

Montana Fish, Wildlife & Parks

“Crucial Areas and Connectivity Assessment”

Demonstration of multi-layered GIS planning tool (Decision Support System – DSS)

November, 17, 2009

Presenters: T.O. Smith, bureau chief, FWP Strategic Planning and Data Services Bureau
Janet Hess-Herbert, bureau chief, FWP Information Management Bureau

Attendees: About 40 people, a number of whom were from other Montana agencies such as MDT, DNRC and DEQ. There were environmental NGOs represented as well as the Montana Realtors and MPA.

Handout: Montana's Crucial Areas and Connectivity Assessment And Decision Support System; A Refinement to the Comprehensive Fish and Wildlife Conservation Strategy

T.O. Smith opened by giving the reasons for the “Crucial Areas and Connectivity Assessment” project. He noted that FWP staff have been “eaten alive” by requests to review subdivision proposals, oil and gas development and other energy and transmission projects. He pointed out that FWP has very little regulatory authority, other than setting game harvest limits, but the department’s goal of conserving fish and wildlife resources for the future, drives the need for FWP recommendations regarding avoidance, minimization or mitigation of impacts from various encroachments on wildlife habitats. A tool that would aid the department in its impacts and mitigation analyses would further this goal. Additionally the tool should be available publically (web-based) so project developers and others can use it in planning stages.

The project’s first phase which involved input from the scientific community regarding species presence and habitats started in January of 2008 and is almost complete. The connectivity workgroup has yet to complete its work. Hence that layer was not included in the multi-layered GIS planning tool being demonstrated.

The project’s second phase involves working groups that will recommend ways for residential development, timber harvest, energy developers, etc. to use the tool. Smith apologized for the delay of nearly a year for getting these working groups launched. He cited the reorganization of FWP under its new director as one of the delaying factors. He encouraged attendees to sign up for working groups. He said that they don’t want just “yes men”.

Janet Hess-Herbert, bureau chief, FWP Information Management Bureau, took over the presentation. She gave the time line that internal scoping started in January 2008 and was completed in September 2008. Data collection, layer development, prioritizations, scientific working group reviews have been going on since.

It is difficult to report on her presentation because her comments were on what was showing on the screen. Selected comments:

Resolution is at the section level.

Predictive models were used for developing the layers.

Data for some species such as certain species of concern are just presence or absence.

Certain species such as sage grouse have a lot of data that have been incorporated.

Upper northwest Montana and southeast Montana have vegetative cover data gaps.

Large intact landscapes mean contiguous cover by type such as sagebrush.

The tool currently has 9 categories (gradations of importance of habitat or population numbers/densities) which will be reduced to 4. Four will add to clarity and will be better for preparing management recommendations

In response to a question, ideas for identifying within a layer surveyed versus predictive modeled data, would be welcome.

Currently have focused on biological data layers rather than recreational values.

T.O. Smith demonstrated the tool using the Keystone pipeline proposed route in northeastern Montana, the Judith Gap wind farm, and natural gas development area in the BLM Bears Paw EA. Most of his example time was spent on the Keystone pipeline's three route alternatives. He lamented that FWP wasn't involved in the Canadian side route selection because the entry point into Montana is in a highly valued area. He glibly said that if they had been involved, maybe the pipeline would have missed Montana altogether and entered through North Dakota. He then complimented the company on its intention to drill under the Missouri and the Yellowstone Rivers. He added that company's efforts to minimize disturbances don't often get the recognition they deserve. He showed with the tool the layers that made the area highly valued.

For the Judith Gap wind farm example, he demonstrated that relative to the wildlife values a respectively good job had been done on the siting. He qualified that comment saying that he was not implying that there were no impacts. He said there were some birds killed and habitat fragmentation.

For the natural gas field example, Smith noted that getting information on where potential development might occur is difficult because of the highly competitive nature of the oil and gas business. They used BLM data to prepare the natural gas example. He used the tool to show that the dark color in certain areas of the Bears Paw map was not so much from game quantity or species of concern but from species richness. He showed how increasing the transparency level of the color layer for the species values allows the topography layer to show through. He pointed out how the species richness occurred topographically where the higher elevations melded into the lower, prairie elevations.

The next section of the demonstration was on predicted and existing housing densities (units per acre) and commercial/industrial land classifications. Smith said that this portion of the presentation is new and was not part of the presentation to the FWP Commission. Smith, speaking to the MDT attendees, said that they don't have a transportation layer available yet.

The issue of section level resolution came up a number of times. Smith and Hess-Herbert both emphasized that the tool was to alert a county planner, project developer, or the department to wildlife values in an area being considered for a project. FWP or BLM biologists should be consulted for review on a smaller scale of an area in question.

Regarding connectivity layers, Hess-Herbert said that the aquatic connectivity will be available in December but that terrestrial connectivity is much more difficult and likely will take another year of development.

Question was asked about frequency of updating the tool. Smith said, at minimum, it would be updated every five years because updating the “Comprehensive Fish and Wildlife Conservation Strategy” is required in that time frame. He said that realistically an annual update is possible because species of concern has to be updated annually. He speculated that in three to five years, they could be updating the data every six months.

Trout Unlimited representative asked about an energy leases layer. Smith said information layers like that would be nice, it takes money, capacity and time. Hess-Herbert said that the DNRC is doing energy mapping and perhaps eventually the maps could be melded.

Smith commented that the department is focusing the tool on the needs of the department. To try to work in other entities wishes and wants could not only lead to a confusing, complicated tool, but could impair its usefulness to the department. He said that transferring data is possible in the future, but accommodating such transfers is not a task the department will take on at this stage of its development.

January 2010 is the target for having the tool live online. They are still looking for a name for it. The acronym, CACA, of initial name “Crucial Areas and Connectivity Assessment” was thought to be uncomplimentary.

T.O. Smith will be making a demonstration presentation to the Western Governors’ Association winter meeting, December 17, 2009, in San Diego.

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