

**Glacier National Park – Cooperative Ecosystems Studies Unit
Glacier National Park Crown Managers Partnership**

**CESU COOPERATIVE AGREEMENT NUMBER CA-1200-99-007
Progress Report #2**

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In the period since inception of the grant in September, 2002 the following tasks have been addressed:

- 1) Technical team development: see below
- 2) Coordination of Steering Committee business including conference calls: see below
- 3) Identify Themes and summarize landscape-gathering data necessary for the Cumulative Effects Assessment: see below
- 4) Develop CMP website: draft website developed and previewed for Steering committee on 1/27/03
- 5) Develop student projects: Developed four student project with Southern Alberta Institute of Technology and had seven graduate students from UC/UM attending research workshop held 1/28/03 in Waterton, Alberta.
- 6) Secured additional funding
- 7) Finalized CEA work plan
- 8) Identified stakeholders and study area
- 9) Miistakis staff trained on ALCES model

In addition, the following work products have been advanced:

Conduct a cumulative effects assessment for the Crown of the Continent Ecosystem, using the ALCES simulator model, which includes the following:

-Create a CMP/CEA Technical Advisory Committee: Candidates have been identified from all agencies except the US Forest Service

-Populate ALCES model with spatial data from CMP agencies: Requests for spatial data have been made to the appropriate agencies and Canadian data is expected to be ready soon. The Natural Resource Information Service of the State of Montana has most of the US data and it needs to be reclassified. Miistakis is working to gain resources and commitment of NRIS to do the reclassification.

- Organize and facilitate conference calls and workshops between CMP members, CMP/CEA Technical Committee members and regional experts to identify stakeholders, identify trends in landuses, identify indicators, targets and thresholds, as outlined in the workplan: An indicator workshop was scheduled for 1/27/03 but was postponed due to logistical issues. 4 Steering committee phone calls were coordinated and planning has commenced for the annual CMP Forum.

- Assemble historic data to depict time series analysis for various locations throughout the Crown of the Continent study area: work ongoing, but dependent on identifying indicators

- Run preliminary landscape simulations including sensitivity analyses: awaiting indicator development and data collection/reclassification completion. Should have first runs ready for April meeting.

- Prepare reports, summarizing ALCES results to be distributed to the CMP- will be prepared for April meeting.

More detail on most tasks is in the attached report from the subcontractor Miistakis Institute, which is incorporated here by reference.

Signed,

Len Broberg
Associate Professor
Principal Investigator



Crown of the Continent Ecosystem Managers Partnership
Progress Report #1
October 15, 2002

Prepared by
The Miistakis Institute for the Rockies

The Miistakis Institute for the Rockies has been contracted by the University of Montana to provide technical and administrative support for the Crown of the Continent Ecosystem Managers Partnership (CMP), including the initiation of an ecosystem wide cumulative effects analysis. To date, Miistakis has completed the following:

1. Finalization of Cumulative Effects Assessment (CEA) Workplan (see attached)
2. Identify Stakeholders and study area. The first step towards conducting a CEA is to identify the various stakeholders whose interests need to be represented. Preliminary stakeholders, including all CMP participating agencies have been identified. These include the following:
 - Alberta Sustainable Resource Development – Alberta Environment
 - Bureau of Indian Affairs
 - Flathead National Forest
 - University of Montana
 - Ministry of Sustainable Resource Management, British Columbia
 - Parks Canada
 - Ktunaxa Treaty Council
 - Waterton Lakes National Park
 - National Parks Service
 - Blackfeet Tribe
 - Flathead Basin Commission
 - U.S. Fish and Wildlife Service
 - Confederated Salish and Kootenai
 - Glacier National Park
 - Stillwater/Swan State Forests
 - Water, Land and Air Protection, British Columbia
 - U.S. Forest Service
 - Montana Department of Natural Resources
 - Alberta Parks and Protected Areas, Alberta Environment
 - Ktunaxa Kinbasket Tribal Council
 - Flathead County, Montana
 - Lake County, Montana

A geographic perimeter of the study area has been identified. (see attached map).



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3. Identify Themes and Summarize Landscape. As part of the CEA project, Miistakis is compiling spatial data for the Alberta portion of the Crown of the Continent to be used in a preliminary ALCES simulation. Miistakis will also be compiling spatial data for the entire Crown ecoregion in collaboration with each participating agency. To date, Miistakis has compiled the following data for the Alberta portion of the Crown of the Continent:

- Roads (1:20,000)
- Seismic lines, pipelines (1:20,000)
- Hydrology (1:20,000)
- Vegetation (Alberta Vegetation Index)
- Wellsites
- Cutblocks
- Facilities (partially complete)

Miistakis is currently compiling a contact list for GIS technicians/specialists for all participating agencies to start to process compiling data for the entire Crown ecoregion

4. The CEA projects also require the creation of a Technical Advisory Group. This group will be composed of individuals from each agency who will work in close association with Miistakis to coordinate the following expertise within each agency:

- i) technical assistance to provide accurate spatial data
- ii) individuals to review the decision support rules to populate ALCES with the initial landscape composition
- ii) individuals/agencies to identify human landuses to track:
 - Forestry
 - Energy
 - Peat Mining
 - Agriculture
 - Transportation
 - Aboriginal Landuse
 - Humans, settlements, tourism and recreation
 - Protected Areas
 - Electrical Demand and General Industry
- iii) individuals/agencies to identify natural process to track:
 - Hydrological Cycle
 - Aquatics

- Plant Community Dynamics
- Carbon Pool Dynamics
- Fire and Insect Regimes
- Forest Trajectory Structure
- Wildlife Populations
- Wildlife Habitat
- Landscape Metrics



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The CMP Steering Committee has identified the following individuals as candidates for the Technical Advisory Committee:

- Cyndi Smith/Bill Dolan – Waterton Lakes National Park
- Richard Menicke – Glacier National Park
- Kevin Weaver/Larry Price – B. C. Ministry of Sustainable Resource Management
- Lana Robinson – Alberta Environment (unofficial)
- Danah Duke –Miistakis Institute

Additional individuals from U.S. National Forests need to be identified. The first conference call for the CMP Technical Advisory Committee is scheduled for late November 2002.

5. The CMP hosted a data workshop in January of 2002 to address data sharing issues and concerns in the Crown of the Continent. This meeting, which was attended by Crown agency data managers and technicians resulted in the recommendation that the ALCES model be used to undertake a CEA for the Crown region. This recommendation also resulted from the 2nd annual CMP Forum, at which, the ALCES model was demonstrated to Forum attendees.

Miistakis has purchased and installed the ALCES software and Miistakis staff has completed ALCES training workshops.

6. Miistakis is working with Neil Thrussel (Environmental Management, Alberta Environment) to develop the CMP web site. An initial meeting between Miistakis and Neil (October 4, 2002) has outlined the template for the website and timeline. The website will include the CMP objectives, goals, workplans, results, trends, management approaches and additional related information. A draft of the template for the website will be presented to the Steering Committee for review by November 30, 2002.

7. Miistakis has prepared project outlines for potential student projects. The project would contribute to the CMP website and promote an understanding of issues facing

the Crown ecosystem. Miistakis has contacted Reg Letourneau (GIS Program Coordinator, Southern Alberta Institute of Technology) and the Department of Geography, University of Calgary to invite GIS students to work with Miistakis to develop research projects that will contribute to the CMP. Potential project ideas that have been presented to students include:

- Land Use Jurisdictions in the Crown of the Continent: a time series analysis
- Aspen encroachment

8. Since September 1, 2002, Miistakis has coordinated 2 CMP conference calls (September 9 and October 8) and provided meeting minutes to all CMP Steering Committee members for each meeting.

9. Miistakis has secured additional funding for the CMP CEA through the Canadian Environmental Assessment Agency. Miistakis was granted a \$36000 (Cdn) research fund to contribute to the CMP CEA project. Miistakis continues to identify additional sources of funding and developing proposals for the CMP initiative.
