Bank Swallows to enter and exit burrows
- 3 The area of suitable foraging habitat within 200m of the outer edge of the breeding colony

Category 1

The Bank Swallow breeding colony, including the congregation of burrows and the substrate between and around them, will be considered to have the lowest level of tolerance for alteration. Breeding colonies require key areas used by members of the colony for reproduction including egg laying, incubation, feeding, nesting, and rearing young.

The three most habitat types associated with Bank Swallows include coastal dunes, shorebirds, and water sand and gravel.

Ontario Ministry of Natural Resources



Natural Heritage Reference Manual

for Natural Heritage Policies of the Provincial Policy Statement, 2005
Second Edition



MUNICIPALITY OF NORTH GRENVILLE OFFICIAL PLAN



Recovery Strategy for the Blanding's Turtle (*Emydoidea blandingii*), Great Lakes / St. Lawrence population, in Canada

Blanding's Turtle



2018

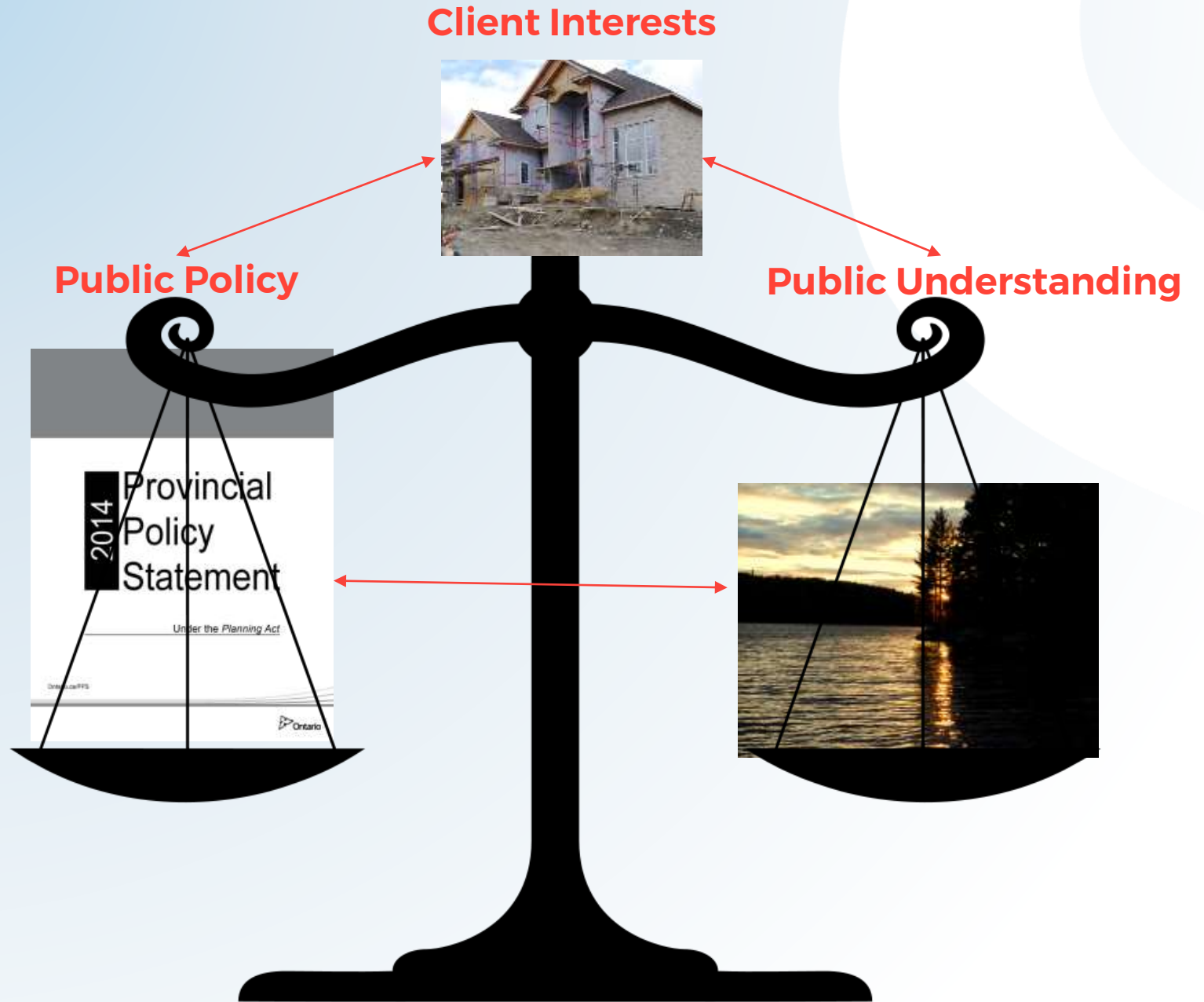


Canada's Capital Greenbelt Master Plan

National Capital Commission
November 2013



Finding the Balance



Ontario Provincial Policy Statement

2.0 Wise Use and Management of Resources

Ontario's long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits.

Accordingly:

2.1 Natural Heritage

2.1.1 Natural features and areas shall be protected for the long term.

2.1.2 The diversity and connectivity of natural features in an area, and the long-term *ecological function* and biodiversity of *natural heritage systems*, should be maintained, restored or, where possible, improved, recognizing linkages between and among *natural heritage features and areas, surface water features and ground water features*.

2.1.3 *Natural heritage systems* shall be identified in Ecoregions 6E & 7E¹, recognizing that *natural heritage systems* will vary in size and form in *settlement areas, rural areas, and prime agricultural areas*.


2.1.4 *Development and site alteration* shall not be permitted in:

- a) *significant wetlands* in Ecoregions 5E, 6E and 7E¹; and
- b) *significant coastal wetlands*.

Ontario Provincial Policy Statement

2.1.5 *Development and site alteration shall not be permitted in:*

- a) *significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E¹;*
- b) *significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)¹;*
- c) *significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)¹;*
- d) *significant wildlife habitat;*
- e) *significant areas of natural and scientific interest; and*
- f) *coastal wetlands in Ecoregions 5E, 6E and 7E¹ that are not subject to policy 2.1.4(b)*

 unless it has been demonstrated that there will be no *negative impacts* on the natural features or their *ecological functions*.

Two sides of the same coin!

Environmental Impact

Project

- Purpose?
- What site preparation is required
- What construction activities will occur?
- What ongoing activities will occur at the site?

Environmental Features

- What natural heritage features are present?
- What is the existing state of those features?
- How sensitive are the features to disturbance?
- What are the ecological functions of the NH features?



✓ **It is important to have a clear understanding of the Project!**

Early engagement with the proponent is important -> Not only to assess potential constraints but also to offer solutions that can avoid potential environmental impacts (saving time and money!!!)

Evaluate the Environmental Features

Define Study Area

- PPS recommends 120 m from project area.
- City of Ottawa accepts 30 m in developed landscapes.
- Some SAR may have an area of regulatory influence significantly more than 120 m.

Background Review

- Identify candidate natural heritage features.
- Defines the scope of the field studies.

Agency (pre)Consultation

- You're not in this alone!

Field Surveys

- Use standardized, approved methods.
- Consider seasonality (Amphibians, breeding birds, etc.)



- ✓ **Don't short-change your knowledge** → Use aerial photos to identify candidate habitats and features in the background review.
- ✓ **Consider the relevant policy and legislation when scoping field programs** → In many cases, it is impractical or unnecessary to undertake a comprehensive ecological survey of the study area.

Understand the Project

Understand the nature of the development

- What is being built and where?
- Is there a site plan in place?

Understand the context of the Development

- Is there a community design plan?
- What sub-watershed is it in?
- Who are the relevant planning authorities?

Understand the Construction

- Is the development phased?
- What activities are involved in the development?
 - What equipment will be used for construction?

Understand other relevant studies or consultation

- Are there any agency agreements in place?



- ✓ **Undertake ecological screening well in advance of development application** → identify the constraints and avoid potential conflicts, saving time and money.
- ✓ **Early Pre-consultation with authorities is highly recommended!**

Nature (type) of Impact

Direct Impacts



Indirect Impacts



Magnitude of Impact

Severe Impacts



Minor Impacts



Assess the magnitude of impacts in the context of ecological function → seemingly insignificant features may play an important ecological function within the natural heritage system (e.g. linkage, SAR habitat, seasonal fish habitat)

Extent of Impact

Large Extent



Small Extent



Consider the significance of the feature when evaluating the impact → The relative impact of removing a small rare habitat would be greater than removing a larger common habitat.

Short-term/Temporary Impact



Long-term/Permanent Impact



Consider the sensitivity of the feature when evaluating the impact →
A temporary impact on a highly sensitive feature may have a permanent outcome.

Duration of Impact

Highly Probable

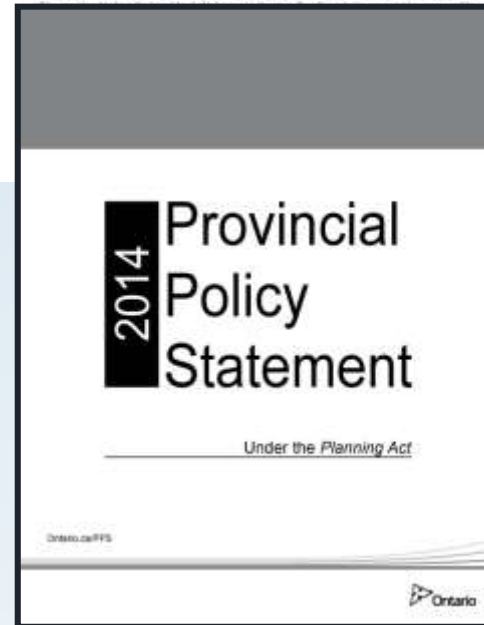
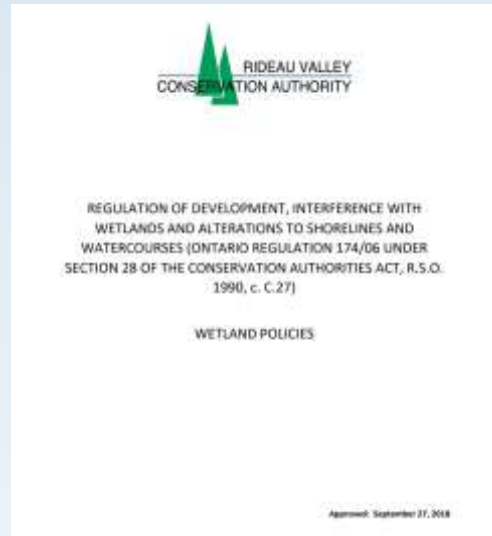
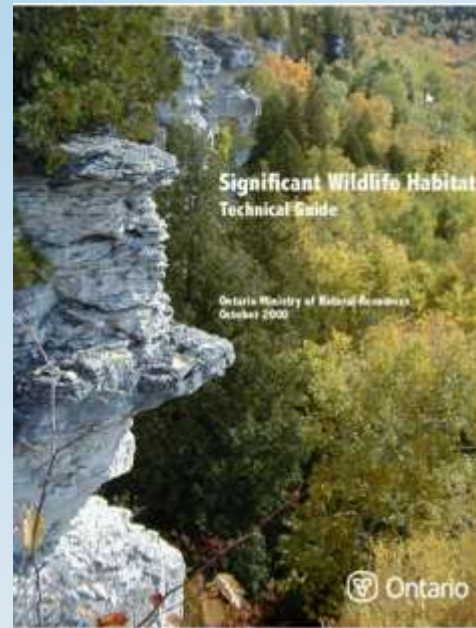


Less Likely



Likelihood
of Impact

Establishing “Significance”



The (forgotten?) Policy

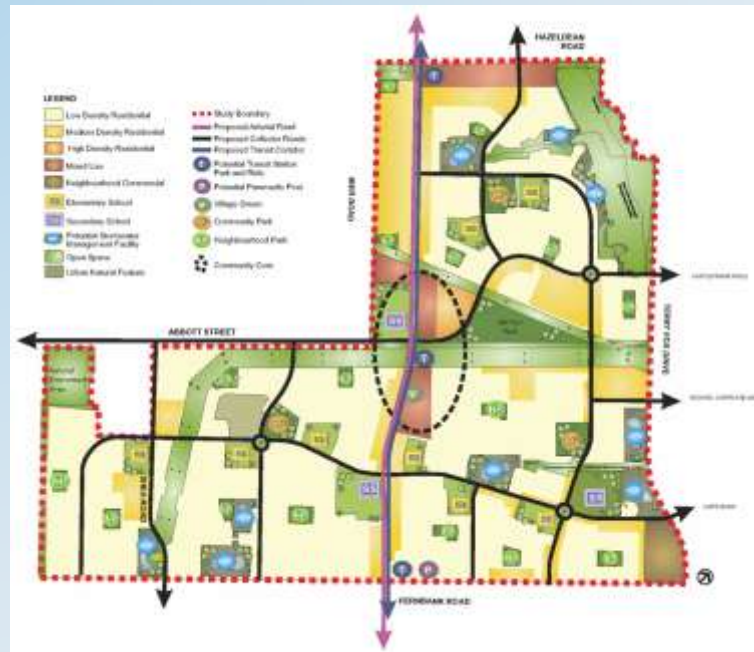
Ontario Provincial Policy Statement, 2014

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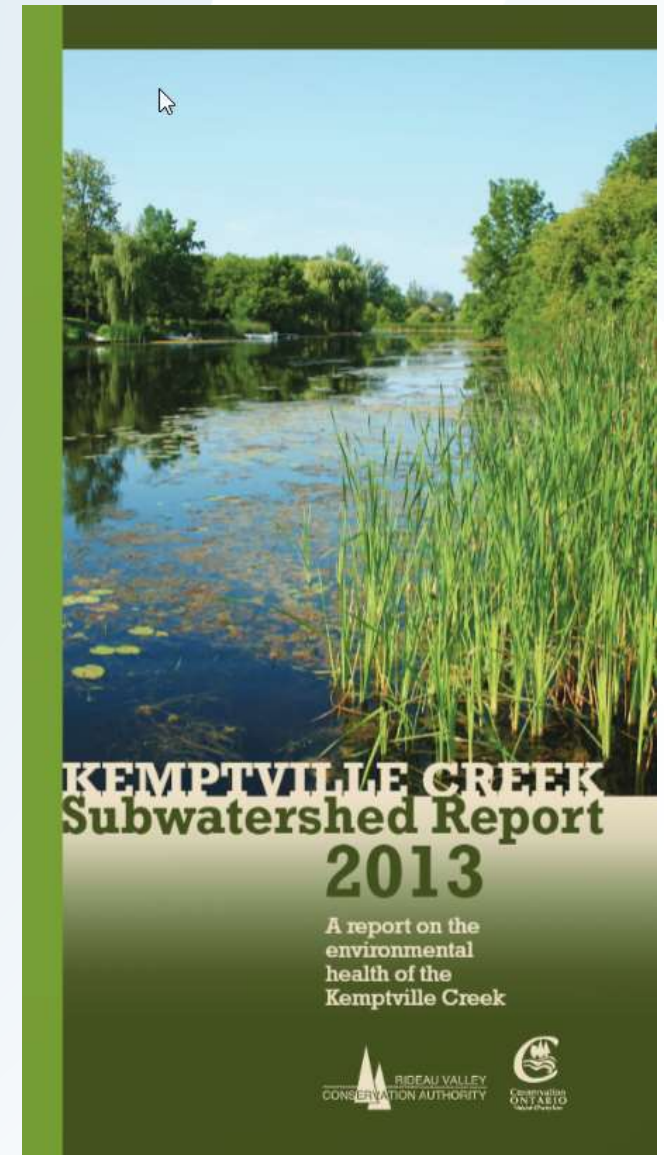


- ✓ **Impacts to ecological connectivity are best identified early in the planning process (i.e. CDP).**
- ✓ **There are no strong legislative mechanisms or regulatory triggers to enforce this policy!**

Cumulative Impacts

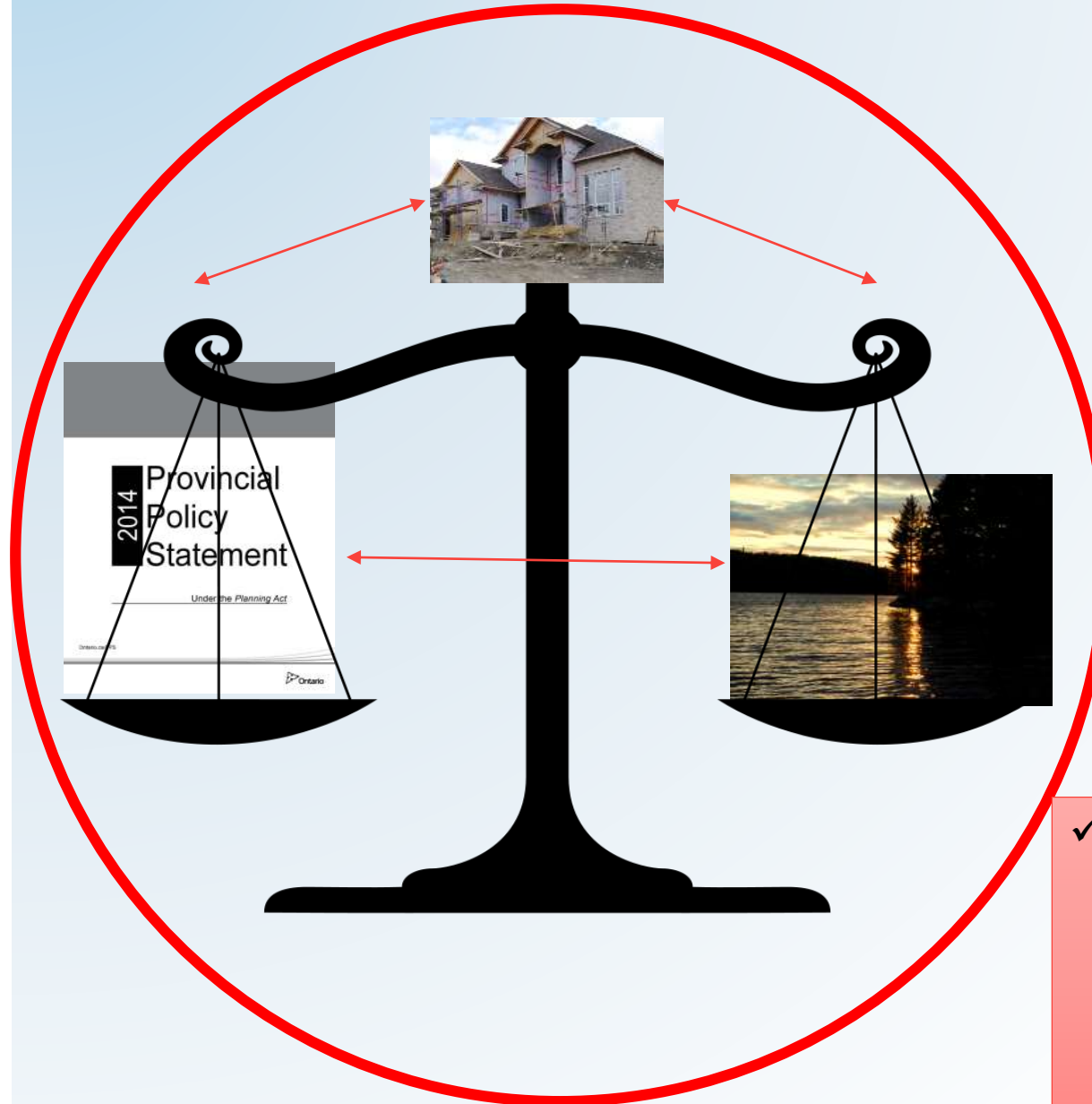


- Assess impacts at larger temporal and spatial scales.
- Consider ecological connectivity and other interrelationships between features and species.
- Consider how other environmental impacts (hydrogeological, contaminated lands, etc.) may impact features.



What about the Science??

Finding the Balance



Mitigation



- ✓ In lieu of robust policy, **apply “science-based” recommendations as impact mitigation** to maintain or enhance other VEC's.

Impact Mitigation

Impact Avoidance

- Goal: Avoid impact to feature
 - Buffers and Setbacks
 - Timing Windows (breeding birds, bat active season, etc.)

Compensation

- Goal: Replace lost feature
 - Barn Swallow Kiosks
 - Bat House
 - Tree Planting

Best Management Practices

- Goal: Reduce Environmental Impact
 - Clean Equipment Protocol for Invasive Species control.
 - Erosion and Sediment Control

Enhancement

- Goal: Improve Ecological function
 - Watercourse, wetland restoration
 - Pollinator Habitat
 - Wildlife Crossings



Impact Mitigation

Buffer

- Vegetated area intended to attenuate impacts on the natural feature and its function



Setback

- Separation distance required between a natural feature (or hazard) and a project area.



My final thoughts.



- Urban Natural System should be a part of the community and not segregated from it – nature must hold value to be conserved.
- Maintaining ecological function should be of primary importance when assessing impacts to natural heritage features.
- The absence of regulatory triggers that protect ecological connections, significant wildlife habitat, and other non-significant features poses a major challenge to protecting functional natural heritage systems.

Thank You!

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