



# Cumulative Effects Management

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Pacific NorthWest Economic Region  
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# Presentation Overview

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- **Setting the Context**
- **Integrated Outcomes**
- **‘Smart’ Delivery**
- **Performance Measurement**
- **Oil Sands Region**

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# Setting the Context

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# Approach

## YESTERDAY:

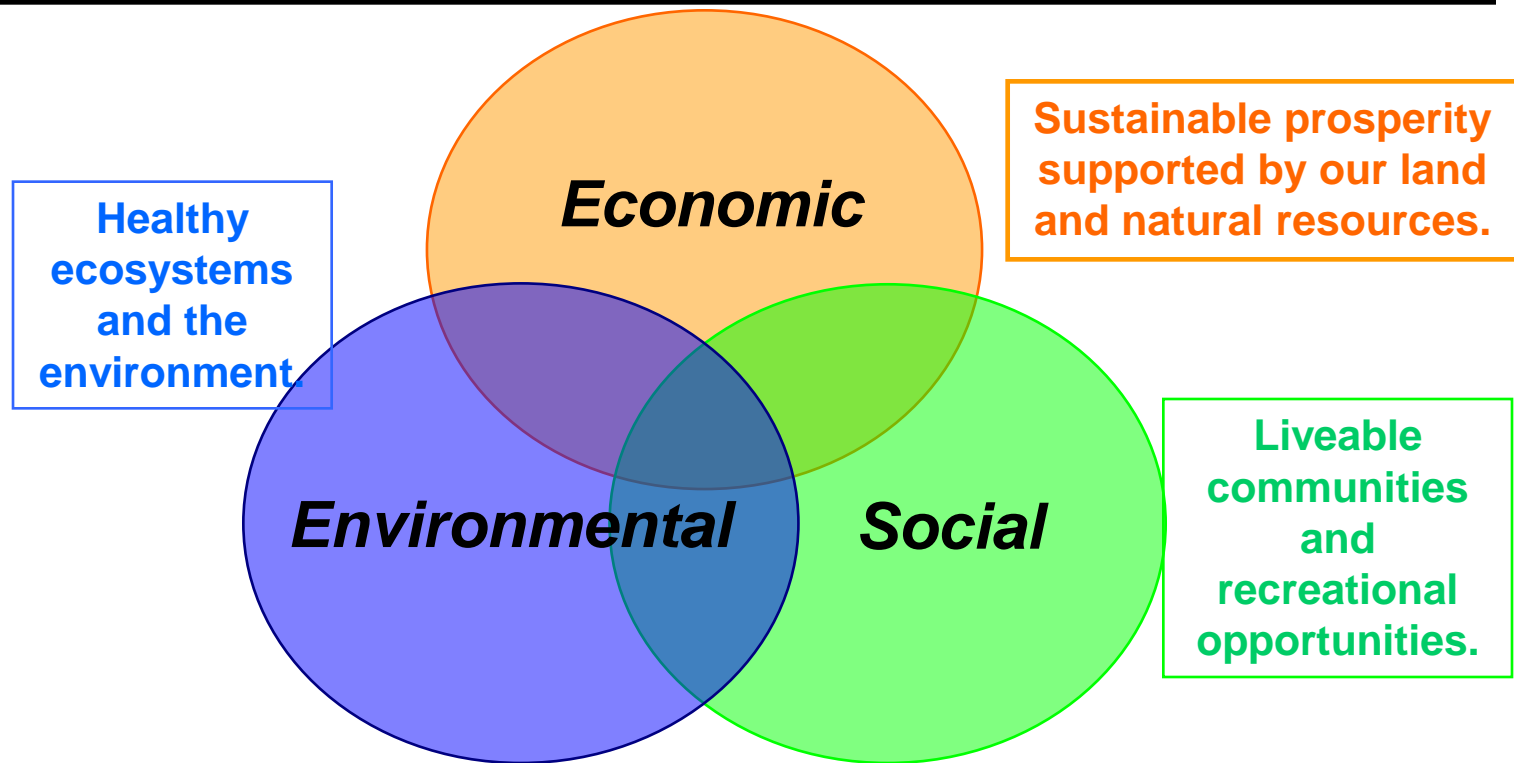
- Project-by-project regulation / allocation according to incremental effect;
- Focus on preventing adverse effects;
- Cumulative effects assessment of major projects an add-on;
- Cumulative effects of smaller projects and non-regulated activity largely unaddressed;
- Existing system cannot keep up

## TODAY!

## TOMORROW:

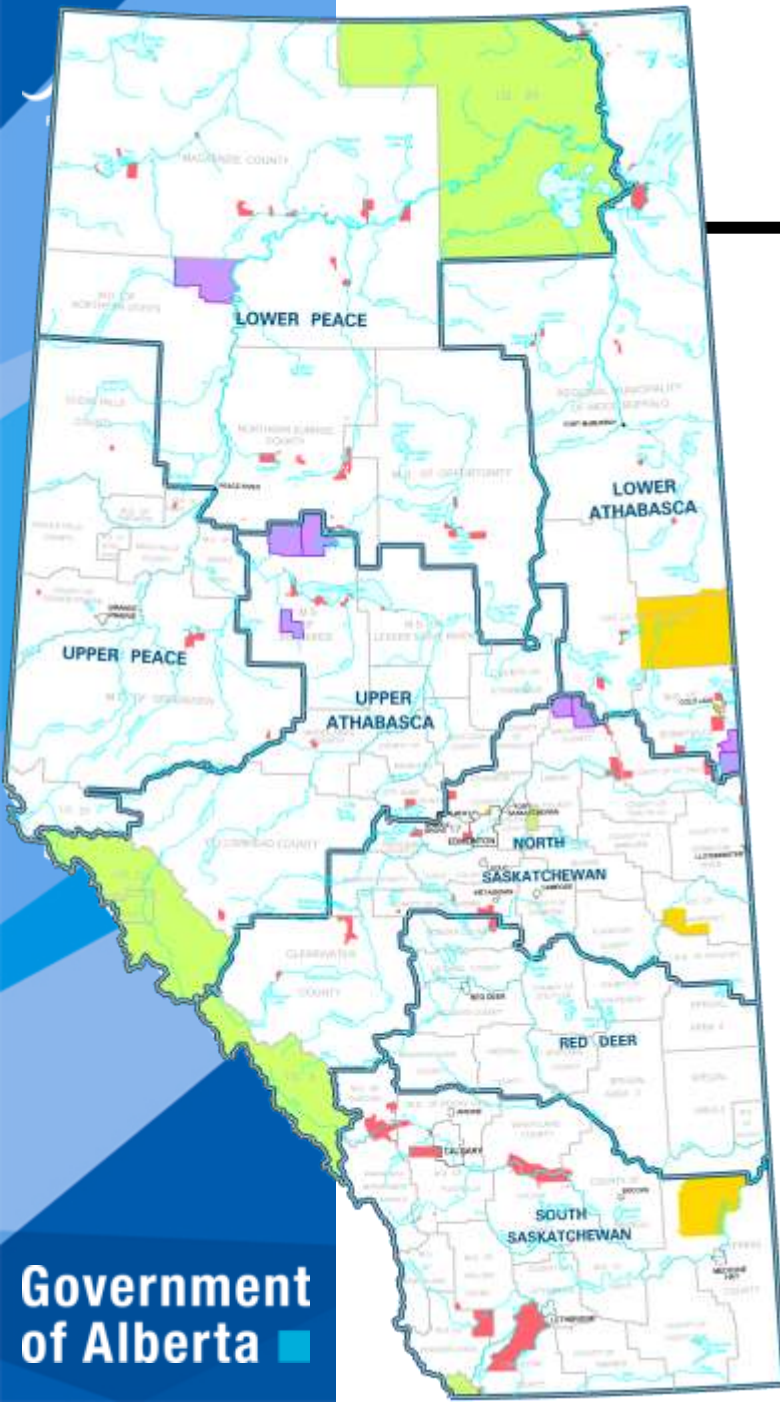
- Regulation / allocation in context of overall capacity;
- Focus on achieving desired outcomes;
- Considers all contributors to achieving desired outcome;
- Management action in response to where we are relative to desired outcomes.

# Land-Use Framework



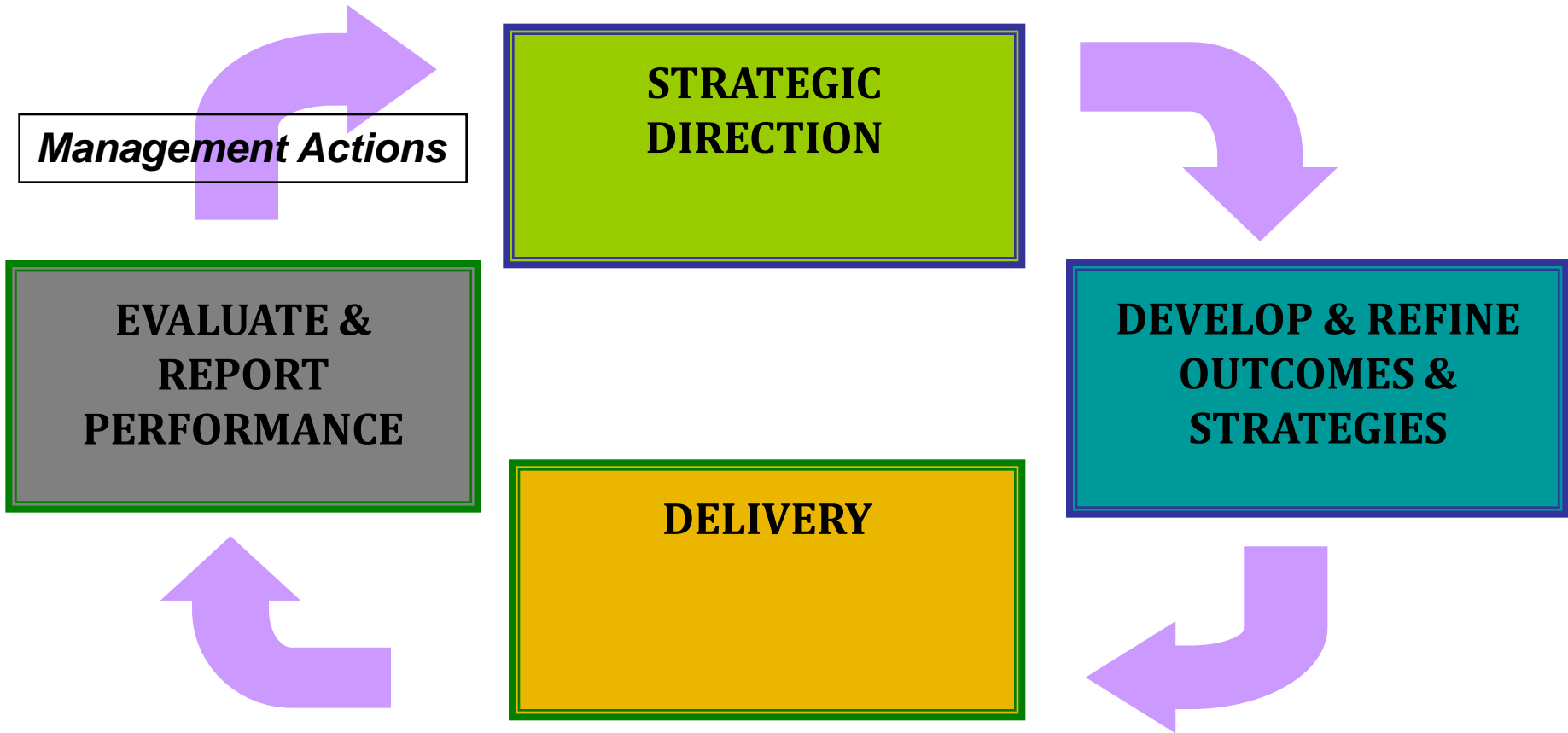
- \*Balances social, economic, environmental considerations;
- \*Provides provincial leadership for sustainable development;
- \*Heightens integration and coordination of provincial policy;
- \*Encourages stewardship and conservation;
- \*Offers increased certainty.

# LUF Strategies



1. Seven new land-use regions
2. Land-use Secretariat and Regional Advisory councils for each region
3. Cumulative effects management at the regional level
4. Strategy for conservation and stewardship on private and public lands
5. Efficient use of land
6. An information, monitoring and knowledge system
7. Inclusion of Aboriginal peoples in land-use planning

# Cumulative Effects Management System



## CEMS Fundamentals:

**Outcomes Based; Place Based; Performance Management Based;  
Collaborative; Comprehensive Implementation.**

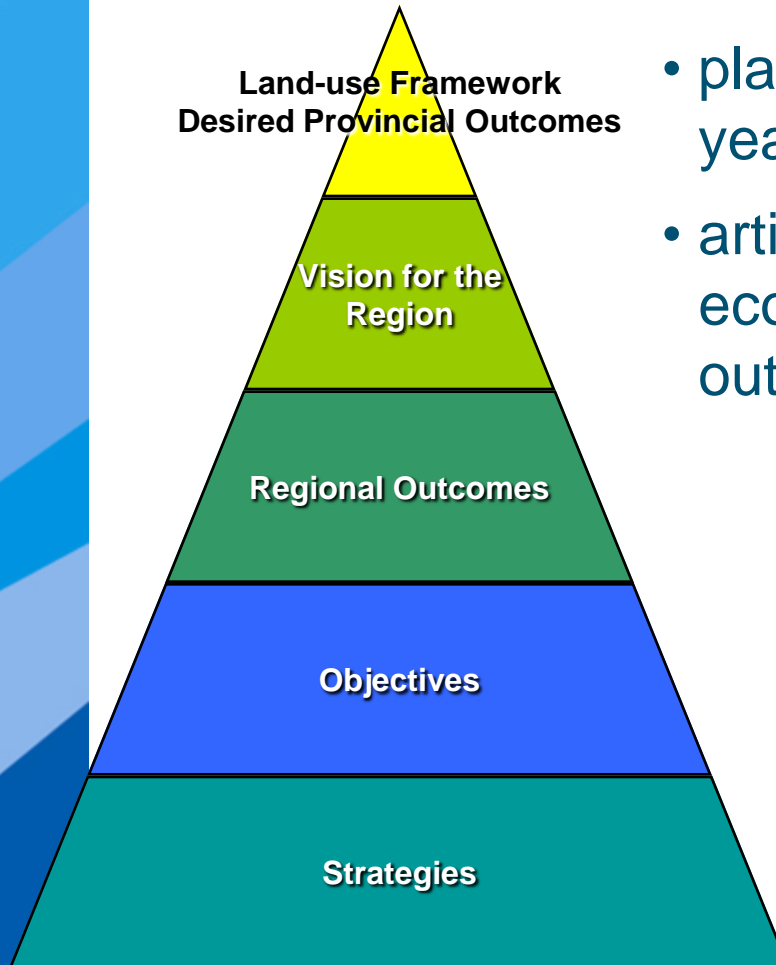
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# Integrated Outcomes

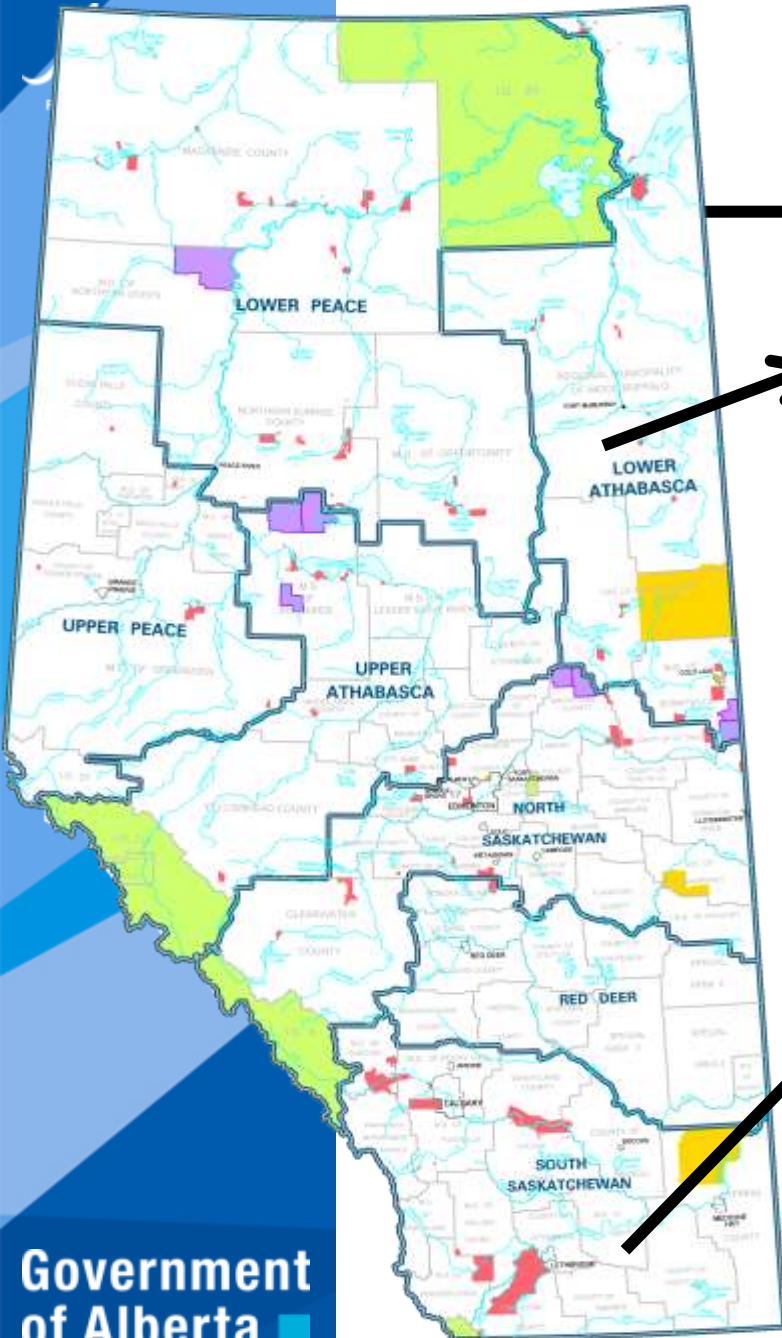
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# Regional Planning



- planning horizon of at least 50 years, updated on 5-yr cycle
- articulates desired social, economic and environmental outcomes for the region
  - sets thresholds to manage cumulative effects, recognizing that airsheds, watersheds and landscapes are not limitless
  - identifies strategies and actions to achieving outcomes
  - identifies monitoring and reporting strategies

# Regional Planning



- **Lower Athabasca**

- Currently being finalized
- economic diversity
- recreation and tourism areas
- conservation areas
- management frameworks

- **South Saskatchewan**

- Under development

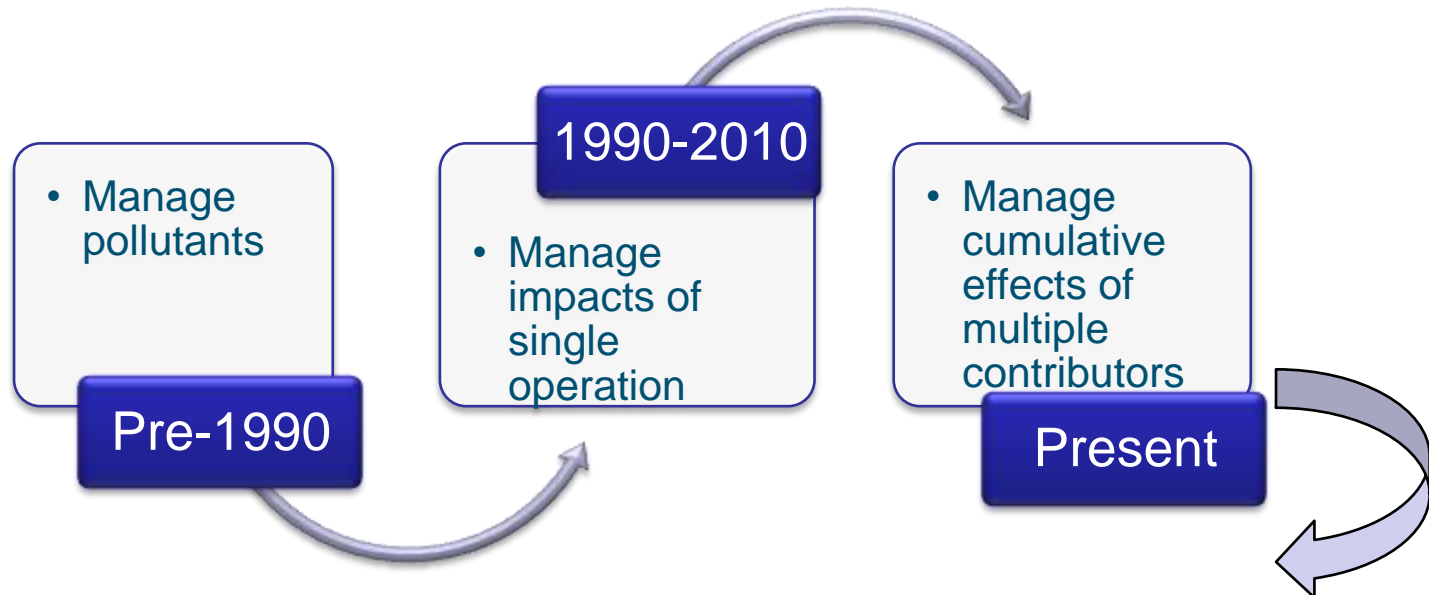
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# 'Smart' Delivery

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# Delivery System Enhancement



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

# Delivery System Enhancement

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- Strengthening **flexibility and responsiveness** of our tools
  - outcomes-based authorizations
  - continuous improvement
  - management actions taken when specified conditions are reached
  - adaptation based on evaluation results
- Incorporating **performance-based approaches** to incent/reward stewardship

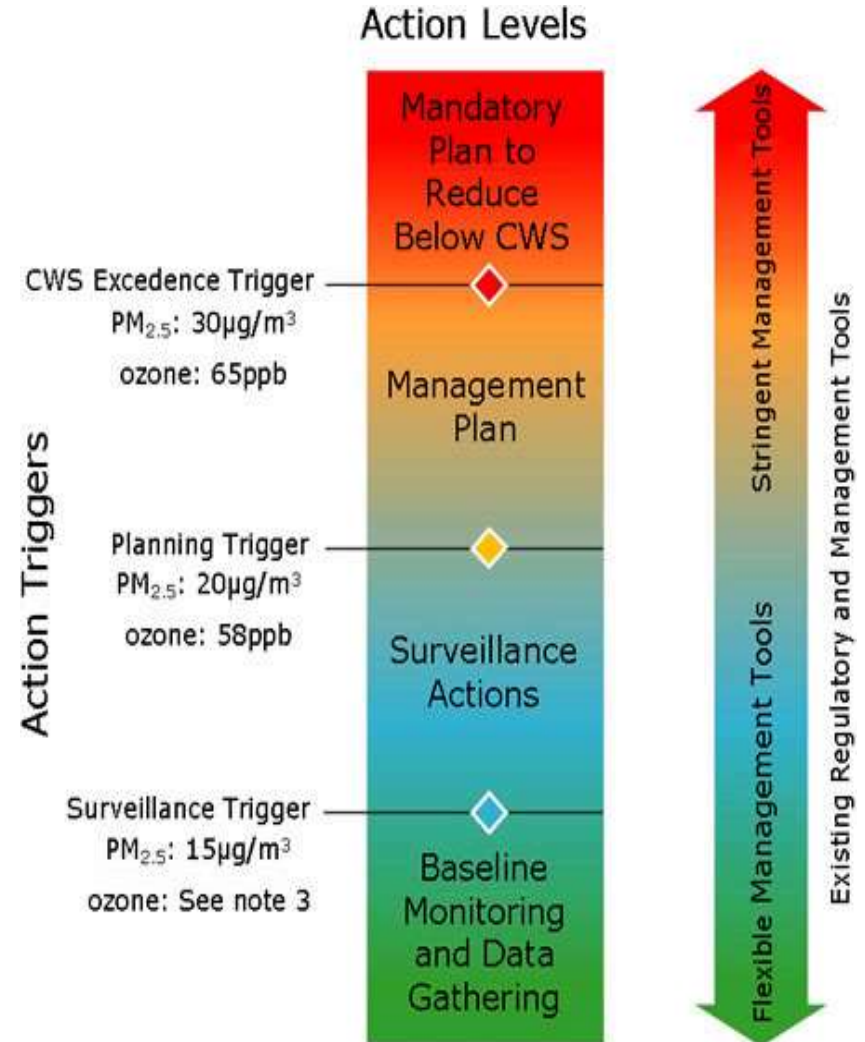
# Delivery System Enhancement

- Pursuing compliance assurance through **education, prevention and enforcement**, with place-based considerations
- Managing **clusters of activities** involving multiple parties
  - key mechanisms under development



# Management Frameworks

- Collaborative approach to establish desired outcomes and objectives
- Progressive action based on conditions found in the environment; trigger points
- Identified integrated management actions at trigger points
- Full range of information, incentive, and regulatory tools for implementation
- Intensity of management actions increases to respond to the state of conditions and levels of risk



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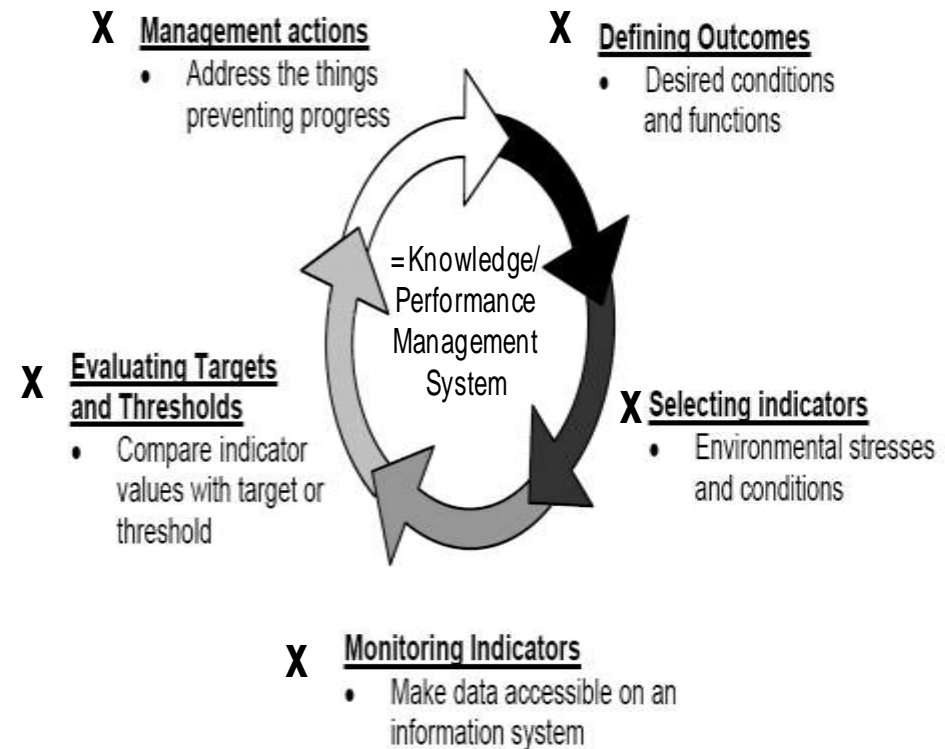
# Performance Measurement

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# Performance Measurement

- Assessment
- Monitoring
- Assurance
- Evaluation
- Reporting
- Data Mgmt

## 5 Functions:



# Monitoring, Evaluation, Reporting

Goal: Development of a world class environmental monitoring system for Alberta



- **Governance**

- **Scientific Oversight**

- **Data Management**

- **Funding**

- **Working with Others**

# Cumulative Effects Mgmt: Oil Sands Region

# Oil Sands Region



**Air Quality  
Management  
Framework**

**Surface  
Water Quality  
Management  
Framework**

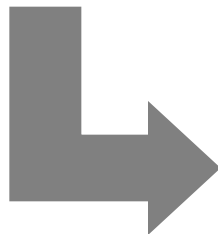
**Groundwater  
Management  
Framework**

# Management Frameworks

- Provides regional context for decisions about management of existing and future activities

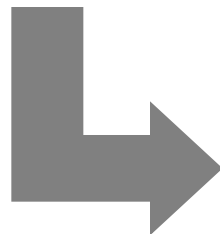
Indicators,  
Triggers  
and Limits

- 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

# In Summary

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- Outcomes/results based
- Risk based - focusing greater resources and efforts on higher risk activities
- Considers health, economics and social values in environmental decisions
- Implemented using a place-based approach
- Collaborative - involving many parties and sectors
- Adaptive - mechanisms allow flexibility and assurance of outcomes

# Building the bridge...

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**“When we commit to a vision to do something that has never been done before, there is no way to know how to get there. We simply have to build the bridge as we walk on it.”**

**~ Robert E. Quinn**

***Building the Bridge As You Walk On It: A Guide for Leading Change***

**A bridge like no other...**



**Tallest in the world...**



**Photo credit:  
Roland Nizet**

# Longest cable-stayed bridge in the world...



Photo credit:  
Daniel Lavabre

# They said it couldn't be built...



- ...survived landslides
- ...fought winds of 130 km/h
- ...weathered storms
- ...pushed the boundaries of engineering

# A bridge to the future...

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**“The past went that-a-way. When faced with a totally new situation, we tend always to attach ourselves to the objects, to the flavor of the most recent past. We look at the present through a rear view mirror. We march backwards into the future.”**

**~ Marshall McLuhan**

**Rather than marching backwards into the future, let's build the bridge to the future!**

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**Thank You!**

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