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# Canadian Wetland Policies

## No Net Loss and the Mitigation Hierarchy



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# Outline

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- Biodiversity Offsetting – the concept and its limitations
- Requirements for successful offset programs
- Review of Canadian wetland offset programs
- Summary



# Biodiversity Offsets – Concept and Limitations

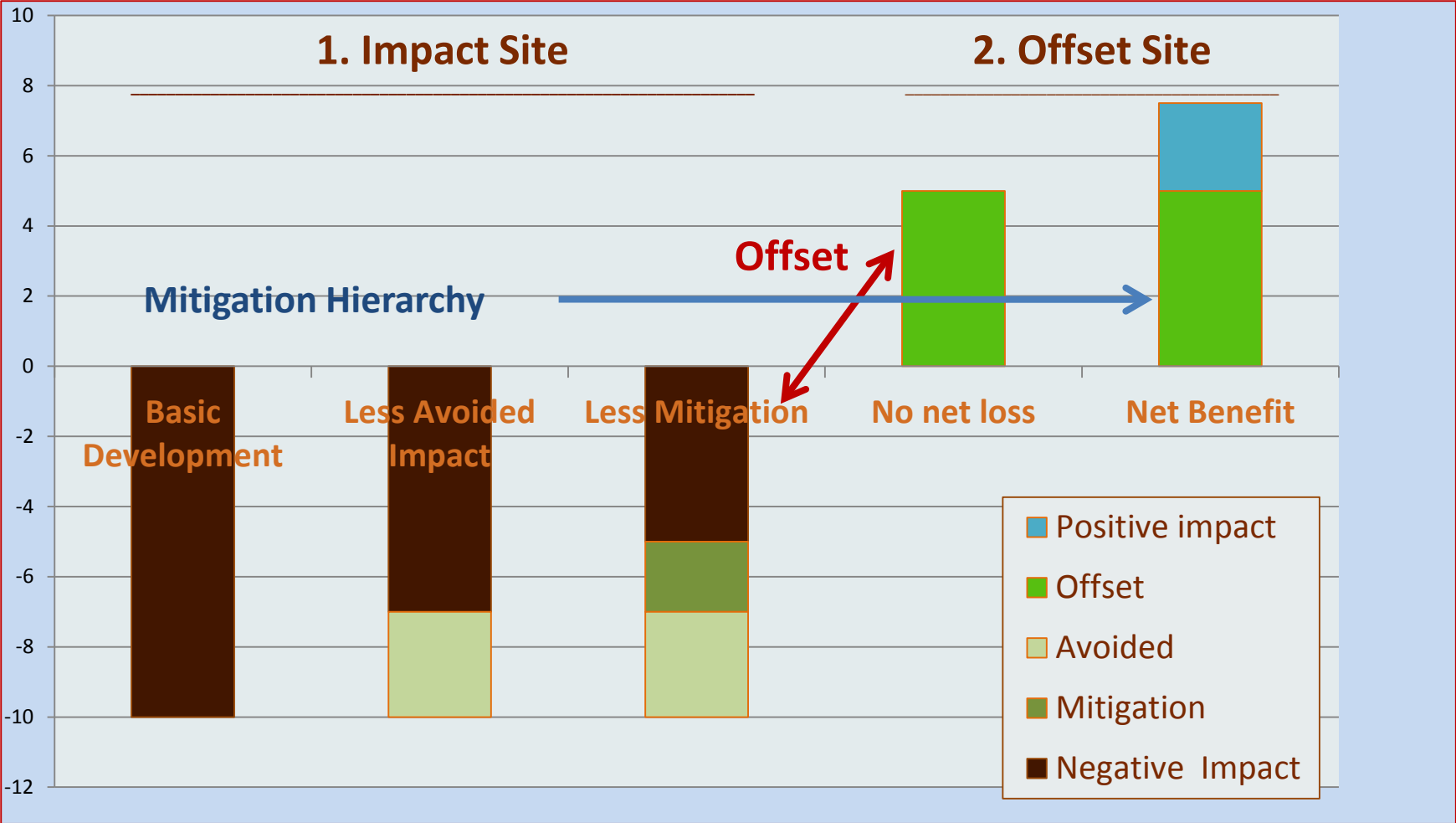
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*“[M]easurable conservation **outcomes** resulting from actions designed to **compensate** for significant residual adverse biodiversity impacts arising from project development **after appropriate prevention and mitigation measures** have been taken.”*

Business and Biodiversity  
Offset Programme, 2009

- AKA “Conservation Offsets”, “Habitat Compensation”, “Compensatory Mitigation”, “Conservation Allowance”, “Mitigation Offsetting”

# Biodiversity Offsets – Concept and Limitations



# Limits to Offsetting

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- Offsetting exchanges *certain* current environmental losses for *potential* future environmental gains
- Offsetting should not be relied on if:
  - Target resource is irreplaceable, or especially vulnerable
  - High probably of offset failure
  - Impacts of failure would be significant
  - No realistic opportunities for offsetting

# Requirements for Offsetting

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1. Fidelity to Mitigation Hierarchy
2. A Clear, Measurable Goal
  - Determine appropriate measures
  - Track progress
3. Meaningful Notion of Equivalency
4. Delivery mechanism
5. Future-oriented risk management strategy
6. Clear governance and accountability

# Canadian Biodiversity Offset Policies

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## ➤ Federal

- Fish and fish habitat (Fisheries Act)
- Federal wetlands policy
- Species at Risk Act
- *Operational Framework for Use of Conservation Allowances (2012)*

## ➤ Provincial

- **British Columbia** Environmental Mitigation Policy
- **Alberta** Wetland Policy
- **Saskatchewan** policy under development
- **Ontario** *Endangered Species Act*; wetland offset policy under development
- **Manitoba** *Sustainable Watersheds Act (2017)*
- **Quebec** Wetlands Program
- **New Brunswick** Wetland Policy
- **PEI** Wetland Conservation Policy
- **Nova Scotia**: Wetland Policy

# 1. Fidelity to Mitigation Hierarchy

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## ➤ Federal

- Federal wetlands policy

- Most Canadian policies articulate, some quite strongly
  - Manitoba?
- Application, especially enforcing avoidance is weak

## ➤ Provincial

- **Alberta** Wetland Policy
- **Manitoba** *Sustainable Watersheds Act* (2017)
- **Quebec** Wetlands Program
- **New Brunswick** Wetland Policy
- **PEI** Wetland Conservation Policy
- **Nova Scotia:** Wetland Policy
  
- **Saskatchewan** policy under development
- **Ontario** *Endangered Species Act*; wetland offset policy under development



# Offsetting Requires a Clear, Measurable Policy Goal

## No Net Loss? Net gain?

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### ➤ Federal

- Federal wetlands policy

### ➤ Provincial

- **Alberta** Wetland Policy
- **Manitoba** *Sustainable Watersheds Act* (2017)

### Alberta

“to conserve, restore, protect, and manage Alberta’s wetlands to sustain the benefits they provide to the environment, society, and the economy”

- **Saskatchewan** policy under development
- **Ontario** *Endangered Species Act*; wetland offset policy under development

### 3. Meaningful Notion of Equivalency

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- Are we replacing wetland area, function, ecosystem services?
  - Often default to area because of difficulty in measuring other factors.



# 3. Meaningful Notion of Equivalency

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## What Measures are Creditable?

- Improving ecosystem function
    - Restoration
    - Enhancement
    - Construction
  - Preserving/protecting ecosystem function
    - Value and validity depends on threat
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- Additionality
    - Measures beyond what would be expected otherwise

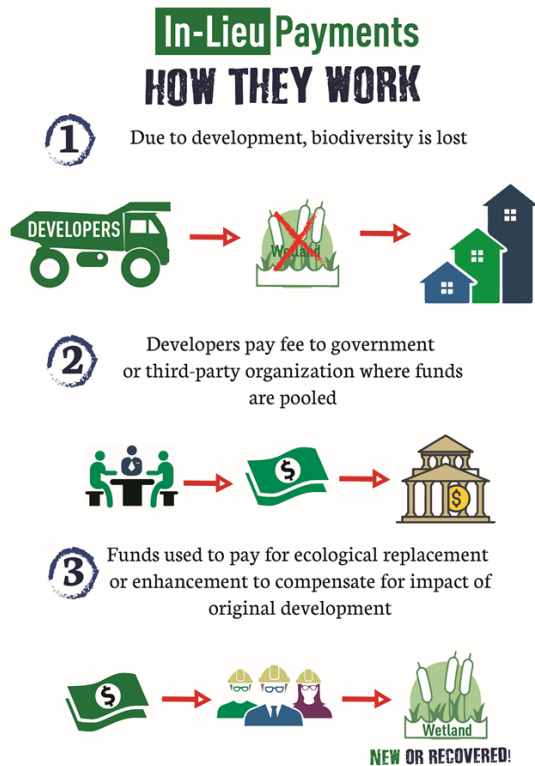
# 4. Offset Delivery Mechanisms

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## ➤ Typical Mechanisms

- Project-specific, permittee-responsible
  - Proponent responsible for creating offset to match individual project
  - Federal, Alberta, New Brunswick, Nova Scotia
- Mitigation banking
  - Lots of interest, but no Canadian programs
- In-Lieu Payments or Fees
  - Alberta, New Brunswick, PEI

# 4. Offset Delivery Mechanisms



## Review of Canadian and US ILP/F Schemes (Poulton & Driedzic 2017)

- Most ILF programs develop informally with minimal legal authority
  - Dependence on third party providers, especially Duck Unlimited Canada
  - Trend toward more formalization
- Unclear how fee amount set or that it was adequate to replace wetland loss
- No public tracking of use of funds or objectives achieved.

# 5. Future-Oriented Risk Management Strategy

- Compliance monitoring common, but not performance monitoring
- Dependence in ILF system on expertise and integrity of third

		The Wetland Replacement Matrix			
		Value of Replacement Wetland			
		D	C	B	A
Value of Lost Wetland	A	8:1	4:1	2:1	1:1
	B	4:1	2:1	1:1	0.5:1
	C	2:1	1:1	0.5:1	0.25:1
	D	1:1	0.5:1	0.25:1	0.125:1

\*Ratios are expressed as hectares of wetland

# 6. Clear Governance and Accountability

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- Responsible agency usually clear but a lot of delegation to third parties outside government (especially DUC)
- Mitigation hierarchy articulated but little evidence it is followed
- Little to no public reporting on performance against program goals
  - Wetland losses vs wetland gains.

# Summary

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- Policies for offsetting of wetland losses are common across Canada
  - Many aspire to no net loss
- Over-reliance on offsetting at expense of earlier stages of mitigation hierarchy
  - Non-enforcement of prohibitions
  - Lack of teeth in avoidance
- Over-reliance on third parties
- Lack of rigour in promoting gains equivalent to losses
- Lack of monitoring and tracking of results (and making data public)