



PROGRESS IN GHOST RIVER WATERSHED PLANNING

By Nigel Douglas, AWA Conservation Specialist

AWA and the Ghost Watershed Alliance Society (GWAS) continue to make progress developing an ecosystem-based conservation plan (EBCP) in the watershed of the Ghost River, west of Calgary.

In the December 2009 *Wild Lands Advocate*, we discussed a two-day workshop hosted by AWA and GWAS, looking at the role that local communities can play in future watershed planning and decision-making (*A Vision of Forest Management for the Future*). A newly published document, *Progress Report: Ghost River Watershed Ecosystem-based Conservation Plan*, details some of the steps taken in the past six months.

Progress report

The report, written by Herb Hammond of Silva Ecosystem Consultants Ltd., analyzes the current status of the Ghost River watershed and makes a number of findings. They include:

- More than 50 percent of the watershed is forested; nearly 30 percent is naturally non-vegetated. Meadows and shrubs are also an important component of the landscape: though they make up only 10 percent of the watershed they are “unique, biologically rich ecosystems” with a value beyond their simple size.

- Detailed information on old-growth forests was not available, though age of the forest is a potential surrogate. Nearly one-third of the Ghost River watershed contains “older lodgepole pine leading forests.” These are the most ecologically diverse forests and are likely to contain “many old-growth forest attributes that constitute composition and structure necessary to sustain many plant and

animal species.” They also may contain “a variety of other tree species, which increases their contribution to biological diversity and the overall ecological integrity of the Ghost River watershed.”

- According to Alberta Vegetation Index data, less than 2 percent of the watershed contains “good growing site productivity.”

A large proportion of the Ghost River watershed region falls within Spray Lakes Sawmills’ Forest Management Agreement (FMA) area. Hammond’s analysis of the *2007 Detailed Forest Management Plan* for the FMA concludes:

- Planned logging will “remove the majority of white spruce forests of medium and good site quality.” These are “naturally rare or unique ecosystem types in the Ghost River watershed, and implementing these plans will significantly degrade the biological diversity and ecological integrity of the watershed.” (Removing spruce forest will also do nothing to deter the spread of pine beetles!)

- Past and planned logging is done exclusively through clearcutting, which “has the highest negative impacts on composition, structure, and function of forest, resulting in long-term loss of biodiversity and damaging the ecological integrity of the entire Ghost River watershed landscape ecology.”

- Financial accounting in forest management needs to go beyond the price of timber: “The cost of ecological restoration needs to be factored into the full cost accounting for planned logging to determine whether the planned logging is ecologically and/or economically viable.”



Alberta Grizzly by Allen and Julie Trites, Lindsay and Zach Hambly-Britton. The Grizzly bear was a natural choice for this family to paint, they wanted to create a mural that would remind people of the Grizzly and the beautiful Rocky Mountains!! We all must work to preserve the wilderness and all who call it home!! PHOTO: K. MIHALCHEON

Other issues in the watershed include:

- **Mountain pine beetles:** “Initial observations indicate that the mountain pine beetle is not a large issue in the Ghost River watershed.”
- **Off-highway vehicles:** “Current off-road vehicle use is degrading soil, water and ecological integrity at the patch and small landscape levels.”
- **Access roads:** “Minimizing road ‘footprint’ and road density are key factors to maintaining ecological integrity and conserving water.”
- **Cumulative impacts:** “When considered together, all of the land use



Healthy headwaters forests play a critical role in production of clean water. Waters from the Ghost watershed feed into the Bow River and so the only Calgaryans who are not impacted by forest management in the Ghost are those who do not drink water or use it in any other way! PHOTO: H. UNGER

activities described...result in cumulative impacts to the ecological composition, structure, and function – the ecological integrity – of the Ghost River watershed.”

The full *Progress Report: Ghost River Watershed Ecosystem-based Conservation Plan* can be read on AWA’s website at: www.AlbertaWilderness.ca

Future steps

So, with the publishing of the initial progress report, the foundation for an ecosystem-based conservation plan (EBCP) for the Ghost River watershed has been laid. This fall further field-based research will be carried out to improve our understanding of the

ecological patterns and processes within the watershed and to describe its ecological character and condition. Initial identification of ecosystem types will be carried out by analysis of stereoscopic aerial photograph information; follow-up field sampling will provide the fine detail.

The final EBCP will then draw all of the threads together. In Hammond’s words, it will “(describe) how to fit people into ecosystems in ways that protect land, water, plants, animals, soils, and all the other parts and processes of a fully-functioning ecosystem, while providing for diverse, community-based economies.”

Heinz Unger, AWA’s President

and President of the Ghost Watershed Alliance Society is encouraged by the level of local involvement in the 2009 workshops. “The highlight for me is how the community got engaged,” he says. A further workshop on the Ghost River watershed planning is being scheduled for the fall of 2010.

AWA is grateful for the support received from Calgary Foundation and the Royal Bank Blue Waters program in our work with the Ghost Watershed Alliance Society to strengthen grassroots involvement in watershed protection. 🍷