



Cataraqwi
conservation

LOWER TRENT
CONSERVATION



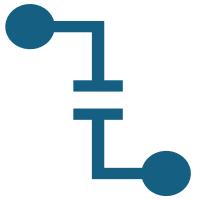
Assessment & Protection of Wetlands as Natural Infrastructure

Latonnell Conservation Symposium

Session 6B – Water

November 4, 2025

Outline



**The Challenge:
Disconnection of
natural hazards &
heritage**



**Background & Context:
How Did We Get Here?**



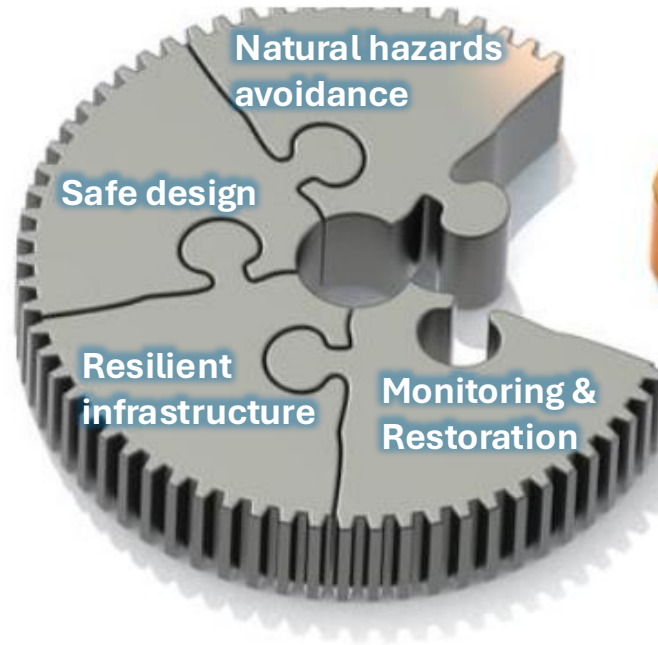
**Wetlands as
Infrastructure**



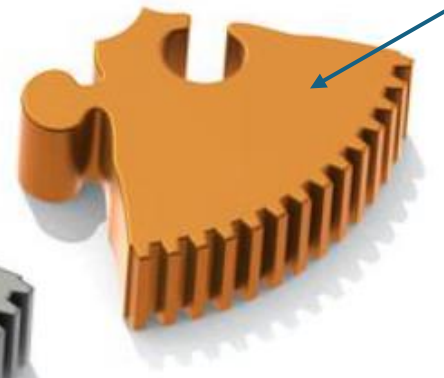
How to Bridge Gap?

The Challenge

Healthy
Watershed /
Resilient
Community



Natural heritage
protection



Context: How did we get here?



Strong policy & regulatory regime

Agency collaboration

Increased public attention in response to events



Shift in provincial priorities

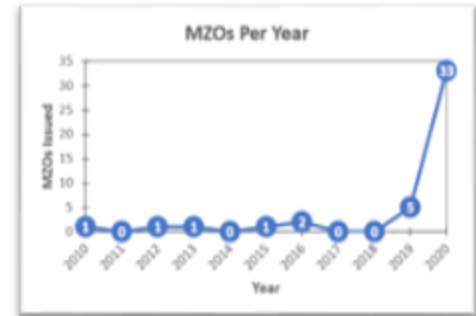
NEWS RELEASE

Ontario Taking Bold Action to Build More Homes

Next steps in province's plan will get 1.5 million homes built over the next 10 years

October 25, 2022
[Municipal Affairs and Housing](#)

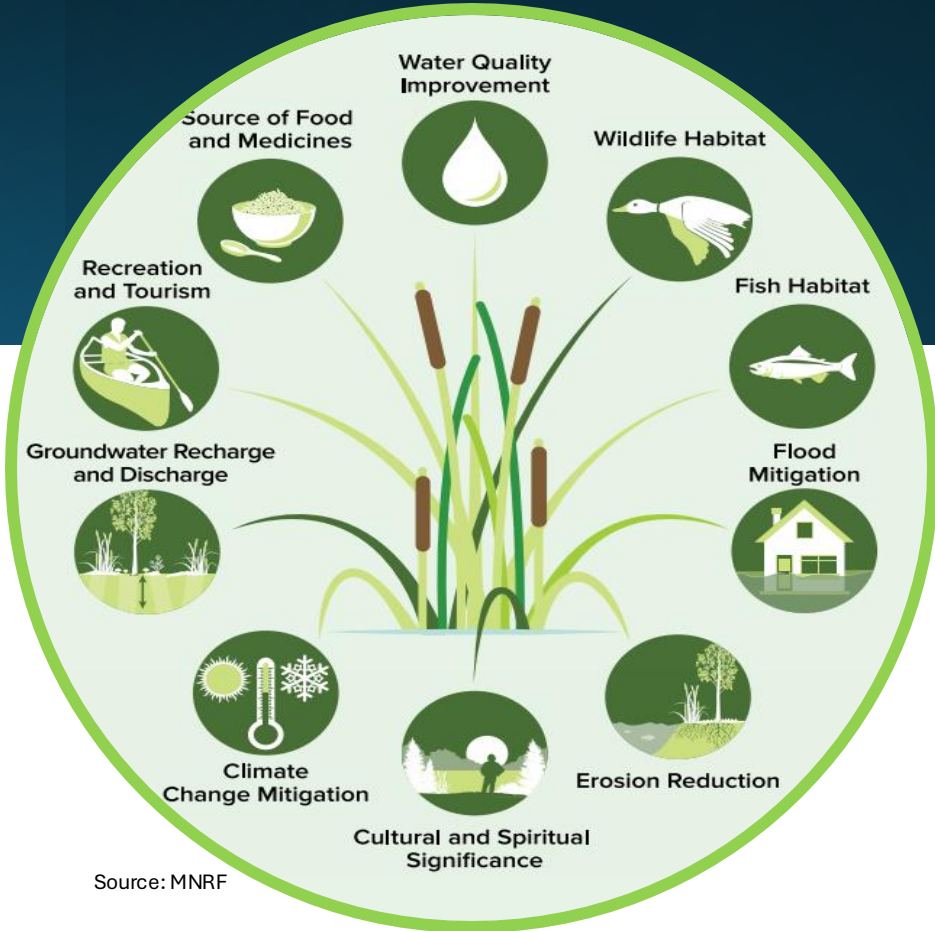
Source: Government of Ontario



Source: Queen's University / Gray

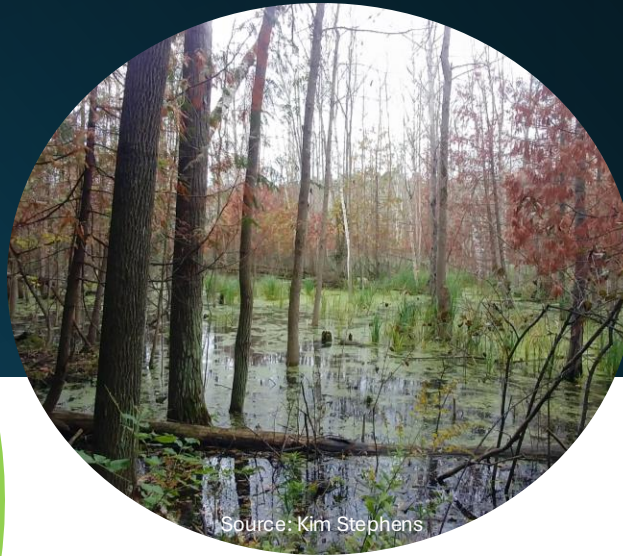
Loss of momentum and resulting disconnect

The Connection: Wetlands as Natural Infrastructure



Source: MNRF

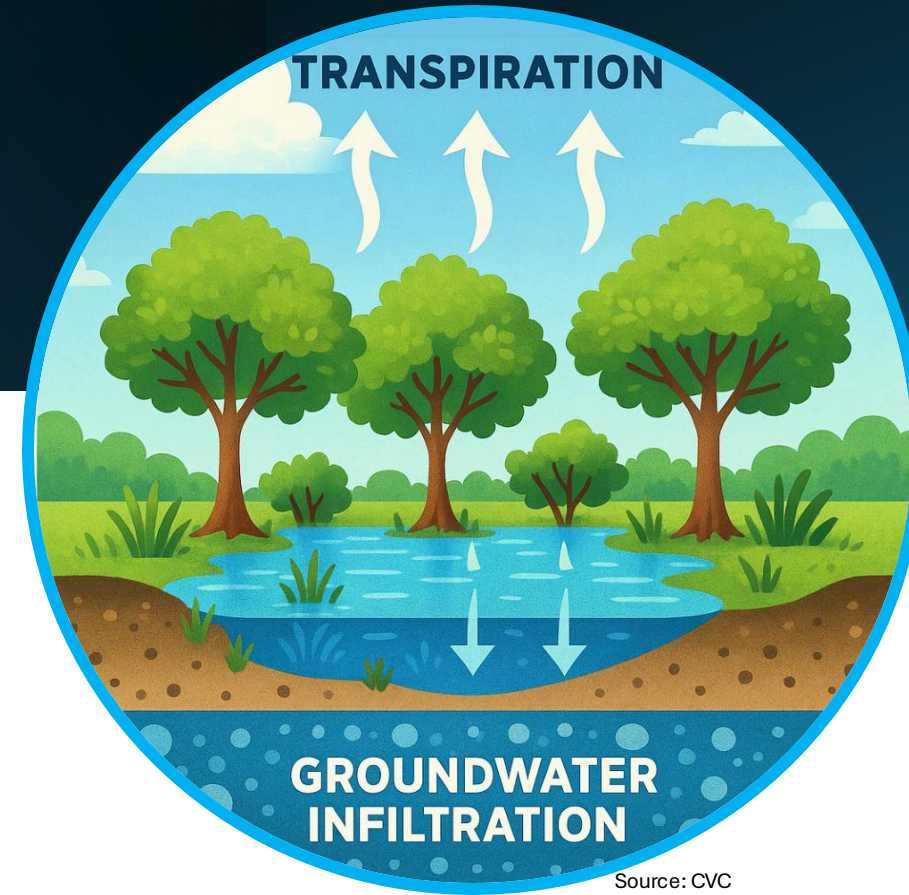
A myriad of functions & services



Source: Kim Stephens



Source: CRCA



Source: CVC

Hydrologic functions:

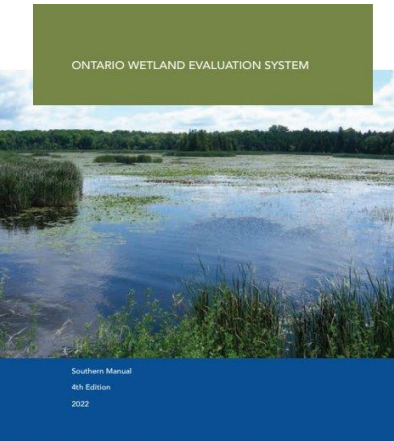
- Peak flow reduction
- Connection to groundwater systems
- Promotion of evaporation, infiltration
- Flooding and erosion mitigation

How to Bridge the Gap: Assessment Approaches

Ontario Wetland Evaluation System (OWES)

vs.

Wetland Assessment for Ontario Regulation 41/24



Source: MNR



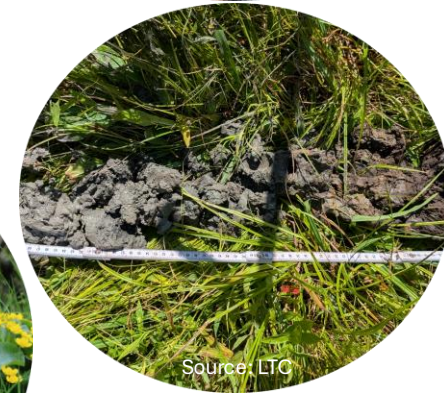
Source: Kim Stephens



Source: LTC



Source: Kim Stephens



Source: LTC



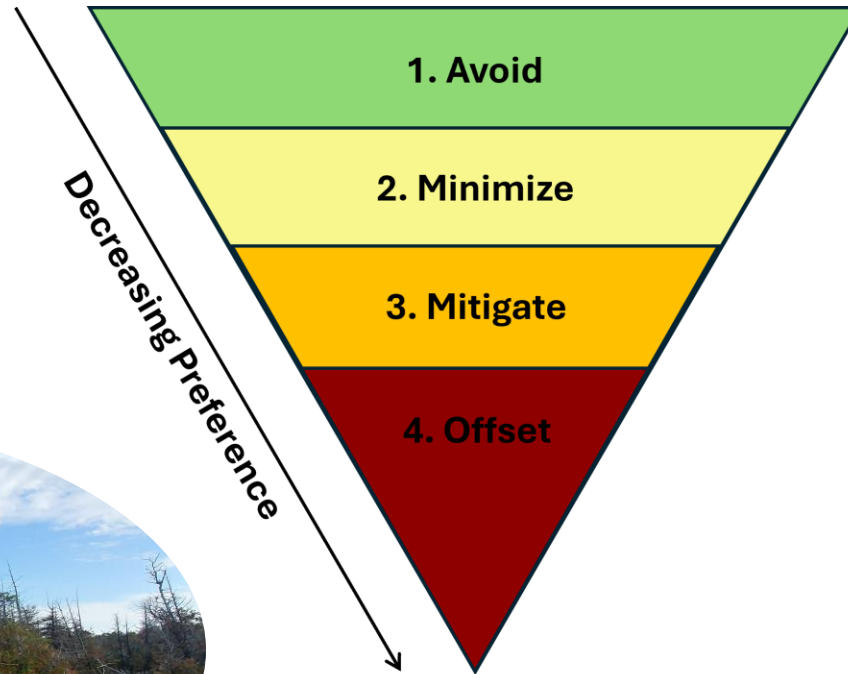
Source: NHC



Source: LTC

How to Bridge the Gap: Assessment Approaches

Risk Management & Mitigation Hierarchy



Source: LTC

Low Sensitivity

Study Scope: Hydrologic characterization, sensitivity to disturbance



Source: Kim Stephens

High Sensitivity



Source: LTC

Goal: Prevent impacts to hydrologic function of wetlands



Source: Kim Stephens

How to Bridge the Gap: Protection Approaches

3.23.9. Waterbody means a lake, canal, pond, **wetland**, river, watercourse, seasonal watercourse or municipal drain as defined by the *Drainage Act*, but does not include an artificially constructed swale or ditch intended for intermittent and minor surface drainage of an area or a lot.

Source: City of Kingston

Policy / legislation

- PPS, OPs, ZBLs, CA policies, etc.

Asset management

- Real costing

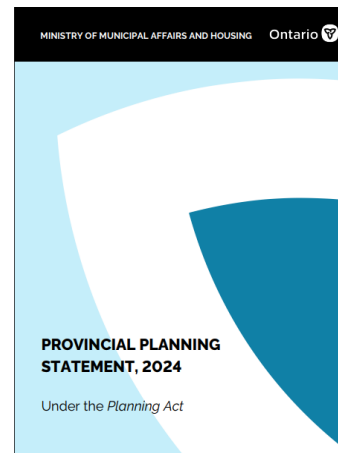
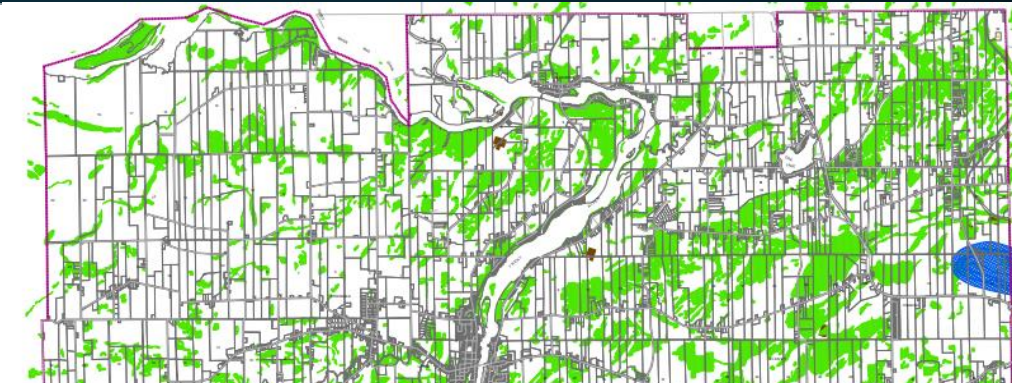


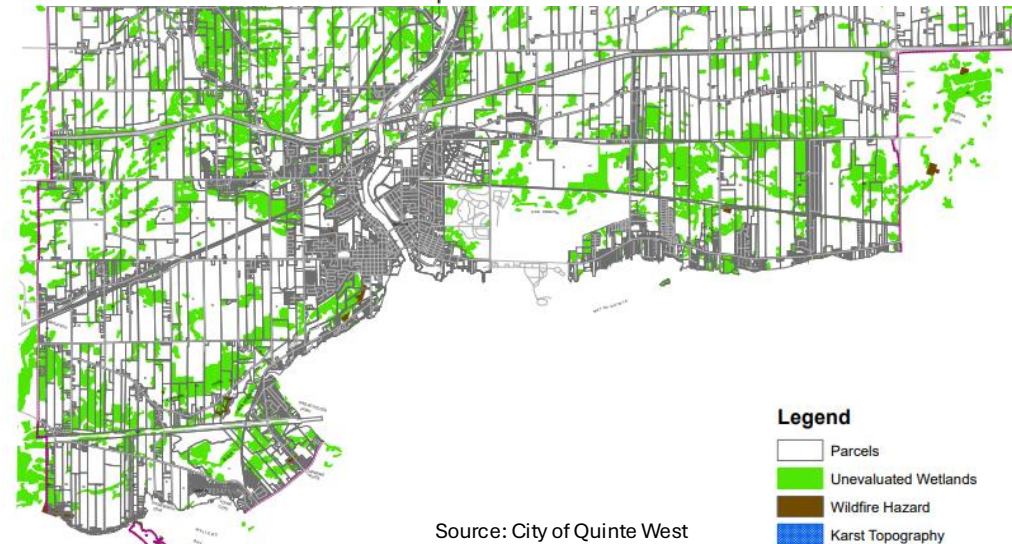
Table 12: Summary of Flood Protection Values Provided by Wetlands

Summary Statistic	Value per ha per year	Value per wetland per year
Minimum	\$1,759	\$3,220
Maximum	\$257,476	\$5,524,906
Mean	\$10,939	\$1,063,290
Confidence Interval (95%)	+/- \$2,718	+/- \$144,377

Source: Greenbelt Foundation



(ix) Unevaluated Wetlands identified on Appendix 1, have not been assessed to confirm their presence or the extent of any feature. No development shall occur on or within 120 metres of the unevaluated wetland until a wetland site assessment is prepared by a qualified professional, in consultation with the Conservation Authority, to determine if a wetland exists. No further evaluation is required if a wetland site assessment determines there is no wetland present.



Source: City of Quinte West

How to Bridge the Gap: Protection Approaches

Acquisition

- Public, non-profit, etc.

Watershed planning

- Protection at a broader scale



30
01, 2025

Northumberland Land Trust and Ducks Unlimited Canada secure new nature reserve to protect rare Ontario wetland

By Leslie Abram | January 30, 2025 | Categories: Uncategorized | Comments Off

Cobourg, ON – January 30, 2025 – In advance of World Wetlands Day on February 2nd, Ducks Unlimited Canada (DUC) and the Northumberland Land Trust (NLT) are celebrating the recent acquisition a 304.7 acres (123.31 hectares) property in Brighton, Ontario. The newly established Bidy Creek Wetland Nature Reserve is an ecologically rich area, with 65% of its landscape covered by wetlands, including a regionally significant fen wetland. The reserve also features diverse mixed woodlands in its eastern portion.

Source: Northumberland Land Trust

NEWS RELEASE

Ontario Taking Steps to Create New Non-Operating Provincial Park at Alfred Bog

Province seeking input on a proposal that would protect the largest bog of its kind in southern Ontario

Source: Government of Ontario

What Is a Watershed Study?

A watershed study is a science-based plan that looks at how land, water, and communities interact within a watershed. It combines technical research with local knowledge to set shared priorities for protection, restoration, and sustainable management.

The Bear Brook Watershed Study will:

- Assess current watershed conditions
- Examine how future land use and climate change may affect natural systems
- Recommend actions and policies to keep the watershed healthy for future generations

Source: South Nation Conservation

Examples

- Range of successes
- From “little wins” (e.g. shifting small development away from a wetland by emphasizing importance of wetland function)
- To major projects (e.g. restoration / rehabilitation projects, etc.)



Examples

- Protection and preservation
- Vegetated buffer enhancement
- Wetlands as flood storage
- Hydrologic function



Final thoughts

Natural heritage protection and natural hazards avoidance are inseparable

Functioning natural heritage features, like wetlands, are integral to healthy and safe communities

Pathways to protect wetlands and their critical functions still exist under the current policy and legislative context

Can be achieved through adaptive assessment & protection approaches and collaboration with key partners (e.g. municipalities)

Does not need to be all-or-nothing approach. Small wins are important.

Keep the conversation going

Wetland Collective Initiative

Thank you / Questions

Please feel free to connect with us at any time!

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