Alberta Wetland Policy
Implementation:
The IRMS in Action
Environment and Parks
Outline

- Policy Context
- Wetland Policy Background
  - Goal and Outcomes
  - Relative Wetland Value
  - Wetland Mitigation Hierarchy
- Status of Implementation
  - White (Settled) Area
  - Green Area (Crown Lands)
  - Next Steps
- Key Learnings
- Partnerships
Alberta’s policy development process

THE PUBLIC

- Issue Identification
- Research and Analysis
- Options Development
- Decision Making
- Implementation
- Evaluation and Performance Measurement
- Consultation throughout the process

THE PUBLIC
Integrated Resource Management

- The means by which Alberta will achieve **responsible resource stewardship**.
- Broadly defined, incorporating the management, conservation and wise use of all resources.
- It is founded upon principles of cumulative effects management:
  - Knowledge based
  - Outcomes driven
  - Future focused
  - Comprehensive: considers many resource values
  - Place based flexibility
  - Collaboration
  - Adaptation and Continuous Improvement
Provincial Policy & Legislation

Lower Athabasca Regional Plan & Management Frameworks
(e.g., BMF, Tailings MF, Surface Water Quality, etc.)

Sub-Regional Plans
(e.g., LMP, Municipal, Caribou Range Plans, SAOS-SRP, IRPs)

Sectorial and Operational Plans
(e.g., Forest Management Plans, Recreation Management Plans, Water Management Plans)

Operational and Regulatory Decisions
(e.g., Project and Disposition Approvals)

Place-Based Rules & Decisions

Strategic Intent
## IRMS – Evolving Management Approach

<table>
<thead>
<tr>
<th></th>
<th>Past Approach</th>
<th>What’s Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assumption</strong></td>
<td>Abundance</td>
<td>Scarcity</td>
</tr>
<tr>
<td><strong>Environmental media</strong></td>
<td>Single</td>
<td>Air, land, water, biodiversity</td>
</tr>
<tr>
<td><strong>Spatial context</strong></td>
<td>Project / local</td>
<td>Multiple spatial scales</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Regulated activities</td>
<td>Consider all activities</td>
</tr>
<tr>
<td><strong>Approach</strong></td>
<td>Reactive</td>
<td>Proactive</td>
</tr>
<tr>
<td><strong>Results</strong></td>
<td>Mitigate impacts</td>
<td>Defined outcomes</td>
</tr>
<tr>
<td><strong>System organization</strong></td>
<td>Fragmented</td>
<td>Connected by outcomes</td>
</tr>
<tr>
<td><strong>Responsibility / participation</strong></td>
<td>Single agency / regulator</td>
<td>Collective action</td>
</tr>
<tr>
<td><strong>Performance measurement</strong></td>
<td>Ad hoc</td>
<td>Integral to system</td>
</tr>
</tbody>
</table>
IRMS and Wetland Policy

Reporting against provincial goals as well as regional performance, Reporting of Responsible Development

Monitoring and Reporting: Monitoring Agency, Transparency, Public Awareness

Provincial Scale Wetland Policy: Shift to value (ecosystem services); use of offsets

Provincial base with: flexibility for regional planning / outcomes and integrated policy (air, land, water biodiversity)

Consistent Rules: AER / ESRD, regional planning foundation
Regional Planning

- addressing the sum total of all development activities affecting the environment
- planning horizon of at least 50 yrs, updated on a 5-yr cycle
- clearly define desired outcomes for the region
- Outcomes reflect a balance of economic, environmental and social interests
- set thresholds to manage cumulative effects, recognizing airsheds, watersheds and landscapes are not limitless
- identify strategies and proactive actions to achieve outcomes
- identify monitoring and reporting strategies
[Water] Policy Context

- Water Conversation (2013) – What we discussed...
  - Desire to see increased requirements for water conservation and groundwater protection
  - Concern around enforcement of current standards, let alone new requirements

- Growing focus on standards and enforcement
  - Protection of water, air and land

- Integrated management; Cumulative effects based
  - Landscape focus, economic/environmental/social lens
  - Good governance - regulatory, monitoring, policy bodies
  - Effective planning – regional and sub-regional planning

- Meaningful engagement of Aboriginal Peoples
Legislative Context

• Water Act:
  – Under the provincial *Water Act*, the property in and right to diversion and use of all water is vested in the Province
  – Enabling legislation for the Alberta Wetland Policy, not affected or altered by the Policy

• Public Lands Act:
  – Title to the beds and shores of:
    a) all permanent and naturally occurring bodies of water
    b) all naturally occurring rivers, streams, watercourses and lakes, is vested in the Crown in right of Alberta
  – Permanent and semi-permanent (class 4 and 5) marsh wetlands may be claimed by the Crown
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:
  – protecting water quality
  – providing water storage (flood/drought resistance) and infiltration
  – providing habitat for wildlife, fish and plants, and sustaining biodiversity

• To date, Alberta has lost between 60 and 70% of wetlands within the White (settled) Area of the province. Losses are ongoing → peatlands matter.
What is a Wetland?

Bog

Fen

Swamp

Marsh

Shallow Open Water
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

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

Wetland Value Criteria

- Biodiversity
- Water Quality Improvement
- Flood Reduction
- Human Value

Wetland Value Categories

- High (A)
- Moderate (B)
- Moderately Low (C)
- Low (D)
Wetland Mitigation Hierarchy

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.
Phase 1:
White Area Implementation

- White (settled) Area Implementation on June 1, 2015.
- Wide range of science-based operational tools completed and active:
  - Wetland inventory and map of estimated relative wetland value
  - Actual relative wetland value tool (site-level assessment)
  - Key guidance (clarity, consistency, predictability in process):
    - Alberta Wetland Classification System
    - Wetland Mitigation Directive
    - Wetland Identification and Delineation Directive
    - Wetland Assessment and Impact Report Directive
    - Wetland Administrative Procedures
    - Wetland Application Checklist
Phase 2: Green Area Implementation

- Planned for June 1, 2016
- Key items under development:
  - Expanded map of estimated relative wetland value
  - Updated assessment tool for actual relative wetland value (site-level assessment) of boreal wetlands
  - Revision of existing White Area tools and systems (directives and guidance documents) to reflect Green Area challenges:
    - Wetland management on Crown Land
    - Peatland management, given operational challenges and extensive coverage
    - Increased role of broader legislative context (EPEA, Public Lands Act, Water Act, ALSA) in wetland management, particularly for large-scale, multi-year projects
Next Steps

• **Key items nearing completion:**
  – Wetland Restoration Design Protocol (Offset System)
  – Competencies to define a practice standard for Qualified Wetland Science Practitioners in Alberta:
    • Collaboration with Professional Regulatory Organisations in the province (the “PRO 10”)
    • Enables professional sign-off on regulatory applications and wetland replacement projects

• **Key items under development:**
  – Provincial wetland replacement fund
    • Centralised repository for collection and reallocation of wetland replacement monies
  – Certification process for wetland replacement agents to act on behalf of the province (consultants, ENGO, industry, municipalities)
  – Wetland science agenda for the Province
Next Steps

• Outstanding Items:
  – Best management practices for low impact activities taking place in wetlands (no area or function lost)
    • Infrastructure maintenance
    • Power distribution lines
  – New or updated Codes of Practice for consistent, predictable, and readily mitigated wetland impacts:
    • Power transmission lines
    • Pipelines
    • Installation and removal of temporary structures:
      – Resource roads
      – Well pads
  – Offset protocols for wetland construction and wetland securement
Key Learnings

• Ongoing challenge of stereotypes:
  – Anthropocentric view typically favours biodiversity function (permanent water, cattails, waterfowl)
    • Relative value balances functions equally – hydrology highly important in many ways
    • Temporary and seasonal wetlands are often rated higher than semi- and permanent. Ongoing communication challenge for landowners, developers, and regulatory staff
    • EDUCATION will be critical to necessary cultural shift and future success of the policy

• Need for continuous improvement and stakeholder relationships:
  – Glitches in new tools and systems are inevitable
  – Implementation partners (particularly consultants) have been invaluable in exposing minor issues with tools
  – Avenues for reporting and tweaking must be maintained
Key Learnings

• Ongoing practices and cultural hurdles:
  – Public perceptions of wetlands as wasteland and hindrance to development and progress persist
  – Continued promotion of ‘straight lines’ (tilling/seeding), ditching, and tile drainage in the agricultural sector
  – Incomplete understanding of regulatory accountabilities under the provincial Water Act:
    • Landowners
    • Some more rural municipalities

• Ongoing importance of partnerships and collaboration toward achievement of policy outcomes:
  – Prioritization and achievement of wetland conservation/protection and restoration objectives best realized through communication and collaboration with partners…
Partnerships

- Land use planners and land managers critical to broader policy success:
  - Municipalities
  - Watershed Planning and Advisory Councils
  - Watershed Stewardship Groups
  - Regional and sub-regional planners (AEP)

- Wetland assessment tools designed to support risk management and land use planning:
  - Functional prioritization:
    - Flood/drought mitigation
    - Groundwater recharge/discharge
    - Biodiversity/species at risk
    - Water quality issues
  - Informs conservation/protection priorities, and supports identification of wetland restoration opportunities/needs
Partnerships

• **Policy Outcome 4 – Wetland management considers regional context:** 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 (e.g., environmental reserve) and Bylaws
  – Alberta Land Stewardship Act

• AEP has initiated discussions with various partners to explore avenues of communication and collaboration:
  – E.g., Municipalities, WPACs, North American Waterfowl Management Plan, AUMA, AAMDC
  – Inventories of wetland restoration opportunities and needs
  – Inventories of conserved/protected wetlands
Thank You!