Alberta Wetland Policy: A Shift in Values

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Outline

- What is a wetland?
  - Definition
  - Importance of wetlands on the landscape
- Wetland Policy:
  - Challenges and limitations of the interim policy
  - A new wetland policy for Alberta
  - “Relative Wetland Value”
  - Wetland Mitigation System
  - The Management Framework
  - Supporting Tools and Points of Interest
  - Next Steps

What is a Wetland?

- “A wetland is land saturated with water long enough to promote formation of water altered soils, growth of water tolerant vegetation, and various kinds of biological activity that are adapted to the wet environment.”
- Highly diverse, productive ecosystems that provide a host of ecological services.
- Play an important role in sustaining healthy watersheds by:
  - protecting water quality
  - providing water storage and infiltration
  - providing habitat for wildlife, fish and plants, and sustaining biodiversity.
- Amongst the most biologically diverse habitats on earth.
- To date, Alberta has lost between 60 and 70% of wetlands within the White (settled) Area of the province. Losses are ongoing.

What is a Wetland?

Bog

Fen

Swamp

Marsh

Shallow Open Water

Current System Gaps

- Decision Makers:
  - Approach to wetland management is not clearly defined
  - Inconsistency in regulatory requirements/decisions
  - Lack a coherent set of provincial guidelines for regulators
- Developers:
  - Lack clarity, predictability, consistency in approvals processes
  - Growing uncertainty over future direction
  - Potential implications for future investment decisions
- Social License:
  - Perceived level of commitment to informed environmental management and responsible stewardship
  - Outstanding commitment under LARP
  - Perceived failure to address development pressures in the boreal

New Policy Context

- Outstanding commitment for delivery of a provincial-scale wetland policy (W4L Strategy, 2003)
- Context and direction set under the Land Use Framework
- Expectations for an integrated, comprehensive, consistent approach to wetland management (IRMS).
- To be effective from the date of implementation:
  - Will not apply to activities previously approved, projects in application at the time of policy approval, or to project renewals.
- To enable a balanced and informed approach to wetland management.
  - Environmental performance (provincial scale), based on an adaptive management system.

Stakeholder Engagement

- Alberta Water Council recommendations for a new provincial wetland policy (2008).
- “Wetlands – Policy Intent” (2010)
  - High level strategic policy document, based primarily on the Water Council Recommendations.
  - Stakeholders agreed with policy direction. Expressed need for clarity on:
    - Relative Wetland Value
    - Wetland Mitigation
- Relative Wetland Value Working Group (May – July, 2011)
  - Group of ~20 external stakeholder organizations that helped establish principles and criteria to guide development of a relative wetland value assessment system.
- Mitigation Working Group (September – November, 2012)
  - Principles and criteria to aid development of the wetland mitigation system.

Alberta Wetland Policy

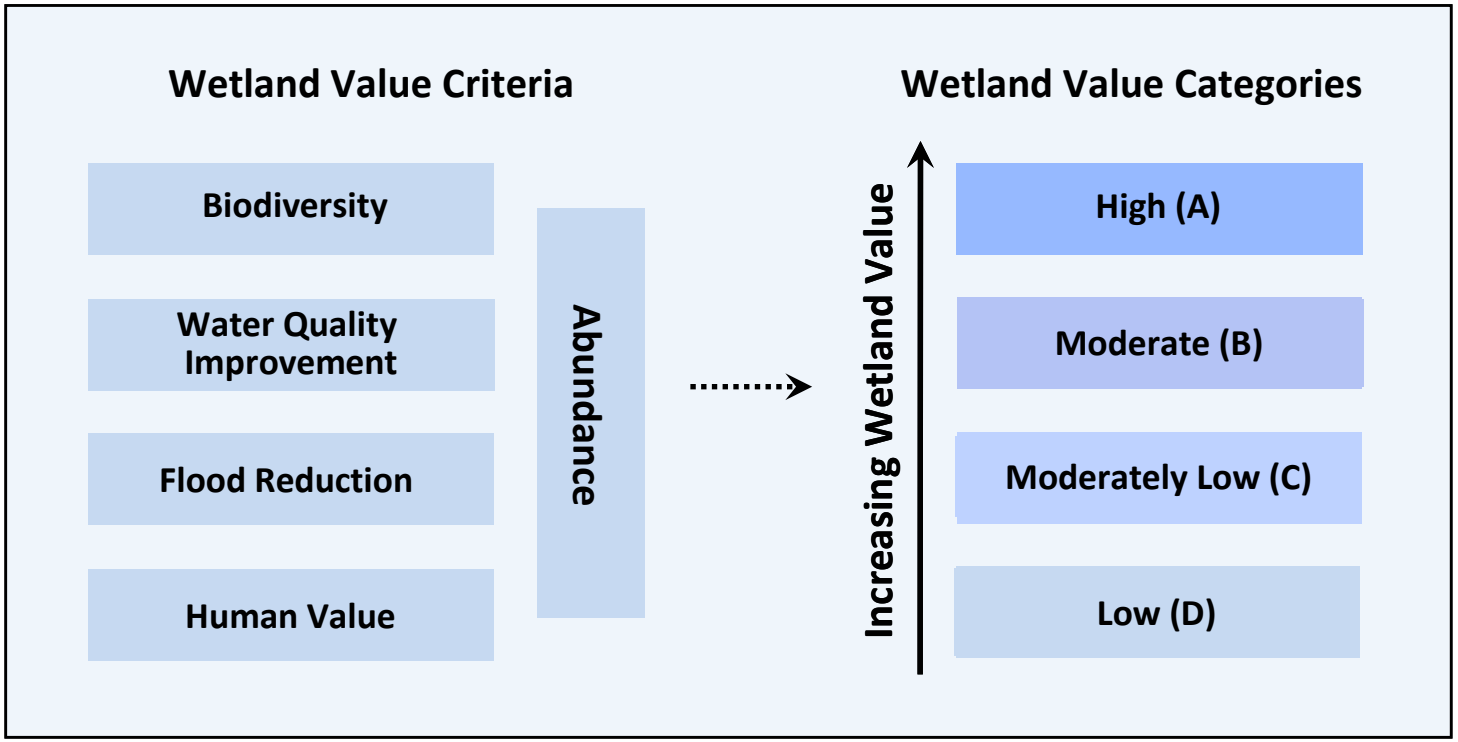
- Policy Goal:
  - To conserve, restore, protect, and manage Alberta's wetlands to sustain the benefits they provide to the environment, society, and the economy.
- Policy Outcomes:
  1. Wetlands of the highest value are protected for the long-term benefit of all Albertans.
  2. Wetlands and their benefits 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.

Relative Wetland Value

- Alberta's wetlands are highly diverse in form, function, use, and distribution across the province – they are not all of equal value.
- Relative wetland value – comprising wetland area, functions, benefits, and abundance – will be used to inform wetland management.
- Examples of wetland functions:
  - Biodiversity (#/diversity of species, rare/endangered species/critical habitat)
  - Water Quality Improvement (e.g., sediment, phosphorus, nitrogen retention)
  - Flood Mitigation
- Wetland benefits (human uses)
  - Education, recreation, cultural significance
- Potential to shift toward an ES-based approach in the future.

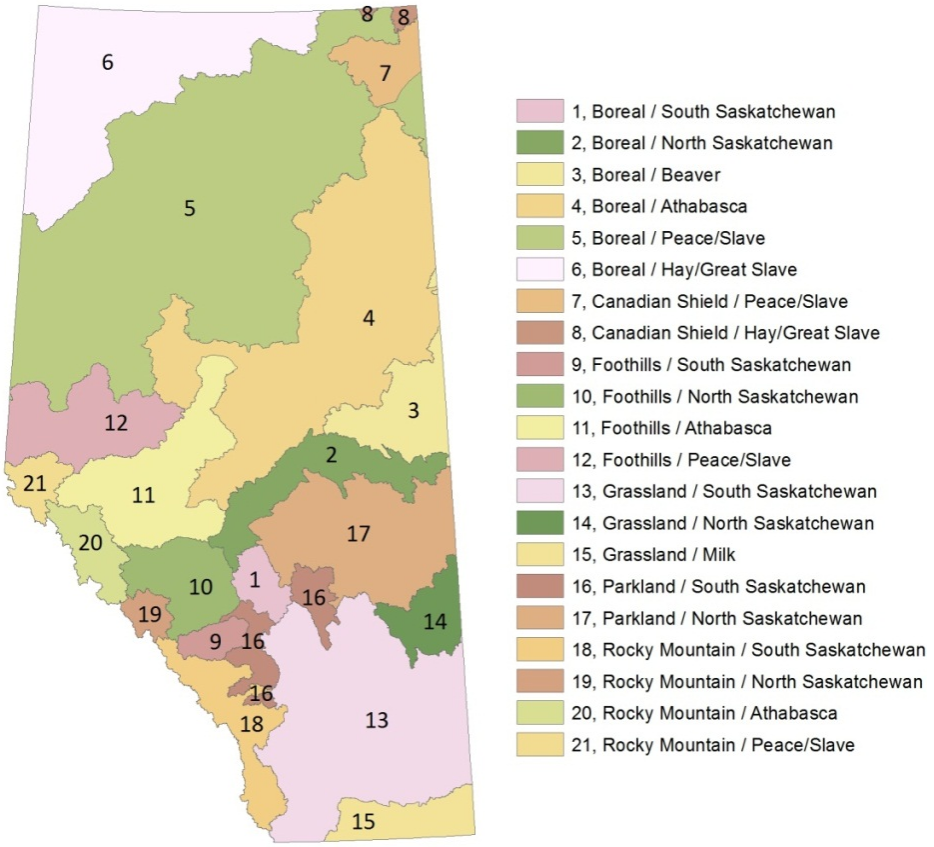
Relative Wetland Value

Wetlands will be assessed against the indicated criteria and assigned a relative wetland value of A (high), B (moderate), C (moderately low), or D (low).

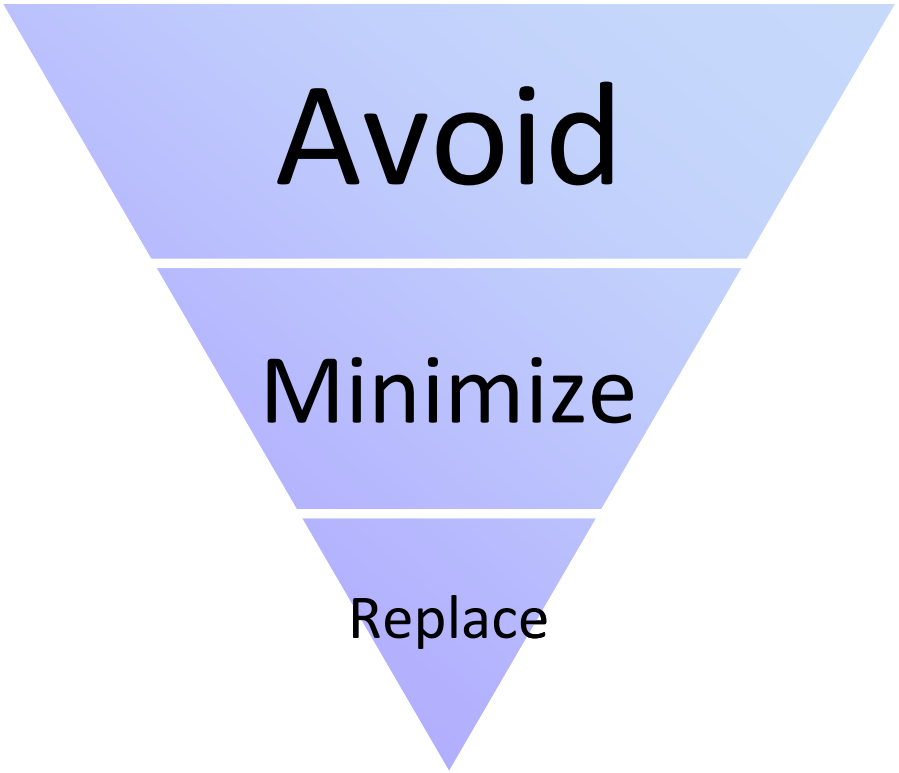


Relative Value Assessment Units

- Spatial constraint supports meaningful comparison of wetlands at the Class (bog, fen, marsh, etc.) level.
- Allows adjustment of individual metrics to reflect significance/priorities within a given area.
- In situations where replacement opportunities are limited, RWVAU support restoration opportunities or needs in other priority areas.



Mitigation System



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.

Wetland Replacement

- Replacement costs reflect relative wetland value – A (High) to D (Low).
- Majority of proponents will pay *in-lieu* fee, rather than engage in restoration (permittee-responsible).
  - Risks associated with restoration reflected in cost
- Replacement requirements focused on wetland restoration, but enable support for wetland research, education, securement:
  - System promotes wetland outcomes and continuous improvement.
- Ephemeral water bodies (Class I, S&K) will not be subject to wetland replacement requirements.

Wetland Replacement

- Wetland reclamation commitments, as established through reclamation plans, will help inform the determination of replacement requirements.
- Replacement will consider both restorative and non-restorative options, based on defined criteria.
- Replacement requirements enable and encourage innovation.
- Wetland replacement will be spatially prioritized.

Deriving Replacement

- Considerations
  - Reference point of 3:1, based on current area-based approach for the settled area.
  - Intent to shift from an area-based system to a value-based system.
  - Abundance is a key factor for some parts of the province
- Core Assumptions
  - Relative value will range from D (Low) to A (High).
  - Basal ratios expressed in terms of D-value wetlands.
  - Ratio construct will encourage/facilitate continuous improvement.
  - Flexibility in ratios, to facilitate evolution over time (reflecting advances in science and technology).

Replacement Ratios

The Wetland Replacement Matrix

Value of Lost Wetland	Value of Replacement Wetland: D	C	B	A
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

Cost of Replacement

***In-lieu* fees may be derived on the basis of:**

- **The average cost of wetland restoration work (established provincially).**
- **The cost of monitoring restoration success over the long term (established provincially).**
- **An administrative fee (established provincially).**
- **The average value of land *within the area of original wetland loss* (established locally).**
- **The cost of securing restored wetlands.**
- **Liability cost.**

Management Framework

- Mitigation System
  - Principles, criteria, and guidance documents to support project planning and activity-based management requirements, SOPs, COP
  - Opportunities for a Mitigation Bank
- Operational Components
  - Site-specific wetland assessment tool (minimize subjectivity, maximize consistency)
  - Explicit regulatory processes: guidelines, criteria, and standards to guide decision-making, development, and management
- Knowledge Systems
  - Alberta Wetland Classification System (common standard)
  - Provincial Wetland Inventory (complete, subject to continuous improvement)
  - GIS-Level Value Map (foundation for planning & management)
  - Databases, Web Portal

Of Interest…

- Constructed wetlands/storm water retention ponds
  - Not currently recognized as wetland replacement
  - To be recognized as partial replacement under the AWP, pending development of criteria and guidelines
- Qualified Wetland Aquatic Environment Specialists
  - Criteria, qualifications, and a certification system to support establishment of a community of QWSPs
- Certified Mitigation Agents
  - Development of criteria, qualifications, certification system, and registry for mitigation agents in the province
  - Municipalities, consultants, ENGO

Policy Implementation

- Working groups to develop operational components.
  - Technical
  - Governance/Economics
  - Regulatory Systems
  - Education/Outreach
  - Knowledge Systems
- Targeted engagement of appropriate stakeholders (external and cross-ministry).
- White Area implementation (August 2014)
- Green Area implementation (August 2015)

Alberta

Photo Credit: Clayton Spytz

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