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Willmore Wilderness Park Fire Plan Promising but Needs Master Management Plan as Foundation

By David Samson, AWA Conservation Specialist

The Alberta government is developing a Fire Management Plan (FMP) for Willmore Wilderness Park, to be completed this spring. There appears to be an urgency for the creation of fire plans in the wake of the mountain pine beetle epidemic and in response to calls to protect communities built on the forest fringe. However laudable fire plans may be, AWA is concerned by our government's stubborn reluctance to do top-down land planning on public lands.

A logical approach to management planning for large land areas, such as Willmore and the Bighorn Wildland, begins with an overarching master plan, developed through public input, and subsequent development of sub-plans for things like access and fire. Instead, the government does the reverse: fire plans, like access management plans, are being developed in the absence of overall management plan direction. Only 53 of the 521 parks and protected areas in Alberta have management plans in place.

While resources are being allocated to access and fire sub-plans, master management plans are being ignored. The excuse is that there are no budgets for master plans. However, if publicly developed master plans were given priority, Albertans could avoid wasting money in endless squabbling over sub-plans when public lands decisions can often take place largely below the public's radar.

The 4,600 km² Willmore Wilderness Park in west-central Alberta's "elbow" is roughly half the size of Jasper National Park. The influence and impacts of creating the Willmore FMP may extend beyond its lightly penetrated borders. In February 2006, AWA attended a meeting in Hinton to discuss the draft FMP. While a combination of interesting approaches, ideas, and concerns were put forward by Alberta Community Development (ACD) and Sustainable Resource Development (SRD) regarding the ecological future of Willmore, we could see impacts, both positive and negative, for this and other protected areas.

The FMP lists four key goals:

- ecological integrity and protection of landscape values
- community protection/FireSmart
- forest health/mountain pine beetle control
- natural fire processes

These are commendable goals, given that under the Willmore Wilderness Park Act "the park is dedicated to the use of the people of Alberta for their benefit, education and enjoyment ... and shall, by the management, conservation and protection of its natural resources and by the preservation of its natural beauty, be maintained for the enjoyment of future generations."

These goals, however, stray into the domain of management plans. This was recognized circa 1980 when the Willmore Wilderness Park Act was amended. A comprehensive management plan was drafted for the park by the Alberta Forest Service, but it was never finalized and implemented. It included sections on fire management but was not driven by it.

Other significant changes to Willmore have occurred over the years. In 1996, the government declared the Park off-limits to industrial development. In 2004, motorized recreation was prohibited. These are all significant in keeping Willmore as pristine and natural as possible, but it illustrates that even though the Park has a vary rare characteristic in Alberta – a protected area with its own actual legislative protection –





master management planning, backed by solid public input, is integral to the long-term management of Willmore, just as it is for other protected areas.

The draft FMP recognizes that there is no overall management plan in place, but includes no commitment for one. AWA believes that the FMP would be significantly strengthened and would be more publicly accountable if it were developed as part of a long-term strategic plan.

The Fire Management Plan

AWA has long advocated prescribed burning in Willmore to restore more natural fire regimes, which is a stated goal of the plan. Some of the prescribed burning actions in the plan, as well as some of the activities to control mountain pine beetle, have already begun.

According to wildfire prevention officer Kevin Quintilio of SRD, who is co-chairing the FMP process with Laura Graham of ACD's Parks and Protected Areas Division, the current fire suppression policy in Alberta is essentially to put out every fire that arises. The new FMP proposes declaring two-thirds of Willmore an Extensive Zone in which fires, under most situations, will be allowed to burn in order to eventually see natural fire regimes and forest structure restored to the Park. The other third will be an Intensive Zone, which will continue to include full fire suppression.

Quintilio and Graham say this represents a large philosophical shift in government's current approach to fire suppression. AWA strongly encourages that shift, but we want to see the bar raised quickly to have the entire Willmore declared an Extensive Zone. Some influences that may be preventing this are the concerns that Grande Cache and the adjacent Forest Management Units (FMUs) may have about uncontrolled fire in nearby Willmore.

Since the Intensive Zone is adjacent to the FMUs, AWA is concerned that Willmore could be sacrificed as a fireguard and/or insect barrier to protect private financial interests outside of the Park. A map in the Grande Cache Community Protection Plan (GCCPP) illustrates very clearly that "extreme" potential exists in large, contiguous blocks within the FMUs, especially along the border of Willmore, with low to moderate potential in a homogeneous pattern within the Park. A "Willmore Values At Risk" map in the FMP shows that "extreme" fire risk areas exist, but almost all of them are outside Willmore on its northern border, including Grande Cache, and to the east along the highway.

Although the plan mentions the necessity of working with its neighbours, it does not provide detail on what those neighbours are doing to work with Willmore or what their involvement was, if any, in the preparation of the plan. Graham assured us that the creation of the FMP was initiated by Parks and Protected Areas and that Willmore's values and ecological interests were given top priority when creating the draft plan. We believe it is necessary to allocate more resources to them to complete a master management plan as well.

With respect to the GCCPP, there is no question that protection of personal life and property is a top priority. However, it needs to be clarified if or how the two fire plans are integrated or to what extent the GCCPP impacts the Willmore. The GCCPP uses the government's FireSmart protocol for protecting the community. The FireSmart concept is based on Jack Cohen's fire research, which illustrates that beyond 100 metres from the buildings in the Wildland Urban Interface, intensively "managing the forests" is neither economical nor very effective. However, the GCCPP assumes that containment lines should and will be built within the Park.

The point of mentioning these two situations is not to debate the details of community fire protection or whether fire suppression is largely to protect industrial forestry's interests. They simply illustrate that without a publicly developed master management plan that clearly states the goals of Willmore as a





protected area, we cannot be assured that the FMP will fit into those goals or that outside influences will not override them. AWA is also concerned that before the FMP has been finalized, implemented, monitored, and evaluated, the plan suggests that it may be extended to other protected areas.

Mountain Pine Beetle

Controlling mountain pine beetle (MPB) is another priority of the FMP. The current infestation of MPB in western Canada, particularly British Columbia, is significant. According to the B.C. Ministry of Forests, just under 300 million cubic metres of pine on the timber harvesting land base has been destroyed in 2005, and surveys detected 8.5 million hectares of "red attack," largely in central B.C.

Alberta has also experienced MPB outbreaks in the lodgepole pine forests of the Eastern Slopes, but historically it has not been MPB range, likely due to our colder winters. What may have made these forests particularly susceptible to MPB attack are the decades of fire suppression. MPB thrives in simple, thick, and congested forests composed largely of a single species of tree: lodgepole pine. When faced with complex, healthy forests consisting of mixed species composition and age, it becomes much more difficult for MPB attacks to be sustained.

Karen Ripley, an entomologist with the Washington (State) Department of Natural Resources, describes how MPB attacks may be part of a forest ecology balancing act. "Fire suppression combined with a lack of logging means nature will find a way to remove trees. Nature's way is to have some of the beetles kill some of the trees. We've got a lot of stressed trees out there now, and they're easy pickings."

MPB reaches large populations only periodically, according to Dr. Mary Reid, a professor in biological sciences at the University of Calgary, where she studies the breeding ecology of bark beetles (see *WLA* August 2001). She explains that there is a cost to the beetle to finding susceptible trees. When MPB populations are large, they can overwhelm lodgepole pine forest stands and kill the older, larger trees. These trees, however, eventually become scarce and the beetles' success at finding them dwindles. Also, overwintering mortality is thought to be one of the main controls of MPB populations, with younger larvae being most susceptible to cold temperatures.

MPB has been seen in Willmore since 1999, and the government has destroyed 900 trees to combat it. The current forest in Willmore may not have sufficient defences to resist large infestations, due to decades of fire suppression. If natural fire regimes and forest composition can be restored in Willmore, the natural defences of the forest may be sufficient to handle MPB attacks, which are naturally part of this ecosystem.

The proposed FMP addresses MPB problems with targeted prescribed burns and cutting, and burning of infected trees. AWA supports this to the extent that the eventual goal is to get the forests in the Willmore into a more natural state where they can then be in a position to counter MPB on their own with little interference by humans. However, cautions Dr. Reid, "it's a tricky time to make management decisions about wilderness areas because of climate change."

The forests in B.C. have similar conditions: recent mild winters and favourable stands of pine. B.C.'s Ministry of Environment does recognize, however, that restoring natural forest conditions can go a long way toward letting nature do much of our battle against MPB. They note that while many trees die as a result of beetles, these epidemics do not destroy the forests; new growth rapidly appears below the dead stands. This is nature's way, they say, of breaking up uniform stands into more natural ones that are more varied in composition, structure, and age.





Conclusion

Willmore offers a unique opportunity to experiment and monitor natural processes, including how fire behaves in this ecosystem and how a functioning ecosystem manages forest pests, as it has done for thousands of years. The Willmore Wilderness Park Act is a good tool for protecting Willmore and carries a commitment to preserve its natural beauty. A management plan could strengthen the Act by establishing how Willmore's beauty, values, and integrity can be maintained. Sub-planning would deal with ways to manage recreation, hunting, fishing, trapping, fire, forest pests, and the gamut of other activities.

There is much that is good in the FMP that cannot be detailed here. The FMP recognizes and is driving toward setting a natural stage in Willmore, but an accelerated version may be necessary in expanding the Extensive Zone where little fire suppression is performed. With MPB clearly at the doorstep, and with the forest in a somewhat unbalanced state, we are encouraged with many aspects of the FMP, but this should also be just the beginning of the process.

However, we have concerns about a potential over-reaction to MPB and catastrophic fire, and about preparing a fire sub-plan before a master management plan is completed. Willmore should be added to the short list of priority areas needing a management plan. This would go a long way to convincing people that this joint venture between ACD and SRD to create this fire management plan is entirely in the interest of Willmore.

