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Stewardship Mapping and Conservation Planning

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If you're interested in landscape conservation in Montana, and you're still having a hard time getting excited about stewardship mapping, it's time for you to try a little harder.

For a decade now – through some amazing advances in technology – the Montana Natural Heritage Program (NHP) and its partners provide some of the most valuable and helpful land conservation mapping in the nation.

It began with a relatively simple idea – maps showing the integration of Montana's land ownership and management patterns. The initial exercise produced maps showing landscape basics such as Bureau of Land Management lands, Forest Service lands and state lands, along with private reserves. But the mapping technology quickly evolved, as did the sophistication of the maps themselves: conservation easements were added, as were Plum Creek lands and special designations such as research natural areas, wildlife management areas, and much more.

The goal of NHP stewardship mapping is to create and manage a single statewide source – updated on an annual basis – that incorporates comprehensive information from both public and private entities managing conservation lands in Montana. It's all done using computer technology – Geographic Information Systems (GIS) – and is offered through the NHP website (<http://mtnhp.org>).

The land stewardship mapping system is an amazing collection of easy to access, easy to use information. And it is being used by an amazingly diverse collection of people. Economic development organizations, industrial or commercial businesses seeking government-issued permits or utility routes, realtors, landowners, local and county planners and home builders all have found these maps invaluable, and use them on a daily basis. Natural resource and land managers, in addition to conservation organizations and wildlife managers, frequently access the information.

In fact, the NHP stewardship maps are used as a key base layer for many of the GIS map services and products folks use on an increasingly frequent basis. One example is the new Heritage Tracker (<http://mtnhp.org/tracker>), which allows a user to search for and map wildlife observations by date, by species and by location. If you want to see where, when and what species were recently spotted in Montana, the information is only a couple computer mouse/key clicks away.

Montana land trusts were quick to see the conservation value in stewardship mapping – value to their work, to Montana residents and to the Montana landscape. Montana land trusts were early and key financial supporters to stewardship mapping, and for a decade land trusts annually and faithfully voluntarily submitted information to NHP about conservation easement locations. The voluntary partnership between land trusts and NHP has been not only a state success story, but also a national model.

The Montana Legislative Audit Division, in a performance audit report on conservation easements released earlier in 2007, wrote this: "*Montana has considerable advantages over other states in compiling*

conservation easement data. The land stewardship data maintained by the MNHP is probably one of the most complete and accurate records of conservation easement locations available in the country.”

While the process in which NHP will receive land trust data is changing (a more formalized system will transfer conservation easement information from land trusts through state government to NHP), NHP will continue to receive and provide access to complete and updated conservation easement information.

A dozen land trusts comprise the membership of the Montana Association of Land Trusts (MALT), and the NHP stewardship maps are essential to private land conservation efforts of the MALT membership. Montana is a national leader in private land conservation, and since 1976 private landowners, working with land trusts and state/federal agencies, have protected close to 1.6 million acres of open lands in the state. In addition to about 1.4 million acres of wildlife habitat protected, landowners and land trusts have also protected over 120 square miles of wetlands and 4,400 miles of stream riparian areas.

Land trusts depend on stewardship mapping for a variety of purposes. Stewardship mapping helps focus and prioritize conservation planning within a valley or watershed and on a specific project basis. By knowing land ownership patterns, distribution of wildlife species, possible presence of sensitive species or other land management designations, land trusts can do a better job of conservation planning. Stewardship mapping helps identify and catalog conservation values on properties and conservation easements. Stewardship mapping helps build knowledge about – and awareness of – private land conservation, and that in turn can help build public trust and confidence in the work land trusts do. Stewardship mapping can also help land trusts develop more and stronger partnerships with landowners and county, state and federal agencies, which helps to create sound overall landscape management.

An expanding world of stewardship mapping technology exists, and that technology is evolving at nearly an unimaginable pace. The NHP stewardship map program is useful technology that is easily accessible and from a Montana standpoint is eminently practical. It is also a possible catalyst for a national model. Some national organizations, including the US Geological Survey, are discussing the possibility of duplicating Montana’s model at a national scale.

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