Ducks Unlimited Canada
Conserving Canada's Wetlands

Active by nature.

3 November 2010

Mr. Chris Reynolds
Conservation District Manager
Whitemud Watershed Conservation District
Box 130
Neepawa, Manitoba
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Dear Chris,

Thank you for providing Ducks Unlimited Canada (DUC) with the opportunity to contribute in the development of your district's integrated watershed management plan. From the results of your public meetings in April 2010, it is apparent your stakeholders are committed to developing a watershed management plan that equally integrates the needs of the community and the environment.

In the Whitemud Watershed, drainage is a concern of DUC's, just as it appears to be of concern to many of the stakeholders at your public meetings. DUC's specific concern relates to the loss of wetlands and associated functions as a result of drainage. The watershed values identified in both the group and individual responses are all profoundly impacted by the loss or degradation of wetlands.

Surface Water Quantity: Wetlands naturally function to collect and store rain or snowmelt from surrounding uplands. On average, draining one acre of wetland also drains five additional acres of adjacent upland in the process. Our research has shown that we lose 15 acres of wetlands every day in southwest Manitoba, which means that we are increasing the drainage area contributing to downstream flows by 90 acres every day - that's 50 square miles annually. During wet periods, the additional volume of drained water can severely impact downstream residents and damage public infrastructure, potentially resulting in significant flood compensation and infrastructure repair/maintenance costs. During dry periods, the water stored in wetlands provides the land with the resiliency to be able to withstand the ecological stresses of drought.

Surface/Drinking Water Quality: One of the most beneficial functions of wetlands is their ability to filter sediments and nutrients from the water as it passes slowly through the system. Draining a wetland forces the water flowing through it to move too quickly for the natural filtering functions to occur resulting in the rapid delivery of all the nutrients and sediments into downstream waterways and drinking water sources. Our research has produced two alarming findings. The first is that wetland drainage in southwest Manitoba contributes an additional 6.2 tonnes of phosphorus (equivalent to 30,000 7-kg bags of commercial lawn fertilizer) every year to downstream flows. The second is that that 93% of the total annual phosphorus discharged from the agricultural landscape is in soluble form in surface water flow while the ground is still frozen. Fully functioning wetlands collect most of this surface flow and filter out the phosphorus (and nitrogen) before slowly releasing the filtered water. Because these nutrients are in dissolved form, even drawing down the level of a wetland allows these nutrients to flow directly downstream and contribute to our water quality issues such as algae blooms on many of the province's lakes, including Lakes Winnipeg, Manitoba and Winnipegosis.

Societal Impacts: DUC understands that pressures to compete internationally, large capital costs, tight margins, high levels of debt and uncertain crop prices make it difficult for producers to be in a position to focus on long-term sustainability. Many of the ecological goods and services that benefit society-at-large are produced on private lands at the landowner's cost. This market distortion is compounded by disincentives (such as property taxes) to conserve natural areas. We do know that when wetlands are drained or degraded, the financial costs incurred by society to replace the ecological goods and services previously provided by wetlands are significant and include: increased water treatment costs; shortages in water supplies during droughts; increased flooding during wet years; decreased property value due to degraded environmental and aesthetic qualities; decreased biodiversity; and decreased revenues from tourism activities associated with healthy ecosystems. These annual replacement costs are often difficult to quantify but occur nonetheless.

As the responses at your public meetings demonstrate, Manitobans are concerned about their water resources. DUC and the University of Alberta conducted a survey recently that showed that the more survey respondents learned about wetland loss, the more willing they were to support and invest in wetland protection and restoration. Those polled said that water quality is the most important reason for an ecological goods and services program and that a) offering incentives to protect wetlands is an important investment in the future, b) it is little to pay for the benefits received and c) it is the right thing to do. The cost of the wetlands lost in southwest Manitoba has been estimated at $15 million per year and that amount is increasing annually as wetland loss continues in the region. DUC believes that Manitobans can no longer economically, or ecologically afford to do nothing.

While there appears to have been some variation across the district about how to achieve the objectives, it seems from the stakeholder summary that there is solid support to: a) conserve natural ground cover and b) store water on the landscape. Wetland drainage activities clearly contradict both of these major watershed goals espoused by the majority of the participants. DUC believes that the conservation districts are uniquely positioned, because of the collaborative nature of their operations, to find innovative solutions to combat drainage-related wetland losses. Including "no net loss" of wetlands, or even "no net loss of wetland functions", as an objective in your integrated watershed management plan could enable your conservation district to achieve significant gains in all of the watershed value categories identified by your stakeholders. I realize the desirable instrument for 'land use change' is through incentives. As one of the leaders of conservation delivery in Manitoba, the CDs experience firsthand the realities of budget constraints and the need to target expenditures. As such, it will be a challenge to be able to provide sufficient incentives to protect and restore all the wetlands in their watersheds necessary to achieve the stated goals. Subsequently, CDs may need to consider "tougher" decisions than perhaps they have in the past. The need for properly enforced wetland protection regulations was noted in your summary and was frequently brought up at the wetland public consultations held around the province by the Manitoba Water Council. While the provincial government is responsible to ensure adequate regulations are in place, and are enforced to protect public interests, political will is more easily galvanized with strong local support. Provincial delivery agents will likely be in a better position to make the 'tougher' decisions that will ultimately contribute to the stated local watershed goals if support for appropriate regulatory protection of wetlands is clearly noted in the plan.

Saving wetlands will result in: increased protection against both flooding and drought, decreased nutrient loading in our rivers and lakes, increased groundwater recharge potential, and improved biological diversity – all of which are benefits that would address many of the concerns raised in your consultation process.

Thank you again for the opportunity to identify wetland drainage as the issue of most concern to our organization and we look forward to reviewing the Whitemud Watershed Integrated Watershed Management Plan when it is completed. I have included with this letter three factsheets from some of our recent research that the Management Team might find useful during the next phase of the planning process.

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