

Water Management in Alberta: *Ensuring Sustainable Water Supply*

Alberta Environment and Sustainable Resource Development
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Outline

- Overview
- IRMS Context
- Water Conversation Themes using an IRMS Lens
- Close

Integrated Resource Management

- *Integrated and comprehensive approach to decision making that looks at the whole picture*
- *Balance environment, economic and social impacts*
- *Ensuring our solutions today don't become the problems of tomorrow*



Key System Components

- **Integrated Policy**
- **Regional Planning**
- **Regulatory Enhancement**
- **Provincial Monitoring Agency**
- **Aboriginal Engagement**

The Water Conversation: *Context*

- Province is growing
 - Population growth
 - Economic growth
- Placing new and changing demands on water supplies
 - Water for communities to support their goals
 - Water for agriculture to meet global demand for food
 - Water for energy development to meet global demands for energy supplies
 - All supported by healthy aquatic ecosystems
- Need to prepare for this, and consider enhancements that might be required to our water management system
 - Goal: Ensure water resources will meet the needs of our environment, economy and people in decades ahead

The Water Conversation: *Topics*

- Based on advice and input received through other processes, four areas emerged as priorities:
 - Healthy lakes
 - Hydraulic fracturing and water
 - Drinking water and wastewater systems
 - Water management
- Conversations focused on these four topic areas
 - Background and major issues set out for each
 - Proposed directions identified
 - Participants asked for their input and feedback

Integrated Policy *and* Water (1)

Take a system-based approach to consideration of water needs and policy actions

- Watershed based planning
 - Requires clarity of governance
 - Support for water optimization
 - Contributes to healthy lakes
- Source Water Protection
 - Part of overall water management, however, also an element of assurance for clean drinking water
- Ecosystem Base Flow
 - To support allocation decisions (minimum system needs)
- Play-based approach
 - Resource development through collaboration in an area to reduce footprint (considers cumulative effects)

Integrated Policy *and Water* (2)

Take a system-based approach to consideration of water needs and policy actions

- Optimization
 - System management of water to promote optimum use, including effective utilization of storage
 - Promotion of re-use and recycling
 - Consideration of climate change (drought and flood)
- Water conservation
 - Build from conservation, efficiency and productivity plans
 - Incorporate conservation into the system management
- Water transfers
 - Common criteria and transparency, respect of intent of transfer system
 - Support for sustainable municipal growth

Regional Planning *and Water*

Apply provincial direction to regional circumstances

- LARP
 - Finalization / Updates of frameworks (Groundwater Quality and Quantity, SWQF Phase 2, Tailings)
- SSRP
 - Quality framework
 - Consideration of connecting Water Conversation items for quantity
- ...NSRP
 - Quality framework
- Water items in subsequent plans
 - Hydraulic fracturing on quality / quantity; in-situ and saline use
- Greater regional collaboration for drinking water and wastewater

Regulatory Enhancement *and Water*

Creating stronger policy assurance by decoupling operations (energy regulator) from policy (government)

- Hydraulic fracturing directives
 - Fracturing fluids and water use reporting, source water reporting
- Baseline waterwell testing
- Public education relating to the activity and risks
- Play-based approach
 - Resource-based management fence

Provincial Monitoring *and Water*

Create a common approach to monitoring, and strengthen assurance of data and reporting through independence

- Monitoring of lakes
 - Supports increased awareness of the state of lake health and contributing factors
- Monitoring and reporting of hydraulic fracturing activities
 - Water use, etc
- General support for education and awareness

Aboriginal Engagement *and Water*

Ensuring effective Aboriginal engagement and considering of the full range of interests and concerns

- Consideration of traditional use in management frameworks
 - Part of the consideration of protected water
- Evolving role of federal government and rules
 - Drinking water / wastewater oversight
- Consideration of future water requirements, in line with provincial system, but with respect to unique needs and circumstances

Water Conversation: *Long-term Direction*

- Healthy Lakes
 - Fully implement a provincial lakes framework including clarified roles, responsibilities, and a decision-making system
- Hydraulic Fracturing and Water
 - Adopt play-based and regional approaches to hydraulic fracturing providing assurance that water supply and quality is safe and secure
- Drinking Water and Wastewater
 - Develop options for provincial level governance and funding schemes that will continue to respect regional differences and allow for flexibility
- Water Management
 - Optimize the water management system by taking actions on the water demand and supply sides, clarifying governance, and providing overall system clarity

Water Conversation: *Next Steps*

- Incorporate validation feedback into report and actions (fall)
- Seek government approval of report release and actions where required (fall/winter)
- Actions will have different scales and timelines
 - Take immediate actions where feasible
 - Continue dialogue with stakeholders and public for further input and policy exploration
 - Seek government approval when policy options are ready