



Ducks Unlimited Canada
Conserving Canada's Wetlands

Active by nature.

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Dear Jonathan,

Thank you for providing Ducks Unlimited Canada (DUC) with the opportunity to contribute in the development of your the Central Assiniboine and Lower Souris River Watershed Integrated Management Plan. From the results of your public meetings in March 2010, it is apparent your residents are committed to developing a watershed management plan that equally integrates the needs of the community and the environment.

In the Assiniboine Hills Conservation District, 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. Many of the top watershed issues and threats identified in the response summary are all profoundly impacted by the loss or degradation of wetlands.

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 an average of 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 ultimately having a negative impact on the rural economy. During dry periods, the water stored in wetlands provides the land with the resiliency to be able to withstand the ecological stresses of drought.

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. From the "Public Consultation - What you told us" document, your

residents understand these linkages. DUC supports the use of indicators that include water quality, quantity as well as wildlife. One measurable landscape feature that will provide a robust proxy for all three is wetlands.

It is also interesting that the Central Assiniboine and Lower Souris River Watershed residents' top priority watershed values are water, natural habitat and the rural economy. With respect to economic implications, we 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. Wetlands are one of the most productive natural ecosystems in the world. Given the inextricable linkages of the role that wetlands provide for: natural habitat; water quality and quantity; as well as the rural economy, I would suggest that wetland retention and restoration serve as a principal watershed goals given they significantly contribute to all 3 watershed values expressed by your residents.


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 and it appears your residents would agree.

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. Additionally, wetland retention and restoration will significantly address at least 4 of the 6 issues noted in the document. Not many programming options can provide that kind of return on investment.

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. As such, I am encouraged to see the fortitude regarding the concern over excessive and unlicensed drainage. 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 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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