



MANITOBA CONSERVATION
DISTRICTS PROGRAM
2014-15 ANNUAL REPORT

THE MANITOBA CONSERVATION DISTRICTS PROGRAM

VISION

The Conservation Districts Program will strive to create healthy watersheds to support watershed residents, the environment, and the economy, for the present and the future.

MANDATE

Conservation districts lead the development of Integrated Watershed Management Plans (IWMPs) and play a key role in plan implementation. Through a watershed-based shared governance model, conservation districts deliver local solutions to complex issues - contributing to healthier, more resilient watersheds through the engagement of local citizens.



2014-2015 ANNUAL REPORT

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**MINISTER OF CONSERVATION
AND WATER STEWARDSHIP**

Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

Her Honour, the Honourable Janice C. Filmon, C.M., O.M.
Lieutenant Governor of Manitoba
Room 235
Legislative Building
Winnipeg MB R3C 0V8

Your Honour:

I have the privilege of presenting, for the information of your Honour, the Annual Report of the Conservation Districts of Manitoba for the year ended March 31, 2015, along with the audited financial statements of the Districts for the same period.



Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Tom Nevakshonoff'.

Tom Nevakshonoff
Minister



CONSERVATION DISTRICTS COMMISSION

Room 332, Legislative Building, 450 Broadway Avenue, Winnipeg, Manitoba R3C 0V8

Honourable Tom Nevakshonoff
Minister of Conservation and Water Stewardship
Room 330 Legislative Building
Winnipeg MB R3C 0V8

Dear Minister Nevakshonoff:

I am pleased to submit the 2014-2015 Annual Report of the Conservation Districts Program for the fiscal year ending March 31, 2015.

The Annual Report provides a summary of the programs and financial activities of the eighteen conservation districts in Manitoba. Conservation districts deliver watershed-based programs in support of our economic and environmental resources including the protection, preservation and management of Manitoba's valuable land and water resources.

Early 2015 marked significant change for many municipalities as they transitioned through amalgamation processes and introduced newly elected council members. Over the next year, the Province is committed to building the capacity of municipal representatives appointed to conservation districts through workshops and training that will help them to understand and excel in their roles as sub-district and board members.

With a continued focus on local watershed health, conservation districts provide Manitobans with locally-relevant planning and programming and sound financial accountability.



Respectfully submitted,

Grant Doak
Deputy Minister
Chair, Conservation Districts
Commission

PROGRAM OVERVIEW



WATERSHED MANAGEMENT IN ACTION

CONSERVATION DISTRICTS IN MANITOBA

Manitoba's Conservation Districts Program is one of the most successful land and water conservation partnerships in Canada. The Conservation Districts Program creates healthy and sustainable watersheds through focused, priority-based programs and partnerships. With funding from the Province of Manitoba and municipal governments, locally-appointed conservation district boards make local planning and management decisions to improve watershed health across most of municipal Manitoba.

The Conservation Districts Program is based on core principles that have made it a success.

THE PROGRAM:

- Functions as a partnership between levels of government and engages local citizens.
- Is cost-shared by provincial and municipal government partners.
- Is incentive-based and not regulatory.
- Relies on local decision-making through conservation district boards and sub-districts with support from technical experts to solve local issues.
- Is watershed-based and uses watershed boundaries to make planning and management decisions and deliver programming.

PROGRAM FUNDING OVERVIEW

Municipal Levies

\$1,720,666

Participating municipalities are required to match provincial grant contributions at a 3 to 1 ratio meaning municipalities are required to contribute \$1 for every \$3 the Province contributes. Municipalities appoint members to the board of the conservation districts to implement projects and programming relevant to their local watersheds.

Provincial Grant

\$5,162,000

The Province of Manitoba provides an annual grant to each conservation district to implement Integrated Watershed Management Plans in their local watersheds.

Other

\$2,624,090

\$1,050,955 Federal
\$766,235 Non-governmental
\$495,988 Municipal
\$310,912 Provincial

Other funding is obtained from a variety of sources, including environmental non-government organizations (NGOs), industry, and government (federal, provincial, municipal) programs and grants.

Total Program Funding

\$9,506,756



PELLEY'S LAKE WATERSHED MANAGEMENT AREA

INNOVATION IN MULTI-BENEFIT WATER RETENTION

After 10 years of planning, searching for external funds, working with permitting authorities, and bringing local landowners on board, the La Salle Redboine Conservation District completed construction of the Pelly's Lake Watershed Management Area in October 2015.

REWIND...



OVER THE PAST TWO YEARS, CONSERVATION DISTRICTS HAVE CONSTRUCTED OVER 110 SMALL DAMS (CAPACITY <40 ACRE-FEET) TO SLOW WATER FLOWS OFF THE LAND.

Pelly's Lake is a large wetland complex located in the headwaters of the Boyne River Watershed in south-central Manitoba near Holland. Local landowners and the La Salle Redboine Conservation District have long recognized that a unique approach to surface water management would be required to address repeated spring flooding and wide fluctuations in water availability in the Boyne River and its tributaries. The Pelly's Lake project will enhance water storage to mitigate the impacts of flooding, provide water security in times of drought, filter nutrients, and protect existing wetland and riparian habitat.

The project is designed to use two water control structures to hold back water in the spring, backflooding up to 627 acres. Six landowners signed conservation agreements with Manitoba Habitat Heritage Corporation, allowing water to be stored temporarily on their land, and protecting over 750 acres of wetland and riparian habitat within the backflood and surrounding area. These conservation

agreements allow landowners full access to their pastures and hay land later in the growing season, while maintaining the habitat and water retention functions of Pelly's Lake.

The downstream retention area was constructed in 2015, and can store 780 acre-feet at full supply level. In phase 2 of the project, a second control structure will be added to retain water in the upstream retention area, providing an additional 420 acre-feet of storage. In June of each year, the water will be released gradually to act as a late season recharge for Stephenfield Lake Reservoir, a local water source for the Town of Carman. In fact, this project contributes to many of the management goals outlined in the Stephenfield Lake Watershed Management Plan including detaining and managing run-off to alleviate flooding, improving wetland health, providing fish and wildlife habitat, increasing water quantity by becoming a reliable source of water supply to recharge downstream reservoirs, and serving to increase awareness of watershed issues among watershed residents.

The potential to retain and recycle nutrients within the Pelly's Lake Watershed Management Area is an exciting spinoff benefit that is being studied by the International Institute for Sustainable Development (IISD). The pilot project involves harvesting and baling cattails for use as a source of renewable energy. The first phase of the pilot project demonstrated that cattails could be harvested using conventional grain and forage equipment. Investigation into the energy values and potential for fertilizer uses of cattail bales are underway.

The Pelly's Lake Watershed Management Area exemplifies the unique ability of Manitoba's CDs to develop water retention projects with multiple benefits that meet both local and provincial priorities. The project would never have come to fruition without the support and commitment of a diverse group of partners including local landowners, the RM of Victoria, Manitoba Habitat Heritage Corporation (MHHC), the International Institute for Sustainable Development (IISD), Lake Winnipeg Basin Stewardship Fund, Lake Winnipeg Foundation, and Manitoba Conservation and Water Stewardship.



PROGRAM SPENDING BY ACTIVITY

Conservation district programming reflects the priorities of local watersheds in Manitoba. Conservation districts design their programming around goals, objectives and actions identified in Integrated Watershed Management Plans (IWMPs). Although programming and project type may vary between individual conservation districts, programming generally falls within five main categories:

Surface Water Management

66%

Includes water retention, erosion control, grassed waterways, wetland restoration, drain maintenance and others



Nutrient Reduction and Water Quality

11%

Includes exclusion fencing, alternative watering systems, riparian buffer strips and others



Drinking Water Protection

9%

Includes abandoned well sealing, wellhead remediation and more

Natural Areas Protection and Enhancement

7%

Includes conservation agreements, habitat leases, tree planting, fish ladders and more

Education

7%

Includes water festivals, producer workshops, tours and presentations

ASSESSING OUR CHANGING LANDSCAPE

WETLAND INVENTORY IN THE WHITEWATER LAKE SUBWATERSHED



An aerial view of a quarter section of land in the Whitewater Lake Basin showing where previous wetlands have been altered or drained.

A century of landscape modification on the Canadian Prairies has resulted in staggering wetland losses, including an estimated loss or degradation of 70 per cent of southern Manitoba wetlands¹. This trend continues today in southwest Manitoba at a rate of 15 acres per day. In 2015, Turtle Mountain Conservation District initiated a wetland inventory in an effort to better understand wetland drainage and modification in the Whitewater Lake area, and ultimately shape future programming to mitigate the impacts of wetland drainage.

Wetlands provide innumerable benefits to society. Waterfowl and wildlife habitat, recreational opportunities, water storage potential and water quality benefits such as nutrient and sediment retention are just a few of these well-documented services that benefit all Manitobans. When wetlands are drained, not only does society lose these services, but surface water flow regimes are impacted, causing a ripple effect throughout the watershed. Wetland drainage in the Whitewater Lake subwatershed impacts downstream agricultural producers, rural infrastructure, and Whitewater Lake levels. These issues have been top-of-mind for local residents and municipal

governments for almost half a century, and Turtle Mountain Conservation District continues to make strides toward adoption of a watershed approach in an effort to mitigate these impacts.

Turtle Mountain Conservation District obtained funding for the wetland inventory in 2013 from the Lake Winnipeg Basin Stewardship Fund. With the support of partners such as Manitoba Habitat Heritage Corporation and Manitoba Conservation and Water Stewardship, the inventory was completed in early 2015. Using aerial imagery from 1955 and 2009, technicians have imported the imagery into specialized computer software, mapped a suite of landscape features, and will be completing an analysis of landscape change between 1955 and 2009. Landscape features include:

- wetland type, area, location, and degree of human alteration (ex: not disturbed, farmed, constructed, partially drained)
- natural and modified drainage channels

The analysis will inform an effort by Turtle Mountain Conservation District to develop a pilot ecological goods and services program that would help to mitigate the impacts of historical and future drainage in the Whitewater Lake Watershed.

¹Ducks Unlimited Canada. www.ducks.ca/how-you-can-help/be-voice/manitoba/ Accessed online June 18, 2015.

KNOCK-KNOCK – WHO’S THERE?

EDUCATING WELL OWNERS IN SOUTHEASTERN MANITOBA

Groundwater is a vital resource to all Manitobans. It’s a primary water supply for domestic, municipal, commercial, and agricultural purposes throughout Manitoba. In addition, groundwater provides important base flow and ecological function to terrestrial and aquatic ecosystems. Our very existence and economic health and prosperity are dependent upon an abundant supply of good quality groundwater no matter where we live or what we do. As such we are all responsible for maintaining and protecting this resource now and into the future.

Manitoba conservation districts are doing their part to do just that on behalf of their area residents. For several years many conservation districts have been offering well water sampling services to rural residents with private wells. For the Seine Rat River CD this work started back in 2008 and continues today with the goal of covering their entire district. Each year the CD assembles one or two work teams to go door to door in targeted areas of the district offering to take a free well water sample. Samples are submitted to an accredited lab to test for the presence of either E. Coli or coliform bacteria. Five hundred wells were tested in 2014-15. Their biggest sampling year was in 2012-13 when 3,822 wells were tested.

The Seine Rat River CD partnered with Manitoba Conservation and Water Stewardship to carry out this initiative. Provincial specialists provided training to CD staff on how to properly take, handle and submit a water sample for bacteria analysis. But the training did not just end there. Conservation district staff also learned about the types of wells, water well components, how and where to locate well infrastructure in or adjacent to

yards, how to recognize safety concerns, construction deficiencies, potential risks to groundwater, and determine whether wells were active, inactive or abandoned. In turn the CD staff used this knowledge to conduct a well inventory and assessment of each home visited throughout the program. Seine Rat River CD’s goals were to not only help rural residents understand the quality of their water through testing but also to engage residents on preservation and protection of their groundwater.

The test results also serve as a report card and educational tool on well water quality on a larger watershed scale and is a great way to engage landowners, farmers, municipal officials and other stakeholders in water quality discussions. Between the well water test results and the well inventory, Seine Rat River CD provides assistance to mitigate or prevent well water quality by showing well owners how to properly shock chlorinate a well to control bacteria, referring them to a specialist or business which can help address specific well health or construction issues, and presenting them with program offered by the CD.



CONSERVATION DISTRICTS PARTNER WITH PROVINCIAL GOVERNMENT TO ADDRESS PRIVATE WELL WATER CONCERNS

Over the past few years, the Groundwater Management and Office of Drinking Water sections of Manitoba Conservation and Water Stewardship have worked with a number of CDs to conduct well inventories and test private wells for bacteria. The provincial department provides the CD with technical knowledge and assistance, access to the provincial well records and use of provincial conductivity meters. The CD conducts a site visit where they record well and surrounding area conditions, physical attributes and take a GPS location of the well. Water samples are taken and tested for conductivity, bacteria and nitrates and the laboratory analysis is shared with the well owners. At the end of the sampling season, the CD provides the inventory information to the province who incorporates the information into the provincial water well database.

Five CDs participated in the program in 2014-15: Assiniboine Hills Conservation District, East Interlake Conservation District, Intermountain Conservation District, Seine Rat River Conservation District, and West Interlake Watershed Conservation District.



1,134

PRIVATE DRINKING
WATER SITES TESTED



236

ABANDONED WELLS
SEALED



65

WATER
STORAGE
PROJECTS



147

SURFACE
WATER TESTS



3,336

ACRE-FEET OF
STORAGE CREATED



18
 GRASSED
 WATERWAY
 PROJECTS

BEFORE

AFTER

CONSERVATION DISTRICTS

BUILDING MANITOBA'S NATURAL CAPITAL

2014-2015 PROJECTS

INFRASTRUCTURE

436 INFRASTRUCTURE SITES INVENTORIED FOR CULVERTS, DRAINS AND DAMS

1,478 KM OF BRUSHING AND MOWING



RIPARIAN AREA MANAGEMENT IN ACTION

Riparian areas are located along shorelines and provide a suite of critical ecosystem functions including providing a buffer for flood protection, assisting in filtering sediments from the surface waters, and serving as unique habitat for many plants and animals. To protect these valuable ecosystem functions, many CDs offer incentive programs to assist in the protection and restoration of riparian areas. One of these programs includes excluding livestock from these areas to protect the fragile habitat and improve downstream water quality.

CATTLE, CREEKS AND CONSERVATION DISTRICTS

When the Kelsey Conservation District was formed in 2000, very few of the Pasquia, Carrot and Birch River shorelines were protected from livestock access. In 2005, the Kelsey Conservation District completed a watershed vision that included a goal of restricting cattle access to the Pasquia River through riparian fencing. As the CD saw the realization of its goal along the Pasquia River, it shifted focus to the Carrot and Birch Rivers. After 12 years of programming, Kelsey Conservation District has fenced the entire length of the Pasquia River (16 km), part of the Carrot River (14 km), and part of the Birch River (3 km). The CD is now focusing on the remaining 18 km of riparian habitat along the Carrot River, and 4 km along the Birch River.



In southern Manitoba, the Assiniboine Hills, Pembina Valley, and Turtle Mountain Conservation Districts all have a stake in the Pembina River Watershed. These CDs have worked together on riparian enhancement projects that improve shoreline health and water quality and reduce excess erosion in the watershed as identified in the Pembina River Integrated Watershed Management Plan (IWMP).

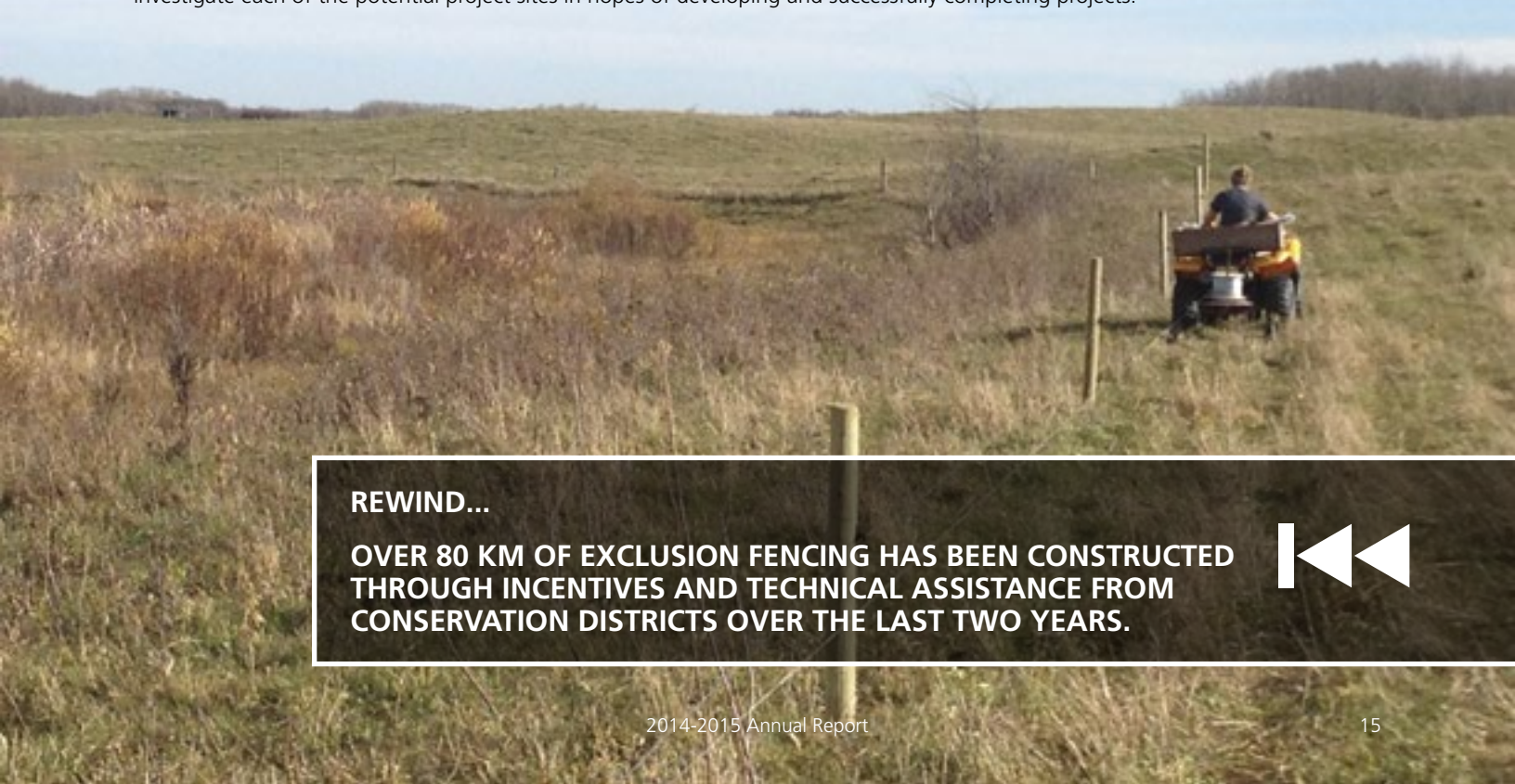
Each district partners with local landowners to implement beneficial management practices including: riparian fencing, off-site watering, manure management and winter site management in identified target zones of the IWMP. These target areas include the Valley and River Zone which is situated along the Pembina River, its tributaries, and Pelican, Rock and Swan Lakes. Since this IWMP's completion, the three CDs have collectively protected 15 km of riparian areas through livestock exclusion fencing – effectively excluding 6,100 cattle from these ecologically sensitive and important areas.



SHOAL LAKES WATERSHED RIPARIAN AND AQUATIC ASSESSMENT

Conservation districts also do a number of other activities in riparian areas to improve stream and aquatic health of waterways. Over the last few years, many CDs have undertaken riparian and aquatic assessments to determine degraded riparian habitat areas, barriers to fish passage, sedimentation and erosion concerns, and other issues.

In the fall of 2015, the West Interlake Watershed Conservation District completed the *Shoal Lakes Watershed Riparian and Aquatic Assessment*. This assessment provided the district with information on the current conditions and state of the Shoal Lakes tributaries and riparian areas adjacent to them. Recommended enhancement and rehabilitation projects ranging from riparian enhancement to removing barriers to fish passage within the waterways were identified in the assessment. The CD is now actively working to investigate each of the potential project sites in hopes of developing and successfully completing projects.



REWIND...

OVER 80 KM OF EXCLUSION FENCING HAS BEEN CONSTRUCTED THROUGH INCENTIVES AND TECHNICAL ASSISTANCE FROM CONSERVATION DISTRICTS OVER THE LAST TWO YEARS.



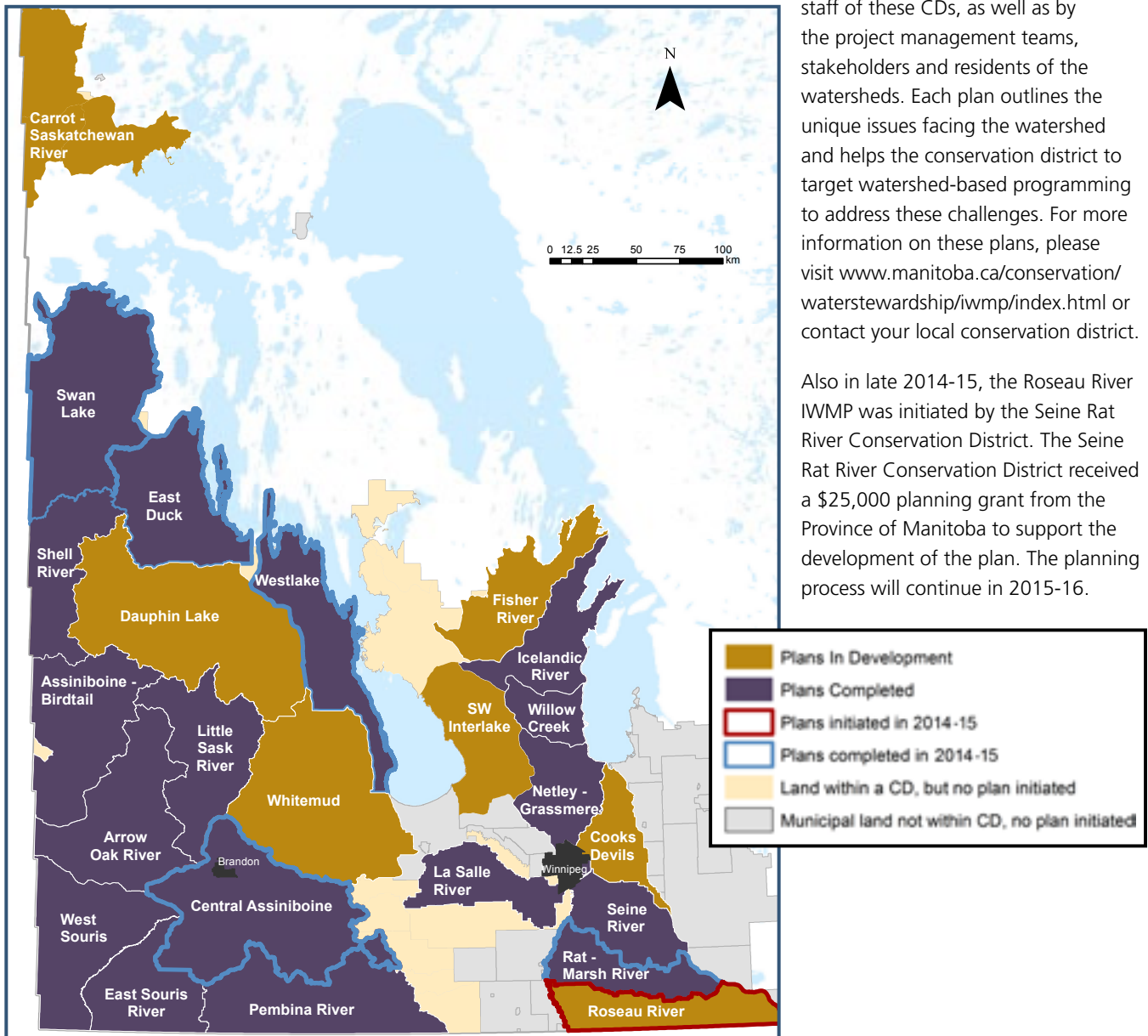
INTEGRATED WATERSHED MANAGEMENT PLANNING

Integrated watershed management plans (IWMPs) ensure coordinated action to reduce nutrient inputs into our rivers and lakes, ensure water security for the future, provide ecosystem and community resilience, and support climate change adaptation. An IWMP identifies priority land and water-related issues in the watershed, determines projects or policies targeted to address the issues, and guides how conservation district programming will be implemented throughout the watershed. Conservation districts have initiated 24 integrated watershed management plans to date; of which 17 are complete and are being implemented, and seven are at various stages of development.

In 2014-2015, five integrated watershed management plans were completed in the following Manitoba watersheds: Rat-Marsh River (Seine Rat River Conservation District), Central Assiniboine and Lower Souris River (Assiniboine Hills Conservation District), Westlake (Alonsa Conservation District), East Duck - Sagemace Bay (Intermountain Conservation District), and Swan Lake (Swan Lake Watershed Conservation District). These plans reflect considerable hard work over the past several years by the board and staff of these CDs, as well as by

the project management teams, stakeholders and residents of the watersheds. Each plan outlines the unique issues facing the watershed and helps the conservation district to target watershed-based programming to address these challenges. For more information on these plans, please visit www.manitoba.ca/conservation/waterstewardship/iwmp/index.html or contact your local conservation district.

Also in late 2014-15, the Roseau River IWMP was initiated by the Seine Rat River Conservation District. The Seine Rat River Conservation District received a \$25,000 planning grant from the Province of Manitoba to support the development of the plan. The planning process will continue in 2015-16.



DRINKING WATER PROTECTION A MULTI-BARRIER APPROACH FROM SOURCE TO TAP



Safe, clean and reliable drinking water is a priority for all Manitobans. Conservation districts play a key role in Manitoba's multi-barrier approach to drinking water source protection by delivering incentive programs tailored to the local drinking water issues and needs in their watersheds. Programs to protect source water include sealing abandoned wells, shock chlorination and wellhead rehabilitation. In addition, CDs play a lead role in the implementation of locally developed source water protection plans.

Abandoned wells can act as pathways for the movement of near-surface contaminants such as bacteria into aquifers and as a result can pose health and safety hazards. All CDs offer an abandoned well sealing program. The conditions, details and cost shares vary, but most districts cover 100 per cent of the costs for the projects (ex: no cost to the landowner). The most common method of sealing wells involves shock chlorination and the addition of bentonite – a pelletized clay product that expands when exposed to water and essentially “plugs” the old well and stops water movement vertically.

Shock chlorination or well disinfection is the process of treating (disinfecting) a well and plumbing system with chlorine to kill or reduce certain kinds of bacteria. This disinfection process is strongly recommended if the test results from a well water sample indicate the presence of coliform bacteria. The CD can provide landowners with the shock chlorination service, collection and submission of a water sample re-test, and additional information on how to maintain their well and properly test their well water. In situations where wellhead rehabilitation work to retrofit some of the water system plumbing is required, CDs generally request and co-ordinate the services of licensed well drilling contractors or plumbers and cost share the expenses with the well owner.

As part of the process of developing an integrated watershed management plan, source water assessments are completed at each of the public water systems in the watershed. The assessment process identifies potential risks of contamination to source water and develops site specific action plans to address the risks at public water systems. Specific actions are recorded in a source water protection plan and assigned to individuals and/or organizations. Conservation districts often play a key role in implementing these actions.

Communication and outreach is an integral part of protecting drinking water quality. In 2013, Manitoba Conservation and Water Stewardship, Manitoba Water Well Association, Manitoba Conservation Districts Association, Canadian Institute of Public Health Inspectors – Manitoba, and the Canadian Water Quality Association worked together to develop the Manitoba *Well Aware* booklet. The booklet is intended to inform individual household well owners of their obligations as well owners and to introduce and describe what is known as the multi-barrier approach to drinking water protection. The guide includes information and advice on constructing a new well, caring for an existing well, and sealing an unused well. Copies of the *Well Aware* booklet are available at all CD offices.

REWIND...

OVER THE LAST FIVE YEARS, CDS HAVE PROVIDED INCENTIVES FOR SEALING OVER 1,400 ABANDONED WELLS, CONDUCTING OVER 8,200 DRINKING WATER TESTS, AND REMEDIATING OVER 90 WELL HEADS.



FINDING SOLUTIONS FOR MUNICIPALITIES

EFFLUENT IRRIGATION PILOT PROJECT

Small towns and villages in rural Manitoba do their part to handle and treat municipal sewage and wastewater in a responsible manner. For most, effluent is captured and stored in lagoons where basic natural biological treatment occurs before water is released into a stream or river. Provincial regulations set limits for suspended solids, bacteria and biological oxygen demand. Nitrogen and phosphorous concentrations are not typically measured in treated effluent scheduled for release. Where nutrient limits are set they can sometimes be a challenge for communities to meet. Lagoon storage capacity can also be a challenge, especially during wet cycles when community storm drains and household sump pumps are more active.

The Upper Assiniboine River and Little Saskatchewan River Conservation Districts wondered if these challenges could be turned into opportunities. Could they work with municipal partners and landowners to apply a portion of the wastewater in community sewage lagoons for crop production purposes? Would this help ease the capacity pressures on sewage lagoons while also utilizing some of the nutrients in the effluent? In 2015, through funding secured from the Lake Winnipeg Basin Stewardship Fund and local municipalities, the CDs tested effluent from 15 community sewage lagoons to assess nutrient and salt levels. Twelve of these sites (80 per cent) had phosphorus levels higher than the release guideline.

Nine sites (60 per cent) had salt levels which could pose a future soil salinity concern if irrigation was to be repeated continuously on the same parcel of land. Conservation District staff had to consider these salt levels when choosing a site for irrigation.

Using a travelling irrigation gun, the Upper Assiniboine River Conservation District applied the Town of Miniota's lagoon effluent onto nearby forage land. Effluent was pumped at a rate of 950 L/min some 900 m from the lagoon onto hay land.

The method of irrigation worked well and CD staff feels if suitable land within close proximity to lagoons was available, a travelling irrigation gun could be shared between communities as an option to lower effluent volume and free up some additional capacity in their lagoons. This may help reduce the need for, or at least delay, the high cost of expansion for communities with capacity pressures. In addition, effluent irrigation onto crop and hay land can help utilize the nitrogen and phosphorus in effluent for crop production and yield increases. In this time of expensive hay, this project does stand to provide substantial benefit to the recipient of the water. Though considered high from an aquatic health perspective, nitrogen and phosphorous concentrations in effluent are relatively low in terms of agronomic value. Based on resource requirements to carry out the pilot, such as the costs or logistics of finding land, manpower, equipment and supplies to irrigate, crop yield improvements and associated economic return would need to be quite high to warrant effluent irrigation for this purpose alone. However, when combined with the benefits of easing capacity pressures some municipalities may see value in exploring effluent irrigation as a means of responsible sewage and wastewater management.





ALL HANDS ON DECK! CONSERVATION DISTRICTS LEND A HELPING HAND TO COMMUNITIES IN CRISIS

In the spring of 2015, the communities of Waywayseecappo First Nation, Birdtail Sioux First Nation, and the municipalities of Rossburn and Birtle were threatened from rising river levels on the Birdtail Creek. A culvert in an old railway line crossing had frozen during the winter and was preventing water from passing through normally. The blockage caused a back up of water threatening over a dozen homes which had to be evacuated because of the dangerously high water levels.

A number of organizations were on hand to help including the local conservation district. The Upper Assiniboine River Conservation District provided assistance by taking survey levels while 120 aqua dykes were being built to protect houses and key infrastructure. The CD's technical expertise allowed for more efficient dyke construction to required protection levels. Having a local CD with skilled staff and

equipment on hand meant work could begin immediately; and when flood waters are rising towards homes and property every minute matters.

Also in the spring of 2015, the Turtle River Watershed Conservation District removed snow out of waterways at key locations in the watershed to keep houses and important infrastructure from flood damages. Deep snow and a long windy winter provided some of the biggest drifts in waterways in years. Prompt and strategic snow removal at these locations allowed water to move through the waterways as designed, keeping it from backing up and flooding adjacent land.

Conservation districts across the province lend their personnel and expertise to aid in emergencies. Their locally-based skill set can provide key services when communities are most vulnerable.



THE CD'S TECHNICAL EXPERTISE
ALLOWED FOR MORE EFFICIENT
DYKE CONSTRUCTION TO
REQUIRED PROTECTION LEVELS.



INNOVATION IN CONSERVATION DISTRICTS **DRAIN MAINTENANCE**

CONSERVATION
DISTRICT DRAIN
INFRASTRUCTURE
MAINTENANCE IS
COST-EFFECTIVE AND
BUILDS LANDSCAPE
RESILIENCE.

Four CDs in Manitoba have a mandate to maintain and manage waterway infrastructure and crossing networks in their watersheds, including responsibility for former provincial waterways (Order 3 and higher). These four districts include Whitemud Watershed Conservation District, Turtle River Watershed Conservation District, Cooks Creek Conservation District, and Alonsa Conservation District. In addition to managing surface water flows within their watersheds to benefit agriculture and reduce flood impacts, these four infrastructure CDs implement proactive land and water conservation projects.

	Alonsa	Cooks Creek	Turtle River	Whitemud
Total crossings	250	200	800	1400
Total kilometres of drains	645	550	800	1770

TOTAL CROSSINGS AND KILOMETRES OF DRAINS IN MANITOBA'S INFRASTRUCTURE CDS

Grassroots knowledge and co-operation between CDs and local municipalities ensures surface water moves across the landscape in a controlled manner without sending surface water issues downstream. This partnership also facilitates creative and cost-effective problem-solving to manage these dynamic surface water systems. For example, infrastructure CDs often strategically manage drains through design, earthworks, and brushing and mowing of vegetation to maintain optimal waterway flows.

Drain cleanouts performed by infrastructure CDs through summer and fall months are completed in a way to maximize environmental benefits. Construction is timed for lower flow or no flow season in waterways to minimize disruptions to spring fish spawning and reduce the amount of sediment released from construction. Another benefit of performing earthworks during this time is that districts are able to seed down the projects after completion to have vegetative cover before heading into the winter season. By cleaning and shaping the drains on a regular basis, bank erosion is minimized; this dramatically reduces the potential for downstream sediment and nutrient transport.

A big part of maintaining manmade waterways is vegetation management in late summer. This is done for a several reasons: vegetation can reduce the efficiency of flows, increase costs when earthwork maintenance is required, and reduce the function of a waterway. Mowing of grass and cattails within a manmade drain keeps the drain clear of debris during spring and summer runoff events. If left unmaintained, snow can drift into waterways in the winter and completely block water movement during spring melt, resulting in a diversion of the waterway and causing major erosion and flooding damages.

Turtle River Watershed Conservation District has been mowing drains for many years. Maintenance is targeted at waterways depending on vegetative growth stages. If the district was not working diligently to limit this growth, tree growth could grow beyond a mowers capability, likely requiring higher future costs for removal.

Whitemud Watershed Conservation District has the largest mowing component out of the four infrastructure CDs. On average the CD mows 1,300 km of drains annually using a combination of rotary cutters, boom mowers, hydraulic and manual brushers, and mowing buckets. By maintaining their mowing program, Whitemud Watershed Conservation District keeps their drain maintenance operations more efficient in their watershed.



In the fall of 2014, the Alonsa Conservation District began piloting a newer type of drain maintenance equipment called a mower bucket attachment. The mowing bucket attaches to a track hoe in place of a regular bucket. The mowing bucket scoops cattails out of waterways at the root zone with a cutting action at the lip of the bucket. The bucket is made of a mesh metal wiring to scoop only cattails and large debris. This removes the cattails completely from the waterway – removing the vegetation and phosphorous sequestered in the vegetation from the system entirely - and is great for areas that are consistently too wet to remove using other methods.

The Cooks Creek Conservation District has been using a unique form of management in their drainage system to prevent cattails from growing in dense pockets – a sickle mower. A sickle mower has an arm that reaches out to one side and allows for a cut very close to ground level with a shearing action. Once the mowing has been completed the CD will block off a downstream culvert. Because of the relatively flat topography in the area, water will back up and fill in the drain drowning out cattails and minimizing future growth.



REWIND...

INFRASTRUCTURE CDS HAVE MAINTAINED OVER 5,000 KM OF DRAINS IN THE LAST FIVE YEARS



PROGRAM ACTIVITIES

Activity	Projects	Sites	Storage (dam ³)	Km	Hectare	Head of Cattle	Trees	Attendees
Planning & Monitoring								
Integrated Watershed Management Planning - Implementation Phase	17							
Integrated Watershed Management Planning - Development Phase	7							
Infrastructure Inventory (culverts, drains, dams)	2	436						
Riparian and Aquatic Assessments	2							
Hydraulic Assessments	34							
Surface Water Flow and Retention Assessments	2							
Strategic Planning	1							
BMP Research	1							
IWMP Progress Reports	1							
Drinking Water Testing	620	1,134						
Surface Water Testing - MCWS partnership		52						
Surface Water Testing		195						
Soil Testing		29						
Well Stewardship								
Well Establishment		8						
Well Inventory		902						
Abandoned Well Sealing		236						
Well Head Remediation		7						
Well Shock Chlorinating		99						
Surface Water Management								
Small Dams (<50 dam ³)		62	860					
Water Retention Structures (> 50 dam ³)		3	2,476					
Beaver Dam Removal		177						
Beaver Management (levellers, etc.)		14						
Beaver Bounty Incentives	8							
Erosion Control Structures		12						
Weirs		1						
Grassed Waterways		18			33			
Gully Stabilizations		2			2			
Streambank Stabilization		22			16			
Wetland Reclamation	1	20						
Drop Inlets		4	62					
Gated Culverts		5	79					
Drainage Licenses		10						
Drainage Licenses Reviewed		96						
Rain Barrels	157							
Surface Water Flow and Retention Assessments	2							
Livestock Programs								
Alternative Watering Systems		28				5,175		
Exclusion Fencing		17		26		2,895		
Forage Buffer Strips		3			30			
Livestock Crossings		2				580		
Constructed Wetlands		4	6,087		6			
Manure Composting	2					100		

Activity	Projects	Sites	Storage (dam ³)	Km	Hectare	Head of Cattle	Trees	Attendees
Land Stewardship								
Pasture Pipeline		5		4		1,100		
Rotational Grazing		6			300	1,100		
Forage Seed		113			1,981			
Salinity Seed		7			38			
Tree planting		38			55		15,745	
Field and Property Shelterbelts		56		66			32,703	
Private Woodlot Management		12			1,200			
Community Tree Nursery		25					4,579	
Habitat Lease		126			3,469			
Conservation Agreement - Total	11				10,713			
Conservation Agreement - Wetland	6				10,503			
Conservation Agreement - Riparian	1				30			
Conservation Agreement - Native Range	2				30			
Conservation Agreement - Wooded	3				150			
Property Maintenance (CD owned or managed)	31							
Conservation Corridors	471				2,165			
Composters	42							
Aquatic Habitat								
Fish Ladders	4							
Pool and Riffle Structures	9							
Aquatic Habitat Creation	4				4			
Aeration	2							
Education and Extension								
Banquets and Watershed Functions	10							770
Project Tours	32							581
Project or Interpretive Signs	37							
Water Conservation Rebates	16							
Presentations	78							4,839
Grazing Club Events	4							50
Nesting Structures	2	3						
Nature Trails	7			14				
Eco-Tourism	3							
Memberships (non MCDA)	16							
Geographic Information System (GIS) Services	120							
Aerial Photographs	291							
Urban Rain Gardens	4							
Water Festivals	7							2,140
Youth Education Events	111							5,407
School Education Events	7							419
Demonstration and Tours	17							301
Website and Brochures	46							30,620
Drain Infrastructure								
Drain Maintenance	47			62				
Brushing/Mowing	297			1,478				
Ring Dikes	1			2				
Drain Reconstruction	9			10				
Crossing Infrastructure								
Crossing Maintenance	91							
Crossing Replacements / Major Repairs	10							
Shale Cleanout	1	6						
Infrastructure Surveying and Consulting	1	14		7				



EDUCATION

5,826

STUDENTS EDUCATED THROUGH
YOUTH AND SCHOOL EDUCATION
PROGRAMS

157

RAIN
BARRELS
PROVIDED

2,140

STUDENTS
ATTENDED WATER
FESTIVALS



22

STREAM BANK
STABILIZATION PROJECTS

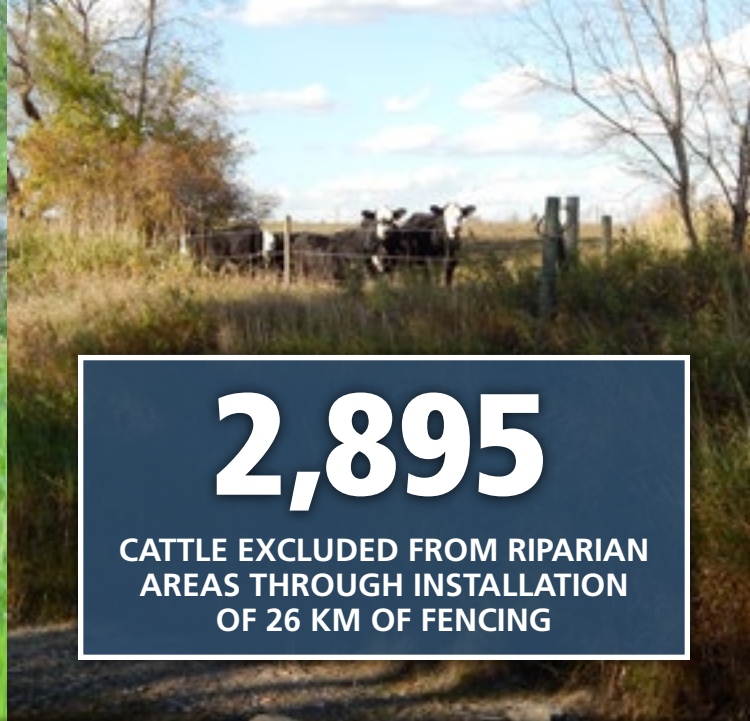


17 DEMONSTRATION
AND TOURS FOR
301 PRODUCERS

32 PROJECT TOURS
WITH 581
ATTENDEES



9
 POOL AND
 RIFFLE
 STRUCTURES
 CREATED TO
 IMPROVE FISH
 HABITAT



2,895
 CATTLE EXCLUDED FROM RIPARIAN
 AREAS THROUGH INSTALLATION
 OF 26 KM OF FENCING

CONSERVATION DISTRICTS
 BUILDING MANITOBA'S NATURAL CAPITAL
 2014-2015 PROJECTS



48,448 TREES PLANTED

66 KM OF SHELTERBELTS ESTABLISHED



WEATHER WOES - CHALLENGES WITH MAINTAINING PROJECTS IN A CHANGING CLIMATE

Extreme weather events, land use changes, rising equipment and labour costs, availability of local contractors, and aging infrastructure all present issues and challenges to CDs in their efforts in maintaining waterway infrastructure. Although only four of the 18 CDs hold the responsibility of managing a network of drains and crossings within their watersheds, the other 14 non-infrastructure CDs also have responsibilities for maintaining infrastructure they have built. Conservation district-built infrastructure includes water retention projects, small dams, erosion and sediment control structures, grassed waterways, and riverbank stabilization projects.

In June and July of 2014, the southwestern region of Manitoba experienced unprecedented rainstorms and flooding. The Turtle Mountain Conservation District observed damage to eight small dams, one large dam (Adair Dam) and numerous grassed waterways. The damage was extensive and required immediate attention. Although unplanned and unbudgeted, the Turtle Mountain Conservation District was able to repair the damages at the eight small dams, start a Disaster Financial Assistance (DFA) claim to repair damages at the Adair Dam, and attend to repairs at numerous grassed waterways. During the same event but farther to the north, all of the rural municipalities in the Upper Assiniboine River Conservation District declared local States of Emergency.

The Upper Assiniboine River Conservation District lost eight water control structures, but successfully worked with local landowners and through the DFA program to restore all of them. The rainstorm events raised many questions about the long-term maintenance of waterway infrastructure and what design standards water control structures / small dams should be built to. The Upper Assiniboine River Conservation District understands that although the cost to build a project with a higher design standard is greater, it will be able to withstand higher water flow and storm events and very likely result in lower maintenance costs over the long-term.

The Upper Assiniboine River Conservation District has experienced challenges with the maintenance of multi-benefit water retention projects. They have found that extra time and resources are necessary in order to operate and maintain these projects, even when they are fortunate to have local landowner co-operation and assistance.

In 2014-15, the Pembina Valley Conservation District constructed five water control projects and completed maintenance work on over 10 existing projects. The maintenance work varies substantially from year to year and project to project. Although the Pembina Valley Conservation District has numerous agreements with local landowners

to participate in routine project maintenance, the vast majority of repair and maintenance costs are borne by the CD. To pay for project repairs and maintenance, the Pembina Valley Conservation District uses the DFA program and their infrastructure reserve account.

The Turtle River Watershed Conservation District experiences a constant challenge with water erosion and keeping their drains functional and free of sediment accumulation. Because the headwaters of their watershed originate in the Manitoba Escarpment on the north-eastern slopes of Riding Mountain National Park, the very fast flowing water carries a tremendous sediment load off the mountain side. In their attempt to capture sediment and maintain the function of their drains, the Turtle River Watershed Conservation District has established more than 130 shale traps over the past 20 years. Sediment will continue to build up in the traps until they are “full”, at which time the CD will dredge them out so they can continue to function effectively.

The Whitemud Watershed Conservation District faces many challenges related to maintaining their waterway infrastructure. On-going drainage upgrades and land development has increased the pressure and demand on the drainage system in the watershed. Encroachment into right-of-ways and elimination of vegetated buffer zones along drains has caused erosion, sedimentation, and nutrient loading issues. Maintenance costs resulting from public tampering of waterway infrastructure such as flood gates, water retention projects, and crossings have forced the Whitemud Watershed Conservation District to deal with the issues on an urgent basis – causing changes in work plans and a reallocation of limited funds away from necessary maintenance work. Availability of dependable contractors



and labour continues to be a challenge. The Whitemud Watershed Conservation District's biggest challenge, however, is how to keep up with infrastructure maintenance work as their budget stays static and the cost of doing business continues to rise.

Although costs are increasing to build, repair and maintain surface water infrastructure, conservation districts are well equipped to conduct these works at a lower cost than government. These systems, though expensive, build resiliency into Manitoba's watersheds in years of normal flows.

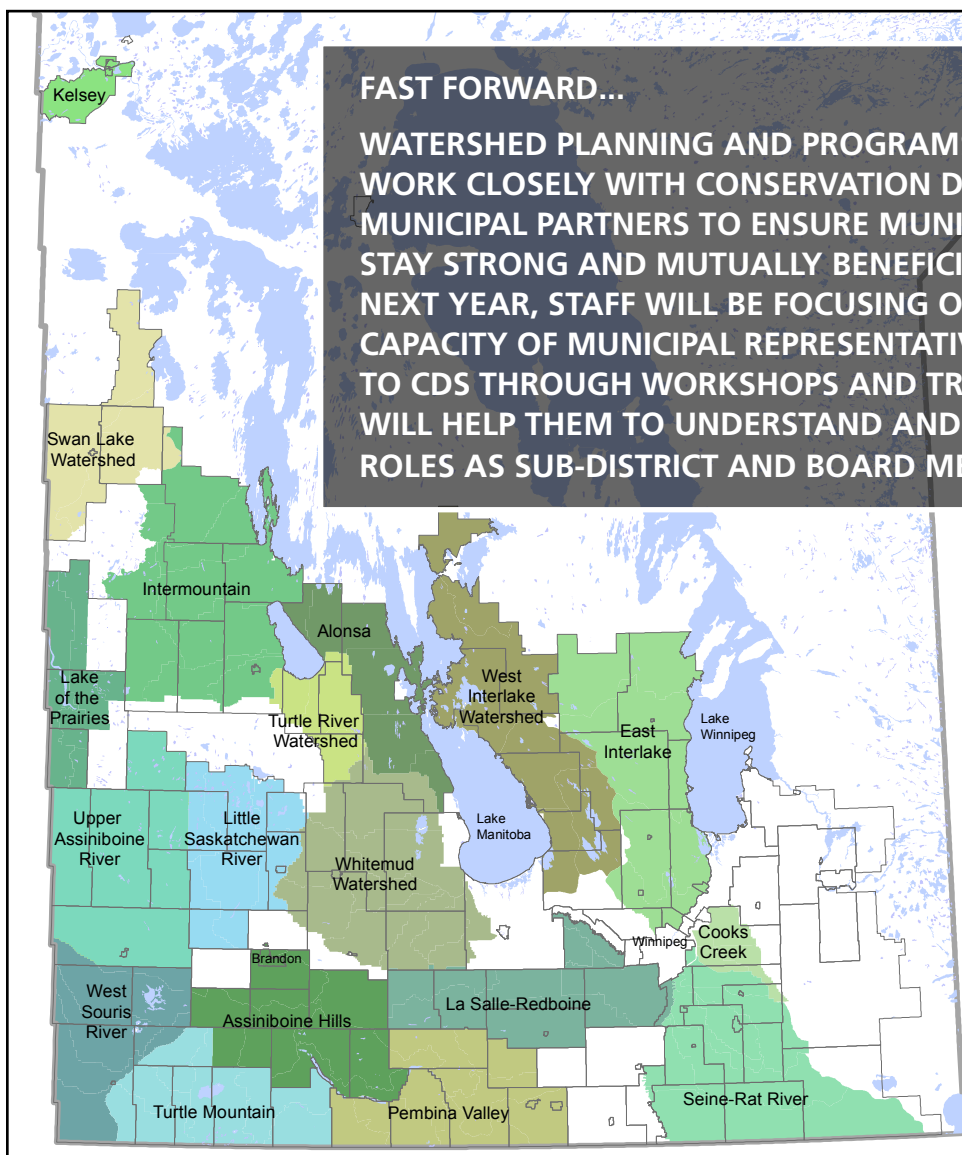


PROGRAM GROWTH AND PARTNERSHIPS

MANITOBA MUNICIPALITIES: A CORNERSTONE PARTNERSHIP

Since 1976, the Conservation Districts Program has expanded across most of municipal Manitoba. The program's success is built from strong partnerships with local municipalities and has led to significant improvements in the local watersheds to which municipalities belong.

Early 2015 marked significant change for many Manitoba municipalities. In 2013, the *Municipal Amalgamations Act* was passed, requiring municipalities with a population less than 1,000 to amalgamate with one or more neighbouring municipalities. Effective January 2015, these amalgamations reduced the total number of municipalities involved in the Conservation Districts Program from 150 to 103 (86 rural municipalities, five cities, 10 towns, and two villages).



FAST FORWARD...

WATERSHED PLANNING AND PROGRAMS STAFF WORK CLOSELY WITH CONSERVATION DISTRICTS AND MUNICIPAL PARTNERS TO ENSURE MUNICIPAL RELATIONS STAY STRONG AND MUTUALLY BENEFICIAL. OVER THE NEXT YEAR, STAFF WILL BE FOCUSING ON BUILDING THE CAPACITY OF MUNICIPAL REPRESENTATIVES APPOINTED TO CDS THROUGH WORKSHOPS AND TRAINING THAT WILL HELP THEM TO UNDERSTAND AND EXCEL IN THEIR ROLES AS SUB-DISTRICT AND BOARD MEMBERS.



SUSTAINABLE SLOPES PROTECTING SENSITIVE LANDS ON THE PEMBINA ESCARPMENT

Agricultural producers in southern Manitoba are under increasing pressure to maximize production. Larger machinery, fluctuating global markets, modern intensive farming methods and record-high land values often drive landowners to cultivate every possible acre, despite the environmental and ecological sensitivity of their higher-risk lands. High conversion rates on high risk lands in the Pembina Escarpment area prompted the Pembina Valley Conservation District to develop an innovative program that could slow or reverse this trend.

The Sustainable Slopes Program offers incentives and education to protect the wooded slopes and riparian areas of the Escarpment, which provide many ecological and economic benefits. Not only do these areas provide wildlife habitat, recreational value and climate change mitigation, but woodlands and healthy riparian vegetation also protect water quality through the prevention of soil erosion and nutrient loss. The short-term gain of additional acres under cultivation is negated a few years later, when highly erodible sloped lands have lost the majority of their top soil due to erosion, and downstream landowners and municipal infrastructure are impacted by increased runoff, erosion and siltation.



Pembina Valley Conservation District and its partners offer several benefits to participating landowners through education, development of woodlot management plans, and demonstration projects that highlight the benefits of woodlot management. The program aims to protect 400 acres of woodlands through conservation easement and to implement management plans on 1,350 acres of both eased and non-eased lands. The target area includes the most erosion-prone of 35,531 acres (14,379 ha) along the Pembina Escarpment (see map). Since the program launched in 2012, Pembina Valley Conservation District has implemented programming on approximately 1,000 acres (57 per cent) of its targeted 1,750 acres.

The initiative was developed by Pembina Valley Conservation District in partnership with Manitoba Habitat Heritage Corporation, Manitoba Forestry Association, the Rural Municipalities of Stanley, Thompson and Lorne, Manitoba Conservation and Water Stewardship and Environment Canada. The initiative has recently been extended north along the Escarpment to include La Salle Redboine Conservation District and Whitemud Watershed Conservation District, targeting another 1,100 acres of conservation easements on high-risk lands throughout the region.

MAKING HISTORY IN THE WHITEMUD WATERSHED

THE BIG GRASS MARSH CONSERVATION AGREEMENT

The Big Grass Marsh is Manitoba's third largest wetland in southern Manitoba and stretches over 40 km in the Whitemud Watershed Conservation District. The marsh is located west of Lake Manitoba and east of Plumus. It is a naturally low lying area that filters water from the north half of the Whitemud River Watershed as it moves south before entering the Whitemud River.



The Big Grass Marsh was one of the first projects tackled by Ducks Unlimited Canada over 75 years ago and their presence is still felt in the area to this day. The marsh is a known hot spot amongst bird watchers as it is an internationally recognized area for bird watching with thousands of ducks, geese, numerous sand hill cranes, and other species of song and predatory birds in their natural habitat.

In 2015, Manitoba Habitat Heritage Corporation and the municipalities of Westbourne and Lakeview signed the largest conservation agreement in Manitoba's history. The area

covered by the agreement is 17,471 hectares centred on the Big Grass Marsh – an area equivalent to about $\frac{3}{4}$ the size of Portage La Prairie. The conservation agreement area is mostly comprised of Crown land and municipal property. No private land was included in the agreement.

With mostly wetland, aspen parkland and grasslands, the marsh itself provides significant flood control for the surrounding watershed as well as water quality filtration. During the spring, as well as at times of heavy runoff, the marsh can expand to hold vast amounts of water and slow peak runoff events in the Whitemud River. Permanent protection of wetlands through conservation agreements can also have significant nutrient filtration benefits. It is estimated the Big Grass Marsh prevents 40 tonnes a year of phosphorous from reaching Lake Manitoba and continues to store 3,000,000 tonnes of organic carbon. Now that the agreement has been completed the area is protected from being artificially drained and provides a significant amount of water storage and nutrient reduction potential.

The Whitemud Watershed Conservation District was instrumental in having this agreement come together. The CD spent a portion of their funding on administrating the agreement as well as significant staff time towards ensuring the Big Grass Marsh would be protected. It is unique projects like this that put CDs on the forefront of land management programming in Manitoba.

REWIND...



OVER 240 KM² OF NATURAL HABITAT HAS BEEN PRESERVED THROUGH CONSERVATION AGREEMENTS FUNDED BY CONSERVATION DISTRICTS IN THE LAST FOUR YEARS - AN AREA EQUIVALENT TO OVER HALF OF THE CITY OF WINNIPEG.

WHO SAYS OIL AND WATER DON'T MIX?

MAKING INDUSTRY PARTNERSHIPS WORK IN WESTERN MANITOBA

Many conservation districts have formed mutually beneficial relationships with local industry groups in their watersheds. For CDs, these partnerships mean additional funding to support on-the-ground programming in their local communities. For industry, these partnerships improve corporate image and improve connections with communities. The West Souris River Conservation District (WSRCD) has developed valuable local industry partnerships to help achieve their local environmental education and conservation goals. In 2014-15, the district was successful in securing external funding through sources such as Manitoba Hydro's Forest Enhancement Program, Tundra Oil and Gas, CN Rail, Enbridge, and Canadian Natural Resources Limited. These funding opportunities have allowed WSRCD to greatly expand their environmental education and outreach programming to an extent they could not have accomplished otherwise, such as a school-based weather monitoring program to provide students with local, real-time weather data for schools and at home, and local community tree planting events.

The WSRCD has had a partnership with Tundra Oil and Gas for the better part of a decade. In 2006, the CD formed their first four year partnership securing \$25,000 annually from Tundra Oil and Gas for local youth environmental education initiatives. Over the last eight years the CD and Tundra Oil and Gas have continued with this mutually beneficial partnership, which was recently renewed for an additional four years. This funding delivers programming directed at enhancing long-term sustainability and conservation locally, and assists the conservation district in achieving its education goals as identified in the West Souris River Integrated Watershed Management Plan, while increasing public presence and corporate environmental responsibility image for the local oil industry.



Weather station at Reston School



GROWING FORWARD 2:

GROWING ASSURANCE - ECOLOGICAL GOODS AND SERVICES



Now in its second year (2014-15), the Growing Assurance - Ecological Goods and Services (EG&S) Program is focused on the positive environmental benefits that Canadians get from healthy ecosystems, including clean water and air, and enhanced biodiversity.

With this in mind, the program provides financial assistance to local conservation districts to work with producers to implement beneficial management practices (BMPs) that conserve and enhance the agricultural landscape. This year a total of \$610,000 was provided to conservation districts to implement eligible BMPs, including:

- 12 water retention structures
- 1 wetland restoration
- 2 constructed wetlands
- 14 riparian area enhancements
- 4 natural area maintenance and enhancements
- 2 buffer and grassed waterway establishments
- 1 perennial cover for sensitive lands
- 6 shelterbelt/tree establishment programs

A portion of the notional allocation for the program is set aside each year to support pilot projects that test innovative tools and program delivery approaches. In 2014-15, five projects totalling \$358,000 were funded under this component, including:

- three conservation auctions for BMP adoption and land conservation/preservation
- the use of Light Detection and Ranging (LiDAR) to facilitate watershed management planning, providing land and water managers with geospatial data and online tools to prioritise, market and implement actions on the landscape to achieve water quality objectives
- the refinement of a computer-based rating system developed by the University of Manitoba that rates changes being made to whole-farm systems on an ecological and sustainable basis. This tool will enable Intermountain Conservation District to be able to analyze various factors and see the ecological effects realized on-farm. Positive changes made at a whole farm level will benefit the health of the entire local watershed.

Growing Assurance-Ecological Goods and Services Program is part of *Growing Forward 2*, a five-year (2013-2018) agricultural policy framework agreement among federal, provincial and territorial governments.

PROGRAM PARTNERSHIPS 2014-15

FEDERAL GOVERNMENT

Human Resources Canada – Career Focus
Growing Forward 2
Canada Revenue Agency

Service Canada - Canada Summer Jobs
Environment Canada

PROVINCIAL GOVERNMENT AND CROWN CORPORATIONS

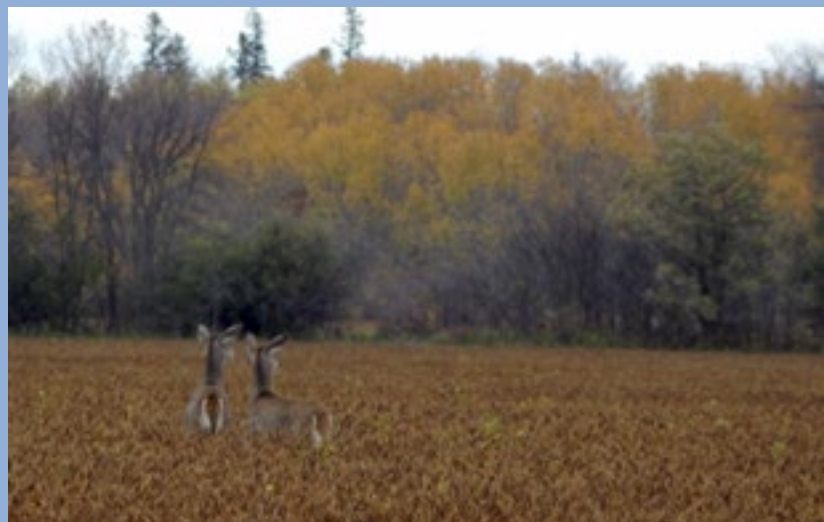
Hometown Green Team
EMO Disaster Assistance
Fish and Wildlife Enhancement Fund
Career Focus
Community Places Program - Manitoba Housing
and Community Development

Manitoba Hydro
Manitoba Agriculture, Food and Rural Development
Manitoba Habitat Heritage Corporation
Manitoba Tourism, Culture, Heritage, Sport and
Consumer Protection

NON-GOVERNMENT ORGANIZATIONS

Landowners
Local Groups (ex: Prairie Spirit School Division,
Pembina Manitou Foundation, Miami Thompson
Trail Committee, Swan Valley RISE,
Swan Valley Sport Fishing Enhancement)
TD Friends of the Environment
Manitoba Conservation Districts Association
Manitoba Forestry Association
Delta Waterfowl
World Wildlife Fund Canada
Lake Winnipeg Foundation
Assiniboine Credit Union
Enbridge Pipeline Inc.
Private Donations
Royal Bank Blue Water Fund
The Winnipeg Foundation

CN Rail
Ducks Unlimited Canada
Rural Development Institute - Brandon University
Tundra Oil & Gas
Canadian Natural Resources Limited
Matrix Solutions
Nature Conservancy of Canada
University of Manitoba -
Watershed Systems Research Program



SHARING KNOWLEDGE AND EXPERIENCE



INDIGENOUS PARTNERSHIPS WORKING TOGETHER TO PROTECT OUR WATERSHEDS

An integrated approach to watershed planning is key to understanding issues related to watershed health. In Manitoba, water planning authorities are responsible for engaging local and technical stakeholders, including Indigenous communities, in the development of integrated watershed management plans (IWMPs). Success in engaging these communities has been best seen through inclusion of the Indigenous community on the project management team (PMT), a local committee which leads in developing the IWMP.

A community elder from Wuskwi Sipiik First Nation played a key role in bringing First Nation values and concerns to the Swan Lake IWMP. Together, the community elder and the PMT representative from Wuskwi Sipiik interviewed community elders on changes they've seen in the watershed and on challenges they face in the Swan Lake Watershed. This information, along with guidance from other local people, formed the First Nations input and actions in the plan. At the request of Wuskwi Sipiik First Nation, the Swan Lake IWMP also included a First Nations perspectives section where actions specific to the First Nation community were presented.

The Carrot-Saskatchewan River IWMP and the Fisher River IWMP are both in final drafting stages, and each of these IWMPs includes a strong Indigenous connection. Opaskwayak Cree Nation, Mosakahiken Cree Nation and the Northern Affairs community of Moose Lake have brought valuable perspectives to the Carrot-Saskatchewan River IWMP. These communities are located in and have traditional territories

within the watershed, with strong ties to the Saskatchewan River Delta. Historically, these communities have experienced challenges due to changes in surface water management through hydro-electric development and alterations of flow regimes of the Saskatchewan River. The Carrot-Saskatchewan River IWMP identifies these concerns and the challenges associated with them; preserving the integrity of the Saskatchewan River Delta is a key objective in the IWMP.

The Fisher River IWMP incorporated traditional and scientific knowledge in developing the goals and actions of the plan. Councillors, elders and residents of Peguis First Nation, Fisher River Cree Nation, and the Northern Affairs communities of Pine Dock, Matheson Island, and Dallas-Red Rose contributed traditional knowledge to the Fisher River IWMP. Traditional knowledge interviews with community residents and elders provided valuable information in shaping the goals and actions of the plan. Interviews highlighted the important role of women and water in First Nation communities, and specific local concerns, such as Fisher River water quality.

Information sharing allows for discussion and informed decision making in sustainable land and water management. Strong Indigenous participation in the IWMP process identifies valuable traditional areas and improves the overall health of our watersheds. The Carrot Saskatchewan River, Fisher River, and Swan Lake IWMP illustrate examples of successful Indigenous partnerships and information sharing, leading to stronger actions to protect our watersheds.



ENHANCING TOURISM AND RECREATION IN MANITOBA'S PARKLAND

Many CD projects help to support and enhance tourism and recreation in their local watersheds through improvements to water quality and areas along waterways. The Parkland region of Manitoba provides an abundance of tourism and recreational opportunities due to the beautiful natural landscape and many lakes, streams and rivers in the area. In the past year, the Intermountain and Lake of the Prairies Conservation Districts have worked to improve eroding stream banks and fish habitat aiding in improving local recreation and tourism in this unique region.

The Gilbert Plains Country Club golf course is nestled adjacent to a small stretch of the meandering Valley River, providing recreational enjoyment for local residents and out-of-town visitors. Recently, stream bank erosion began to threaten the club house and two fairways, creating siltation issues that were also impacting the aquatic ecosystem of the Valley River. In 2014, Intermountain Conservation District partnered with the Gilbert Plains Country Club to stabilize the eroding stream banks using rock rip-rap armour. The work was successfully completed during February 2015, under frozen conditions to minimize disturbance to the river and immediate area. Golfers have since returned and the stabilization efforts appear to have prevented any more erosion from occurring.

Further west into the Parkland region is Lake of the Prairies, a reservoir created by the Shellmouth Dam. Sport fishing is a very popular recreational pastime here, both upstream and downstream of the Shellmouth Dam. Fishermen of all ages from all over the continent make the trek to Lake of the Prairies each year to fish for species like northern pike, walleye, and perch. Stream bank erosion on a small tributary feeding into the Assiniboine River immediately downstream of the Shellmouth Dam threatened a municipal road crossing and was causing excess sediment to be transported into this important fish habitat. Lake of the Prairies Conservation District provided financial and technical assistance to resolve the erosion and sedimentation issues. The CD properly sloped the banks of the stream and road, installed rock rip-rap and culverts, resurfaced and graded the road, and established permanent grass cover. The area is gradually stabilizing and protecting both municipal road infrastructure and downstream fish habitat. The CD plans on monitoring the site to ensure the upgrades remain in place and provide full value for years to come.



COMMUNITY CONNECTIONS

BUILDING AWARENESS AND ENGAGING WATERSHED RESIDENTS ONE COMMUNITY AT A TIME

Community involvement and awareness are key aspects of all CDs' work – both to increase awareness and understanding of watershed issues and to increase awareness of the programming CDs offer. While youth education programming and community events are the foundation of many CD awareness initiatives, they certainly don't use a one-size-fits-all approach. Each CD's approach is reflective of the unique watershed and social and cultural aspects of the communities they work in.

After flooding destroyed shorelines along Lake Manitoba in 2011, the West Interlake Watershed Conservation District board and staff established an incentive program to assist property owners with replanting lost trees. Residents could apply for and receive up to 25 trees at no cost, with additional trees provided at a subsidized rate. Tree species best suited for the area were selected by the CD from a local nursery. The program was very popular, and in 2015, the full extent of the program was utilized.

In 2014-15, the Intermountain Conservation District also began work on distributing trees within their communities. The CD is currently developing a local tree nursery and preparing it as a source of native trees for their community residents.

The Seine-Rat River Conservation District has taken a different route to reach residents in their watershed. In the fall of 2014, the board and staff hosted two pancake breakfast events to promote district programs and showcase successful projects. Families, landowners, community residents, as well as past and present board members attended these successful events. Community banquets are another popular engagement technique. For example, the West Souris River Conservation District hosts an annual banquet event in the spring to highlight successful projects and give out conservation recognition awards. The CD often invites a keynote speaker to the event and in 2014 they featured Greg Johnson, the Tornado Hunter. The event was very successful, with a sold-out venue and captivated audience.

Conservation district offices are located in small rural communities across Manitoba and their presence in these communities can form an important part of their awareness campaigns. For example, the Lake of the Prairies Conservation District office is located in an old school building with lots of additional space for meetings and events. The CD has opened its doors to community members as a location for gatherings, meetings, workshops, and dinner events and uses these opportunities to network and build awareness of the services and programs they offer. Creating a presence in a small community goes beyond just the office building, however. For example, the Little Saskatchewan River Conservation District can be seen at many local community venues, such as the local farmer's market in Onanole. This is a very busy spot in the summer where the CD can interact with local area residents and tourists visiting the area to communicate the value of the Conservation Districts Program in Manitoba and the services they can provide locally.



Being the most northern of all the CDs, Kelsey Conservation District has capitalized on some unique opportunities to engage local residents. They have been working on a youth gardening program for a number of seasons. Early each spring, local grade three students plant potatoes in a community garden plot. In the fall, these same students (now in grade four) return to harvest the potatoes and have a French fry feast. Through this initiative students learn the value of locally-sourced food and the importance of healthy soil in building a sustainable local food supply. The program has become so successful that the Cranberry Portage School has started their own school garden, complete with a local greenhouse for the students to use.

REWIND...

IN THE PAST SEVEN YEARS, CONSERVATION DISTRICTS HAVE HOSTED OVER 430 DEMONSTRATION AND TOURS PROVIDING LOCAL WATERSHED EDUCATION THROUGH BENEFICIAL MANAGEMENT PRACTICE DEMONSTRATION ON LOCAL FARMS.



THE CONSERVATION DISTRICTS PROGRAM:

A MANITOBA SUCCESS STORY

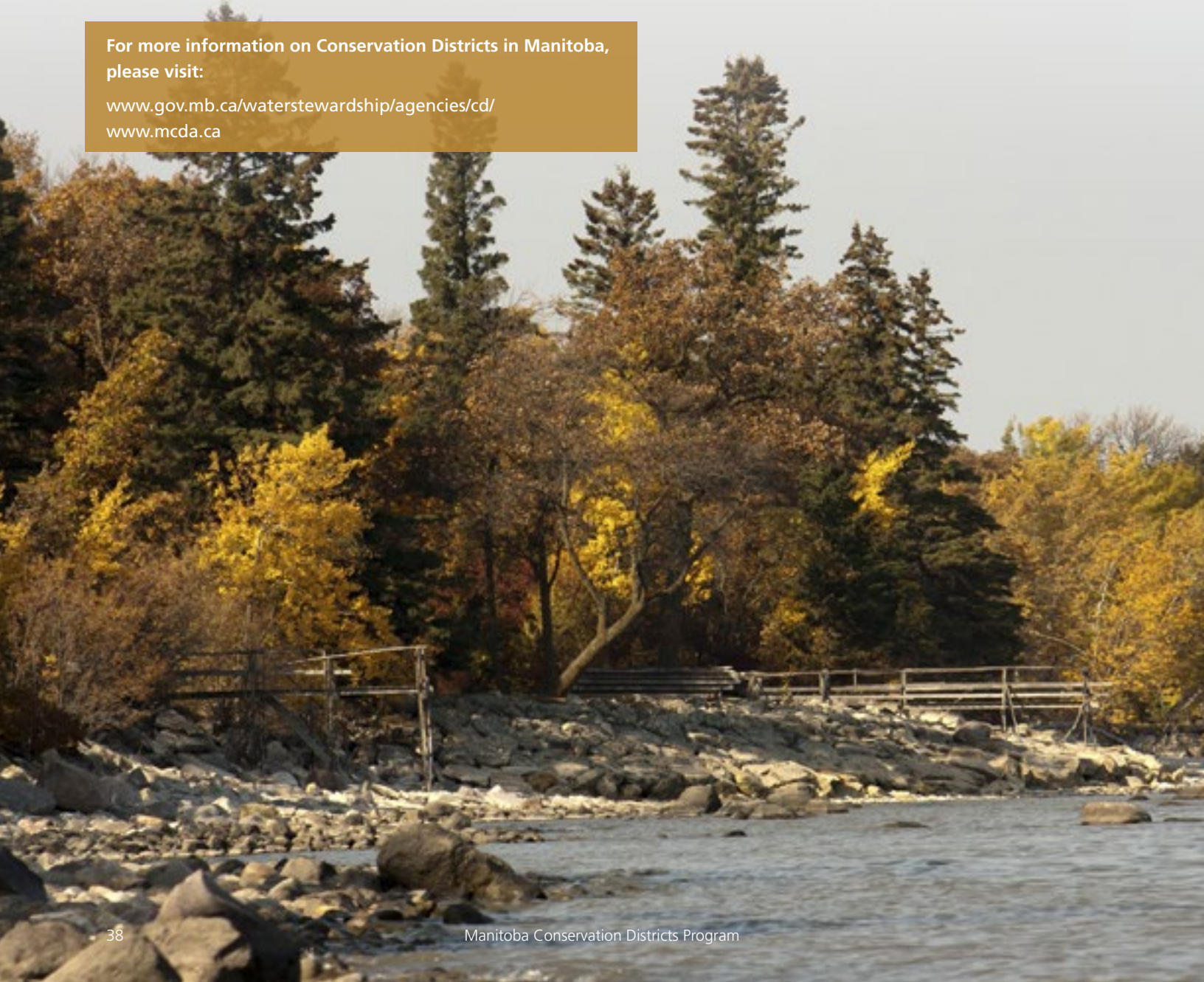
Conservation districts span most of municipal Manitoba, covering all or parts of 27 watersheds, and the program continues to grow. Each conservation district offers its own unique set of programs and projects tailored to suit the needs of the watershed.

Conservation districts are leading in the development and implementation of integrated watershed management plans. Plans contain shared goals and a list of projects that work towards those goals over time. Conservation districts offer programming to landowners and promote water management principles that reflect the goals of their integrated watershed management plan. In Manitoba, conservation districts are just some of the many organizations that turn plans into action on the ground.

Careful management of our natural resources is essential for sustainable economic growth in harmony with the environment. The Conservation Districts Program in your watershed is tailor-made to reflect the issues and needs of local residents in a sustainable manner.

For more information on Conservation Districts in Manitoba, please visit:

www.gov.mb.ca/waterstewardship/agencies/cd/
www.mcda.ca



MANITOBA CONSERVATION AND WATER STEWARDSHIP GRANTS

CONSERVATION DISTRICT AND WATERSHED ASSISTANCE 12 4(E)

<u>Districts</u>	<u>Provincial Grants</u>	<u>Districts</u>	<u>Provincial Grants</u>	<u>Districts</u>	<u>Provincial Grants</u>
Alonsa	\$261,000	Lake of the Prairies	\$175,000	Turtle Mountain	\$302,500
Assiniboine Hills	\$316,000	La Salle Redboine	\$224,700	Turtle River Watershed	\$409,500
Cooks Creek	\$289,800	Little Saskatchewan River	\$180,000	Upper Assiniboine River	\$268,000
East Interlake	\$298,500	Pembina Valley	\$358,900	West Interlake Watershed	\$180,000
Intermountain	\$268,000	Seine-Rat River	\$378,000	West Souris River	\$202,900
Kelsey	\$155,000	Swan Lake Watershed	\$225,000	Whitemud Watershed	\$669,600
				Total	\$5,162,400



PROGRAM MEMBERS AND STAFF

CONSERVATION DISTRICT BOARD MEMBERS AND STAFF

Alonsa	Wes Bernat	Wendell Krahn	Rusty Still – Vice Chair
Shawn Gurke – Manager	Kirby Christensen	Brian Leadbeater	Todd Brown
Cary Anderson – Admin	Kelsey	Grant Matchullis	Robert Alexander
Tom Anderson – Chair	Shawn Sexsmith – Manager	Ted Ross	Reg Madson
John Berthaudin – Vice-Chair	Heather Perchaluk – Admin	Stan Saxton	Bill McQuaker
Lyle Finney	Jarret Berezowecki – Chair	Les Titchkosky	Charles Bertram
Rick Lodge	Joel LeSann	Seine-Rat River	Doug Turnbull
Ken Dunn	Kelvin Dionne,	Jodi Goerzen – Manager	Tom Judd,
Cory Taylor	Debbie McLaughlan	Lorne Gershman – Admin	Guy Huberdeau
Ed Zdan	Randi Salamanowicz	Cornie Goertzen – Chair	Robbie Craig
Assiniboine Hills	Lake of the Prairies	Gerry Maynard – Vice Chair	Theresa Michaluk
Neil Zalluski – Manager	Adam Kerkowich – Manager	Dylan Barkman	West Interlake Watershed
Margaret Sigvaldason – Admin	Terry Kotzer – Admin	Earl Funk	Linda Miller – Manager/Admin
Jeff Elder – Chair	Wayne Buick – Chair	Bob Brandt	Doug Oliver – Chair
Jack Bolack – Vice Chair	Stan Herechuk	Art Bergmann	Jack Cruise – Vice Chair
Heather Dalglish	Louise Smigelsky	Larry Bugera	Brian Sigfusson
Walter Finlay	Gary Clunas	Swan Lake Watershed	Neil Brandstrom
Sam Phillips	Willie Brown	Brent Erlendson – Manager	Henry Rosing
Ted Snure	Ron Turetsky	Kendra McFadyen – Admin	John Halchuk
Hugh Stephenson	La Salle Redboine	Walter Kolisnyk – Chair	Pat Dunlop
Ken Turner	Justin Reid – Manager	Don Bobick – Vice Chair	West Souris River
Cooks Creek	Meghan Robidoux – Admin	Don Machan	Dean Brooker – Manager
Colin Gluting – Manager	Roy Wood – Chair	Brian Burick	Ina Cook – Admin
Debbie Shaver – Admin	Ray Huggart – Vice Chair	Rick Wowchuk	Lloyd Atchison – Chair
Marc Ross – Chair	Denis Danais	Turtle Mountain	Wilson Davis
Bill Ammeter	Reg Dyck	Sean Haight – Manager	Richard Thirty
Roger Vaags	Rob Graham	Sandra Hainsworth – Admin	David Dickson
John Lenton	Mark Lowdon	Greg More – Chair	Whitemud Watershed
Garry Grycki	Marshall Piper	Gary Nestibo – Vice Chair	Chris Reynolds – Manager
Verner Johnson	Georges Picton	Lorne Bolduc	Belinda Stewart – Admin
East Interlake	Little Saskatchewan River	Murray Combs	Robert Rodgers – Chair
Armand Belanger – Manager	Colleen Cuvelier – Manager	Murray Duncan	Ray Drayson – Vice Chair
Brigitte Demarchuk – Admin	Anne Davidson – Admin	Barry Janssens	Daryl Shipman
Garry Wasylowski – Chair	Ray Frey – Chair	Keith Vanbeselaere	Bill Wieler
Rick Gamble – Vice Chair	Denis Pederson – Vice Chair	Turtle River Watershed	Jerry Doucette
Harold Foster	Ron Budiwski	Jody Tucker – Manager	Dennis Jarema
Jim Hardy	Cynthia Murray	Lisa Lepla – Admin	Gerond Davidson
Robert Green	Dave Falkevitch	Paul Brunel – Chair	Kerry Tomchuck
Ray Friesen	Don Huisman	Denis Maguet – Vice Chair	David Single
Intermountain	Larry Cardy	Shawn Buchanan	Arnold Coutts
Jeff Thiele – Manager	John Spaller	Kelvin Code	
Laurie Hykawy – Admin	Pembina Valley	Armand Verhaeghe	
Syd Puchailo – Chair	Cliff Greenfield – Manager	Rick Kutcher	
Mervin Kotak – Vice Chair	Lexine LeBlanc – Admin	Kris Kristjanson	
Jack Bremner	Murray Seymour – Chair	Upper Assiniboine River	
Lyle Morran	Walter McTavish – Vice Chair	Ryan Canart – Manager	
John Towle	Bill Howatt	Janet Sandstrom – Admin	
Ken Shewchuk	George Jackson	Ron Kostaskey – Chair	

Members listed are current as of March 31, 2015

CONSERVATION DISTRICT COMMISSION

Established under *The Conservation Districts Act*, the Conservation Districts Commission (CDC) is an advisory body to the Minister of Conservation and Water Stewardship. The Commission is chaired by the Deputy Minister of Conservation and Water Stewardship.

The primary responsibilities of the CDC are to:

1. Advise the Minister at his request on all matters relating to the Conservation Districts Act and the administration and operation thereof;
2. Give such advice and guidance to a Conservation District Board as may be requested by the Board or as the Commission deems advisable; and
3. Review, in any year, the watershed plan(s), operations and budget of a Conservation District Board and make recommendations thereon to the Minister.

The Watershed Planning and Programs Section of Manitoba Conservation and Water Stewardship manages and administers the Conservation Districts Program on behalf of the CDC, ensuring CD direction and programming reflects provincial priorities and strategic direction.

WATERSHED PLANNING AND PROGRAMS STAFF

The Watershed Planning and Programs Section administers and manages the Conservation Districts Program as defined by *The Conservation Districts Act*, and coordinates and supports Integrated Watershed Management Planning (IWMP) as outlined in *The Water Protection Act*.

Kristin Hayward, Manager

Watershed Planning and Programs
Phone: 204-945-7487
Email: kristin.hayward@gov.mb.ca

Senior Watershed Planners

Erin Dunbar
Andrea McLean

Watershed Planners

Bobby Bennett
Suzanne Chiupka
Sharla Dillabough
April Kiers North
Dale Timmerman
Patrick Watson

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Carman Office

65-3rd Street N.E.
Carman, MB
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MUNICIPAL PARTNERS

THE CONSERVATION DISTRICTS PROGRAM
HAS 103 MUNICIPAL PARTNERS.

VILLAGES

Dunnottar St. Pierre-Jolys

TOWNS

Carman Minnedosa Niverville Stonewall Virden
Killarney Neepawa Swan River Teulon Winnipeg Beach

CITIES

City of Brandon City of Dauphin City of Morden City of Selkirk City of Steinbach

RURAL MUNICIPALITIES

Alonsa Emerson-Franklin Louise Riding Mountain West Two Borders
Arborg Ethelbert MacDonald Ritchot Victoria
Argyle Fisher McCreary Riverdale Wallace-
Armstrong Gilbert Plains Minitonas- Roblin Woodworth
Bifrost-Riverton Gimli Bowsman Rockwood West Interlake
Boissevain-Morton Glenboro-South Minto-Odanah Rosedale West St. Paul
Brenda-Waskada Cypress Montcalm Rossburn Westlake-Gladstone
Brokenhead Glenella- Mossey River Rosser Woodlands
Cartier Lansdowne Mountain Russell-Binscarth Yellowhead
Cartwright-Roblin Grahamdale Norfolk-Treherne Sifton
Clanwilliam- Grandview North Cypress- Souris-Glenwood
Erickson Grassland Langford Springfield
Coldwell Grey North Norfolk St. Andrews
Cornwallis Hamiota Oakland- St. Laurent
Dauphin Hanover Wawanesa Stanley
Deloraine- Harrison-Park Oakview Ste. Anne
Winchester Kelsey Pembina Ste. Rose
De Salaberry Killarney-Turtle Piney Stuartburn
Mountain Dufferin Pipestone Swan Valley West
Ellice-Archie La Broquerie Prairie Lakes Taché
Elton Lakeshore Prairie View Thompson
Lorne Lorne Reynolds



