

# Crown of the Continent Ecosystem

- Large, intact ecosystem
- High profile setting
- Unique attributes
- Peace Park at core
- Highly valued





First Nation / Tribal Lands Parks Canada / U.S. National Parks Service B.C. Ministry of Environment Alberta Community Development B.C. Ministry of Forests **United States Forest Service** Alberta Sustainable Resource Development United States Fish and Wildlife Montana DNRC (State Forests) U.S. Bureau of Land Management **Private Land** Counties / MDs / Regional Districts Cities / Towns / Villages

## Jurisdictional Complexity



#### **Crown Pressures**

- Climate Change
- Invasive weeds
- Fire Management
- Urban and rural residential development
- Tourism and recreational use
- Resource use and extraction

- Environmental Quality
- Water Quality, quantity, fisheries, aquatics
- Wildlife habitat fragmentation and loss
- Degradation of ecosystem goods and services



## Crown Managers Partnership History

#### Cranbrook 2001:

- Cumulative effects of human activity
- Increased public interest in land
- Recreational and visitation demands
- Shared data and monitoring
- Maintenance and sustainability of shared wildlife populations



## **Crown Managers Partnership History**

- April 2002, Whitefish: Cumulative Effects
- April 2003, Pincher Creek: ALCES
- Feb 2004, Cranbrook: Fire
- March 2005, Kalispell: Invasive plants
- March 2006, Lethbridge: Watershed Partnerships
- March 2007, Cranbrook: Ecological Health
- March 2008, Whitefish: Carnivores
- Feb 2009, Pincher Creek: Biodiversity
- April 2010: Fernie: Climate Change







## CMP Modus Operandi

#### **Structure:**

- Cooperative agency partnership (CMP doesn't manage, agencies do)
- Participants: federal state and provincial agencies, tribes and First Nations, educational institutions
- Steering Committee

#### **Guidance:**

- Strategic Plan
- Annual Forums based on themes
- Annual Workplan
- Projects



## CMP Steering Committee

- Bill Dolan: Alberta Tourism, Parks and Recreation, AB
- Mary Riddle: Glacier National Park, MT
- Dennis Madsen: Waterton Lakes National Park, AB
- Len Broberg: University of Montana, MT
- Mike Quinn: University of Calgary, AB
- Al Soobotin/Tom Bell: B.C. Ministry of Environment, B.C.
- Caryn Miske: Flathead Basin Commission, MT
- Erin Sexton: Flathead Lake Biological Station, MT
- Jimmy DeHerrera: Flathead National Forest, MT
- Steve Frye: Dept of Natural Resources and Conservation, MT
- Rick Blackwood, Alberta Sustainable Resource Development, AB
- Ian Dyson, Alberta Environment, AB







## **Coordinator: Sasha Harriet**





## CMP Strategic Plan (2006)

Vision: An ecologically healthy Crown of the Continent Ecosystem

Mission: A diverse group of agencies working together to achieve the vision by:

- Building an understanding and awareness of the ecological health of the Crown ecosystem
- Building enduring relationships and collaborating across mandates and borders

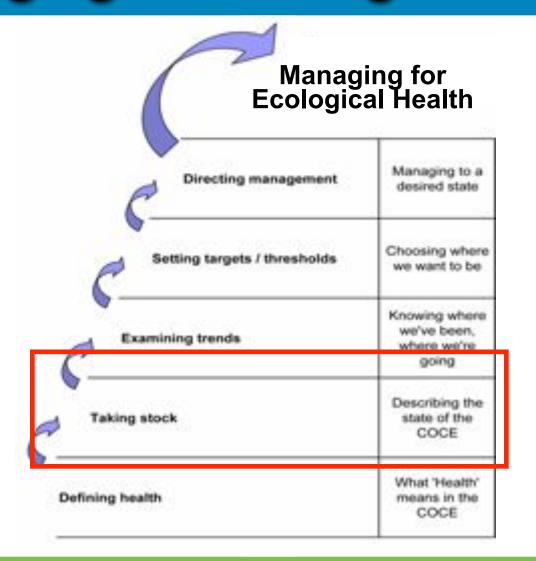


## **Ecological Health Project**

- Long-term, multi-faceted project aimed at defining a level of ecological health that can inform agencies' management;
- Multi-year strategic priority for CMP;
- Establish an indicators-based, environmental outcomes approach



## Managing for Ecological Health





Drowning in Information

Range Health

Sulfur Dioxides

Protozoa **Nitrates** 

Salinity Ozone **Fecal Coliforms** 

**Road Density** 

Carbon Storage

**Noxious Weeds** 

Suspended sediment

Riparian Health

**Primary** productivity

**Species Distribution** 

**Dissolved Oxygen** 

**Native Vegetation** 

Nitrogen Oxides

Soil Organic Matter

**Loss of Species** 

Old growth **Turbidity** 

Ammonia

Pesticides

**Particulate Matter Species Abundance** 

**Dissolved Phosphorus** 

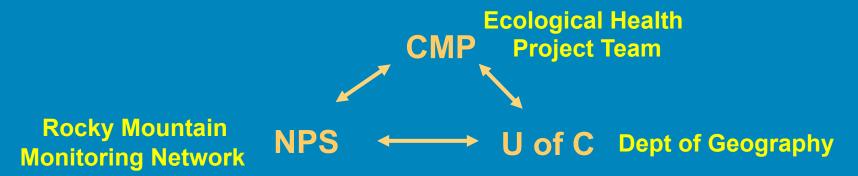


Indicators of Ecological Health

- Landscape
- Biodiversity
- Water quality and quantity
- Exotics
- Climate
- Air quality



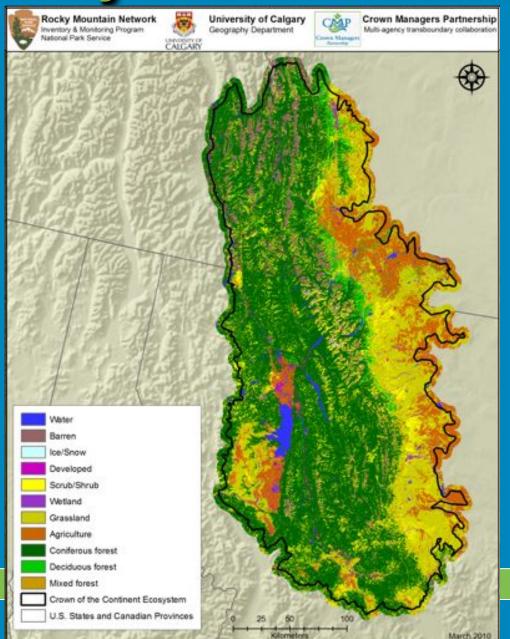
## An EH Partnership



- Assemble targeted data
- Analysis:
- assemble baseline/status data
- analysis of landscape metrics
- monitor change over time

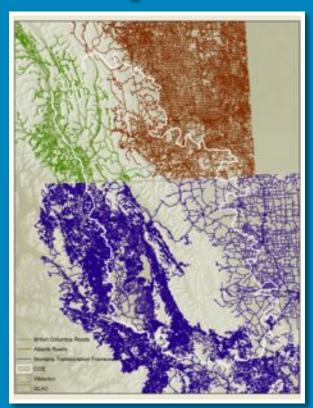


## Preliminary Baseline/Status Data

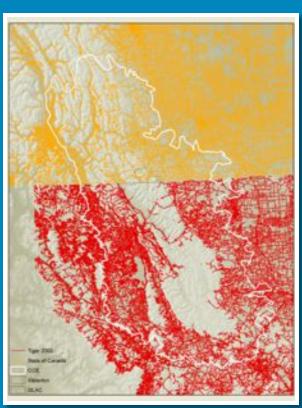




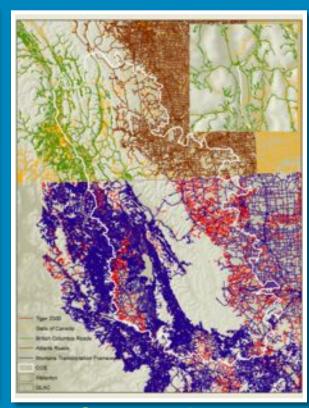
## Roads example: it might <u>look</u> simple...



State and Provinces Roads



Statistics and Census Roads



Comparison Gaps



#### **Potential Benefits**

- Demonstrate collective stewardship capacity raise our collective institutional game
- Coordinated approach to address "Crown-wide" challenges
- Reduce duplication and improve communication
- Learn from each other (successes and failures)
- Enhanced capacity: institutional, science and management
- Provide assurance of regional environmental quality.





## The End

