

# Conservation through innovation: environmental action in Manitoba

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The preservation of land and water resources is an important initiative for all of Manitoba. In this province, Conservation Districts (CDs) are responsible for natural resource management and sustainable practices at the grassroots level. This is accomplished by grouping neighbouring municipalities along watershed boundaries and undertaking integrated resource management planning. As regional entities, CDs provide an excellent format for program administration that can be specifically tailored to meet local and regional needs.

There are currently 16 Conservation Districts in Manitoba and all are involved in innovative projects designed to benefit the local environment. The following cases demonstrate a high local level of innovation as well as the benefits that can be achieved through Conservation District collaboration with the various levels of government.

## Kelsey Conservation District

The Kelsey Conservation District (KCD) was formed in 1999. Its 900 km<sup>2</sup> encompass the Pasquia and Carrot River drainage basins. Since its inception, the Board has identified local issues and developed corresponding programs to lessen the impact on the watersheds within the RM of Kelsey.

*Manure Management* was identified as a priority, particularly in relation to historic manure piles located on the Carrot and Pasquia Rivers. These manure piles resulted from increasingly intensive livestock operations over the past 30 years and have potentially serious impacts on the water quality and health of those living within the watershed. Most producers are currently removing the manure that is produced on a yearly basis, but do not have the resources to deal with the historic piles. KCD decided that preventative action should be taken to avoid the potential catastrophes to the water resources.

The manure management program will be carried out in two phases. The first step is to reduce the volume of manure through composting, thereby making it cheaper to spread on agricultural fields. The second phase is to promote management techniques, such as swath grazing and bale shredding, that reduce the amount of time

livestock spend in concentrated areas. Once the historic manure piles along the rivers have been dealt with, the involvement by KCD will be complete.

*A swath grazing program* directed at livestock producers within the RM of Kelsey will address issues such as: winter watering systems, purchase of seed, fertilizer, portable windbreaks, external and internal electric fencing.

The benefits of swath grazing start during the haying season. Instead of feeding hay bales every day, a portable electric fence is moved across the swathed field every 2-7 days during the winter. Commercial fertilizer inputs will be reduced over time because the livestock will naturally apply their own manure to the mix. Cattle that spend part of the winter on swaths are not in the yard adding to the manure pile. This results in cost savings during summer cleanout. Swath grazing also ensures that there will be cover on the ground during the fall, winter and spring when soil erosion is most prevalent.

In an effort to gauge the cost benefits of swath grazing, KCD will conduct field research that will look at crop yields before swath grazing and crop residue after swath grazing has taken place. This will address the question of whether it is more economical to harvest the crop and feed it conventionally if the cattle waste too much by swath grazing.

## La Salle Redboine Conservation District

One of the more recently formed Conservation Districts, the La Salle Redboine Conservation District (LSRBCD), was established in 2002, and covers over 7000 km<sup>2</sup> of south-central Manitoba. Both urban and rural projects are considered priorities and new projects are continually added to the scope of the LSRBCD. For 2004, four new programs were added to the activities of this CD.

*The Salinity Seed Assistance Program* is an incentive-based program designed to promote planting appropriate for saline conditions. Through the provision of technical assistance and funding, residents are encouraged to seed salt tolerant plants. The

introduction of various forage grass seeds that will thrive in saline conditions protects the environment by preventing the spread of alkalinity and results in the eventual remediation of the soil.

*The Constructed Wetland Program* is intended to assist agricultural producers by providing technical assistance and funding for runoff control and purification. This program will help owners to manage runoff waters from sewage lagoons and feedlot sites. Wetlands contribute to water purification by filtering and breaking down contaminants such as nitrogen and phosphorus. Therefore, this program promotes an environmentally friendly method of filtration by establishing or expanding wetlands. Concerns for water quality and safety are mitigated with the reduction of water pollution through wetland construction.

*The Sensitive Soils Program* targets landowners who seek to protect 'at risk' lands. For example, 'at risk' lands may include riparian areas, steep slopes and other locations that are prone to wind erosion. The planting of trees, grasses and other long-term vegetative cover will promote wildlife habitat development and improve filtration for water resources. The LSRBCD provides funding to landowners interested in promoting sustainable land management through the enhancement of 'at risk' areas.

*The Water Retention Program* seeks to promote the effective management of water flows. Water retention can serve to recharge groundwater, provide water for irrigation or livestock, support wildlife habitat and reduce flooding downstream. The LSRBCD will provide funding based on the construction costs of water retention structures. These structures will constitute effective management tools in times of high water, such as spring runoff and excessive rainfall.

## Whitemud Watershed Conservation District

An important opportunity for Conservation Districts is to provide an administrative vehicle for existing programs. An excellent example of this has been the Whitemud Watershed Conservation District (WWCD) pilot project. The purpose of this project



*Swath grazing in the Carrot Valley.*

was to provide efficient service to the public for drainage licensing and administration on a watershed basis.

In 2001, the Province and the WWCD partnered to form a two-year pilot project whereby the WWCD took over certain drainage licensing responsibilities from the Province. During the two-year period, the WWCD received, reviewed and made recommendations on drainage license applications and complaints. This local responsibility for water management allowed both parties, as well as municipalities, to gain a variety of benefits. The Province experienced increased compliance with drainage licensing regulations and the applicants benefited from more timely responses. Overall, the WWCD observed an improvement in technically and environmentally sound management decisions. Municipalities also benefited since they did not have additional responsibility added to their continually increasing workloads. Stakeholders appreciated the improvements to the drainage licensing process as a result of this pilot project. The widespread benefits contributed to the overall success of the WWCD pilot project.

WWCD provides resource management services from the Riding Mountain Escarpment and the Assiniboine Delta Aquifer to the Whitemud River, which drains into Lake Manitoba. This pilot project affected 7115 km<sup>2</sup> across the 15 WWCD member municipalities. The WWCD project was widely considered a success and achieved international recognition through a European Union project on sustainable development. Upon its successful completion the Province committed to examining ways to expand the project across additional CDs. The expansion of the program will allow other CDs to experience the benefits of strong inter-agency collaborations.

Conservations Districts serve an important role in our communities through the management of environmental resources. Their division along watersheds promotes the need for regional responsibility for environmental concerns and focuses attention on Manitoba's water resources. The continued innovation of Conservation Districts will benefit the natural environment that will ultimately benefit all Manitobans. ♦



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