



Freedom To Create. Spirit To Achieve.

Alberta's Cumulative Effects Management System

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**Government
of Alberta** 

Context

- **Government commitment to cumulative effects management**
- **Land-use Framework**
 - integration of environmental, economic and social objectives
 - regional planning
- **Other strategic directions of the Government including *Water for Life* Strategy, Clean Air Strategy**
- **Continuous improvement, building on successes, addressing challenges for the future**

The Shift

YESTERDAY:

- Paradigm of abundance;
- Project-by-project regulation / allocation according to incremental effect;
- Focus on preventing adverse effects;
- Cumulative effects assessment of major projects an add-on;
- Cumulative effects of smaller projects and non-regulated activity largely unaddressed;
- Existing system cannot keep up

TODAY!

TOMORROW:

- Paradigm of scarcity;
- Regulation / allocation in context of overall capacity;
- Focus on achieving desired outcomes;
- Considers all contributors to achieving desired outcome;
- Management action in response to where we are relative to desired outcomes.

Principles

- **Outcomes/results-based;**
- **Risk-based; focusing greater resources and efforts on higher-risk environmental impacts;**
- **Considers health, economics and social values**
- **Implemented/delivered using a place-based approach and a broader set of tools;**
- **Collaborative, involving many parties and sectors;**
- **Adaptive, with mechanisms built in to allow flexibility and assure achievement of outcomes.**

Cumulative Effects Management System



Management Actions

STRATEGIC DIRECTION

- Legislation
- GoA and Ministry Business Plans
- Provincial Level Strategic Policies



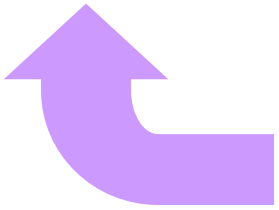
DEVELOP & REFINE OUTCOMES & STRATEGIES

- Regional Strategic Assessment
- Place-Based Planning
- Indicator Selection
- Operational Policy/Strategy
- Management Frameworks

DELIVERY

- Tools: EIAs, Authorizations, Compliance Assurance, Non-Regulatory
- Monitoring, Data Management,
- Emergency Services

EVALUATE & REPORT PERFORMANCE

- Environmental indicators and their implications
 - Effectiveness of strategies and their delivery
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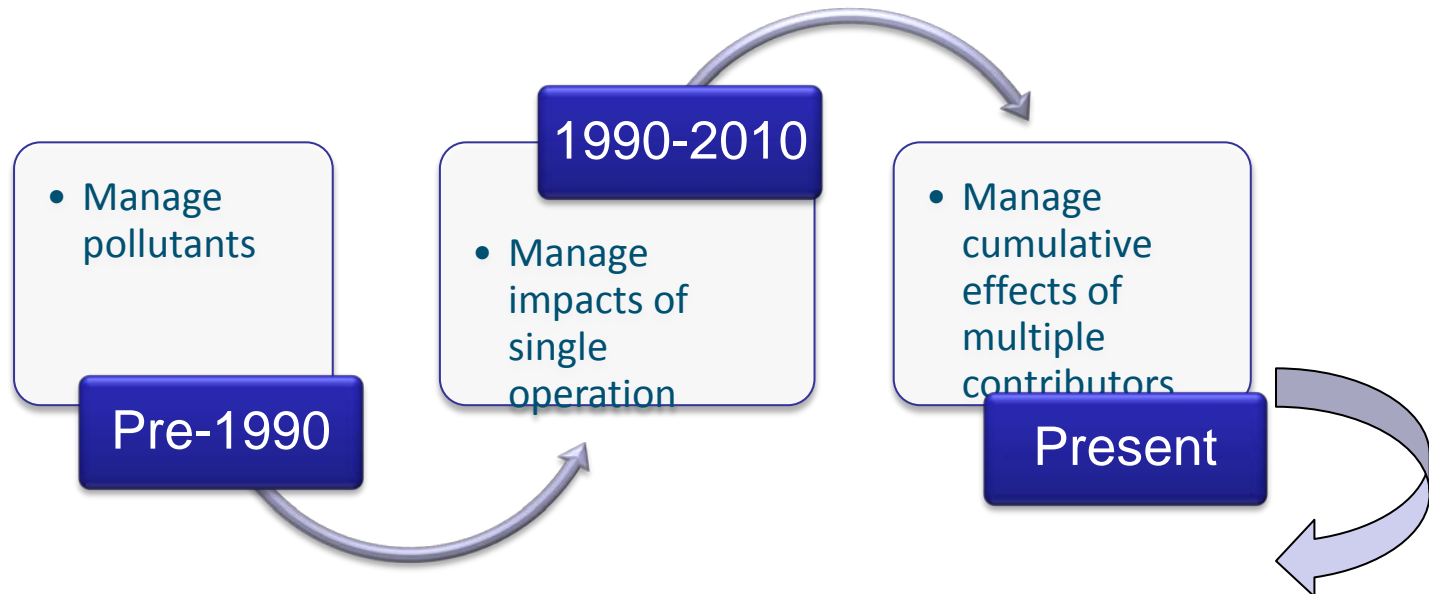
Focus for Alberta Environment & Water

- **Knowledge and Performance Management**
- **Delivery System**
- **Management Frameworks**
- **Collaboration**

Knowledge & Performance Management

- **Assessment**
 - baseline; scenario planning; social and economic considerations, outcomes and indicators selection
- **Monitoring**
 - integrated planning; roles/responsibilities; sustainable resourcing
- **Assurance**
 - quality assurance; quality control; policy
- **Evaluation**
 - condition; pressure; response; performance
- **Reporting**
 - transparency; regulatory certainty; various audiences
- **Data Management**
 - collection; retention; integrity; security; accessibility; infrastructure)

Delivery System Enhancement



- Broadening the range of **regulatory and non-regulatory mechanisms**
- Promoting **regulatory excellence** through effectiveness and efficiency

Delivery System Enhancement

- Strengthening **flexibility and responsiveness** of our tools
- Incorporating **performance-based approaches** to incent/reward stewardship
- Pursuing compliance assurance through **education, prevention and enforcement**, with place-based considerations
- Managing **clusters of activities** involving multiple parties

Management Frameworks

- Key approach for cumulative effects management
- Provide regional context for decisions about management of existing and future activities
- Build on existing environmental policy, legislation and regulation

Management Frameworks

Regional Objectives and Indicators

- Place-based objectives within the context of provincial policy
- Indicators to provide information on achieving objectives

Management Frameworks

Triggers and Limits

- Limits as “boundaries” in the system
- Triggers as “warning signals” in the system

Management Frameworks

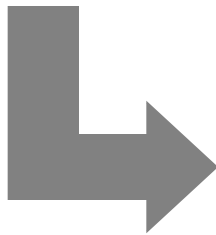
Monitoring, evaluation and management responses

- Monitoring system
- Regular evaluations
- Management responses if triggers or limits exceeded

Management Frameworks

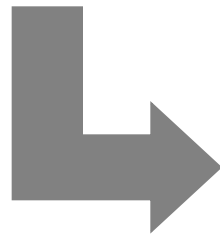
Indicators,
Triggers
and Limits

- Indicators are chosen
- Triggers & limits are set



Monitoring
and
Modelling

- Ongoing monitoring and assessment of conditions relative to triggers & limits



Management
Response and
Reporting

- Management actions taken as needed at triggers & limits
- Results reported

Air Quality – Management Response

Level	Examples of Management Actions - Air
4	Implement emission reductions: restrict further emission sources, approval amendments, enforcement orders
3	Identify pressures, implement actions as required: review emission requirements, implement by-laws, emission reduction opportunities
2	Improve understanding – review monitoring, review of current and future development, plan
1	Standard regulatory approaches, best practices, continuous improvement, policies

Management Frameworks – Status

- **Drafts complete and available:**
 - Air Quality Management Framework for the Lower Athabasca Region
 - Surface Water Quality Management Framework for Lower Athabasca River
- **Approved approach with triggers and limits to be developed:**
 - Groundwater Management Framework for the Lower Athabasca Region
- **Commitment to:**
 - update the water quality management framework for the Lower Athabasca River by 2012
 - develop a biodiversity management framework for the Green Area and land disturbance plan for the region by 2013

Collaboration

- Collaboration is a fundamental tenet of CEMS and partnerships are a key delivery mechanism
 - Provide greater clarity of roles for government
 - Provide greater clarity of roles for delivery partners (e.g., WPACs, airsheds, industry, municipalities etc.)
- Greater integration between and amongst provincial ministries and with other jurisdictions is necessary



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Questions, Comments, Discussion

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