

Community-Based Stewardship in WATERTON BIOSPHERE RESERVE



BY NORA MANNERS



Ranchlands of the Waterton Park Front – a critical component of the Waterton Biosphere Reserve buffer zone.

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Residents of Waterton Biosphere Reserve (WBR) have been working together for more than 30 years to balance biodiversity conservation with sustainable use of the land in southwestern Alberta. Designated in 1979 by UNESCO (United Nations Education Scientific and Cultural Organization) as part of the *Man and the Biosphere Program*, WBR was Canada's second biosphere reserve and the first with a national park at its core. WBR is one of 16 biosphere reserves in Canada and is part of the World Biosphere Reserve Network. This network has grown to include 580 biosphere reserves in 114 countries.

Conservation, Sustainability, Capacity Building

Biosphere reserves around the world, including WBR, share three important goals or functions:

- **Conserving Biological Diversity:** to contribute to the conservation of landscapes, ecosystems, species, and genetic variation

to help ensure that no species or ecosystem disappears from the face of the earth.

- **Promoting Sustainable Use:** to foster economic and human development that is socio-culturally and ecologically sustainable – that meets the needs of the present without compromising the needs of future generations.

- **Logistic Support:** to improve the capacity or capability of people and organizations to positively affect their communities and environment by supporting research, monitoring, education, and information exchange related to issues of conservation and sustainable development.

Anchored by Waterton Lakes National Park

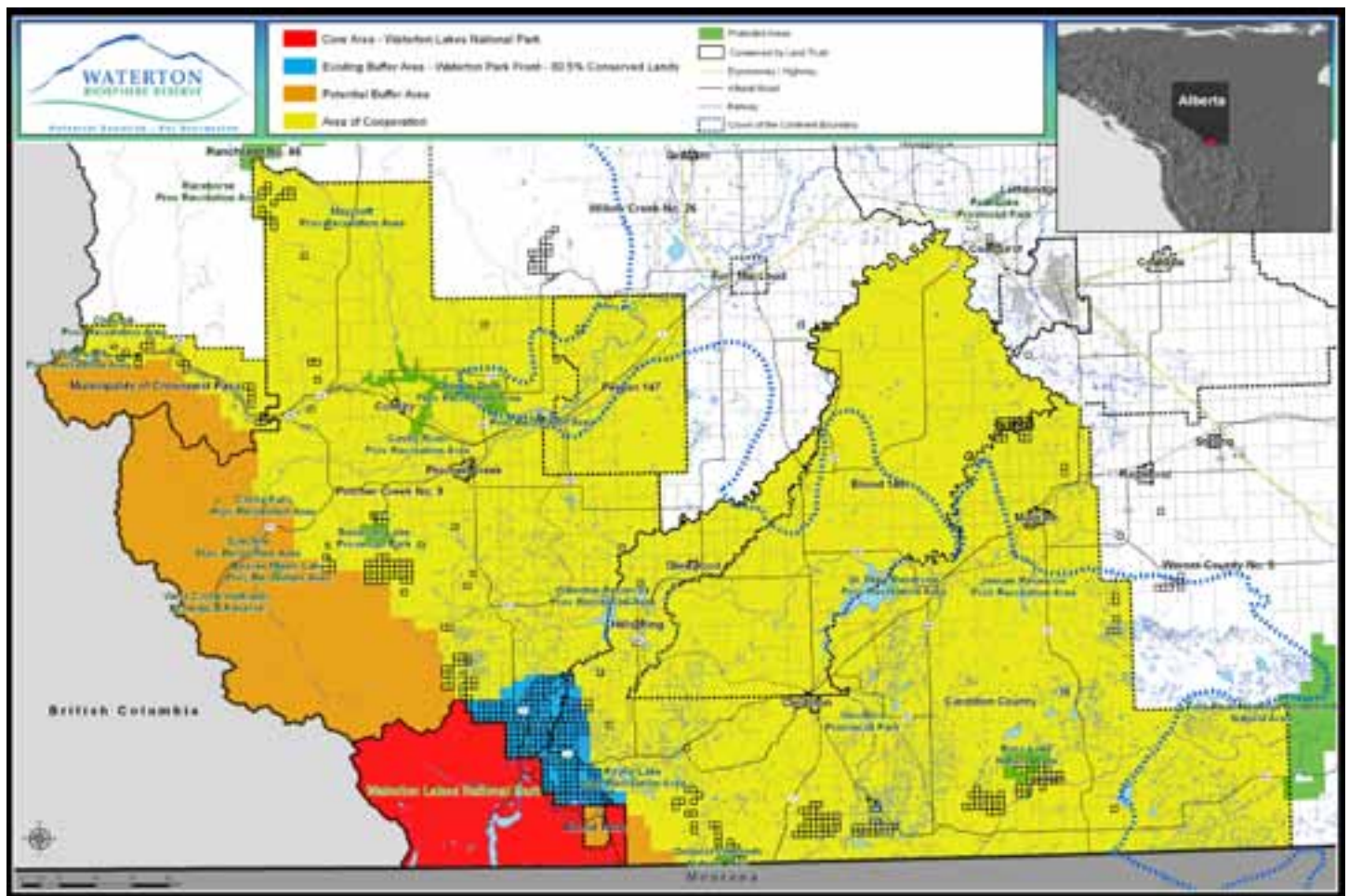
WBR's area encompasses some of the most spectacular and ecologically diverse landscapes in the Canadian Rockies and prairie grasslands. By definition, all biosphere reserves are organized into three zones or areas – a legally protected core area, an adjacent buffer zone with activities

that are compatible with conservation objectives, and a transition zone or “area of cooperation” where sustainable land use is practised.

Waterton Lakes National Park forms the legally protected core of WBR. Several different ecological regions meet and interact in the park, forming a unique landscape shaped by wind, fire and flooding, which is home for many plant and wildlife species. The park serves as a reference point for the natural state of the ecosystems represented by the biosphere reserve. Information from this core area helps in the assessment of the sustainability of activities, and the maintenance of environmental quality, in surrounding areas. Parks Canada has been an active partner in WBR for the last 30 years.

Beyond the core, the areal extent of WBR is not well defined. When UNESCO designated WBR in 1979, zonation requirements for biosphere reserves were more informal than they are now. While the National Park has always been the core of WBR, the buffer and transition zones have never been clearly delineated. Boundaries have been defined more by working relationships than by lines on a map. In order to bring WBR into compliance with the zonation requirement of the world biosphere network, the Waterton Biosphere Reserve Association (WBRA) has been reaching out to our partners and inviting them to formalize our working relationships and their involvement in WBR. To aid these discussions, the WBRA has created a map to identify areas that could potentially be included in the buffer and transition zones of WBR.

Extending beyond the protected core area is an area currently identified as the “existing” buffer zone: Since the establishment of the Nature Conservancy of Canada's (NCC) Waterton Park Front Project, this area of more than 30,000 acres, primarily ranchland, has been informally regarded as the WBR buffer zone. Over 80 percent of the land in this area has been conserved either by purchase by NCC or by conservation easement. The area is being maintained as a working landscape



where ranching is the dominant land use and is conducted to be compatible with conservation objectives. Other potential buffer zones as indicated on the map include Crown lands within the Rocky Mountain Forest Reserve and Poll Haven.

Surrounding the buffer is a broad transition zone or area of cooperation that supports many people in a wide range of economic activities. Currently, the area of cooperation is loosely defined. In WBR, the area of interest extends at least as far as the M.D. of Pincher Creek, Cardston County and Crowsnest Pass. This extension includes the Piikani Nation and Kainai Nation reserves and a portion of the Rocky Mountain Forest Reserve.

Voluntary Cooperative Area

The biosphere reserve program is entirely voluntary – the reserves themselves are voluntary cooperative areas. They are cooperative in the sense that most initiatives completed in a biosphere reserve are completed through cooperation, collaboration and partnership.

Moreover, biosphere status does not mean that land use in WBR is regulated or restricted in any mandatory way. UNESCO has no authority or regulatory

powers within a biosphere reserve, nor does it wish to have any. Regulatory authority over land and water use does not change when a biosphere reserve is designated in Canada. Government jurisdictions – federal, provincial, municipal and tribal – and private ownership rights remain as they were before designation.

Biosphere reserves also do not create new protected areas. In the context of biosphere reserves, “reserve” does not mean that these places are set aside from human use and development. Human activity and the health of people and communities are essential to the biosphere reserve program.

How the Waterton Biosphere Reserve Association Works

WBR is managed by the WBRA, a non-profit organization, that has been active on and off since 1982. The WBRA is not an advocacy group. Rather it’s a grass-roots, volunteer-driven group working closely with local people to integrate conservation values with sustainable livelihoods in the reserve area.

The objectives of the Waterton Biosphere Reserve Association are:

- To encourage a sustainable community-based regional economy, with high quality

biodiversity, landscape and social values;

- To promote public awareness of resource management concerns facing residents of the Waterton Biosphere Reserve area;
- To participate with area residents in developing projects to address local concerns;
- To encourage cooperative resource management practices between private landowners and governments by providing a forum for the exchange of information.

Over the past 30 years, the WBRA has supported local communities in many practical ways by providing funding and support for projects, forums, and research that addresses land management concerns. From grazing lease conversion policies, water quality monitoring, wildlife/cattle interaction and haystack depredation, to the control of non-native species that impact our native habitats and farmland, WBR brings residents together to build awareness, share information, and encourage sustainable land management.

Seeking Solutions for Carnivores and Communities

One of the WBRA’s current projects, the Carnivores and Communities initiative, is an example of how communities can work



A sow grizzly and her cub dig up a well-buried horse carcass along the St. Mary's River – bears are utilizing habitats further east in areas where grizzlies have not been common for generations

PHOTO: © L. COOK

together to seek solutions to complex stewardship challenges.

Over the last five years, WBR has supported landowners concerned about the impact of large carnivores on their ranching operations. Grizzly bears in particular are utilizing habitat further eastward, out from public lands of the mountains and foothills onto habitats in private agricultural lands – the “agricultural interface.” Conflicts between large carnivores and people living in the agricultural interface impact both the livelihood of ranchers and farmers and the personal safety of all residents. Examples of the direct impacts of large carnivores include depredation on livestock, stress to livestock, consumption of grain, silage and agricultural fields, and property damage. Carnivore-human conflicts may also result in the death or relocation of the carnivore and thus have consequences for biodiversity conservation. In the case of grizzly bears, southwestern Alberta (Bear Management Area 6) has the highest rate of human-grizzly bear conflict and the highest rate of relocations and mortalities in the province. This is important not only for the Alberta grizzly population. It matters as well to the inter-connected grizzly populations in Montana and southwestern British Columbia. Because of the levels of conflict and resulting mortalities, these agricultural-interface lands may serve as an ecological sink for the connected populations across provincial and international boundaries. Through supporting landowners as they work to

reduce conflicts with large carnivores, the Carnivores and Communities project also hopes to improve habitat stewardship for grizzly bears in southwestern Alberta and help lessen the impact of human-carnivore conflict on these populations.

WBR has partnered with many parties to provide support for landowner-driven projects and efforts that focus on attractant management. The projects include electrical fencing projects, grain bin conversions, dead stock management, and development of an on-line mapping tool to support a pilot project for landowner monitoring of carnivores and carnivore conflicts. Our partners include Alberta Fish & Wildlife, Cardston County, the Southwestern Alberta Conservation Partnership (formed by the municipal districts of Pincher Creek, Ranchlands and Willow Creek), the NCC, and the Miistakis Institute for the Rockies. On-the-ground work by the Drywood Yarrow Conservation Partnership, Chief Mountain Landowners Information Network, and landowners and leaseholders in the Waterton Park Front has been critical to project progress.

Currently, WBR is facilitating a community-based project, funded by Alberta Sustainable Resource Development, that brings together landowners, municipalities, and Alberta Fish & Wildlife to find ways to reduce conflicts between large carnivores (specifically bears and wolves) and people in southwestern Alberta. WBR has established a community-based, landowner-driven Carnivore Working Group (CWG)

tasked with creating a long-term vision, goals, and plan to reduce human-carnivore conflict issues in Cardston County and the municipal districts of Pincher Creek, Willow Creek, and Ranchlands. The CWG will work with landowners and other stakeholders not only to continue to support landowner projects and efforts to reduce human-carnivore conflicts, but also to develop and deliver a communication and education strategy and build a strong collaboration among producers, agencies, government, and other stakeholders. The economic impact to landowners and options for improving the livestock compensation program will also be explored.

The CWG aims to reduce human-carnivore conflicts, enhance public safety, reduce the economic impact to agricultural producers resulting from sharing their land with large carnivores, work toward improving tolerance towards large carnivores, and ultimately achieve a balance between large carnivore conservation and agriculture in southwestern Alberta.

Strengthening the Stewardship Network

One of the other key activities for the WBRA this year is the development of a cooperation plan that will guide the reserve's future work and direction. While those supporting WBR were a small “voice for the land” when the reserve was formed in 1979, there are now many voices promoting stewardship and sustainability in southwestern Alberta. Together with these individuals, groups, and agencies WBRA will work to map out projects and strategies to address biodiversity and sustainability issues that partners in the region consider to be a priority. The WBRA also hopes to identify how we can all work together to improve the ability and capability of communities to make sound decisions for conservation and a sustainable future in WBR.

For further information about the Waterton Biosphere Reserve visit us at www.watertonbiosphere.com. If you have project ideas or are interested in joining the conversation and helping to determine the future direction of Waterton Biosphere Reserve, please let us know by contacting WBR Coordinator Nora Manners at: nmanners@watertonbiosphere.com.▲

Nora Manners is the Coordinator for the Waterton Biosphere Reserve and ranches southwest of Pincher Creek.