MANITOBA CONSERVATION DISTRICTS PROGRAM

2015-16 ANNUAL REPORT

Manitoba

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.

2015-2016 ANNUAL REPORT

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MINISTER OF
SUSTAINABLE DEVELOPMENT

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, 2016, along with the audited financial statements of the districts for the same period.

Respectfully submitted,

Cathy Cox

CONSERVATION DISTRICTS COMMISSION

Room 314, Legislative Building, 450 Broadway Avenue
Winnipeg, Manitoba R3C 0V8

Honourable Cathy Cox
Minister of Manitoba Sustainable Development
Room 314, Legislative Building
Winnipeg MB R3C 0V8

Dear Minister Cox:

I am pleased to submit the 2015-2016 Annual Report of the Conservation Districts Program for the fiscal year ending March 31, 2016.

The annual report provides a summary of the programs and financial activities of the 18 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.

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

CONSERVATION DISTRICTS IN MANITOBA: A MANITOBA SUCCESS STORY

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 Manitoba government 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

The Conservation District Program spans most of municipal Manitoba, covering all or parts of 27 watersheds, and continues to grow. Each conservation district offers its own unique set of programs and projects tailored to the needs of the watershed.

Conservation districts lead the development and implementation of integrated watershed management plans. Plans contain shared goals and projects that work towards those goals over time. 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.

PROGRAM FUNDING **OVERVIEW**

Municipal Levies

$1,756,667

Participating municipalities are required to match provincial grant contributions at a 3 to 1 ratio. This means municipalities contribute $1 for every $3 that the Province contributes. Municipalities appoint members to conservation district boards to implement projects and programming relevant to their local watersheds.

Provincial Grant

$5,312,000

The Manitoba government provides an annual grant to each conservation district to implement integrated watershed management plans in their local watersheds.

Other

$3,158,129

$1,444,865	Federal
$900,353	Non-governmental
$448,764	Municipal
$364,147	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

$10,226,796

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 types may vary between individual conservation districts, programming generally falls within five main categories:

Surface Water Management

62%

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

Nutrient Reduction and Water Quality

18%

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

Drinking Water Protection

5%

Includes abandoned well sealing, wellhead remediation and more

Natural Areas Protection and Enhancement

9%

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

Education

6%

Includes water festivals, producer workshops, tours and presentations

ALTERNATIVE LAND USE SERVICES PROGRAM (ALUS) RETURNS TO MANITOBA

In July 2014, the Alternative Land Use Services (ALUS) program returned to its birthplace in the same watershed as the original pilot project that began in 2006. The ALUS program was set up to provide an incentive payment to landowners to create or maintain environmental goods and services on the landscape for the benefit of all Manitobans.

The Little Saskatchewan River Conservation District is currently the only conservation district delivering an ALUS program in Manitoba. Landowners in the district are eligible for annual payments for projects that provide environmental goods and services. Local priorities and projects are determined by a Partnership Advisory Committee (PAC) that helps to engage farmers, environmental non-government organizations and municipalities in program delivery.

As of 2016, the ALUS program has funded 10 projects with farmers in the Little Saskatchewan River Conservation District. These projects include seeding marginal cropland to grasses, fencing livestock out of riparian areas, installing offsite watering systems, establishing rotational grazing, and enhancing wetlands. In total, the ALUS program enrolled 1,305 acres of land in 2015-16.

In 2016, the Manitoba government committed to implementing a province-wide program based on the ALUS model to help reduce flooding and improve water quality and nutrient management.

REWIND...

CANADA'S FIRST ALUS PROJECT WAS PILOTED IN THE RURAL MUNICIPALITY OF BLANSHARD FROM 2006 TO 2009. APPROXIMATELY 21,000 ACRES OF SENSITIVE LANDS, MOSTLY WETLANDS, WERE ENROLLED IN THE PILOT PROJECT TO SECURE ECOLOGICAL GOODS AND SERVICES OVER THE DURATION OF THE PROJECT. MORE THAN 70% OF LANDOWNERS IN THE MUNICIPALITY PARTICIPATED IN THE PROGRAM, MAKING IT A SUCCESS.

STORING WATER ON THE LAND

CONSERVATION DISTRICTS CONSTRUCT PERMANENT AND SEASONAL WATER RETENTION STRUCTURES IN THEIR WATERSHEDS

Water retention continues to be a priority for many conservation districts and integrated watershed management plans. Topography, land use, soil type, and the magnitude of downstream flooding and erosion are all considered in the design, construction and operation of water retention structures. Small earthen dams are designed to capture and slowly release snowmelt and summer runoff for short periods of time during peak flows, while larger structures have the capacity to hold water for longer periods of time, either seasonally or permanently. Although some conservation districts have been in the business of building small dams for decades, others have recently constructed their first projects.

Water retention is a priority in the recently completed Dauphin Lake Integrated Watershed Management Plan. As such, Intermountain Conservation District planned and constructed their first water storage project in 2015-16 in partnership with the Municipality of Gilbert Plains. They used the natural terrain of the area along with two small dams located on a municipal road allowance to temporarily backflood water onto a partnering landowner's cropland. This design slows the flow of the water coming off of the steep slopes of the Riding Mountain Escarpment, reducing peak flows and erosion risk.

Whitemud Watershed Conservation District and Pembina Valley Conservation District have a long history of small dam construction. In 2015-16 these conservation districts constructed a total of 15 small dams. Whitemud Watershed Conservation District designed and constructed six dry dams to capture spring and summer runoff, thereby slowing flows and reducing downstream flooding and erosion problems. These dams established a total of 60 acre-feet of new water storage capacity in the watershed. Because of their location upstream of the Assiniboine Delta Aquifer, storing water behind these dams also enhances water infiltration and groundwater recharge to the aquifer. The Pembina Valley Conservation District designed and constructed nine dry dams for flooding and erosion control, providing a total of 95 acre-feet of new water storage potential. Three of these dams provide landowners with multiple benefits, including livestock crossing, livestock watering, and wildlife habitat.

Eleven small dams providing 332 acre-feet of storage for flood-peak attenuation were constructed by Assiniboine Hills, La Salle Redboine, Turtle Mountain, Upper Assiniboine River, and West Souris River Conservation Districts in 2015-16. Several small dams providing additional benefits for landowners were also constructed by West Souris River Conservation District and Assiniboine Hills Conservation District in 2015-16. West Souris River Conservation District designed and constructed a backflood project that will provide 10 acre-feet of storage upstream of Pipestone Creek, which will become the site of a solar powered alternative watering system for cattle. Assiniboine Hills Conservation District constructed a small dam to reduce peak runoff on the Black Creek by storing 25 acre-feet of water. This small dam may also be used as a source of water to irrigate a small orchard that is planned at the same location.

In total, eight conservation districts constructed 30 small dams in 2015-16, providing a total of 504 acre-feet of storage. These water retention structures hold back spring snowmelt and water from large spring and summer rain events. By doing so, they slow the velocity of water in the system, thus preventing downstream erosion and flooding problems. They also provide ecological benefits including groundwater recharge and habitat creation, and provide water sources for cattle or small-scale irrigation – a benefit to the landowner.

REWIND...

OVER THE LAST 13 YEARS, CONSERVATION DISTRICTS HAVE BUILT NEARLY 600 WATER STORAGE PROJECTS.

MORE THAN MEETS THE EYE

SHELTERBELTS PROVIDE MULTI-BENEFITS

We all know shelterbelts are traditionally used to reduce erosion and improve soil health, but there are many other co-benefits such as wildlife habitat and corridors, reduced wind and blowing snow, and enhanced soil moisture retention.

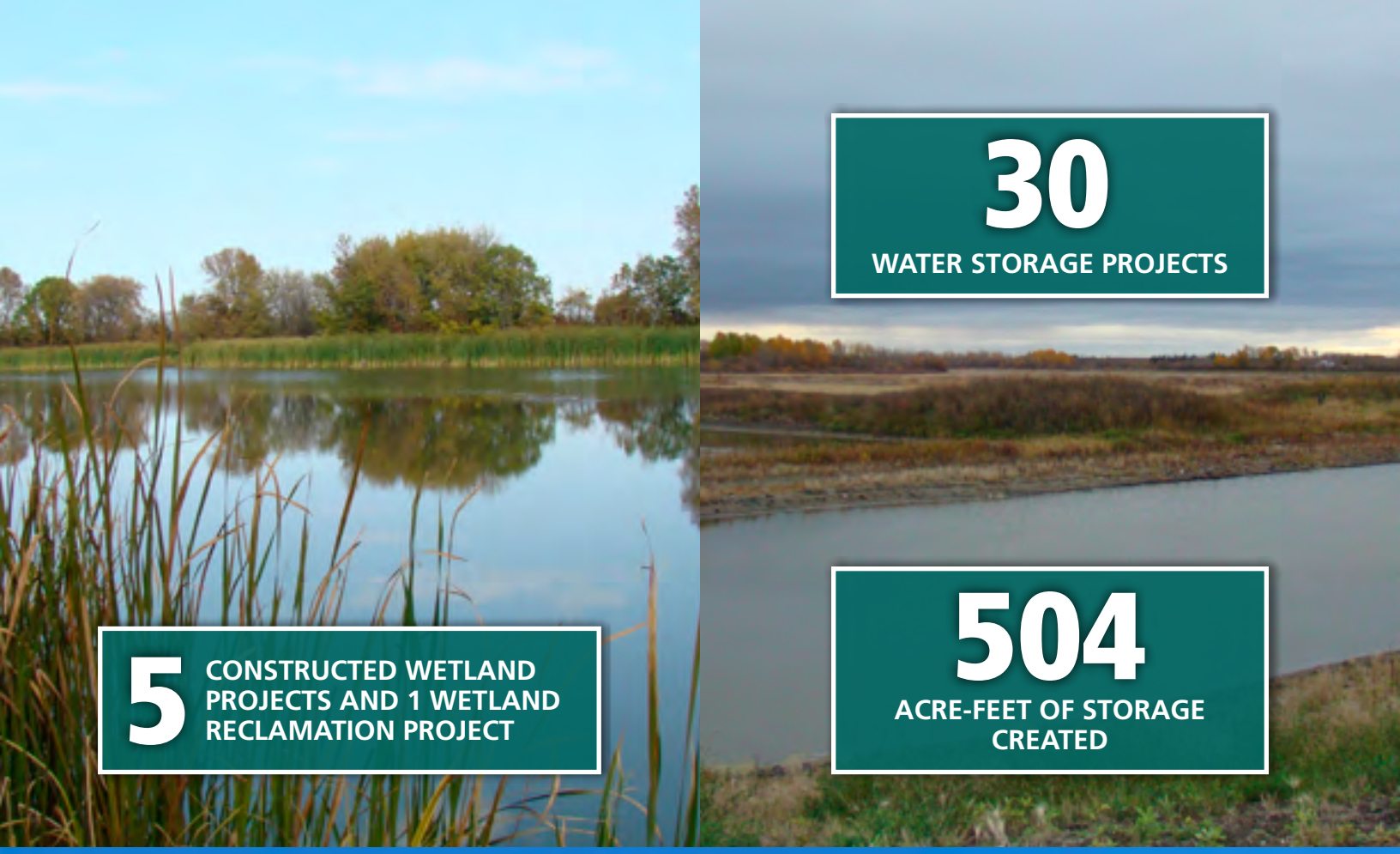
The Upper Assiniboine River Conservation District has been working on a project to improve safety along the Trans-Canada Highway in Western Manitoba. The conservation district partnered with students from Elkhorn School and received funding from Shell Canada and Enbridge to plant a strip of lilac trees to reduce blowing snow and drifts and increase visibility on this important and busy highway. The Upper Assiniboine River Conservation District has also purchased a mower to maintain these shelterbelts by reducing grass alongside the tree rows until the trees reach a more mature growth stage. This living snow fence will improve winter highway conditions while also providing the traditional environmental benefits of a shelterbelt.

The Intermountain Conservation District was approached by the City of Dauphin to plant trees surrounding the Dauphin Waste Disposal Grounds to reduce winds and to catch debris that could blow away from the site. The district started cuttings at their nursery near Ethelbert, and in 2015 a total of 750 hybrid poplar, willow, lilac and dogwood trees were planted in two rows at the site. This is a great example of how the district's expertise and access to trees helped to solve a local problem while also providing carbon sequestration, biodiversity and wildlife habitat benefits in an otherwise unsightly area. The Intermountain Conservation District plans to continue tree planting efforts at this location during the summer of 2016.

With the high demand for annual crop land in the Whitemud River Watershed – particularly for irrigated potato production – many existing shelterbelts have been removed. Recognizing this trend, the Whitemud Watershed Conservation District held a shelterbelt workshop for crop producers in November 2015 in Brookdale. The workshop highlighted the benefits of planting and maintaining shelterbelts and provided information about Whitemud Watershed Conservation District's shelterbelt program, including planting designs and species selection to fit landowners needs.

Additional information was also provided on other incentive based programs offered by the Municipality of North Cypress – Langford, such as reimbursement of up to $750 per mile of new shelterbelt plantings and two additional years of maintenance for new shelterbelt plantings. The goal was to increase uptake in the district's existing shelterbelt program that has experienced declining interest in recent years. Whitemud Watershed Conservation District continues to work with producers to put trees back on the land in a way that will benefit the soil and provide agronomic and economic benefit to farmers. The number of applications for the district's shelterbelt program has increased three-fold since the workshop was held.

These innovative ideas to help Manitobans increase shelterbelt use around the province have come as a direct result of local conservation districts providing programming, expertise and leadership.



30
WATER STORAGE PROJECTS

504
ACRE-FEET OF STORAGE CREATED

5 CONSTRUCTED WETLAND PROJECTS AND 1 WETLAND RECLAMATION PROJECT

INFRASTRUCTURE

1,480 KM OF BRUSHING AND MOWING

15 DRAIN RECONSTRUCTION PROJECTS

163 CROSSINGS REPAIRED OR REPLACED

EROSION CONTROL

23 EROSION CONTROL STRUCTURES

13 GRASSED WATERWAYS

3 GULLY STABILIZATION PROJECTS

25 STREAMBANK STABILIZATION PROJECTS

CONSERVATION DISTRICTS

PROTECTING MANITOBA'S WATERSHEDS

2015-2016 PROJECTS

250
ABANDONED WELLS SEALED

1,380
CATTLE EXCLUDED FROM RIPARIAN AREAS THROUGH THE INSTALLATION OF 27 KM OF FENCING

HEALTHY HABITAT SUPPORTS HEALTHY

Conservation districts create healthier watersheds by addressing issues like degraded riparian areas and barriers to fish passage. Healthy riparian areas serve in stablizing shoreline and riverbank areas, storing water, controlling water temperature by providing shade, filtering runoff water, and providing habitat for a wide range of plants and animals. Healthy aquatic habitats provide places for fish to live, eat, and reproduce.

ENHANCING RIPARIAN AND AQUATIC HABITAT IN MANITOBA'S INTERLAKE REGION

Since 2009, the West Interlake Watershed Conservation District has been actively involved in improving watershed health in Manitoba's Interlake Region. From 2009 to 2014, with funding from Manitoba's Fisheries Enhancement Fund, the conservation district worked with AAE Tech Services to complete watershed assessments on the Swan Creek, Lake Francis, Dog Lake and Shoal Lakes Watersheds. The assessments provided the district with information on the current conditions of the riparian areas and in-stream fish habitat, including recommendations to improve aquatic habitat through the construction of spawning shoals at specific locations, elimination of barriers to fish passage, and construction of riparian fencing and off-site watering systems to control livestock access to waterways.

Lake Manitoba fisheries are a valued asset to residents of the West Interlake Watershed Conservation District – not only for the commercial fishery but also for the sport fishing, recreation and tourism opportunities they provide. Most residents have observed creeks full of spawning fish in the spring and are supportive of restoring or creating fish habitat to improve spawning success and sustainable fish populations. Conservation district programming reflects the need to protect these critical ecosystems. In 2015-16, the conservation district inspected spawning shoals to evaluate effectiveness, discussed options to alter spawning shoal design to increase effectiveness, and identified additional aquatic habitat enhancement projects.

Spawning shoals are sites created to improve spawning success and recruitment of new fish in areas that lack high quality spawning habitat. Spawning shoals are created by depositing small to medium rounded field stone and gravel over approximately 50 linear feet of a waterway bottom. In the West Interlake Watershed Conservation District, shoals were specifically constructed to improve walleye spawning success but other fish also use the spawning shoals.

REWIND...

SINCE 2009, THE WEST INTERLAKE WATERSHED CONSERVATION DISTRICT HAS CONSTRUCTED 33 SPAWNING SHOALS, INSTALLED 42 KILOMETRES OF RIPARIAN FENCING AND 16 RIPARIAN OFF-SITE WATERING SYSTEMS, AND REMOVED ONE BARRIER TO FISH PASSAGE.

FISHERIES, ONE PROJECT AT A TIME

REMOVING ROADBLOCKS TO FISH PASSAGE ON THE SHELL RIVER

Waterway connectivity and habitat diversity are critical components of healthy aquatic ecosystems. Barriers to fish passage prevent spawning and seasonal migration of fish, restrict access to preferred habitat and food sources, increase the chances of predation, and can have significant impacts on fish populations. The barriers can be physical (e.g. weirs, dams, perched or sloped culverts), hydraulic (e.g. areas of high velocity flow or turbulence), chemical (e.g. effluent discharges, low dissolved oxygen), and behavioural (e.g. places where fish won't swim).

In the summer of 2014, Lake of the Prairies Conservation District investigated an old weir that was posing a barrier to fish passage on the Shell River. The Shell River is a major tributary to the Assiniboine River located just upstream of the Shellmouth Dam. Fish species common to the area include walleye, pike, rock bass, suckers, and mooneye. Upon deciding to develop a project to eliminate the barrier to fish passage at the site, Lake of the Prairies Conservation District set forth to acquire engineering and design expertise and project funding. AAE Tech Services and Bruce Harding Engineering provided the engineering and project design and Fisheries and Oceans Canada's Recreational Fisheries Conservation Partnerships Program provided project funding of $34,200. The conservation district initially thought that work on the project could begin in October 2015, but high river flows delayed the start of construction until February 2016. The project was completed over a three day period and involved clearing a path for an excavator to access the site, breaking ice on the frozen river, hauling 25 truckloads (approximately 400 yards) of field stone, precisely cutting the lip of the sheet-pile weir using a torch from a mobile welding truck, and removing all old materials. In spring of 2016, the project was observed to be working as planned. Lake of the Prairies Conservation District is proud of the project and looks forward to completing more fish habitat restoration and enhancement projects that contribute to maintaining a healthy fishery in Lake of the Prairies.

Before

After

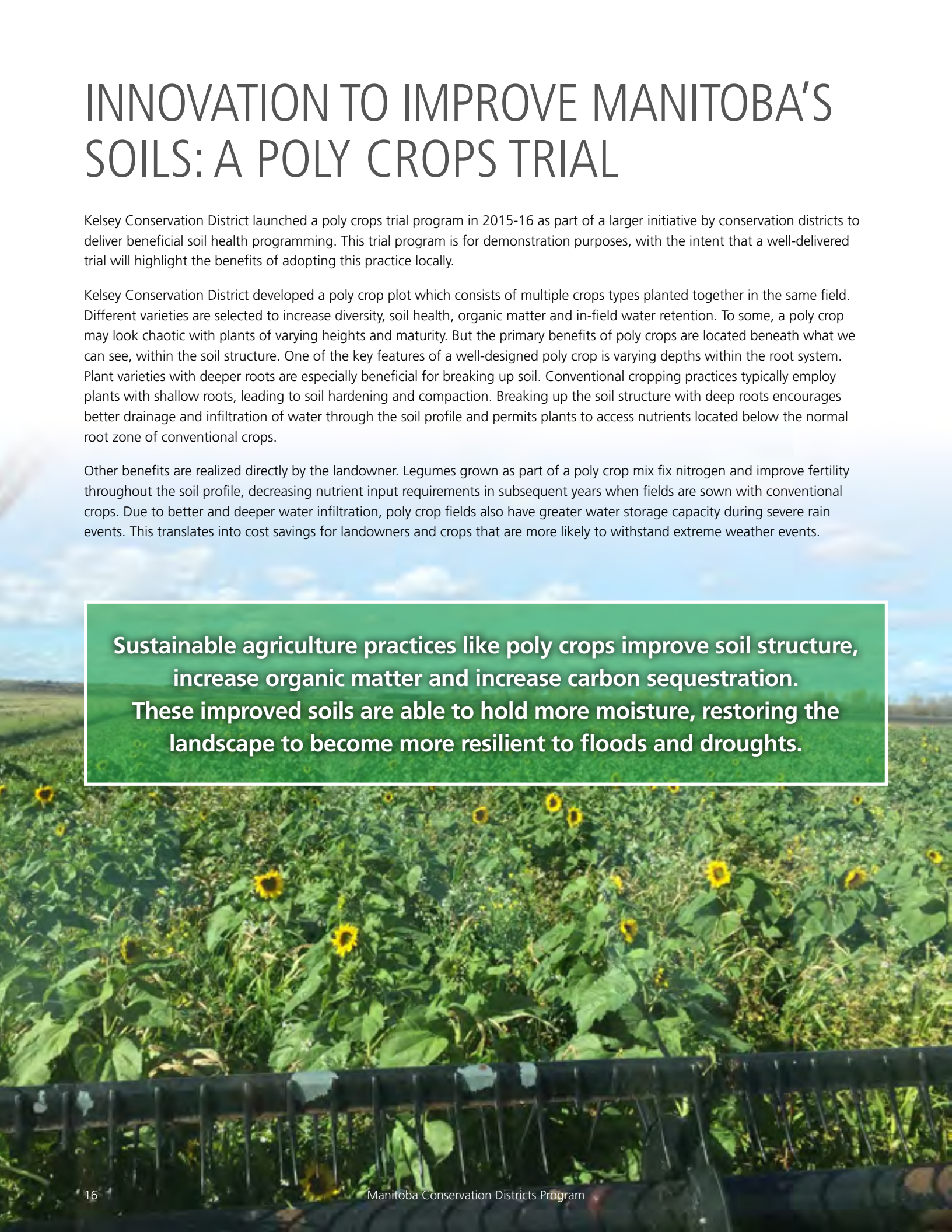
INNOVATION TO IMPROVE MANITOBA'S SOILS: A POLY CROPS TRIAL

Kelsey Conservation District launched a poly crops trial program in 2015-16 as part of a larger initiative by conservation districts to deliver beneficial soil health programming. This trial program is for demonstration purposes, with the intent that a well-delivered trial will highlight the benefits of adopting this practice locally.

Kelsey Conservation District developed a poly crop plot which consists of multiple crops types planted together in the same field. Different varieties are selected to increase diversity, soil health, organic matter and in-field water retention. To some, a poly crop may look chaotic with plants of varying heights and maturity. But the primary benefits of poly crops are located beneath what we can see, within the soil structure. One of the key features of a well-designed poly crop is varying depths within the root system. Plant varieties with deeper roots are especially beneficial for breaking up soil. Conventional cropping practices typically employ plants with shallow roots, leading to soil hardening and compaction. Breaking up the soil structure with deep roots encourages better drainage and infiltration of water through the soil profile and permits plants to access nutrients located below the normal root zone of conventional crops.

Other benefits are realized directly by the landowner. Legumes grown as part of a poly crop mix fix nitrogen and improve fertility throughout the soil profile, decreasing nutrient input requirements in subsequent years when fields are sown with conventional crops. Due to better and deeper water infiltration, poly crop fields also have greater water storage capacity during severe rain events. This translates into cost savings for landowners and crops that are more likely to withstand extreme weather events.

Sustainable agriculture practices like poly crops improve soil structure, increase organic matter and increase carbon sequestration. These improved soils are able to hold more moisture, restoring the landscape to become more resilient to floods and droughts.



THE ROLE OF LIVESTOCK CROSSINGS IN RIPARIAN AREA MANAGEMENT

Controlling livestock access is an important management tool in the protection and restoration of riparian zones in rural Manitoba. This can be achieved through exclusion fencing, off-site watering systems, managed grazing and the provision of stream crossings for livestock.

A stream crossing for livestock is a hardened bed or foundation for animals to travel across a small stream or seasonal waterway. This technique allows producers to manage the movement of cattle to different parcels of land for grazing while reducing the impact on riparian areas, waterways and aquatic habitat. Because soils are often wet in riparian zones, cattle hooves can quickly pulverize and compact soil and vegetation – a phenomenon known as soil pugging. The banks and streambeds are particularly sensitive to continuous hoof action and can easily become eroded over time.

A number of conservation districts, including Alonsa, Pembina Valley, Assiniboine Hills, Upper Assiniboine River, and Turtle Mountain provided financial and technical assistance to livestock producers for stream crossings in 2015-16. The work usually involves creating a laneway for animals to travel down to and across the waterway from either direction. Topsoil and vegetation are typically removed to a depth of six to twelve inches, and stream banks are reshaped to a more stable 4 to 1 slope for the approach aprons leading down to the stream bottom. The excavated area is then bed-hardened with a course granular material. Where crossing foundations are particularly soft, geo-textile is used to create a barrier between the soft sub-soil and the granular stone-gravel overlay. Geo-textile prevents livestock hoof action from pushing the stone-gravel overlay into the softer subsoil and thus maintains the long term integrity and use of the crossing.

The Assiniboine Hills Conservation District uses a modified technique for some of their crossings to provide additional water storage benefits. An elevated lane is constructed across the waterway with a culvert installation to pass water. The laneway acts like a small backflood dike (dry dam) to retain water. The water level is controlled using a draw down pipe with a spillway that can be used for emergency overflow if needed. Fencing is used to restrict cattle from accessing the water on either side of the crossing.

Much like us, livestock will naturally avoid wet, soft soils and travel extra distance to cross a stream with a more solid foundation, even in situations where no riparian fence exists. The benefits of a crossing are reduced erosion and siltation to waterways, improved riparian condition, better use and access of land on either side of a waterways thus promoting more uniform grazing, improved herd health and weight gains, and reduced risk of mortality. Overall, riparian areas are left intact and able to provide environmental benefits to nearby and downstream water users. The financial assistance, knowledge and experience of conservation districts provide a mechanism to help Manitoba livestock producers adopt this beneficial management practice.

REWIND...

OVER THE LAST 8 YEARS, 83 LIVESTOCK CROSSINGS HAVE BEEN CONSTRUCTED BY CONSERVATION DISTRICTS.

PROTECTING RURAL LANDSCAPES
CONSERVATION AGREEMENTS AND CONSERVATION DISTRICTS

A conservation agreement (CA) is an agreement between a landowner and a conservation organization to provide long-term protection and conservation of landscape features such as wetlands, native prairie, rangelands, woodlands, forested slopes, and riparian areas. These natural landscape features provide many benefits to Manitobans, including recharging groundwater sources, protecting water quality, conserving wildlife habitat, mitigating climate change impacts, improving local aesthetics, and many other local and regional benefits. Conservation districts across Manitoba have partnered with organizations such as Manitoba Habitat Heritage Corporation (MHHC) and landowners to protect local landscapes that are at risk of conversion to rural or urban developments.

In 2015-16, 11 conservation agreements were signed as a result of the partnership between CDs, MHHC and landowners. Conservation agreements were signed in the Assiniboine Hills, Pembina Valley, Seine Rat River, Turtle Mountain, Turtle River Watershed, and Whitemud Watershed Conservation Districts, resulting in the protection of 1970 acres of wetlands, riparian areas, woodlands and native rangelands in Manitoba.

Turtle River Watershed Conservation District and MHHC cooperated to protect 77 acres of wetland, riparian, and upland habitat upstream of Dauphin Lake. A local landowner wanted to protect this important habitat, preventing any future cultivation and drainage while maintaining its natural ability to retain water. This CA contributes to achieving the goals identified in the recently completed Dauphin Lake Integrated Watershed Management Plan.

Using an innovative delivery mechanism, Assiniboine Hills Conservation District offered payment for CAs through the Oak Creek / Glenboro Marsh Conservation Auction, funded by the Growing Forward 2: Growing Assurance – Ecological Goods and Services program with in-kind support provided by MHHC. This attracted the attention of a multi-generational farming family in the Oak Creek sub-watershed and resulted in the signing of a CA on a half section of farm land, protecting natural landscapes to provide multiple benefits including natural water retention areas, elk and other wildlife habitat protection, and improved recreational access for local residents. This protected area is comprised primarily of grassland habitat (351 acres) with some wooded (94 acres) and wetland (7 acres) habitat. Assiniboine Hills Conservation District is working with a neighbouring landowner to protect an additional quarter section of land under a conservation agreement.

REWIND...

OVER THE LAST TWO YEARS, CONSERVATION DISTRICTS HAVE SECURED 22 CONSERVATION AGREEMENTS.

The Wildlife Lands of the Manitoba Escarpment program was launched in 2015, encouraging landowners to protect and restore the natural cover of the Manitoba Escarpment. This program builds on the success of the Sustainable Slopes program, which was originally developed by Pembina Valley Conservation District, MHHC and partners. It offers financial incentives to encourage landowners to sign on to CAs and adopt beneficial management practices in a target area that includes the slopes of the Manitoba Escarpment in three conservation districts: Pembina Valley, La Salle Redboine, and Whitemud Watershed. Seven CAs were signed in the Pembina Valley and Whitemud Watershed Conservation Districts through this program in 2015-16, protecting a total of 1223 acres of forested slopes and native rangelands.

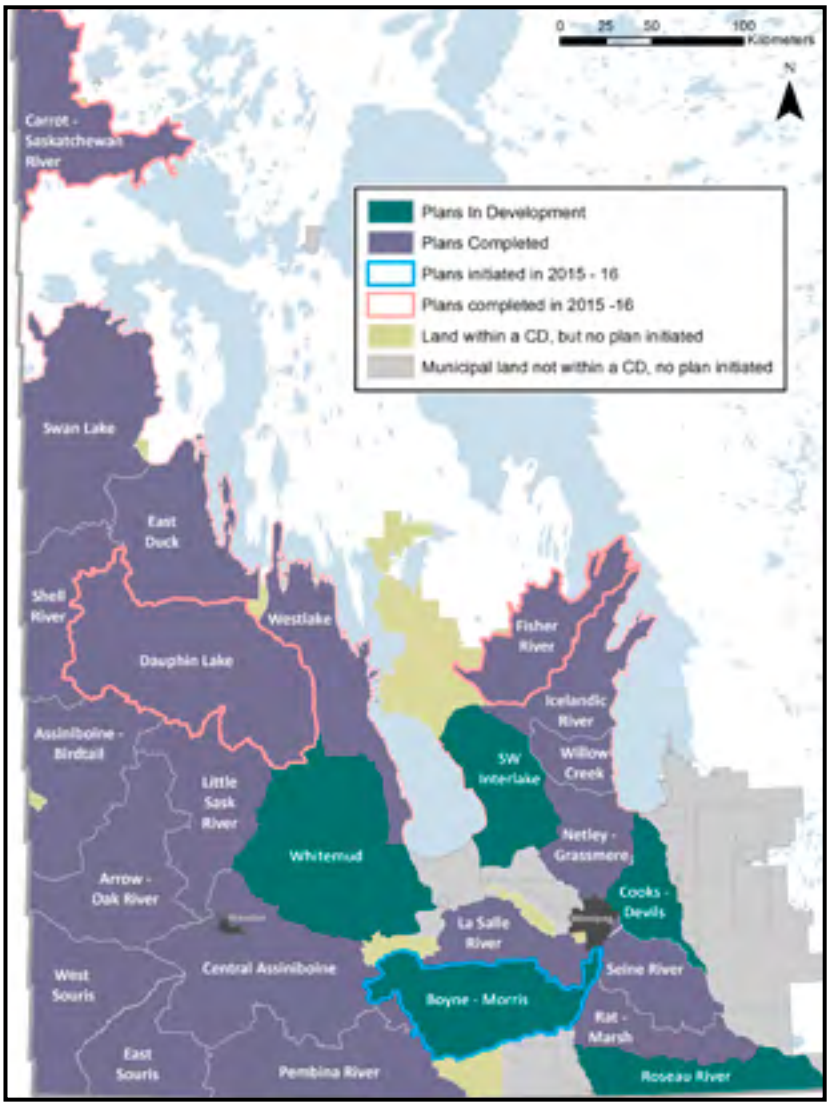
Turtle Mountain Conservation District and Seine Rat River Conservation District also worked cooperatively with MHHC to sign CAs for 217 acres of wooded and wetland habitat and 27 acres of riparian habitat, respectively.

IN 2015-16, 1970 ACRES OF IMPORTANT HABITAT WAS PROTECTED IN PERPETUITY UNDER 11 CONSERVATION AGREEMENTS SIGNED IN SIX CONSERVATION DISTRICTS.

INTEGRATED WATERSHED MANAGEMENT PLANNING

Integrated watershed management plans guide conservation districts and other environmental agencies in protecting, restoring and managing water, aquatic ecosystems, and drinking water sources. The planning process engages watershed residents to identify and prioritize watershed issues, gather and analyze local, technical, and traditional knowledge, and develop recommendations to address priority issues in targeted areas. Plan implementation is shared by conservation districts, all levels of government, stakeholder organizations and watershed residents. Conservation districts have initiated 25 integrated watershed management plans to date, of which 20 are complete and the remaining five are at various stages of development. In 2015, the Manitoba government reinforced their commitment to watershed planning by mandating watershed-based planning and water resource management.

In 2015-16, three integrated watershed management plans were completed in the following Manitoba watersheds: Carrot – Saskatchewan River (Kelsey Conservation District), Dauphin Lake (Intermountain Conservation District and Turtle River Watershed Conservation District), and Fisher River (East Interlake Conservation District). These plans reflect considerable hard work over the past several years by the board and staff of these conservation districts, as well as the project management teams, Indigenous communities, stakeholders and residents of the watersheds. Actions identified in these plans will be implemented over the next 10 years 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.



In early 2016, the Boyne – Morris Integrated Watershed Management Plan was initiated by Pembina Valley Conservation District and La Salle Redboine Conservation District. The Manitoba government provided a $25,000 planning grant to La Salle Redboine Conservation District to support plan development and the planning process will continue over the next several years.

FAST FORWARD...

THE FIRST INTEGRATED WATERSHED MANAGEMENT PLAN WAS COMPLETED IN 2006 FOR THE EAST SOURIS RIVER WATERSHED. THIS PLAN HAS NOW REACHED ITS LIFESPAN OF TEN YEARS. A SECOND GENERATION PLANNING PROCESS WILL BE INITIATED IN 2016 – 17.

WETLAND LOSSES IN SOUTHERN MANITOBA

WETLAND RESTORATION IN THE PEMBINA RIVER WATERSHED

A century of landscape modification has resulted in staggering wetland losses throughout the Canadian Prairies, with estimates of losses ranging between 70 and 90 percent. Conservation districts in Manitoba recognize the need to slow this trend and offer programs for wetland restoration and preservation.

The Pembina River Integrated Watershed Management Plan identifies the need for wetland restoration and preservation in several of its goals and actions. As such, the Pembina Valley, Turtle Mountain and Assiniboine Hills Conservation Districts have promoted wetland conservation through conservation agreements and restoring drained or modified wetlands. These projects were formerly funded by the Province's Wetland Restoration Incentive Program (WRIP) and are currently funded by Growing Forward 2: Growing Assurance – Ecological Goods and Services program.

Land managers recognize that wetland drainage often presents more challenges than benefits. A farm family approached Pembina Valley Conservation District requesting help to restore a large former wetland that had been drained during the 1970s, when low fuel prices and high wheat commodity values resulted in added pressure to convert marginal and sensitive lands to annual cropland. The landowners did just that – draining a 147 acre wetland in the hopes of boosting production for their farming venture. Unfortunately, after a few decades of poor yields, the family realized that returning the wetland to its former natural state would not only benefit their business by reducing input costs on this parcel, but it would also provide wildlife habitat, recreational and aesthetic values, and water retention benefits to the sub-watershed.

The first phase of this wetland restoration project was completed in 2011. The Pembina Valley Conservation District worked with the landowners to design and install a fixed-crest notched weir, preventing water from flowing through the former drain. This restored 100 acres of wetland and provides up to 345 acre-feet of water storage potential. This project was funded by WRIP, in partnership with Manitoba Habitat Heritage Corporation, the Rural Municipality of Pembina, and the Lizard Lake sub-district of the Pembina Valley Conservation District.

Phase two was completed in 2015-16 on the south quarter, restoring an additional 47 acres of wetland. A culvert in a municipal road was modified to permanently store water while allowing some flood attenuation benefits through a notched inlet. This resulted in an additional 31 acre-feet of water storage, for a total of 376 acre-feet of storage for the entire restored wetland complex. Manitoba Habitat Heritage Corporation signed a conservation agreement with the landowner to ensure that this wetland will be protected in perpetuity.

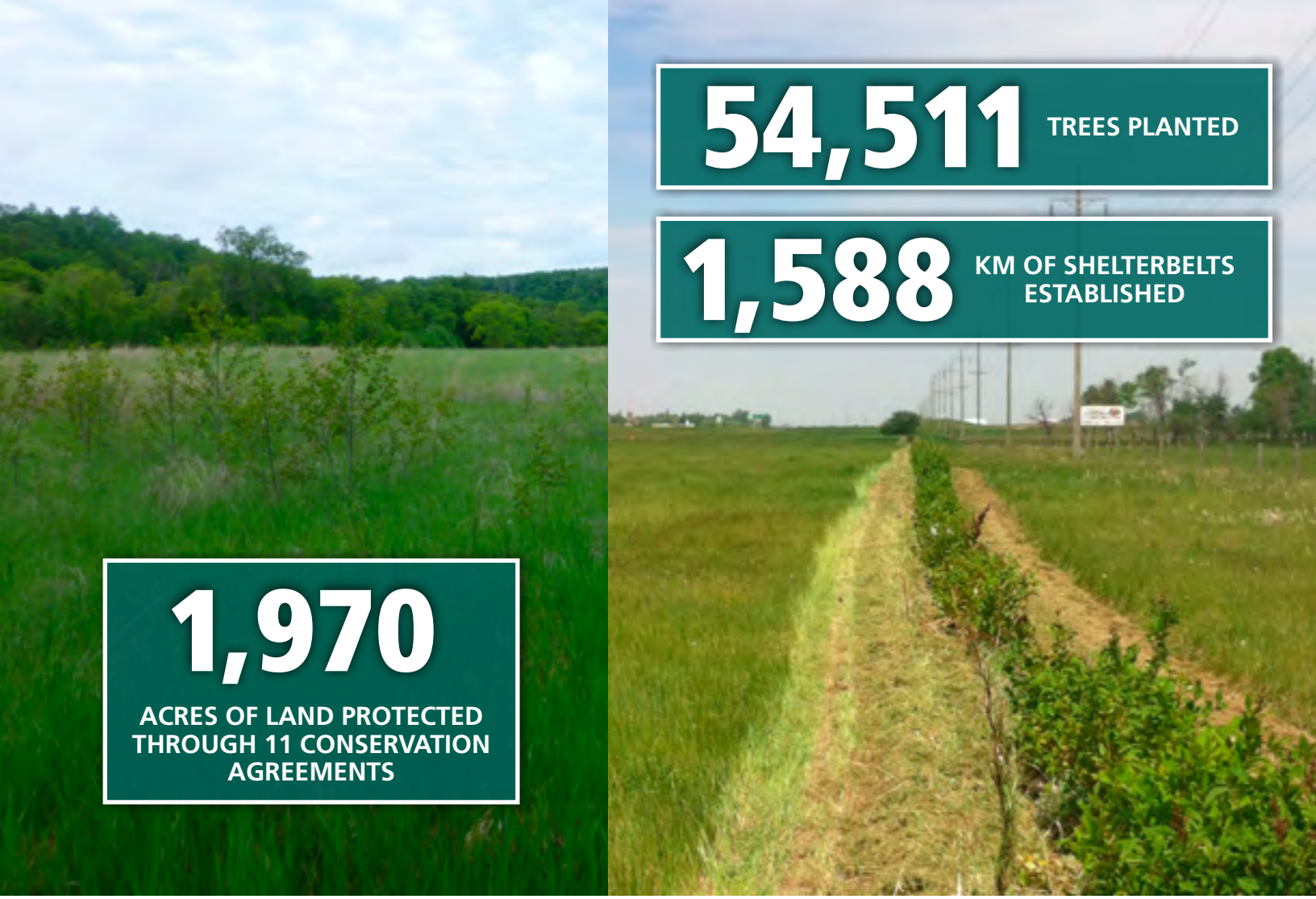
REWIND...

OVER THE LAST 5 YEARS, 5 WETLAND RESTORATION PROJECTS HAVE BEEN COMPLETED BY CONSERVATION DISTRICTS.

PROGRAM ACTIVITIES

Activity	Projects	Sites	Storage (dam^3)	Km	Hectare	Head of Cattle	Trees	Attendees
Planning and Monitoring								
Integrated Watershed Management Planning - Implementation Phase	20							
Integrated Watershed Management Planning - Development Phase	4							
Water Management Planning	2							
Infrastructure Inventory (culverts,drains,dams)	18	2,445						
Riparian and Aquatic Assessments	3	20		5.8				
Hydraulic Assessments	28							
Surface Water Flow & Retention Assessment	23							
Strategic Planning	2							
BMP Research	7	8						
Benthic Monitoring	2	10						
Drinking Water Testing		861						
Surface Water Testing - MSD partnership	24							
Surface Water Testing		431						
Groundwater Testing	31	7						
Soil Testing		38						
Well Stewardship								
Well Establishment	20							
Well Inventory		688						
Abandon Well Sealing		250						
Well Head Remediation		3						
Well Shock Chlorination		67						
Surface Water Management								
Small Dams (<50 dam^3)	30		622					
Beaver Dam Removal		236						
Beaver Management (levellers, etc.)	5							
Beaver Bounty Incentives	928							
Erosion Control Structures	23							
Weirs	14							
Grassed Waterway	13				21			
Gully Stabilization	3				2.53			
Streambank Stabilization	25				12.7			
Wetland Reclamation	1		25		25			
Drop Inlet Structures	4		41					
Gated Culverts	10		89					
Drainage Licenses Reviewed	224							
Rain Barrels	70							
Livestock Programs								
Alternative Watering Systems	36					5,940		
Exclusion Fencing	10			26.9		1,380		
Forage Buffer Strips	7				19.2			
Livestock Crossings	14					1,425		
Constructed Wetlands	5		13.25		6.9			
Runoff Control (farm yard, acreage, cottage)	1				10	400		
Livestock Shelters/Portable Windbreaks	1					800		
Manure Composting	2					150		
Composters	50							

Activity	Projects	Sites	Storage (dam^3)	Km	Hectare	Head of Cattle	Trees	Attendees
Land Stewardship								
Pasture Pipeline	7			19		1375		
Rotational Grazing	6				695	1945		
Forage Seed	118				3,321			
Salinity Seed	25				128			
Tree Planting	41				33.35		13,236	
Tree and Seedlings Supplied	16						3,735	
Field and Property Shelterbelts	81			1,588.3			41,275	
Private Woodlot Management	12				300			
Community Tree Nursery	5						8,735	
Habitat Lease	21	181			615.1			
Conservation Agreement	11				797.58			
Land Acquisition	1				2.4			
Property Maintenance (CD owned or managed)	35							
Conservation Corridors	451				2,165			
Aquatic Habitat								
Fish Ladders	1							
Education and Extension								
Banquets and Water Functions	10							1,025
Project Tours	69							627
Project or Interpretive Signs	54							
Water Conservation Rebates	32							
Presentations	103							9,549
Video or Documentary	1							
Nesting Structures		8						
Nature Trails	21			51.45				
Eco-Tourism	1							
Memberships (non mcda)	19							
Geographic Information System	257							
Aerial Photographs	224							
Urban Rain Gardens		5						
Water Festivals	13							2,364
Youth Education	123							7,122
Demonstration and Tours	18							679
Websites, Social Media and Brochures	49							107,623
Drain Infrastructure								
Drain Maintenance	120			265.5				
Brushing/Mowing	298			1,480				
Drain Reconstruction	15			52.4				
Crossing Infrastructure								
Crossing Maintenance	137							
Crossing Replacements / Major Repairs	26							



54,511 TREES PLANTED

1,588 KM OF SHELTERBELTS ESTABLISHED

1,970

ACRES OF LAND PROTECTED THROUGH 11 CONSERVATION AGREEMENTS

EDUCATION

2,364

STUDENTS ATTENDED WATER FESTIVALS

18

DEMONSTRATIONS AND PROJECT TOURS WITH 679 LANDOWNERS

103

PRESENTATIONS WITH OVER 9,500 ATTENDEES

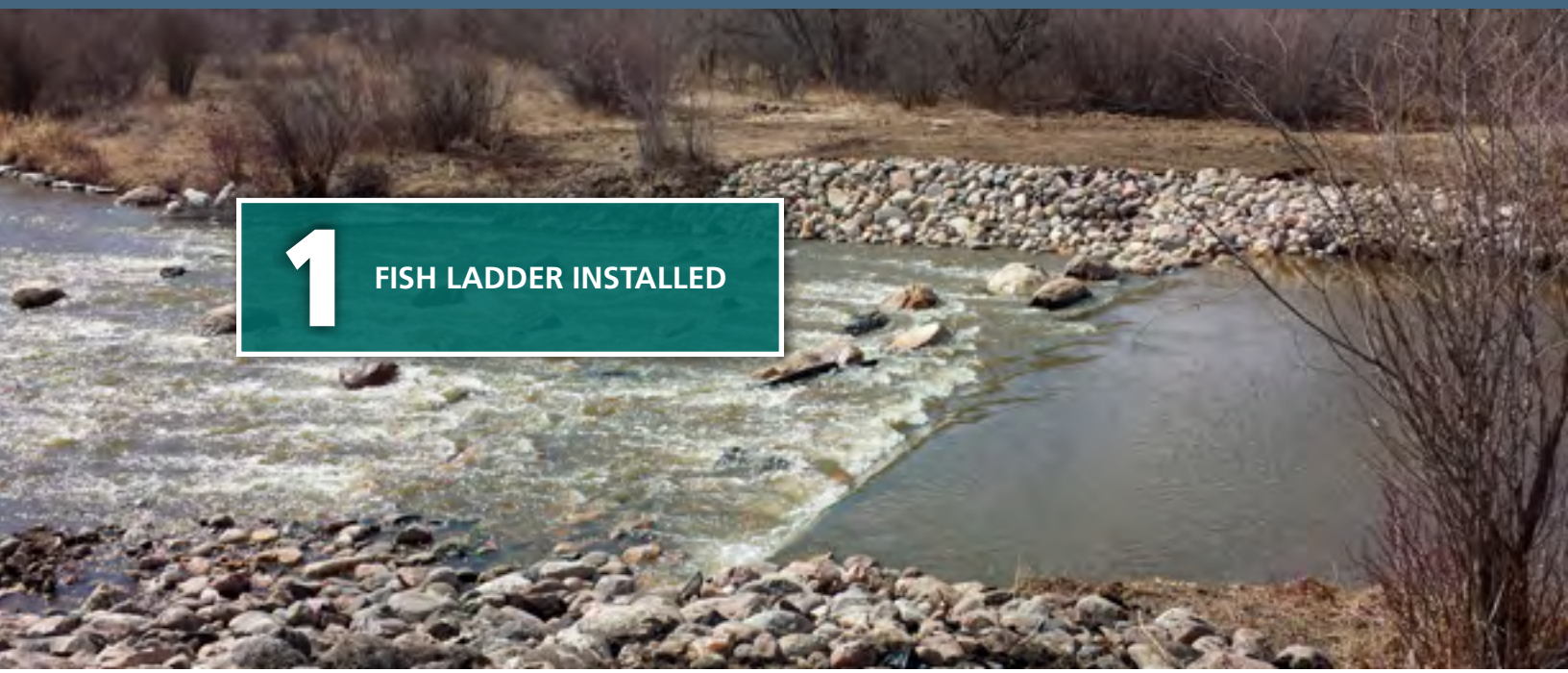
431
SURFACE WATER QUALITY TESTS

688 **PRIVATE WELLS INVENTORIED AND TESTED**

CONSERVATION DISTRICTS

PROTECTING MANITOBA'S WATERSHEDS

2015-2016 PROJECTS



1 **FISH LADDER INSTALLED**

PROGRAM GROWTH AND PARTNERSHIPS

INNOVATIVE SOLUTIONS TO LOCAL SURFACE WATER MANAGEMENT PRIORITIES

Four conservation districts were established in the 1970s to address unique surface water challenges in their watersheds. Alonsa Conservation District, Cooks Creek Conservation District, Turtle River Watershed Conservation District, and Whitemud Watershed Conservation District use a locally-driven decision-making structure to work with municipal and provincial partners to maintain waterway infrastructure and crossing networks for the agricultural community. The dynamic surface water systems in these areas include high velocity streams flowing down the east side of the Manitoba Escarpment, slow channels built through low ridges and shallow swales west of Lake Manitoba, and high volume drains in the Red River Valley.

	Alonsa	Cooks Creek	Turtle River	Whitemud
Total crossings	250	200	800	1,400
Total kilometres of drains	645	550	800	1,770

TOTAL CROSSINGS AND KILOMETRES OF DRAINS IN MANITOBA'S INFRASTRUCTURE CONSERVATION DISTRICTS

Grassroots partnerships between conservation districts and local municipalities place local knowledge at the forefront of surface water management in these watersheds. This decision-making structure facilitates creative and cost-effective solutions and ensures surface water issues are not simply redirected downstream.

Infrastructure conservation districts have the flexibility to adapt and address persistent issues using new tools and innovative solutions. For example, these conservation districts strategically manage culverts, low-level crossings, water retention structures, and vegetation to maintain optimal waterway function. They also take advantage of improved access to spatial data and technology for more efficient project planning and design.

SURVEY GRADE GPS

Most of the infrastructure conservation districts have been transitioning to survey grade Global Positioning System (GPS) equipment and software. This technology enables staff to create detailed topographical maps and project designs at a fraction of the cost required for contracting a typical optical survey. It also increases productivity by enabling staff to complete a survey and design in one day – a process that could take months using a contractor. The efficient turnaround makes it easier for conservation districts to make decisions, plan and manage project costs and timelines, and shorten reaction time in emergency situations.

Whitemud Watershed Conservation District has been using survey grade GPS equipment since 2014 and the cost-savings to the CD has more than covered the initial investment of $30,000. In 2015, the Whitemud Watershed Conservation District employed a summer student to complete approximately 30 surveys at a cost of $6,000 in wages. In the past, contracting the same number of projects to a surveying company would have cost upwards of $45,000. By eliminating the cost of contracted surveys, the Whitemud Watershed Conservation District is able to complete one or two additional infrastructure projects per year. Also, since there is no waiting period for the survey, construction can start much earlier.

Alonsa Conservation District and Turtle River Watershed Conservation District also use survey grade GPS equipment for more efficient and cost-effective surveys. However, due to some hard-to-reach areas where vegetation, water, and beaver dams make accessibility particularly challenging, the districts are looking into partnering with local municipalities to purchase a survey-enabled drone. This device would have the ability to capture topographical data, video, and static imagery to quickly determine the location of drains, beaver dams, and surface water flow patterns. A survey grade drone would allow the districts to survey a mile of drain in a matter of minutes, instead of days. It would also be an extremely effective tool to assist these districts in identifying potential water retention areas.

WORKING MORE EFFICIENTLY WITH TECHNOLOGY

Over the last several years, Alonsa Conservation District has been adopting lean business practices to simplify data collection and data sharing. This eliminates bottlenecks and delays in the office and in the field. Alonsa Conservation District uses a web-based application that allows staff to upload and download spatial data, video, audio, and photos from any web-enabled device and reduces the amount of time spent transferring and organizing field data. In addition to the benefits for project planning and information tracking, this application makes it easy for sub-district members, board members and staff to track progress and respond to inquiries from local landowners, municipalities, and provincial partners. Alonsa Conservation District also uses computer-aided drafting software to produce final design surveys. This reduces the district's need to hire consultants to complete this work, saving money and time.

LIGHT DETECTION AND RANGING (LIDAR)

Damage caused by the flood of 2011 reiterated the importance of keeping water on the landscape and slowing flows to reduce pressure on drainage channels. Since then, those involved in land and water management in Manitoba have become increasingly interested in the value of Light Detection and Ranging (LiDAR) data for surface water management planning. In 2014, GeoManitoba coordinated a partnership with the Rural Municipality of Springfield, the Rural Municipality of Taché, and the Cooks Creek Conservation District to capture LiDAR data that covers the Cooks Creek Watershed. The highly detailed and accurate digital elevation model created with LiDAR data will help Cooks Creek Conservation District plan and design valuable surface water infrastructure projects in the watershed. Cooks Creek Conservation District is also particularly optimistic about LiDAR's usefulness in site selection for future water retention projects.

Because conservation district projects typically cost much less than provincially-maintained drains, watershed residents and municipalities value the efficiency and cost-benefit of conservation district drain infrastructure. They appreciate that conservation districts can stretch tax dollars further by focusing on appropriate solutions to local priorities. As surface water management issues become more complex and more costly, infrastructure conservation districts play a vital role in providing this essential service to the agricultural community.

CROSSING THE LINE

CONSERVATION DISTRICTS CREATE CROSS-JURISDICTIONAL PARTNERSHIPS THROUGH WATERSHED PLANNING

Several of Manitoba's conservation districts are located along provincial and international borders, which presents both challenges and opportunities. Water does not respect political boundaries and managing an inter-jurisdictional watershed requires coordination and cooperation of planning and implementation efforts.

INTER-PROVINCIAL WATERSHEDS – MANITOBA AND SASKATCHEWAN

The recently completed Carrot – Saskatchewan River Integrated Watershed Management Plan identified key linkages between the Kelsey Conservation District in Manitoba and the Carrot Valley Watershed Association in Saskatchewan. Saskatchewan's Carrot Valley Watershed Advisory Committee and Watershed Association reviewed and made comments on the draft Carrot – Saskatchewan River Integrated Watershed Management Plan and incorporated elements of Saskatchewan's Carrot River Watershed Source Water Protection Plan into the Manitoba plan.

Efforts to improve communication across the Manitoba – Saskatchewan border have been a key goal of this watershed planning process. New relationships have been formed, and key initiatives to continue to improve communication have been identified in the Carrot – Saskatchewan River Integrated Watershed Management Plan. The first action in the surface water fluctuations section of this plan is to improve inter-provincial communication and programming cooperation between the non-profit watershed associations of the Carrot – Saskatchewan River Watershed. Work is already underway to improve riparian health programming coordination between the Kelsey Conservation District and Carrot Valley Watershed Association.

The West Souris Watershed receives water from both Saskatchewan and North Dakota, and is located within the larger Souris River Basin. The West Souris River Conservation District reviews education and planning efforts in these upstream jurisdictions to help guide their own programming and outreach. Recently, the district partnered with the Upper Assiniboine River Conservation District and the Lower Assiniboine Watershed Association in Saskatchewan to highlight key soil and water programming over the past 20 years. This information was circulated to watershed residents across jurisdictional boundaries to illustrate the cumulative water management planning efforts in these watersheds.

In fall 2015, Manitoba and Saskatchewan signed a five-year Memorandum of Understanding (MOU) that sets out broad principles to achieve cooperative and coordinated goals for surface water management of shared watersheds. Both provinces recognize the need to coordinate efforts to improve water management across shared watersheds in order to mitigate flooding and drought, improve water quality, and protect aquatic ecosystem health.

INTERNATIONAL WATERSHEDS – CANADA AND THE UNITED STATES

In southern Manitoba, the Pembina Valley, Seine – Rat River and West Souris River Conservation Districts have led watershed planning efforts across international borders, engaging their neighbours upstream in North Dakota and Minnesota. The Pembina River Watershed straddles the Manitoba – North Dakota border, with the headwaters of the Pembina River beginning in both Manitoba and North Dakota. These smaller streams meet to form the Pembina River, which flows through southern Manitoba before meandering toward the international border and ultimately into North Dakota, where it meets up with the Red River. Planning efforts for this watershed are coordinated through an international Pembina River Basin Advisory Board. This board includes the Pembina Valley Conservation District and addresses programming and watershed planning efforts within the watershed.

The Seine – Rat River Conservation District recently began development of the Roseau River Integrated Watershed Management Plan. The headwaters of the Roseau River originate in Manitoba and Minnesota. These smaller tributaries meet in Minnesota and flow north into Manitoba, into the Red River and ultimately into Lake Winnipeg. The planning team identified the importance of working with their American neighbour and developed a new partnership with Minnesota's Roseau River Watershed District (RRWD). The RRWD is a local government unit that works to solve and prevent water related problems on their side of the border. Staff from the RRWD attended public meetings for the Roseau River Integrated Watershed Management Plan in early 2016 in Manitoba. With support from the Red River Basin Commission, these two organizations also co-hosted a bus tour in the spring of 2016 to discuss surface water management issues within the Roseau River Watershed on both sides of the international border. Partners on both sides of the border anticipate communication and partnership opportunities will continue to grow as the watershed planning process evolves.

Despite the challenges of working across political boundaries, conservation districts strive to coordinate planning and programming across these arbitrary lines to foster linkages between upstream and downstream regions of a watershed. Through our inclusive and integrated watershed planning framework, Manitoba encourages and supports conservation districts in fostering the local relationships needed to effectively manage on a watershed scale.

GROWING FORWARD 2:
GROWING ASSURANCE - ECOLOGICAL GOODS AND SERVICES PROGRAM

In its third year (2015-16), the Growing Assurance – Ecological Goods and Services program focused on the positive environmental benefits that Canadians get from healthy ecosystems, clean water and air, and enhanced biodiversity.

The program provides conservation districts with financing to help local producers apply beneficial management practices (BMPs) that conserve and enhance the agricultural landscape. This year a total of $745,033 was provided to conservation districts within Manitoba for BMPs, including:

- eight water retention structures,
- one wetland restoration,
- one constructed wetland,
- 12 riparian area enhancements,
- one buffer zone and grassed waterway establishment,
- three perennial cover projects for sensitive lands, and
- two tree shelterbelt establishment programs.

Each year, a portion of funding provided to conservation districts for work on BMPs with individual producers is set aside to support pilot projects that test innovative tools and program delivery approaches. In 2015-16, three projects totalling $199,600 were funded under this component, including:

- two watershed-based group Environmental Farm Plan projects for targeted BMP adoption and land conservation and preservation,
- use of Light Detection and Ranging (LiDAR) technology in watershed management planning, providing land and water managers with geospatial data and online tools to prioritize, market, and act on improving water quality.

The Growing Assurance – Ecological Goods and Services program is part of Growing Forward 2, a five-year (2013 to 2018) agricultural policy framework agreement with federal, provincial and territorial governments.

WATERSHED GROUP FARM PLANS PROVIDE OPPORTUNITY FOR TARGETED ACTION

MAKING INDUSTRY PARTNERSHIPS WORK IN WESTERN MANITOBA

The Environmental Farm Plan (EFP) process was introduced in 2004 in Manitoba and has since become a tremendously successful vehicle for environmental education and action at the farm level. To build on that success, two Watershed Group Farm Plan pilot projects were approved under Component 2 of the Growing Assurance – Ecological Goods and Services program under *Growing Forward 2*, a federal-provincial-territorial initiative. The group plans combined components of the EFP process led by Manitoba Agriculture and the integrated watershed management plan process led by conservation districts and Manitoba Sustainable Development.

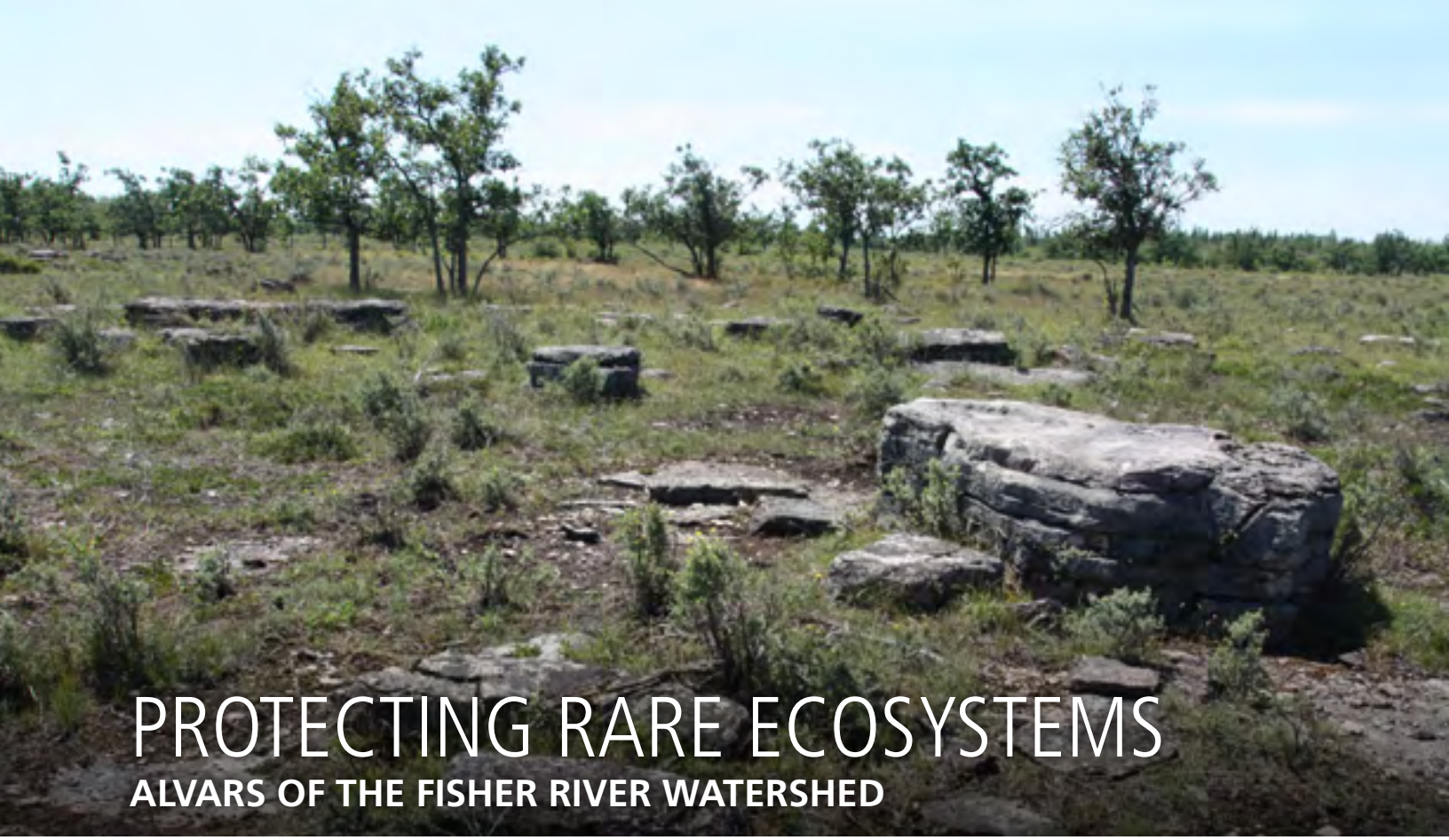
The objectives of the pilots were to:

- use group planning as an awareness tool for sustainable watershed management practices,
- reduce risk by focusing a group of producers on a single issue within a defined watershed,
- offer incentives for beneficial management practices that improve water quality, and
- evaluate group plan engagement and delivery.

In 2015-16, Pembina Valley Conservation District and La Salle Redboine Conservation District worked with Manitoba Agriculture and Manitoba Sustainable Development to deliver a Watershed Group Farm Plan workshop to address water quality issues. The goal was to improve water quality in the Boyne River Watershed using on-farm beneficial management practices. Riparian area management, wetland restoration, buffer zone establishment, grassed waterway establishment, and water retention activities were promoted. Fourteen farms in the upper reaches of the Boyne River watershed participated in the pilot project.

A second Watershed Group Farm Plan pilot in 2015-16 was initiated by the Swan Lake Watershed Conservation District. With a goal to decrease flow velocities of streams and improve riparian health, the pilot project focused on improving surface water quality by minimizing downstream erosion with on-farm beneficial management practices. Sixteen farms participated in a workshop, and a subsequent conservation auction allowed landowners to submit closed bids indicating planned conservation activities and anticipated financial incentives. The conservation auction selected fourteen projects to employ beneficial management practices, including riparian area management, wetland restoration, buffer zone establishment, grassed waterway establishment and water retention.

The Watershed Group Farm Plan pilots were a success. They organized landowners and improved water quality in the Boyne River and Swan Lake watersheds and illustrated what targeted education and collective action can accomplish for the landscape.



PROTECTING RARE ECOSYSTEMS

ALVARS OF THE FISHER RIVER WATERSHED

Alvars are globally rare ecosystems that can be found in Manitoba's Interlake Region.

They are comprised of plant communities with an abundance of mosses and lichens that grow in shallow soil (15 centimetres or less) over limestone bedrock. These ecosystems contain plant species found in no other plant communities and provide habitat for a range of wildlife. In Manitoba, alvars are often shrubby with large patches of exposed rock. Some are similar to grasslands and others have scattered trees. Due to their flat surface and poor drainage, alvars and the surrounding wetlands contribute to local groundwater recharge. Indigenous communities have been utilizing alvars for gathering traditional medicines for many generations and place immense value on the unique plant species found in these rare ecosystems.

The Fisher River Watershed is home to Manitoba's largest alvar complex. Alvars and the adjacent wetlands have been identified as a priority for protection in the recently completed Fisher River Integrated Watershed Management Plan, specifically those areas which contribute to groundwater discharge and recharge, as well as those at risk of quarry development north and east of Fisher Branch. Alvar ecosystems have also been classified as endangered under Manitoba's *Endangered Species and Ecosystems Act*. Currently, Manitoba Sustainable Development is working with the East Interlake Conservation District and the Nature Conservancy of Canada to conserve 9,884 acres of alvar lands in the Fisher River Watershed.

ADDRESSING INFRASTRUCTURE CHALLENGES THROUGH PARTNERSHIPS

SPRINGFIELD ROAD AND DRAIN RECONSTRUCTION

In the summer of 2015, following a heavy three inch downpour on saturated soils, Springfield Road started to slip into the adjacent drain, posing a serious hazard on this heavily traveled regional road. Following an assessment by the public works staff from the Rural Municipality of Springfield, the road was deemed unsafe for public travel and in need of urgent and immediate repairs and reconstruction.

Springfield Road is under authority of the Rural Municipality of Springfield, while the adjacent Springfield Road Drain is under authority of the Cooks Creek Conservation District. The road and drain were both affected so it was logical to form a cooperative partnership to address the issue. Each party contributed approximately $65,000 towards the project, which took about four weeks to complete. Project works were extensive, requiring excavation work to stabilize the roadbed, re-gravelling, reconstruction of the drain, seeding, and a major crossing replacement. Over the next few years, additional drain reconstruction and crossing upgrade work is planned for the Springfield Road Drain to further improve surface water management in the local area.

Many conservation districts, like the Cooks Creek Conservation District, face tough situations where they are required to respond to local challenges within a short period of time. Having a strong network of partnerships to draw upon when needed can help ensure safety issues and other hazards are addressed quickly and effectively.

Before

After

PROGRAM PARTNERSHIPS 2015-16

FEDERAL GOVERNMENT

Canada Revenue Agency

Environment Canada

Fisheries and Oceans Canada

Growing Forward 2

Service Canada

PROVINCIAL GOVERNMENT AND CROWN CORPORATIONS

Manitoba Health, Seniors and Active Living

Manitoba Agriculture

Manitoba Education and Training

Manitoba Emergency Measures

Manitoba Indigenous and Municipal Relations

Manitoba Infrastructure

Manitoba Sustainable Development

Manitoba Sport, Culture and Heritage

Manitoba Habitat Heritage Corporation

Manitoba Hydro

NON – GOVERNMENT ORGANIZATIONS

Brandon University

Delta Waterfowl

Ducks Unlimited Canada

Lake Winnipeg Foundation

Landowners

Manitoba Conservation Districts Association

Manitoba Forestry Association

Royal Bank of Canada

Tree Canada

Tundra Oil & Gas

Virden Area Foundation

Winnipeg Foundation

FROM SEED TO SPOON

CONSERVATION DISTRICTS TEACH STUDENTS ABOUT FOOD PRODUCTION

CRANBERRY PORTAGE FRENCH FRY GARDEN

Kelsey Conservation District has worked with school kids in The Pas, Wanless, and Cranberry Portage to learn about community food systems through the creation of vegetable gardens. The garden in Cranberry Portage was started by the conservation district, but it is now run by school staff to teach environmental stewardship through French fry production. Students participate by planting seed potatoes in the spring and digging up the plants in the fall. Then they wash, cut, and cook their harvest into French fries right in the garden.

Kelsey Conservation District staff designed the program to teach students to think about soil as a living organism and to illustrate how all of the food we eat grows out of a very thin layer on the earth's surface. Students also learn about the canola oil that is produced from crops like those surrounding the potato garden and discuss the importance of soil and water in food production. The kids are always excited to watch the plants grow and taste their harvest, and the lessons in the French fry garden provide a memorable learning experience for students and teachers alike.

ALONSA EDIBLE SCHOOLYARD

The Edible Schoolyard at Alonsa Community School helps local students participate in sustainable food production by following their food from seed to spoon. The program began in 2012 with an orchard, raised vegetable gardens, and an outdoor classroom designed to give school children an opportunity to grow and harvest their own food. Through partnerships with Healthy Together Now, Alonsa Conservation District and the Rural Municipality of Alonsa, Alonsa's Edible Schoolyard has expanded to include a greenhouse, additional raised garden beds, and the Alonsa Agriculture Community Restorative Enterprise—an innovative educational initiative that provides agricultural instruction and opportunities for students.

Students and staff plant, tend, and harvest the gardens during the school year, and Alonsa Conservation District staff cares for the gardens during summer vacation. The program teaches children about the connection between healthy soil and nutritious food and links students with elders and other members of the local agricultural community.

The Alonsa Edible Schoolyard organizers received the 2014 Alonsa Conservation District Award for leadership in environmental engagement and their success continues to spread. Several adult community members now participate in the gardening project, and organizers have been working with other schools to provide similar opportunities to other students in the region.

WORKING WITH MUNICIPALITIES AND PLANNING DISTRICTS

LINKING WATERSHED PLANNING AND DEVELOPMENT PLANNING

Integrated watershed management plans (IWMPs) target the protection, management and restoration of soil and water resources, aquatic ecosystems and drinking water sources.

Conservation districts are designated as Water Planning Authorities, and their role is to guide the IMWP process and involve watershed stakeholders throughout plan development and implementation. The integrated watershed management planning process considers existing development plans and provides recommendations for future development. Under *The Planning Act*, planning districts and municipalities are required to consider IWMP recommendations during the creation of new development plans and amendments to existing development plans.

The East Interlake Conservation District has been identified as the Water Planning Authority for four watersheds: Fisher River, Willow Creek, Icelandic River, and Netley – Grassmere. There are also four planning districts located within the boundaries of the district: the Fisher Armstrong, Eastern Interlake, South Interlake and Red River Planning Districts.

Each of the four watershed plans developed by East Interlake Conservation District has made linkages and recommendations to planning districts and municipalities. If implemented, these recommendations would strengthen existing policies or create new policies within development plans to better protect watershed health.

The East Interlake Conservation District Board receives sub-division applications and by-law variances from the Eastern Interlake, South Interlake, and Red River Planning Districts. The board provides comments and recommendations for these applications in the context of their watershed plans. When reviewing sub-division applications the board refers to their established watershed goals and considers the identified targets for ecologically sensitive areas, particularly wetlands and riparian areas, loss of natural habitat and flooding considerations. These guidelines help the board make recommendations for or against development applications within their watersheds.

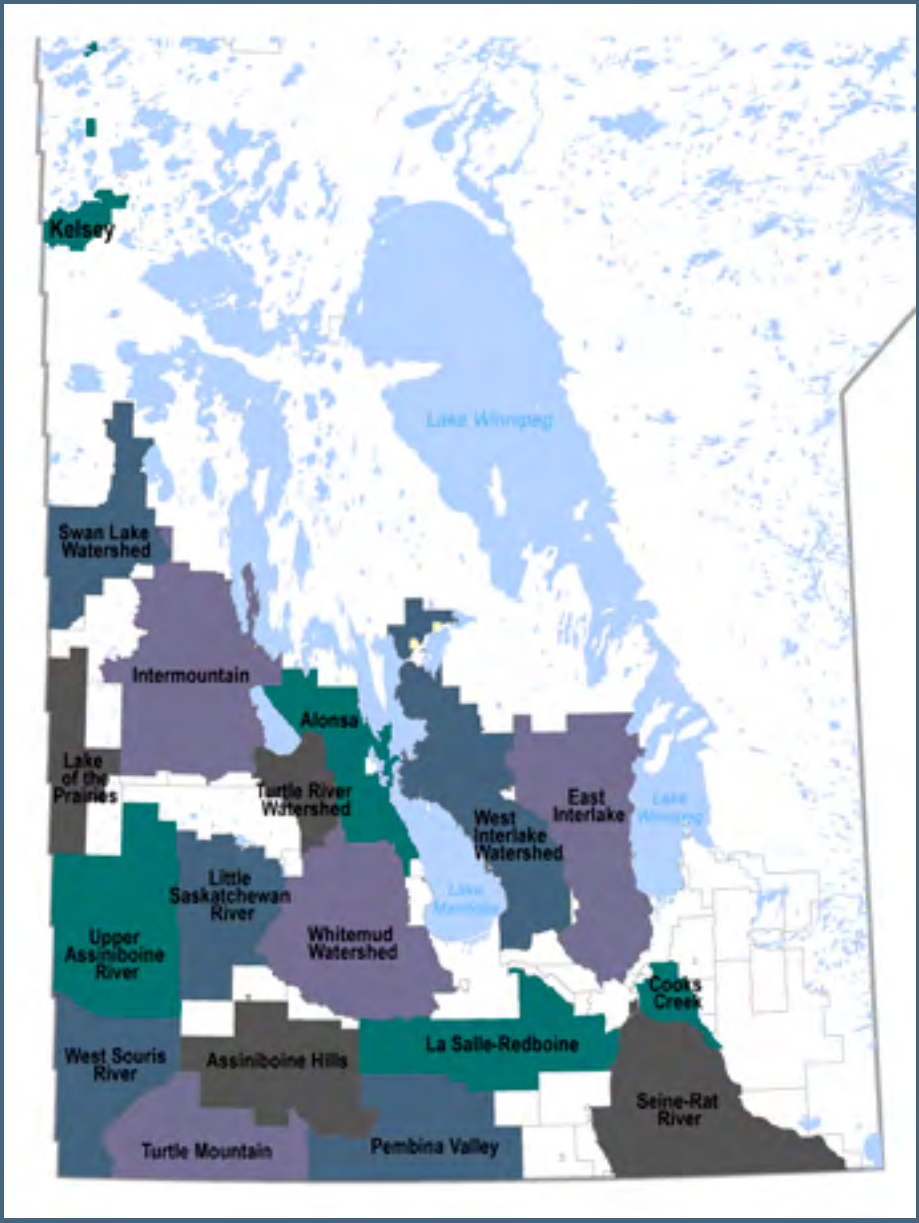
Due to established relationships with the local planning districts, the conservation district has been viewed as a suitable lead in linking sustainable watershed efforts with development efforts. A notable example was the development of a native prairie at the Gaynor Family Library. This urban prairie was designed as a partnership between the library, planning district and conservation district. Early planning meetings included planners at the Red River Planning District and were targeted to design a prairie that considered adjacent uses, including runoff and water quality considerations from the nearby library parking lot. The prairie features over 50 native prairie plants and is designed to hold additional moisture from rain and snow melt, decreasing runoff and flooding.

The Eastern Interlake Development Plan cites the East Interlake Conservation District in their policies concerning water, shoreline, natural areas and conservation. These policies require review and comment from the East Interlake Conservation District Board prior to approval of potentially

adverse development impacts to native vegetation, waterways, water bodies, wetlands and riparian areas. The Eastern Interlake Planning District Development Plan also indicates that it supports the conservation activities delivered by the East Interlake Conservation District.

Communication between conservation districts and planning districts typically improves following the development of an integrated watershed management plan. A strong relationship between conservation districts and planning districts is essential to ensuring watershed plans and development plans complement one another. East Interlake Conservation District recognizes this importance and continues to foster their relationship with the local planning districts to protect and improve watershed health through sustainable development.

CONSERVATION DISTRICTS IN MANITOBA



Alonsa CD
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manager@alonsacd.com

Assiniboine Hills CD
204-535-2139
ahcd.mgr@mymts.net

Cooks Creek CD
204-777-2223
cccd_manager@mts.net

East Interlake CD
204-642-7578
abelanger@eicd.ca

Intermountain CD
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imcdmgr@mts.net

Kelsey CD
204-623-3353
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La Salle Redboine CD
204-526-2578
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Lake of the Prairies CD
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Little Saskatchewan River CD
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Pembina Valley CD
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pvwd.mgr@gmail.com

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Turtle Mountain CD
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Turtle River Watershed CD
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Upper Assiniboine River CD
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West Interlake Watershed CD
204-762-5850
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West Souris River CD
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Whitemud Watershed CD
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Manitoba Sustainable Development
Watershed Planning and Programs Section
204-945-7487
Kristin.Hayward@gov.mb.ca

Manitoba Conservation Districts Association
204-570-0164
info@mcda.ca

MANITOBA SUSTAINABLE DEVELOPMENT GRANTS

CONSERVATION DISTRICT AND WATERSHED ASSISTANCE 12 4(E)

Districts	Provincial Grants
Alonsa	$267,500
Assiniboine Hills	$316,000
Cooks Creek	$295,000
East Interlake	$300,000
Intermountain	$268,000
Kelsey	$155,000
Lake of the Prairies	$200,000
La Salle Redboine	$225,000
Little Saskatchewan River	$200,000
Pembina Valley	$359,500
Seine – Rat River	$378,000
Swan Lake Watershed	$225,000
Turtle Mountain	$303,000
Turtle River Watershed	$417,500
Upper Assiniboine River	$270,000
West Interlake Watershed	$200,000
West Souris River	$203,500
Whitemud Watershed	$687,000
Watershed Planning and Support Grant	$42,000
Total	**$5,312,000**

PROGRAM MEMBERS AND STAFF

CONSERVATION DISTRICT BOARD MEMBERS AND STAFF

Alonsa
Shawn Gurke – Manager
Cary Anderson – Admin
Tom Anderson – Chair
John Berthaudin – Vice Chair
Lyle Finney
Rick Lodge
Ken Dunn
Cory Taylor
David Senkowski

Assiniboine Hills
Neil Zalluski – Manager
Margaret Sigvaldason – Admin
Jeff Elder – Chair
Jack Bolack – Vice Chair
Heather Dalgleish
Walter Finlay
Sam Phillips
Ted Snure
Hugh Stephenson
Ken Turner

Cooks Creek
Colin Gluting – Manager
Debbie Shaver – Admin
Neil Van Ryssel – Chair
Marc Ross – Vice Chair
Bill Ammeter
Roger Vaags
Rick Wilson
Verner Johnson

East Interlake
Armand Belanger – Manager
Brigitte Demarchuk – Admin
Garry Wasylowski – Chair
Rick Gamble – Vice Chair
Harold Foster
Ray Friesen
Robert Green
Jim Hardy

Intermountain
Jeff Thiele – Manager
Laurie Hykawy – Admin
Syd Puchailo – Chair
Merv Kotak – Vice Chair
Jack Bremner
Lyle Morran
John Towle
Ken Shewchuk
Wes Bernat
Marvin Kovachik

Kelsey
Shawn Sexsmith – Manager
Heather Perchaluk – Admin
Jarret Berezowecki – Chair
Joel LeSann
Neil Scott
Debbie McLauchlan
Randi Salamanowicz

Lake of the Prairies
Adam Kerkowich – Manager
Terry Kotzer – Admin
Wayne Buick – Chair
Brent Burton – Vice Chair
Glenda Chescu
Roy Ziprick
Jack Lenderbeck
Mike Shenderevich

La Salle Redboine
Justin Reid – Manager
Meghan Robidoux – Admin
Roy Wood – Chair
Ray Huggart – Vice Chair
Reg Dyck
Rob Graham
Ray LeNeal
Mark Lowdon
Jim McGregor
Marshall Piper

Little Saskatchewan River
Colleen Cuvelier – Manager
Anne Davidson – Admin
Ray Frey – Chair
Denis Pederson – Vice Chair
Don Huisman
Cindy Murray
Dave Falkevitch
Kaye Wolstenholme
Larry Cardy
John Spaller

Pembina Valley
Cliff Greenfield – Manager
Lexine LeBlanc – Admin
Murray Seymour – Chair
Walter McTavish – Vice Chair
Bill Howatt
George Jackson
Wendell Krahn
Brian Leadbeater
Grant Matchullis
Ted Ross
Stan Saxton
Les Titchkosky

Seine-Rat River
Jodi Goerzen – Manager
Vacant – Admin
Cornie Goertzen – Chair
Jim Swidersky – Vice Chair
Greg Janzen
John Fehr
Bob Brandt
Art Bergmann
Ed Penner
Ron Mamchuck
Larry Bugera

Swan Lake Watershed
Brent Erlendson – Manager
Kendra McFadyen – Admin
Walter Kolisnyk – Chair
Don Bobick – Vice Chair
Don Machan
Larry Mychalchuk
Brian Burick
Kelly Fillipchuck

Turtle Mountain
Yasemin Keeler – Manager
Sandra Hainsworth – Admin
Greg More – Chair
Gary Nestibo – Vice Chair
Lorne Bolduc
Murray Combs
Myna Cryderman
Murray Duncan
Barry Janssens
Keith Vanbeselaere

Turtle River Watershed
Jody Tucker – Manager
Lisa Lepla – Admin
Paul Brunel – Chair
Denis Maguet – Vice Chair
Shawn Buchanan
Kelvin Code
Armand Verhaeghe
Rick Kutcher
Kris Kristjanson

Upper Assiniboine River
Ryan Canart – Manager
Janet Sandstrom – Admin
Ron Kostesky – Chair
Rusty Still – Vice Chair
Ernest Pethick
Robert Alexander
Johnny Michasiw
Bill McQuaker
Charles Bertram
Darcy Oliver
Tom Judd
Connie Fouillard
Gab Huberdeau
Todd Brown
Theresa Michaluk

West Interlake Watershed
Linda Miller – Manager/Admin
Jack Cruise – Chair
Henry Rosing – Vice Chair
Brian Sigfusson
Neil Brandstrom
Kris Fjeldsted
John Halchuk
Pat Dunlop

West Souris River
Dean Brooker – Manager
Ina Cook – Admin
Lloyd Atchison – Chair
Wilson Davis
Richard Thiry
Dave Dickson
Carey Murray

Whitemud Watershed
Chris Reynolds – Manager
Belinda Stewart – Admin
Robert Rodgers – Chair
Ray Drayson – Vice Chair
Daryl Shipman
Bill Wieler
Jerry Doucette
Dennis Jarema
Gerond Davidson
Kerry Tomchuck
David Single
Arnold Coutts

Members listed are current as of March 31, 2016

CONSERVATION DISTRICT COMMISSION

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

The primary responsibilities of the CDC are:

- providing advice and recommendations to the Minister of Sustainable Development relating to the administration and operation of *The Conservation Districts Act*,
- reviewing conservation district budgets and watershed plans, and
- providing advice and recommendations to conservation district boards.

The Watershed Planning and Programs Section of Manitoba Sustainable Development 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	**Regional Office**
Erin Dunbar	Winnipeg
Andrea McLean	Brandon

Watershed Planners	**Regional Office**
Bobby Bennett	Brandon
Suzanne Chiupka	Brandon
Sharla Dillabough	Brandon
April Kiers North	Carman
Dale Timmerman	Carman
Patrick Watson	Winnipeg

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Brandon Office
1129 Queens Avenue
Brandon, Manitoba
R7A 1L9

Carman Office
65-3rd Street N.E.
Carman, MB
R0G 0J0

MUNICIPAL PARTNERS

THE CONSERVATION DISTRICTS PROGRAM HAS 104 MUNICIPAL PARTNERS.

VILLAGES
Dunnottar
St. Pierre – Jolys

TOWNS
Carman
Minnedosa
Neepawa
Niverville
Ste. Anne
Stonewall
Swan River
Teulon
Virden
Winnipeg Beach

CITIES
Brandon
Dauphin
Morden
Selkirk
Steinbach

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

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