

### Alberta Wetland Policy

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#### Overview



- Legislation Affecting Wetlands: Fisheries Act, Water Act, EPEA, Public Lands Act, AOPA, MGA
- Review of International, National, and Local Wetland Policies and Strategies
  - USEPA Wetland Policies
  - Canadian Wetland Policy
  - Alberta Wetland Policy (new and old)
  - Wetland Compensation and Mitigation
  - Water for Life and Shared Governance
  - Framework for Watershed Management Planning
  - Land Use Framework
  - Cumulative Effects Management
- What is a QAES/QWAES?
- Components of a good wetland assessment/BIA
- Economic valuation of wetlands

#### Overview



#### AEW

- Draft Policy white and green zones 1993
- Use of the 1993 policy for compensation guidelines to this day

#### **AWC**

- Provided the "Recommendations for a new Alberta Wetland Policy" 2008
- Provided the "Recommendations for an Alberta Wetland Policy Implementation Plan" – 2008

#### **AEW**

- Met with stakeholders and got significant push-back from industry and ENGO (follow-through was stalled)
- No-net loss ideologies replaced with "Wetland values/valuation"

#### New:

- Fisheries Act want to remove HADD would this make the acceptance of the new AB wetland policy easier? – March 2012
- New Water for Life Progress Report March 2012
- New "Stepping Back from the Water: A Beneficial Management Practices Guide for New Development Near Water Bodies in Alberta's Settled Region" released March 2012



International, National,
And Local Wetland
Policies and Strategies

### **USEPA** Policies



- Clean Water Act (1977)
  - Section 404 establishes a program to regulate the discharge of dredged and fill material waters of the United States, including wetlands
  - Has same avoidance, minimization, and compensation guidelines as Alberta (AB) policy
  - Enforced by Army Corps of Engineers and overseen by the US EPA
  - Uses the 1987 Corps of Engineers Wetlands Delineation Manual for identifying wetlands
- National Environmental Policy Act of 1969 (NEPA)
  - Basic national charter for protection of the environment
- Rivers and Harbors Appropriation Act of 1899
  - Section 10 establishes a program to regulate activities affecting navigation in United States waters, including wetlands

### **USEPA Policies**



- Federal Agriculture Improvement and Reform Act of 1996
  - Related to the conservation of wetlands on agricultural land
- Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA)
  - Engages the Fish and Wildlife Service in interagency wetlands restoration and conservation planning in Louisiana
  - Expands the administration of Federal grants to acquire, restore, and enhance wetlands of coastal States and the Trust Territories
- North American Wetlands Conservation Act (NAWCA)
  - Provides funding and administrative direction for implementation of the North American Waterfowl Management Plan and the Tripartite Agreement on wetlands between Canada, U.S., and Mexico



# The Canadian Policy on Wetland Conservation



- The objective of the Federal Government with respect to wetland conservation is to:
  - promote the conservation of Canada's wetlands to sustain their ecological and socio-economic functions, now and in the future
- Outlines 7 strategies for the use and management of wetlands:
  - Developing Public Awareness
  - Managing Wetlands on Federal Lands and Waters and in Other Federal Programs
  - Promoting Wetland Conservation in Federal Protected Areas
  - Enhancing Cooperation
  - Conserving Wetlands of Significance to Canadians
  - Ensuring a Sound Scientific Basis for Policy
  - Promoting International Actions







#### **GoA Policy Development**



#### What is Policy?

- A written governing principle, position, plan or course of action that directs, guides or influences decision-making and the actions of the agency and others
- Policy can exist at different levels three general categories:
  - **Strategic:** Long-term direction (e.g. Cumulative Effects Management, *Water for Life*
  - Operational: How strategic policy will be applied (e.g. water diversion restrictions, Wetland Policy)
  - Administrative: Guides day-to-day actions (human resources policies, contract procedures)



# "Old" Provincial Wetland Policy (White Zone, 1993)



- Intended for the White Zone only
- Was never made an official policy got shelved
- Policy intent was as follows:
  - To conserve slough/marsh wetlands in their natural state
  - To mitigate degradation or loss of slough/marsh wetland benefits as near to the site of disturbance as possible
  - To enhance, restore or create slough/marsh wetlands in areas where wetlands have been depleted or degraded
- Peatlands not included; only pertains to
   "slough/marsh" wetlands classes are not specified
- Completed by the Alberta Water Resources Commission

Wetland

Management
in the Settled

Area of Alberta



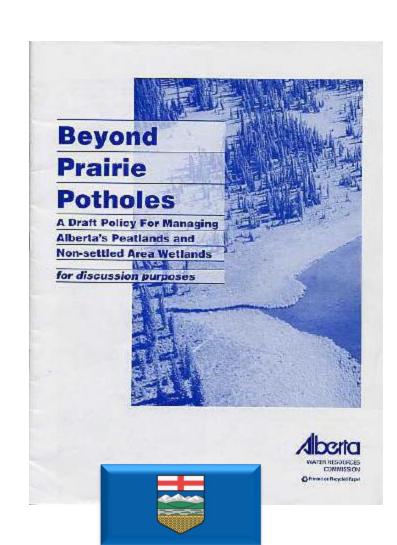




### "Old" Provincial Wetland Policy (Green Zone, 1993)



- Draft Green Zone Policy released in 1993 for management of peatlands
- Completed by the Alberta Water Resources Commission
- An attempt to combine white and green zone policies was halted by the preparation of the new Water Act (1999)
- New Water Act did NOT address a combined wetland policy or update existing draft policies



## Alberta Water Council Wetland Policy Project Team



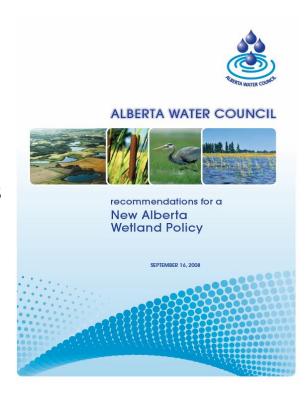
- Extensive public and stakeholder consultation involved in the development of the draft wetland policy
- Submitted to the AWC Board of Directors in June 2008, gave team until September to ratify components of the policy and reach consensus
- Concessions were made by other sectors in order to reach consensus
- At the time of public release of the document, two sectors indicated they could not fully support all of the recommendations within the policy:
  - Alberta Chamber of Resources
  - Canadian Association of Petroleum Producers



### "New" Provincial Wetland Policy



- The new policy covers:
  - All natural wetlands described in the Canadian Wetland Classification System including bogs, fens, swamps, marshes, and shallow open water
  - Types 1 through 7 of the Stewart and Kantrud Wetland Classification System
  - All restored natural wetlands, as well as wetlands constructed and enhanced for the purposes of wetland mitigation
- Intended for the White <u>and</u> Green Zones of the province





#### The Alberta Wetland Policy Goal



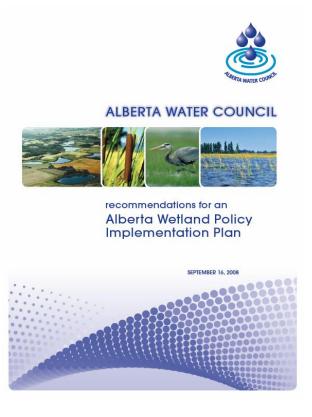
The goal of the Alberta Wetland Policy is to maintain wetland area in Alberta such that the ecological, social, and economic benefits that wetlands provide are maintained, thereby helping to ensure Albertans have healthy watersheds that provide safe and secure drinking water supplies, healthy aquatic ecosystems, and reliable, quality water supplies for a sustainable economy. In recognition of the high rates of wetland loss in some watersheds, this policy also encourages Albertans to be proactive in increasing wetland area.



## Recommendations for an Alberta Wetland Policy Implementation Plan



- The Implementation Plan supports the Alberta Wetland Policy, and guides the implementation of the approvals process required under the Water Act, to facilitate actions to protect, conserve and restore the province's wetlands
- The plan is also intended to help inform other Alberta water and land policies, planning processes and initiatives in their efforts to protect, conserve and restore wetlands, including the Land-use Framework, the Cumulative Effects Management Framework, and the Biodiversity Action Plan





#### So why is there non-consensus?



- According to the oil and gas sector, wetland compensation for wetlands lost during oil sands development is not possible in Alberta
  - Large areas of wetlands lost, not enough land base to compensate even a 3:1 ratio
  - Type for type replacement can be costly and requires a lot of maintenance and upkeep





#### Where is the Wetland Policy now?



- November 2008 AWC submitted "Recommendations for a New Alberta Wetland Policy" to Alberta Environment for approval
  - Promised back to AWC for Spring 2009
- February 2009 policy moved to Water Policy Branch of AENV
- Leaked draft in March 2009
- October 29, 2010 stakeholder consultation
- 2011 release?
- 2012 release?
- Major issues around Implementation Strategy and compensation



#### Where is the Wetland Policy now?



- No Net Loss policy for the province has been dropped
- Ongoing dialogue between stakeholders and GoA until fall 2011 release
- Researchers working on wetland valuation tools and GIS
- Background work ongoing to improve baseline assessments
- GoA working to clarify how regional objectives might be set out in the context of a provincial policy



### Mitigation Banking



- The creation, restoration or enhancement of wetlands that will be sold or exchanged to compensate for future wetland losses incurred as a result of development
- "Mitigation credits" managed by an agency identified as a "bank", e.g. Ducks Unlimited Canada
- A "bank" identifies the number of credits available for sale and requires the use of ecological assessment techniques to certify that those credits provide the required ecological functions
- Used in the US but not common in Canada
- Places emphasis on compensation rather than conservation, and allows the avoid and mitigate/minimize alternatives in the "No Net Loss" process to be circumvented

### **Ducks Unlimited Canada**



- The only approved wetland restoration agency in Alberta why??
- They currently hold the most comprehensive drained wetland inventory and therefore are able to chose appropriate restoration sites
- BUT...main goal of organization is to protect waterfowl nesting habitat, so compensation and/or restoration sites in waterfowl areas heavily favored (small delivery area in the Province)
- Excerpt from a DU brochure:

"DUC is targeting its efforts on critical priority areas to restore and protect the productive capacity of the landscapes that have the greatest importance to waterfowl."





### What about peatlands?



- The destruction of peatlands in the green zone is common in the face of oil and gas exploration
- It is extremely difficult to restore/recreate peatlands and takes many, many years to recover, but it is possible
- Creating a marsh is much easier to do than creating a peatland, so this is often done
- "Like for like" concept functions and ecology of a peatland are very different from a marsh!









## What support is the province providing?



By the end of March, 2012 Alberta Environment & Water will release a GIS shapefile for the entire province

- Based on the Canadian Wetland Classification System
- 5 classes of wetlands
- Will still need better resolution for the southern part of the Province
- Will be available on GoA Discover website
- Beta product currently being tested

## Where is the province going with Wetland Policy?



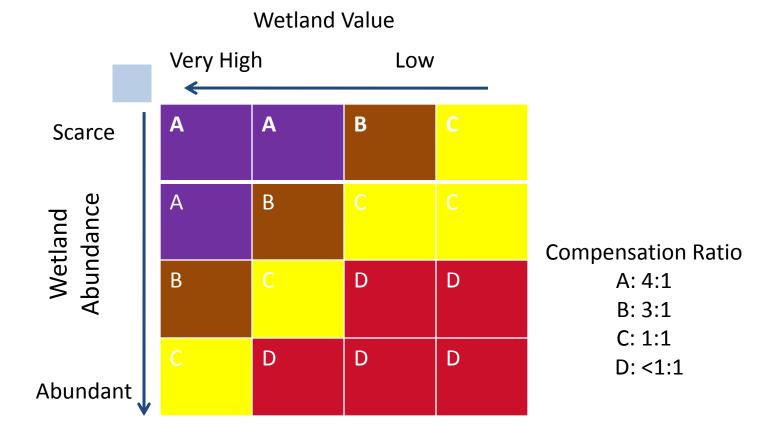
A change in the current policy will require two phases:

- Phase I: Policy Implementation
- Phase II: Implementation of Complete Policy
- Changing from wetland classification to a wetland value system?
- Is the value of a wetland a measure of its worth in society?

### Rating Wetlands



Wetlands rated against Wetland Values (low to exceptional wetland) and Abundance (scarce to abundant)







### Auditor General's Report



Report of the Auditor General of Alberta, April 2010 found that:

- Alberta Environment's approval writers do not follow-up with issues identified through routine control processes, but when inspecting license and approval holders performance, it finds many cases of non-compliance
- The relationship between Environment and DUC began in 2005, with restoring wetlands under the Wetland Restoration/
  Compensation Guide, yet Environment and DUC have no agreement in place covering restoration activities, nor does Environment monitor DUC's work or review its financial summaries

### Auditor General's Report



- Environment does not apply several steps described in the Compensation Guide. In practice, the ratio between distance and replacement (minimum 3:1) is not applied and was often the maximum and even lower ratios were accepted
- The City of Calgary has implemented its own wetland compensation guidelines and follows a different compensation practice, and even accepts a 1:1 replacement ratio
  - Environment has accepted Calgary's program, but would not accept these practices elsewhere in the province
  - Environment has not documented why these differing standards are acceptable

#### Other criticisms



Where is the avoidance in the implementation of Wetland Law and Policy?

Wetland Ecol Manage, 2011 Shari Clare, Naomi Krogman, Lee Foote and Nathan Lemphers. 18 pp.

- Wetland avoidance needs to be reinstituted as the first, and most preferred option
- Overwhelming consensus that more emphasis needs to be placed on avoidance
- Gov't decision making is highly influenced by subjective balancing of development and the environment
- For meaningful areas of natural wetlands to remain in jurisdictions, the publics ability to identify and communicate wetland values will need to be developed





## Wetland Management Committee of Practice Initiative - ASPB



- 1. In their 2011/2012 Annual Report, ASPB announced the formation of a new initiative
  - An off-shoot of a different initiative: "Wetland Impact Assessment Draft Guidelines"
  - A result of an overwhelming need for leadership in wetland management in Alberta
  - Took a step back from guidelines and instead concentrated on the bigger picture and need in AB
- 2. The Wetland Management Community of Practice Initiative goals are:
  - To create an environment where ASPB members work together to share and distribute information pertaining to the management of wetlands within Alberta, and
  - To produce guidance documents that standardize the practice of wetland management through Practice Standards and a compilation of best management practices used by ASPB members, as well as relevant research and literature.
- 3. To achieve theses goals the Wetland Management Steering Committee was formed and it consists of representatives from various public and private sectors such as:
  - Provincial Government (Rob Simieritsch, P.Biol)
  - Industry (Susan Patey LeDrew, P.Biol)
  - Consulting (Markus Thormann, P.Biol)
  - Academia (David Locky, P.Biol)
  - Not-for-Profit Organization (Kathryn Hull, P.Biol)
  - ASPB Chair and Board Liaison (Laurie Hamilton, P.Biol)



## Wetland Management Committee of Practice Initiative – ASPB continued



The **Purpose of the Committee** is to provide oversight and review for the many projects to come out of this initiative, as well as provide review to other external documents, such as Alberta Environment and Water's Wetland Policy.

#### The **Intent** of this initiative is to:

- Promote sharing and collection of wetland knowledge between ASPB members
- Develop Practice Standards for P.Biol's whose work is related to wetlands
- Develop a wetland management community of practice to create a forum for sharing wetland information and experiences
- Develop wetland management guidelines for various applications, such as impact assessments and best management practices
- Develop guidelines at a conceptual level with some specific examples, while not being prescriptive
- Develop guidelines separately from ongoing Government of Alberta policy and guideline development with the understanding that:
  - Wetland Policy intent has been declared by AEW and there is no indication that wetland impact assessments will not be required
  - ASPB Practice Standards and Guidelines are compatible with any current and future Government of Alberta wetland policy or applicable government legislations, policies or guidelines
- Develop guidelines that can be applied to all types of projects
- Develop guidelines using concepts that are based on peer-reviewed scientific documents, grey literature and best management practices, as provided through personal communications with professionals and other wetland practitioners in Alberta and beyond.

ASPB endeavours to be at the forefront of wetland management in Alberta, given the strength of knowledge and experience of its membership.

#### References



- Alberta Environment, 2005, Provincial Wetland Restoration/Compensation Guide.
- Alberta Environment, 2007, Revised Provincial Wetland Restoration/Compensation Guide.
- Auditor General Alberta, 2010, Report of the Auditor General of Alberta, April 2010.
- Environmental Law Centre (Alberta), 2010, Alberta Auditor General Looks at managing Alberta's water supply – compliance, wetland policy under scrutiny. April 27, 2010.
- Clare, Shari, Naomi Krogman, Lee Foote, Nathan Lemphers, 2011, Where is the avoidance in the implementation of wetland law and policy? Wetland Ecological Management, DOI 10.1007/s11273-011-9209-3. 18 pp.
- North American Wetlands Council (www.wetlandscanada.org/pubs)



#### **THANK YOU!**

Questions?



# Proposed Principles of Compensation



- Not all wetlands are of equal value; compensation will reflect differences in relative wetland value
- Compensation will provide additional incentive to avoid high value wetlands
- Where permanent loss occurs despite avoidance and minimization efforts, compensation will ensure that lost value is replaced
- Compensation applied will be consistent with the overall goal of replacing lost wetland value
- Compensation requirements will be flexible
- Compensation requirements will be balanced in the context of ecological, social and economic considerations

# Proposed Principles of Compensation



- Compensation activities will be encouraged to take place in the area of wetland loss.
- Compensation will be applied with no penalty incurred for the distance from the area where loss occurred
- In regions where wetland loss has been high, restoration is the preferred compensation measure
- Where achievable, wetlands will be replaced type-for-type. Where this is not possible, compensation will seek to replace lost wetland value

#### **Wetland Mitigation in Alberta**



- Provincial Wetland Restoration / Compensation Guide, Alberta Environment (2007)
  - Alberta Environment's priority is to avoid having land development impact wetland area whenever possible
  - Compensation for the loss of naturally occurring wetlands will be required when approval is issued under the Water Act
  - The compensation process does not allow for the development of artificial wetlands as compensation



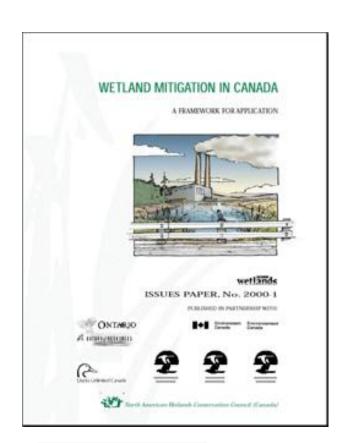




# Wetland Mitigation in Canada: A Framework for Application



- Part of a multiphase initiative, the Wetland Mitigation Project, that is designed to advance the state of wetland mitigation in Canada
- Sets out a series of principles that should underlie the approach to mitigation, and a set of guidelines that give direction to the mitigation process
- Principles and guidelines have been adopted by the North American Wetlands Conservation Council (NAWCC) for the mitigation process for North American Waterfowl Management Plan (NAWMP) projects in Canada





## Wetland Mitigation Decision Framework



 When a development is proposed that affects a wetland, the following options are to be used, in descending order of

preference:

- Avoid loss or degradation of wetlands
- Minimize the loss or degradation
- Compensate, as a <u>LAST RESORT</u>
- Compensation options are as follows:
  - Restoration of wetlands
  - Construction of wetlands
  - Enhancement of existing wetlands







# Provincial Wetland Restoration/Compensation Guide



## Compensation



- Will be balanced in the context of ecological, social and economic considerations
- Will strive to replace the highest priority wetland functions
- Must consider the wetland (natural area) policy objectives and plans that municipalities are trying to achieve
- Where achievable, replacement will occur in the area where it is lost
- Where replacement is not achievable in that area, wetlands will be constructed in other appropriate areas, with no penalty incurred for the distance from the area where loss occurred
- Where achievable, wetlands will be replaced <u>type-for-type</u> and, where type-for-type is not achievable, lost wetlands will be replaced with a wetland type determined in the approval process
- Not required for ephemeral wetlands

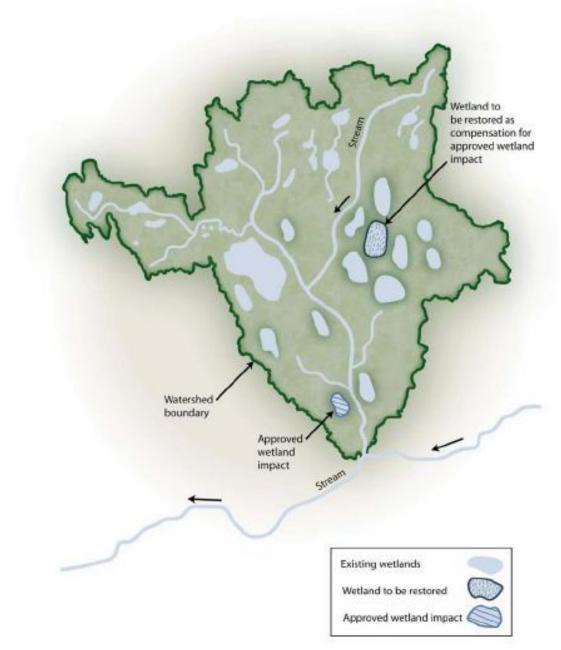


## Compensation



- Compensation will be provided through restoration of drained or altered naturally occurring wetlands
- Compensation should take place within the same watershed as the impacted wetland, or in a watershed close by
- Where wetland alteration or destruction takes place within a highly impacted watershed (urban or rural), it is not always practical to restore within the same watershed
- Wetlands should not be restored within the projected 30-year expansion limits of urban areas unless it can be incorporated into a secure or protected system, such as a park or flood plain







Wetlands that are lost should always be compensated for in the same watershed in which the loss occurs, as demonstrated here



## Compensation



- Off-site compensation will be allowed if altered local wetlands do not exist near the site of the development or if sites are deemed unsuitable
- Where an approval applicant plans to minimize the impact to the wetland, some compensation measures may still be required as determined by Alberta Environment on the recommendation of a Qualified Wetland Aquatic Environment Specialist (QWAES)

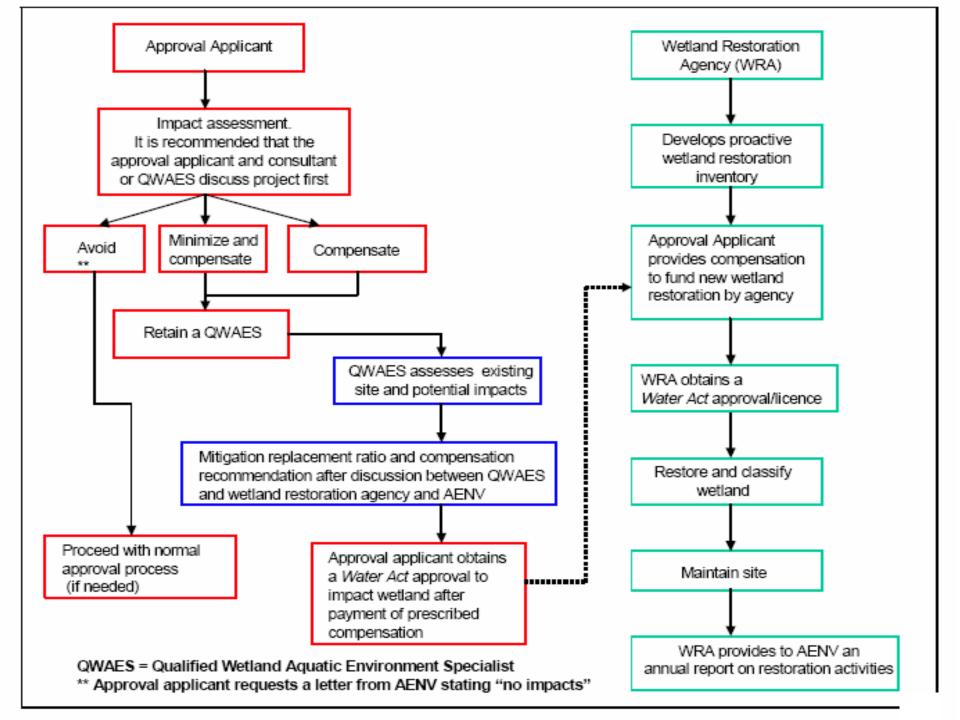




#### **Approval of Restoration Projects**



- Once the restoration is complete, the wetland will be assessed by a QWAES and classified using either the Cowardin Wetland Classification System or the Stewart and Kantrud Wetland Classification System
  - It is important to compare the restored wetland against the destroyed or altered wetland using the same classification system
- The Wetland Restoration Agency (usually Ducks Unlimited Canada) is responsible for:
  - determining the viability of the site(s)
  - restoring the site(s)
  - managing the site(s)
  - keeping detailed records and providing Alberta Environment with an annual wetland compensation audit report



#### **Approval of Restoration Projects**



- The agency will not be permitted to construct artificial wetlands for the sole purpose of receiving compensation funds
- Alberta Environment is responsible for approving wetland restorations under authority of the Water Act and for approving their use as a wetland mitigation solution
- It is possible to restore wetlands that have been drained for 40 years or more back to almost fully functioning wetlands
- The restored wetland is within watersheds that support sustainable wetland function and will be secured for a minimum of a 30-year period
- Wetland restoration agencies work to establish wetlands in remote areas or as part of a system of wetlands
- Approval applicants are **not responsible** for the long-term management or liability of restored wetland areas



## **Wetland Replacement Ratios**



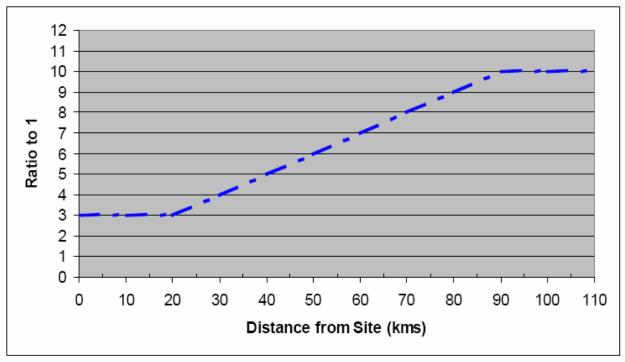
- It is almost impossible to fully replicate the complexity of a natural wetland ecosystem
- It is a generally accepted practice that a greater area (hectares) of restored wetland habitat will be required as compensation for a smaller area of destroyed natural wetland
- A minimum replacement ratio of 3:1 is commonly used; may change depending on the QWAES assessment and AENV requirements
- Factors taken into consideration include:
  - Type of wetland
  - Success rate of restoration for similar types of wetland
  - Degree of permanency
  - Distance of restoration from the impacted site
  - Species present at the impacted area (including rare and endangered species)
  - Importance of impacted site to native flora and fauna



## **Wetland Replacement Ratios**



 The restored wetland should be an <u>equivalent type of wetland</u>, located in a landscape that is equally or less impacted, and offer the same degree of permanency as the impacted wetland wherever possible



Graph based on material sourced from "Wetland Mitigation in Canada a Framework for Application".

#### **Wetland Mitigation in Alberta**



- Compensation occurs under the direction of a wetland restoration agency (WRA)
- The agency is responsible for collecting funds to restore drained wetlands to near natural conditions and for maintaining restored wetlands
- Ducks Unlimited Canada (DUC), Alberta Conservation
   Association (ACA), Alberta Transportation, and the City of
   Calgary are currently the only recognized wetland restoration
   agencies in Alberta
- WRA program needs to be expanded



## Six Compensation Guidelines



- 1) Compensation will be provided through restoration of drained or altered naturally occurring wetlands
- Compensation should take place within the same watershed as the impacted wetland or in a watershed close by
- 3) Where wetland alteration or destruction takes place within a highly impacted watershed (urban or rural), it is not always practical to restore within the same watershed

## Six Compensation Guidelines



- 4) Wetlands should not be restored within the projected 30-year expansion limits of urban areas unless it can be incorporated into a secure or projected system, such as a park or flood plain
- 5) Off-site compensation will be allowed if altered local wetlands do not exist near the site of the development or if sites are deemed unsuitable
- 6) Where an approval applicant plans to minimize the impact to the wetland, some compensation measures may still be required as determined by Alberta Environment on the recommendation of a QWAES



#### **Approving Restoration Projects**



- A QWAES will assess the completed restoration and classify it using either the Cowardin Wetland Classification System, or the Stewart and Kantrud Wetland Classification System
- It is important that the restored wetland is compared against the destroyed wetland using the same classification system
- It is recommended that an approval applicant first discuss their proposal with a consultant or QWAES and the local municipality



#### **Approving Restoration Projects**



- The provincial Crown owns the beds and shores of permanent and naturally occurring wetlands, therefore, it is important to discuss the proposal with Alberta Sustainable Resource Development's Public Lands and Forests Division, early on in the planning process
- If no alternative exists to disturbing the wetland for development, conversion of ownership must be addressed through a land exchange, sale, or other mechanism



## Wetland Impact Assessment



- The QWAES will be responsible for assessing the wetland, and the assessment should include the following information:
  - Area of wetland
  - Hydrologic assessment
  - Statement of Wetland benefits
    - Hydrological
    - Ecological
    - Economical
- Classification of the wetland based on either the Cowardin or the Stewart & Kantrud Classification System
- Flora and fauna at the site, including presence of rare or endangered species



## Wetland Impact Assessment



- Type of wetland margin and average width of wetland margin
- Surrounding upland use
- Drainage area contributing to the wetland site
- Historical aerial photographs
- References photographs delineating the wetland area, wetland margin and immediate upland area
- A report describing the existing wetland site and the proposed development, including a statement indicating why it is not possible to avoid or minimize the impact on the wetland











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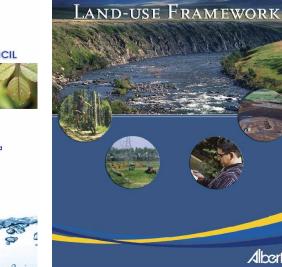
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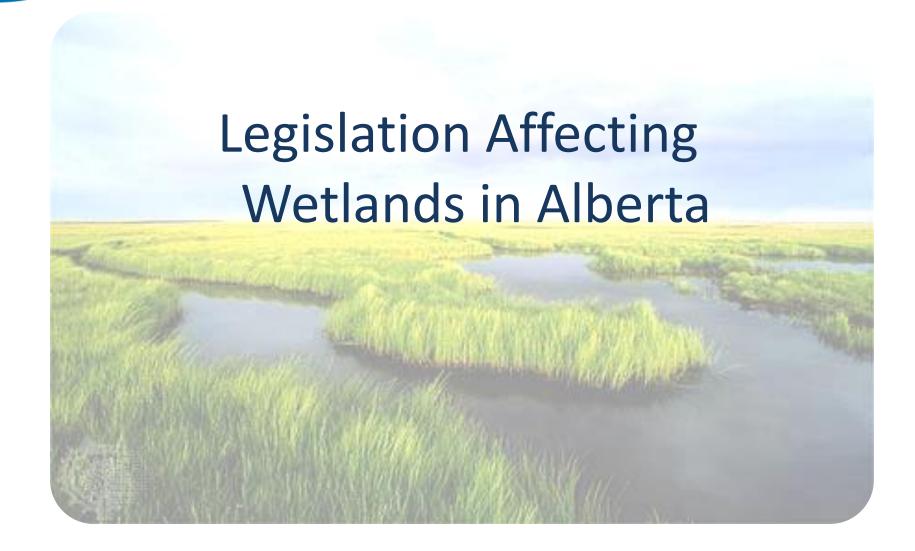
DECEMBER 2008

Recommendations for a **Watershed Management** Planning Framework for Alberta









#### Fisheries Act



- Regulates and enforces on harmful alteration, disruption and destruction (HADD) of fish habitat
- Deals with provisions related to the promotion, processing, control, and regulation of the marketing of fish within Alberta
- So.....the Federal government regulates <u>fish habitat</u>, while the province regulates the <u>fish</u>!





#### Decapitating the Fisheries Act?



 Reports came March 14, 2012 of a huge alteration to the old Fisheries Act in order to make way for the easier acceptance of large-scale development projects.

"It's an old law but it's the cornerstone of environmental law and policy in this country, and federal engagement in a wide range of projects and proposals which otherwise would be considered exclusively provincial." Ottawa Citizen, March 14, 2012.

"As it stands now, any project that would interfere with fish habitat — be it in waterways, marshes, gravel beds and the banks and vegetation along waterways — is subject to an environmental assessment". CBC News, Politics, March 14, 2012.

"This is a serious situation and will put Canada back to where we were in the pre-1976 period where Canada had no laws to protect fish habitat and no way to monitor the great industrial expansion that occurred in Canada with the consequential loss of major fish habitat all across Canada," said biologist Otto Langer." CBC News, Politics, March 14, 2012.

"The act currently requires projects such as oil pipeline and road culvert construction to show their plans will preserve fish habitat." CBC News, Tech and Science, March 22, 2012.

"If you look at any list of endangered species and species in decline, you'll find that 80 per cent of them are declining because people have destroyed their habitat," said Schindler. CBC News, Tech and Science, March 22, 2012.

#### Alberta Water Act - 1999



#### Summary of Water Policy and Management of the Past

- Focus on infrastructure and resource allocation
- One Ministry with primary responsibility
- Most investment towards developing infrastructure for water management
- Rules-based approach
- Dependence on regulatory tools
- Government's role was that of a resource manager



## Water Act (1999)



- Governs HOW the Province manages water
- To promote the conservation and management of water, including the wise allocation and use of water
- Promote economic growth and prosperity
- Protection of existing rights
- Focuses on managing and protecting Alberta's water resources
   quantity AND quality
- Governs the diversion, allocation, and use of water



## Water Act (1999)



- Defines a "water" and "waterbody"
- Regulates and enforces actions that affect water and water use management, the aquatic environment, fish habitat protection practices, such as in-stream construction practices, and storm water management
- Does not distinguish between wetlands in the white zone and green zone
- Prohibits anyone from draining, altering or infilling wetlands on private or public land unless authorized to do so by the Province through an approval under the provisions of the Act



## Water Act (1999) con't



- Maintains the priority system of water allocation (FITFIR)
- Protects existing water licenses in good standing
- Protects existing traditional agricultural uses of water through a registration process allowing users to obtain a priority backdated to the date of first use
- Sets the requirement for a provincial water management planning framework
- Allows for the transfer of an allocation of water under a licence
- Prohibits export of Alberta's water to the United States
- Prohibits any inter-basin transfers of water between Alberta's major river basins, unless specifically authorized by the legislature



## Water Act (1999) con't



- Licences are no longer permanent
- Transfers of allocations of water are permitted
- Provision for "instream" allocations defined by Water Conservation Objectives"
- Recognizes household water use as a statutory right
- Traditional agricultural users were able to register their water use, do not require a license
- Water Management Plans to address regional water issues
- Provides a wide range of enforcement tools and water management tools



#### Alberta Water Act



#### Water Policy and Management of the Future?

- Focus on cumulative effects and shared governance
- Integration across government, environmental media and environmental, economic and social considerations
- Delivery through stakeholder engagement (not consultation)
- Investment in capacity-building and integrated information-sharing systems
- Full suite of regulatory and non-regulatory tools
- Government's role will be providing assurance on achievement of regulatory outcomes



#### Environmental Protection and Enhancement Act



- Supports and promotes the protection, enhancement, and wise use of the environment
- Covers a wide range of activities relevant to wetlands, including environmental assessment, reclamation, conservation easements, wastewater, storm drainage, and substance release
- Many produced water spills occur in wetlands throughout Alberta annually (ASERT)



## Public Lands Act



- Regulates and enforces on activities that affect Crown-owned beds and shores of water bodies and some Crown-owned uplands that may affect nearby water bodies
- Defines "body of water" (Surveys Act, MGA)
- The Crown in right of Alberta owns the beds and shores of all permanent and naturally occurring bodies of water including wetlands in the White Area, and all the land in the Green Area, including its wetlands, even if on private lands
- Separates wetlands into white (settled) and green (forested) zone areas

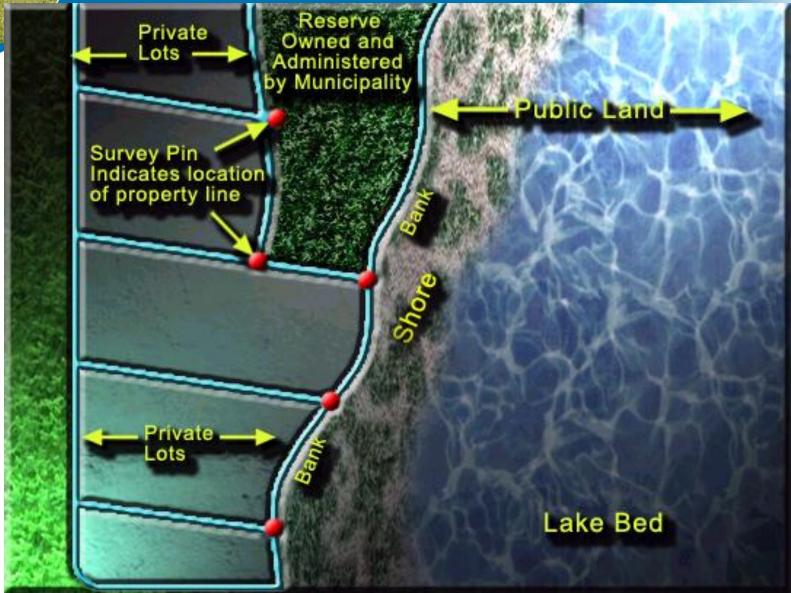


## White and Green Zones in Alberta

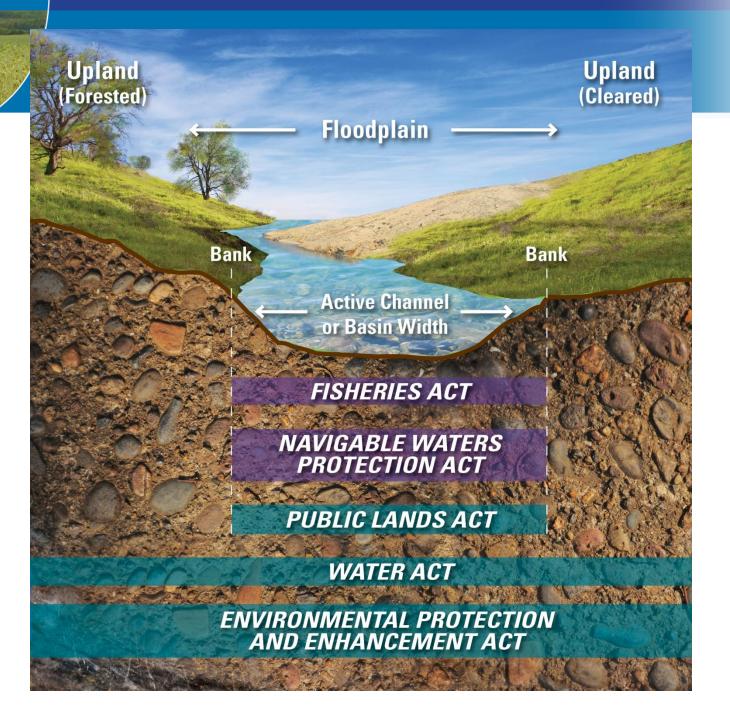












#### Agricultural Operation Practices Act (2002)



 Regulates and enforces on confined feedlot operation and environment standards for livestock operations

Regulates the impacts of manure storage and handling on water

quality





## **Regional Planning Commissions**



- Alberta had regional planning in place starting in the 1950's in response to tremendous population growth
- There were 10 regional planning commissions, including the Edmonton Metropolitan Regional Planning Commission
- Purpose was to provide a policy framework for municipal land use planning
- Later on, planning power was transferred largely to municipalities and away from centralized planning



#### Municipal Government Act (1998)



- The legal basis for the way local governments in cities, towns, villages, and rural areas operate in Alberta
- Provides municipalities with authority to regulate water on municipal lands, management of private land to control non-point sources, and authority to ensure that land use practices are compatible with the protection of aquatic environment
- Wetlands meet the definition of an Environmental Reserve in the Act
- Municipal land-use zoning, planning, and development tools within the Act can be used to prohibit or regulate developments that may negatively affect wetlands

