

PLAINS AND PRAIRIE POTHOLES LANDSCAPE CONSERVATION COOPERATIVE

PROGRESS REPORT 2017

VISION

People and nature thriving, across landscapes, across generations.

MISSION

To help meet broad-scale conservation challenges by convening partners, leveraging their resources, and connecting shared plans that improve conservation decisions and outcomes.

FOCUS



Land Use Change



Human Dimensions



The Plains and Prairie Potholes LCC comprises people from federal, state, and non-government agencies and organizations that influence natural resource conservation across the Northern Great Plains, Prairie Potholes, and several major river systems including the Missouri, Yellowstone and Red River of the North.

Human Dimensions refers to the social attitudes, processes, and behaviors related to how we maintain, protect, enhance, and use natural resources. Collectively, human dimensions play a pivotal role in conservation, especially within the Plains and Prairie Potholes LCC where private landowners decide the fate of natural resources across more than ninety percent of the geography. **Land use changes**, driving conversion of native habitats and simplification of complex systems, arise directly or indirectly, from the domain of human dimensions with dramatic implications for biological diversity, ecological processes, and human well-being. Although the state, rate, and direction of such changes varies across the LCC, the close relationship between human dimensions, and land use change remains constant and warrants a collaborative approach that matches the complexity of the challenge, an undertaking well suited to the LCC.



ACCOMPLISHMENTS

Land use decisions on the farms and ranches that dominate the geography of our region dramatically influence the abundance of fish and wildlife. A variety of Farm Bill programs offer incentives intended to encourage decisions that translate into continued or expanded habitat on the landscape. But participation in these programs continues to decline, often accompanied by a move toward increased conversion of native habitat to agricultural use that further erodes conservation interests.

To learn what factors drive participation in Farm Bill programs, the Plains and Prairie Potholes LCC collaborated with the South Dakota Cooperative Fish and Wildlife Research Unit to conduct surveys of landowners in Iowa, Minnesota, the Dakotas and Montana. These surveys addressed issues of perceived importance specific to each state, and more generally measured attitudes and behaviors towards participating in a variety of conservation programs, general wildlife values, general

attitudes related to land use, reasons for participating and not participating in farm programs, succession planning, and some demographic variables. The data will be analyzed in the coming year and a recommendations report will be produced to help our partners better understand landowners and predict landowner response to various types of farm programs, develop more effective communication strategies, and develop programs to better address landowners concerns and needs.

The Plains and Prairie Potholes LCC explores land use changes that favor conservation. Towards that end, LCC member The Nature Conservancy evaluated ranches in the Matador Ranch Grassbank, revealing that changing season of use over time on native pastures and increasing utilization levels in crested wheatgrass pastures were the most common management needs. A separate study facilitated with the University

of Montana confirmed that grazing intensity can significantly alter habitat structure and bird distribution between years at local scales, but that precipitation and soil productivity of a site were driving factors in determining habitat suitability for grassland birds. The results of these studies will be used by LCC members to develop conservation incentives that benefit ranchers and wildlife.



Thanks to the support of the Steering Committee and dedicated effort by several of our members the Cooperative completed a strategic plan at the end of 2015. The plan, [available on our website](#), builds upon our existing emphases within land use change, human dimensions, and the connections between them. In the coming year the Cooperative is poised to draw upon State Wildlife Action Plans and continue the move towards strategic priorities.

Water and plumbing problems get the attention of any homeowner. Similarly, water movement and storage patterns, reworked by accelerating agricultural development across the Prairie Potholes, commanded research attention from the Cooperative in 2016.

One study funded by the LCC is looking into wetland restoration as a means to stem high nutrient loads degrading water quality and aquatic habitat within the Souris River watershed, an expansive area that covers portions of Saskatchewan, North Dakota and Manitoba. Across the watershed, wetlands and their water filtering services continue to disappear, replaced by other land uses, mostly agriculture, which also supplies additional nutrients to runoff waters. Carefully placed wetland restoration offers some relief, but many factors, some poorly understood, influence the effectiveness and longevity of restoration investments. Therefore, the Cooperative funded a cross-border study led by Ducks Unlimited, Inc., and Ducks Unlimited Canada to better understand these factors and help target wetland restoration and conservation efforts within the watershed.

Another study is assessing how the many miles of below ground drainage tile, inserted to benefit agricultural production, also redesigns water movement across the Prairie Potholes landscape, affecting the fate of waterfowl, other wildlife, and the people who value it. The U.S. Geological Survey's Northern Prairie Wildlife Research Center, with financial support of the Cooperative, started a project to learn about the effectiveness of current regulations and to inform changes that help maintain the services of prairie wetlands.

Plains and Prairie Potholes Landscape Conservation Cooperative

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Learning what factors drive participation in Farm Bill conservation programs

More on Human dimensions

Human dimensions Land use change

Tackling large-scale, long-term conservation challenges

Knowing the value of communicating the efforts of our LCC and strengthening our network, we upgraded and relaunched PlainsandPrairiePotholesLCC.org in March 2016. To celebrate our collaborative contributions to landscape-scale conservation our new website is structured around people, teams and organizations – we have structured it around our partners and our collective efforts. We will continue to use this valuable tool to share the latest stories, events, resources and projects and illustrate the connections we forge with partners across the landscape.

WE WILL DEDICATE OURSELVES TO ARMING OUR PARTNERSHIP WITH THE **LATEST** AND **BEST** HUMAN DIMENSIONS RESOURCES TO ENSURE THE FUTURE LANDSCAPE OFFERS THE SAME SERVICES AS THE PAST.

A LOOK TO THE FUTURE...



Rick Nelson, Plains and Prairie Potholes LCC Coordinator

With a new strategic plan in place, the Plains and Prairie Potholes LCC is primed for more great accomplishments in the year ahead. Land use changes, driving conversion of habitats and simplification of complex systems, arise directly or indirectly from the domain of human dimensions with dramatic implications for biological diversity, ecological processes, and human well-being. We will dedicate ourselves to arming our partnership with the latest and best human dimensions resources to ensure the future landscape offers the same services as the past.



For more on the Plains and Prairie Potholes LCC, including the latest news, upcoming events, and resources visit www.PlainsandPrairiePotholesLCC.org.