

# Alberta Wetland Policy: Challenges and Opportunities

Alberta Municipal Supervisors Association  
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# Outline

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- **What is a Wetland**
- **Wetland Loss and Implications**
- **Policy Context (Brief Background)**
- **Balancing Needs**
  - **Policy and Stakeholders**
- **Municipal Opportunities**
- **Integrated Management**
- **Resources and Next Steps**

# What is a Wetland?

**Bog**



**Fen**



**Swamp**



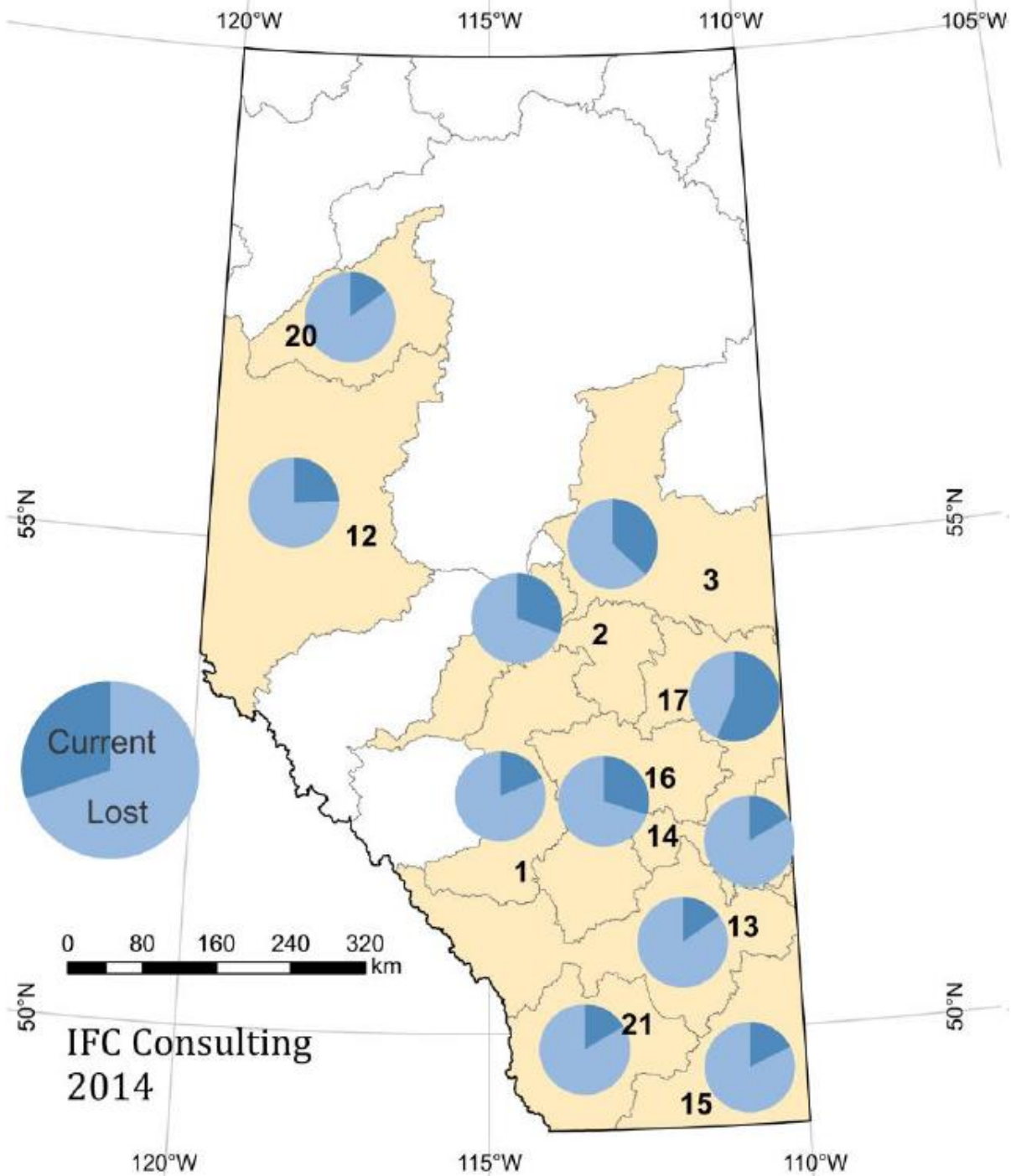
**Marsh**



**Shallow Open Water**



# Wetland Losses



# Wetland Loss – Implications

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- **Overwhelming drainage infrastructure**
- **Transport and loss of critical nutrients (phosphorus & nitrogen) and topsoil**
- **Cost of water treatment (nutrients, pesticides, heavy metals, etc.)**
- **Reduced ability to mitigate against drought conditions**
- **Reduced productivity of groundwater wells (particularly shallow wells)**
- **Flood risk to downstream landowners/producers and municipalities**
- **Modified microclimates/moisture regimes**



# Wetland Policy in Alberta

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- **Early European settlement to late 20<sup>th</sup> century:**
  - Impediment to agricultural productivity
  - Government-promoted drainage
- **Wetland Management in the Settled Area of Alberta: an Interim Policy (1993)**
  - Marsh wetlands in the White Area (limited scope)
  - 2005 Wetland Restoration Guide
    - 3:1 compensation ratio for lost wetland area
- **Alberta Water Council (2005-2008)**
  - Recommendations toward a new provincial policy
- **Alberta Wetland Policy (2013)**
  - Based on stakeholder engagement (AUMA, AAMDC, Agriculture)
  - Implemented 2015 (White Area) and 2016 (Green Area)

# Policy Overview

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## Policy Goal:

- To conserve, restore, protect, and manage Alberta's wetlands to sustain the benefits they provide to the environment, society, and the economy

## Policy Outcomes:

1. Wetlands of the highest value are protected for the long-term benefit of all Albertans
2. Wetlands and their benefits are conserved and restored in areas where losses have been high
3. Wetlands are managed by avoiding and minimizing negative impacts, and, where necessary, replacing lost wetland value
4. Wetland management considers regional context

# Wetland Mitigation Hierarchy

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A diagram of the Wetland Mitigation Hierarchy represented as an inverted triangle divided into three horizontal sections. The top section is light blue and contains the word "Avoid". The middle section is a darker blue and contains the word "Minimize". The bottom section is the darkest blue and contains the word "Replace".

**Avoid**

**Minimize**

**Replace**

## Avoidance

The preferred response is to avoid impacts on wetlands.

## Minimization

Where avoidance is not possible, proponents will be expected to minimize impacts on wetlands.

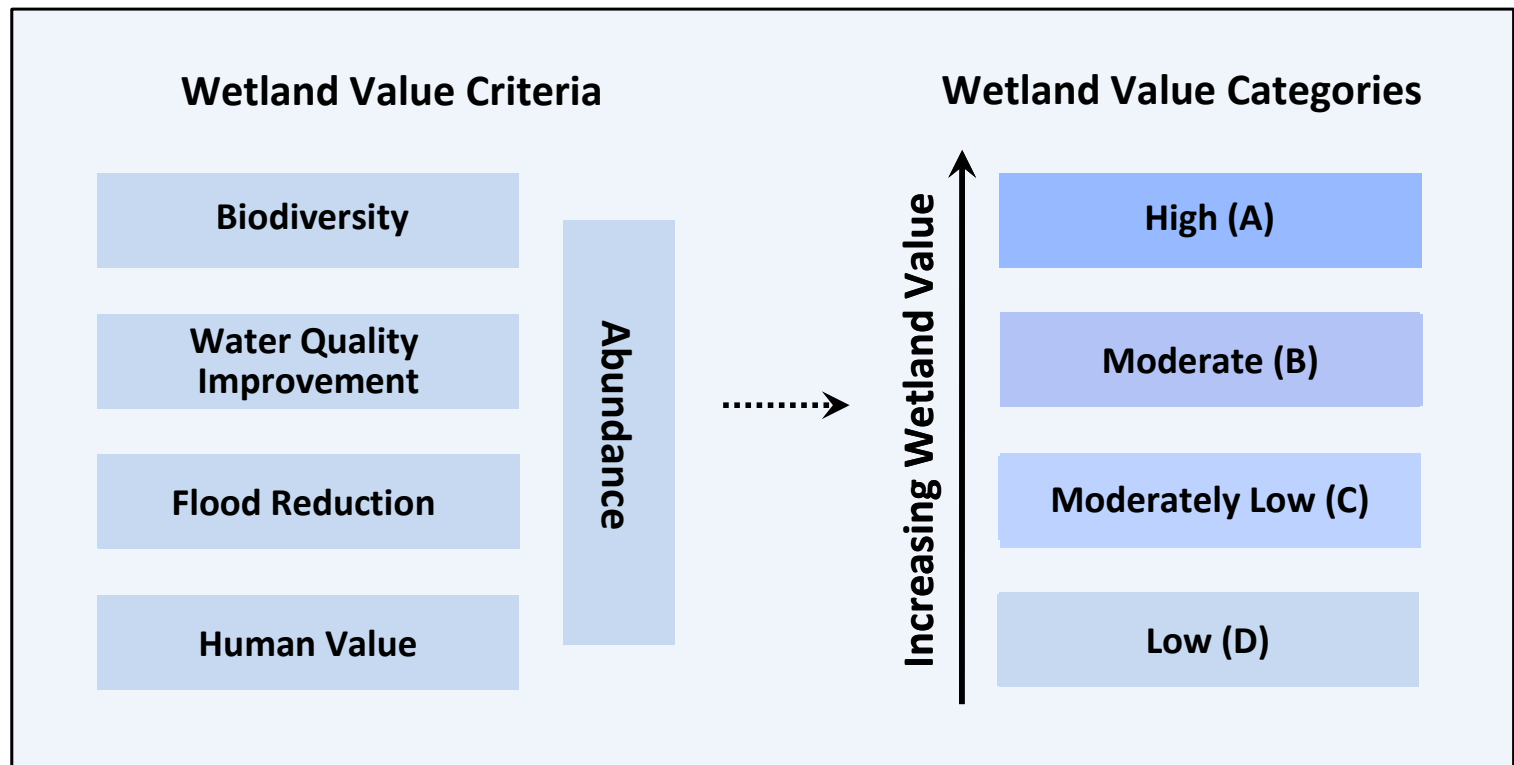
## Replacement

As a last resort, and where avoidance and minimization efforts are not feasible or prove ineffective, wetland replacement will be required.



# Relative Wetland Value

**Wetlands are highly diverse in form, function, use, and distribution across the province – they are not all of equal value.**



# Balancing Needs

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- **Need to acknowledge and manage limitations of the system, while respecting policy spirit and intent:**
  - Municipalities (e.g., road construction), Power Transmission/Distribution
  - Private Landowners
- **Municipal considerations:**
  - Ratepayer pressures and perspectives
  - Infrastructure challenges (e.g., drainage)
  - Development costs and timelines (e.g., roads)
- **Challenges and limitations of ag producers:**
  - Wetlands as obstacles to efficiency and productivity
  - Cost of the regulatory process and wetland replacement
  - Uncertainty, related to climate and weather patterns
  - Inability to 'pass on the costs'
  - Lack of an economic analysis (cost-benefit)

# Municipal Opportunities

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- **Development of more efficient approaches to standard activities:**
  - **Accepted Practice**
  - **Codes of Practice (e.g., road widening/maintenance)**
- **Municipal wetland outcomes are a priority for the Government of Alberta:**
  - **Mitigation Directive stipulates that replacement will be place-based. Wetland kept within municipal boundary.**
  - **Necessitates active engagement of municipal partners.**
- **New approach to wetland replacement (“compensation”) enables partners.**
  - **Wetland Directives**
  - **Centralized Account**
  - **Authenticating Professionals**

# Partnerships

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- **AEP has initiated discussions with various partners to explore avenues of communication and collaboration:**
  - E.g., Municipalities, WPACs, North American Waterfowl Management Plan (NAWMP), AUMA, AAMDC
  - Inventories of wetland restoration opportunities and needs
- **Working with the agricultural sector and individual producers:**
  - GOA Agriculture and Environment Working Group
  - NAWMP Agriculture and Wetlands Working Group
  - **Pursuit of solutions :**
    - System accessibility (understanding, cost)
    - Education/outreach programs

# Integrated Management

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- Land use planners and land managers critical to broader wetland policy success:
  - Municipalities
  - Watershed Planning and Advisory Councils
  - Watershed Stewardship Groups
  - Regional and sub-regional planners (AEP)
  - Indigenous Peoples
- Local and regional land planners and managers best situated to apply existing knowledge and tools in enabling achievement of desired wetland outcomes:
  - Municipal Government Act and Bylaws
  - Municipal Development Plans
  - Alberta Land Stewardship Act
- *Communication* across regulators and regulatory processes

# Resources

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- **Alberta Wetland Policy Implementation**
  - <http://aep.alberta.ca/water/programs-and-services/wetlands/alberta-wetland-policy-implementation.aspx>
- **A Guide to Municipal Wetland Conservation in Alberta**
  - [www.abnawmp.ca](http://www.abnawmp.ca)
- **Wetland inventory (GeoDiscover Alberta)**
- **Wetland assessment tools designed to support risk management and land use planning:**
  - **Functional prioritization (e.g., flood mitigation, groundwater recharge)**
  - **Inform conservation/protection priorities**
  - **Support identification of wetland restoration opportunities/needs**
- **Factsheets and guides**



# Next Steps

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- **Recently completed items:**
  - **Wetland Restoration Directive – design, validation, verification (Offset System)**
  - **Competencies to define a practice standard for Wetland Science, Design, and Engineering**
- **Key items under development:**
  - **Wetland Construction Directive & Guide**
  - **Wetland Regulation & wetland replacement account/program**
    - Enables delivery of wetland replacement work through contract or grant process (no designated ‘agents’)
    - Supports achievement of place-based objectives
  - **Wetland science/research agenda for the Province**
  - **Wetland Education Network and agenda**

# Next Steps – continued

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- **Wetland Inventory Standards**
  - North American Waterfowl Management Plan (NAWMP)
  - Ducks Unlimited Canada
  - Alberta Bio-Monitoring Institute
  - Environment and Parks, Agriculture and Forestry
- **Wetlands and Municipalities**
  - Opportunities to influence outcomes
  - Clear articulation of process
  - Streamlining of regulatory applications
- **Wetlands and Agriculture**
  - Working Groups (internal and stakeholder)
  - Accessibility of the regulatory process to private landowners and agricultural producers
  - Targeted education programs

Alberta

Thank You!

