

The Current

A Publication of the Manitoba Association of Watersheds
2021 Edition

GROW:

**What We've Accomplished
with Funding So Far**

**CAWD Welcomes New
Municipalities**

**Does Bale Grazing
Waste Hay?**



Manitoba
Association of
Watersheds

GOOD FOR
ME

GOOD FOR
MB



Hog manure is a valuable organic fertilizer that enriches the soil on my land.

Through nutrient recycling, I am able to grow healthy and nutritious food for Manitobans.

Riley Anderson
Grain Farmer
Morris, MB


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**Manitoba
Association of
Watersheds**

The Current is published annually as the official publication of Manitoba Association of Watersheds. It features editorials from the 14 Watershed Districts within Manitoba. Edited by Lynda Nicol, Executive Director

Cover Photo: Renee Waldner, Summer Student at Pembina Valley Watershed District, Morden Park Bank Stabilization after two tier design in June 2021.

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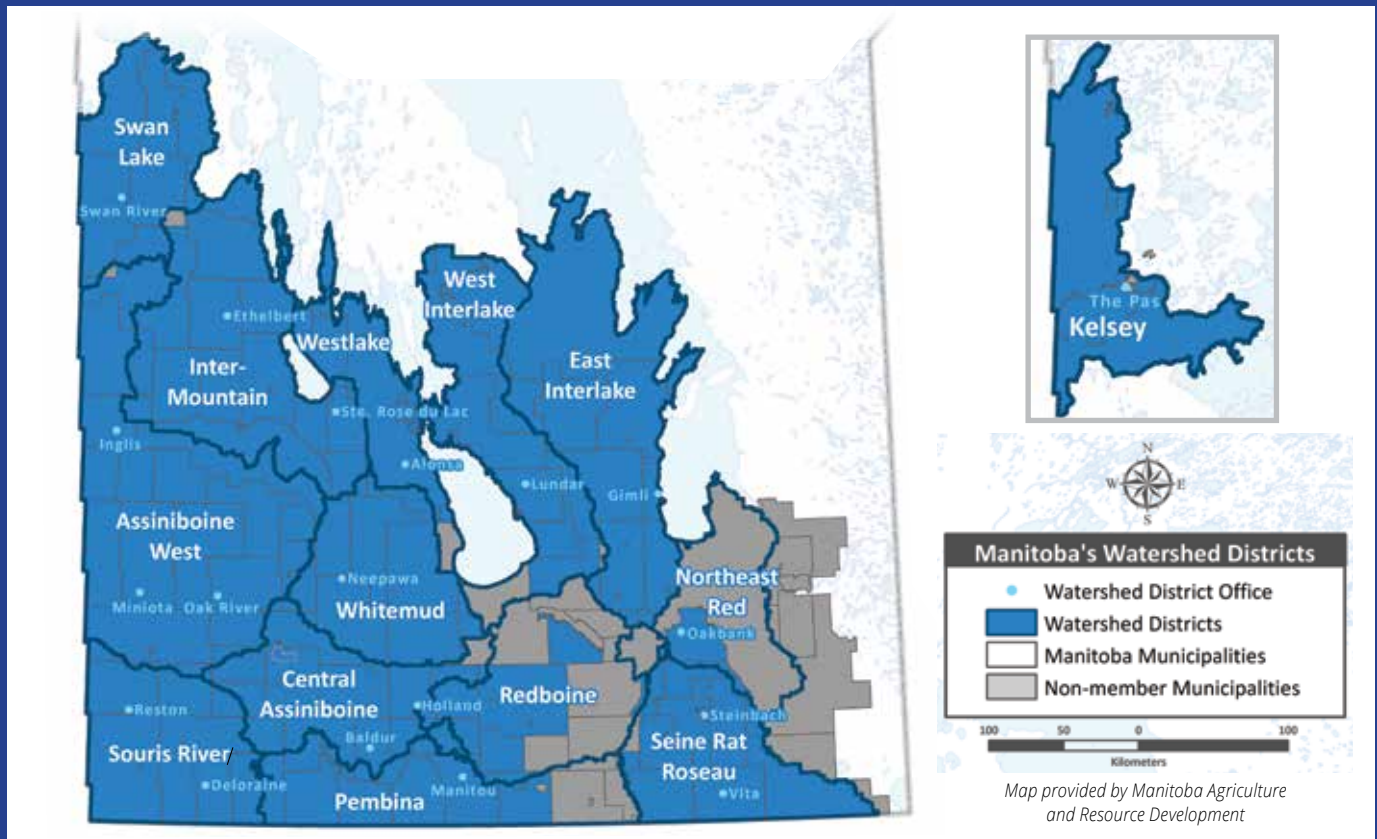


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In Partnership with



Manitoba's Watershed Districts



All 104 member municipalities have remained partners in the transition from conservation districts to watershed districts. Thank you for your continued support! We look forward to expanding our partnerships in the near future.

Conservation Districts (ended Jan 1, 2020)	Watershed Districts (started Jan 1, 2020)	Office Phone
Lake of the Prairies Conservation District	Assiniboine West Watershed District	Miniota: 204-567-3554
Little Saskatchewan River Conservation District		Oak River: 204-566-2270
Upper Assiniboine River Conservation District		Inglis: 204-564-2388
Assiniboine Hills Conservation District	Central Assiniboine Watershed District	Baldur: 877-535-2139
East Interlake Conservation District	East Interlake Watershed District	Gimli: 204-642-7578
Intermountain Conservation District	Inter-Mountain Watershed District	Ethelbert: 204-742-3764
Turtle River Watershed Conservation District		Ste. Rose: 204-447-2139
Kelsey Conservation District	Kelsey Watershed District	The Pas: 204-623-3353
Cooks Creek Conservation District	Northeast Red Watershed District	Pine Ridge: 204-777-2223
Pembina Valley Conservation District	Pembina Valley Watershed District	Manitou: 204-242-3267
La Salle Redboine Conservation District	Redboine Watershed District	Holland: 204-526-2578
Seine-Rat River Conservation District	Seine Rat Roseau Watershed District	Steinbach: 204-326-1030 Vita: 204-425-7877
West Souris River Conservation District	Souris River Watershed District	Reston: 204-877-3020
Turtle Mountain Conservation District		Deloraine: 204-747-2530
Swan Lake Watershed Conservation District	Swan Lake Watershed District	Swan River: 204-734-9550
West Interlake Watershed Conservation District	West Interlake Watershed District	Lundar: 204-762-5850
Alonsa Conservation District	Westlake Watershed District	Alonsa: 204-767-2101
Whitemud Watershed Conservation District	Whitemud Watershed District	Neepawa: 204-476-5019

From the Minister of Agriculture and Resource Development



Honourable Blaine Pedersen, Minister of Agriculture and Resource Development

It is my privilege to thank the Manitoba Association of Watersheds for the work they do on behalf of the 14 watershed districts throughout municipal Manitoba. In 2020, new legislation provided the basis for many new opportunities for watershed districts, municipal partners, and landowners in your watersheds. Enhancing funding opportunities, expanding the program, forming new partnerships, and enhancing watershed management planning, will all contribute to increasing the sustainability and robustness of this long-standing program.



programs you deliver. We also recently announced \$1 million for the development and implementation of the Provincial Water Management Strategy.

The past year has been challenging, but watershed districts have demonstrated their strength in facing these challenges and finding ways to implement locally important programming in a meaningful and economical way. Manitoba believes in the commitment and abilities of the watershed districts to protect and improve watershed health and resilience in a changing

The Manitoba government is committed to continued support to The Watershed Districts Program and is proud to collaborate with 14 watershed districts and their 105 municipal partners. Budget 2021 proposes an increase in the provincial grant provided to districts with a total investment of \$5.8 million including additional funding allocated to expand the program and the great work you do.

In addition, through a \$204 million initial investment to establish the Conservation Trust, GROW Trust and Wetlands GROW Trust, significant funding is available to further enhance the projects and

climate, protect and improve water quality, enhance surface water management, and conserve, enhance and restore valuable wildlife and aquatic habitat. Manitoba recognizes the partnership between producers and watershed districts in managing ecological goods and services for the benefit of all Manitobans, and the significant support that districts provide to the rural economy.

I commend the Manitoba Association of Watersheds on their partnership and promotion work and look forward to seeing continued success and development in years to come.

From the Chair of the Manitoba Association of Watersheds



By Garry Wasylowski, Chair

It is with great pleasure that I am making my first Chair's report for The Current. I want to thank the Board for having the confidence in me to allow me to have this position. I would also like to welcome Jake Hiebert as Vice Chair and Bill Howatt as Finance Chair. Both are showing a real dedication to making this organization better.



as well as supporting MAW's other work, including representing MAW on the Infrastructure working group subcommittee. We continue to work with the government on funding for our Infrastructure Watershed Districts. We hope to come up with a permanent solution soon.

I also want to thank Ray Frey for his three years as MAW's board chair. Ray did a great job of moving us forward and keeping us together as we went through the transition from Conservation Districts to Watershed Districts. Our working relationship with the provincial government has been much improved thanks to his leadership. Ray, you truly made us a better organization.

The MAW board of directors along with our new staff had a planning session this spring to help set goals for the coming year. We are hopeful that Covid restrictions will ease soon so we can have a larger scale strategic planning session that would include all our members.

I would like to welcome Lynda Nicol as our Executive Director. Lynda has jumped right into this position and taken it head on. She started at a challenging time: joining us amidst Covid restrictions and only two weeks before our first virtual convention and has done an amazing job, and I trust she will continue to do so. Lynda is engaged on various committees and groups as MAW's representative, and I encourage our members and readers to reach out to her directly at lynda@manitobawatersheds.org if you have any questions.

It is important to ensure the voices of the Watershed Districts are heard as they are the foundation of all work the association does. To that end, we will be launching a member survey over the summer as a tool to get direct feedback from the districts about their priorities, needs and expectations of MAW going forward.

It has been tough working remotely over the last number of months. We are managing well but there are times when face to face meetings would work so much better. I am pleased to share that plans are under way for an in-person conference in the winter. I am looking forward to this and having the opportunity to see you all then.

A Tribute to Watershed District Members Passed

This page is dedicated to the passionate members and staff from Manitoba's watershed districts who passed away recently. We honour these people for their vision, leadership, and as integral contributors to the foundation of the Watershed Districts.



Phil Tyschinski



Richard Cain

Dennis Persoage



Northeast Red
Watershed
District

Garry Grycki



Martial Gosselin

Ray Gagne

It's time to take a deeper look at wetlands

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DUC conservation programs are funded in part by the North American Wetlands Conservation Act.





AWWD Walleye Tracking Study

By Adam Kerkowich, Regional Manager

The Lake of the Prairies has always been a popular recreational destination within the Assiniboine West Watershed District (AWWD). Since construction of the dam was completed in 1972, people from all over have made the trek to take in what the lake has to offer; most notably the angling community. Lake of the Prairies (LOTP) boasts some of the best fishing in the province.

Prior to the dam being built forming what is now LOTP, a weir had been installed on the Shell River. It created an area for families to take their kids to swim and play. A campground was constructed shortly after along side of it and is still operating today. The only problem with the weir was that it blocked off fish (primarily walleye) from running the river and utilizing the rich spawning grounds the river has to offer. Instead, these fish would stack up, become stressed, and release their eggs in areas not suitable for a successful hatch.

AWWD wanted to incorporate something that would meet both the needs of the fish and the public, so we approached the owners of the Asessippi Beach and Campground with an idea: rather than removing the weir, we opted to incorporate a pool and riffle style structure, preserving the swimming area and allowing spawning fish to continue upstream. With the help of Fish and Wildlife Enhancement Fund (FWEF), AAE Tech Services, Bruce Harding Consultation, Russell Lions Club and JH Excavation we were able to successfully build this structure in 2018.

With the structure in place we needed to monitor it, to confirm that walleye were successfully able to climb and pass the old weir. We reached out to FWEF for more funding to observe walleye movements. With the help of AAE Tech Services we were able to set live trap nets in the fall of 2020 – trapping and tagging 18 red zone walleye. These are walleye which by law cannot be kept by a licensed angler. The tags which we used were equipped for electronic tracking purposes.

We were both pleased and disheartened this spring to find that by the time the ice had melted we were down to only 12 active tags in the lake. That said, we were thrilled to see that 4 of those fish had successfully went up and over our structure in the Shell River, meaning that these fish have access to miles of quality spawning grounds.

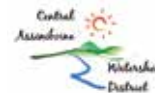
Our study was focused on determining that our fish passage structure proved successful. However, what we also found was



Walleye being released with radio tag.

that a lot of people do not follow or respect the rules, which only hurts the fish population in the lake. The fish we tagged were healthy, mature, female walleye which lay 50,000+ eggs each spring. The original 18 fish that were tagged ranged in size between 21” and 26” - well within the 18”-28” red zone mark which requires the release of these fish. We have marked tags by landowners houses, but a bulk of them are nowhere near the lake. Unfortunately, as of May 31, 2021 our tagged fish have dropped to 7 from 18 – an unanticipated loss of over 60% of our tagged fish to anglers in a 7-month span. As a result of our preparations, we are confident that these fish have been kept by licensed anglers not individuals with harvester’s rights.

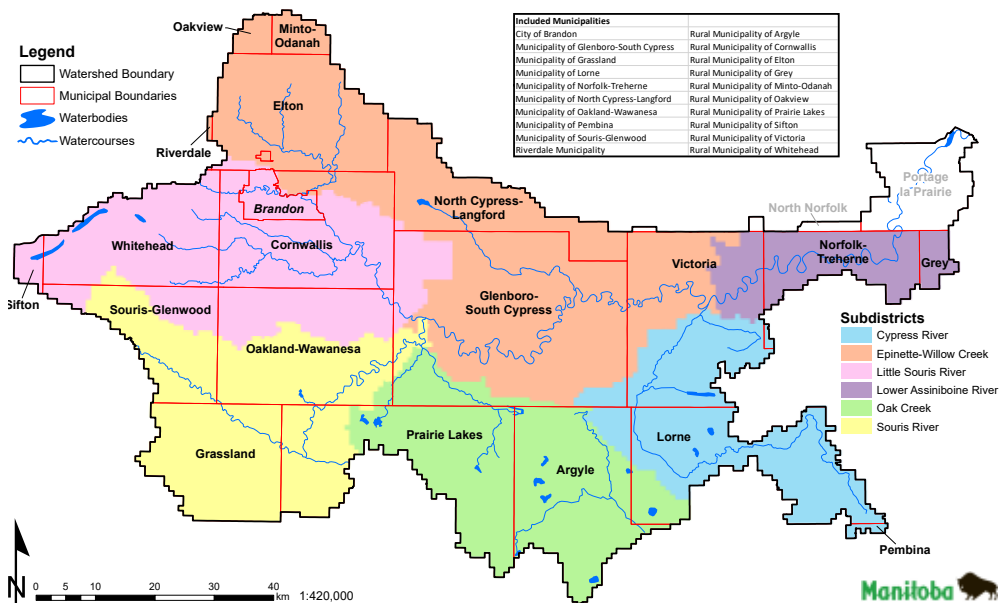
AAWD would like to remind everyone that these rules are in place to ensure a healthy, sustainable fishery. Everyone needs to do their part to help keep this lake full of healthy spawning walleye. Please make sure you refer to the Manitoba Anglers guide for rules and regulations. These laws have been put in place to ensure the waterbody has a viable, self sustaining fish population. We ask that everybody do their part to help keep this lake an amazing place to come back to. Happy fishing!



Municipalities Join Central Assiniboine Watershed District

Neil Zalluski, Manager

The Central Assiniboine Watershed District has expanded to include three new municipalities Elton, North Cypress - Langford, and Whitehead, bringing the total municipal membership number to 20. With the inclusion of those new municipalities into the district that almost brings the entire watershed into the program. This will allow for better watershed management and stronger communication for neighbouring municipalities through watershed district meetings on water related issues.



With the heavy rains last summer west of Brandon most of that water created issues as it drained towards the Assiniboine River. District staff has already been busy offering assistance and completing projects in the area to repair gullies and to look at possible retention sites to reduce future peak flows. The district also offers programming through the province's Growing Outcomes in Watersheds program and the GROW Trust which is administered by the Manitoba Habitat Heritage Corporation. With those funds five program categories are offered: buffer strips, riparian, uplands, water retention, and wetlands. In those categories there are differing levels of projects that include conserving, restoring, or enhancing each of the sites based on specific needs.

One of the program categories we are really excited to get working on with our new partners is wetland conservation, since our area is peppered with potholes. We can provide landowner incentives to not drain those class 1 & 2 wetlands while still being able to continue to crop through them. Such projects will reduce the peak flows in the future during major water events. By working together to limit the drainage while also rewarding the land owner for their management practices by keeping that water on the land we can reducing downstream damage.



Repairing gullies to assist in improving drainage.



Limiting class 1 & 2 wetland drainage while continuing to crop through them and rewarding land owners.

For more information on any of the program categories listed above please give us a call at 1-877-535-2139 or visit www.centralassiniboinewd.ca.

Goats Get Down to Mob Grazing and Soil Enhancement at Gimli High School

By Patricia Barrett - *The Express Weekly News*

Gimli High School was the site of mob grazing when a herd of goats was let loose for a day of natural lawn mowing.

Farmer Jordan Dankochik brought about 20 or so of his goats to a patch of native grasses and flowers that ring a wetland on the front lawn of the high school after the East Interlake Watershed District (EIWD) initiated a project to weed the space and provide more room for native grasses and flowers to flourish.

EIWD manager Armand Belanger said prairie grasslands evolved to withstand regular fire events and, normally, the EIWD would have undertaken a prescribed burn in the fifth year of growth to regenerate the grasses.

But the district, which monitors surface water and groundwater quality and carries out projects to promote the health of the watershed, opted for a spot of “short-term mob grazing” that native grasslands also learned to endure long ago when bison herds roamed the prairies.

“Our goal is that the goats remove some of weeds, which typically grow in the early part of the season, and give space to the many different types of native grasses and flowers, which typically grow in the latter part of the season,” said Belanger.

The wetland and the knoll of native grasses and flowers growing along its perimeter were projects initiated in 2014 by a group of students led by Dean Mulroy, Steven Hess and Zenon Matkowsky, with help from teacher Cheryl Bailey.

Called the Gimli High School Wetland Enhancement Project, the students created the wetland in order to help filter surface water on its way to Lake Winnipeg. They also created the natural riparian area to assist in purifying water and provide a resource for pollinating insects and birds and a habitat for wildlife, said Belanger. The site includes walking paths. The students received funding support from the EIWD, Ducks Unlimited and the Evergreen School Division.

Nine different types of native grasses and 20 different types of native flowers were planted in June 2016, he said. Those plants include the aster, false sunflower, yarrow, Canada milk vetch, side oats gamma and big blue stem (Manitoba’s provincial grass).

The advantage of growing native plants is that they have long roots and there is little need to water or fertilize them, said



Photo: Armand Belanger

Belanger. The long roots also stabilize the soil, reduce erosion, absorb water thus decreasing flooding events, sequester carbon and increase biodiversity.

The EIWD provides tours of the site, encouraging people to identify as many plants as they can using a hand out. The organization has a sign posted at the site and has been monitoring and maintaining it with prescribed mowing and weeding as needed.

As the goats chowed down on weeds, they deposited a bit of “natural fertilizer” on the grassland.

“The goats will... leave behind nutrients and activate beneficial microbes and bacteria, which will further increase a healthy native grassland stand,” said Belanger.

Jordan Dankochik, who farms near Gimli, has a herd of about 150 goats and after Christmas, he accepts donations of pine trees, which his goats consider a treat.

Belanger said Dankochik was pleased with his goats’ efforts to help regenerate the grassland, saying they’re now well-trained for their next lawn cutting and soil enhancing job. People who saw the herd at the school stopped by to visit and learn about the importance of creating and preserving wetlands and plants that grow around them.

“It is such a pleasure to go to this site and see the great diversity of native flowers and grasses. The amount of life that is jam-packed in this small project is just remarkable,” said Belanger. “There have been sightings of ducks, geese, beavers, deer, frogs, tadpoles, dragonflies and even a sighting of a least bittern, which is a small heron you may find swaying in the wind to resemble marsh vegetation. Now, how many schools have that?”



Is Your Land Prone to Flooding and Erosion?

By Jessa McNabb, Resource Technician

In the spring of 2020 while at Assiniboine Community College studying for the Land and Water program, I partnered with the Inter-Mountain Watershed District (IMWD) while working on my capstone project. Since water retention was a major focus point for them, I decided to do my project on “Dry Dams”. Once I was finished school, I was able to secure a technician job with IMWD. The following is a summary brochure that I prepared for my Capstone Project; Through tours, education, and research the district was able to find dry dams as the best water retention strategy’.

The goal for the District is to reduce the flows up to 10% by implementing dry dams which will reduce negative impacts and flooding downstream.

The need for dry dams is due to the steep slopes next to the Riding Mountains and the Duck Mountains. This creates high water velocities and high-water erosion potentials (Thiele, 2019).

Within the Watershed district there are some of the steepest slopes in Manitoba, major rivers with multiple water issues, and headwaters in the Duck and Riding Mountains. All these rivers and tributaries are leading into Dauphin lake and are increasing the pressure being put on the lake and surrounding landowners.

What is a dry dam?

A dry dam is a structure that does not hold water year-round, however, is designed to retain it for about two weeks. The dam has an undersized culvert pipe that is installed through it to restrict water flow during spring run off and large storms.

The Mitchell Dam is designed to not hold water permanently. Rather, it has an undersized culvert pipe installed through it, so it restricts water flow during spring runoff and large storms. It holds water back for a few days instead of a few hours, reducing the energy of the water and decreasing downstream flood damages. The dam reservoir will empty itself, ready and waiting for the next storm event.

What are they designed to do?

“What they are designed to do is, to take off that peak flow when we have a real high runoff event, whether it’s a spring snow melt, or a summer storm. Usually, we get one or two per



Mitchell Dam

summer” “So it is going to take off the high peak flow that does flooding and erosion damage” (Thiele, 2019).

Benefits of Dry dams:

- Flood control
- Erosion control
- Regulate peak flows
- Nutrient reductions of nitrates and phosphorus
- Some can provide back-flood irrigation and a livestock watering source

Areas they can be constructed:

Dry dams are constructed along tributaries and rivers. These areas can include:

- Pastures
- Cropland
- Grasslands
- Forested areas
- Ravines
- Municipal Roads and Ditches

As we know land use has changed over the years, and water is moving down the watershed faster than ever before. The land use will continue to change, and the water will come even faster. These dry dams can play a major part in mitigating these issues. We currently have four flood control dams in use which are in key headwaters of their watersheds, prevent erosion and flooding, and will hopefully promote other retention dams to be built within the Inter-Mountain Watershed District.

Does Bale Grazing Waste Hay?

By Heather Perchaluk, Manager

Like just about anything, there are solid arguments for both sides of this debate. Former Watershed District Manager Shawn Sexsmith, with 20 years' experience with the Districts, likes to argue on the side that there is little to no waste when bale grazing, and it's the definition of waste that needs to be discussed. This past winter, Sexsmith – who owns Round the Bend Farm in The Pas – bale grazed 850 softcore bales to the farm's 100 bison. Seeing a small pile of hay that gets trampled and soiled on by the bison does not concern him in the least. It actually gets him a little excited!

“When the animals are done with a bale, and you look at what is left, it is mostly stems and the outer layer that is not very palatable, to begin with,” says Sexsmith. Bale placement plays an important part in this strategy; the entire farm is utilized for bale grazing, focusing on placing bales on the weakest portion of the pastures. Pastures with areas that were once extremely weak with only salt-tolerant species now have thick mats of forages which is a direct result of that hay that was “wasted.” There are plenty of forage seeds in the remaining litter from a hay bale. When the manure that is naturally deposited in the immediate area breaks down and releases its nutrients into the soil, those seeds that came in with the hay sprout flourish and are what re-establishes the pasturelands, it takes about one full year and sometimes two years for the old bale rings to be converted entirely into a lush green circle.

One of the other very real advantages to bale grazing is not starting and operating a tractor when the temperature turns to minus 30 degrees Celsius during the winter. “I always have enough bales placed ahead of time so that when a cold snap lasts for several weeks, all I have to do is open a gate to a new paddock and the animals just move on their own to the new bales. But, on the other hand, I absolutely hate operating equipment in cold weather and avoid it at all costs because the likelihood of something breaking at these temperatures is high and I am a pretty poor mechanic” laughs Sexsmith.

Another advantage is never having to spread manure. When the animals are strategically bale grazed, the manure is also strategically deposited where it is most needed. Thus, there is no significant build-up to break down and distribute every year.

What Sexsmith considers truly wasted bales are the ones that he feeds in the corrals. Last fall, he fed eight bales in the corrals, only to lure the bison into the area so they could be run through the chute and tagged. “I really felt guilty about putting



The green grass that is just starting to emerge in the foreground was an old bale grazing site from two winters ago in an area that was once salt flats. In the background is the residue from this winter's bale grazing. As can be seen the manure is evenly distributed amongst the debris.

those bales there. There was no advantage to the left-over hay, and all the manure that was deposited in the corrals was in my mind lost nutrients,” says Sexsmith.

Some will say that bison are not cattle, and while that is true, Sexsmith believes that bale grazing is a practice that more cattle producers can efficiently utilize. The time and money saved by spending fewer hours in the tractor are worth it alone, and looking at that “waste” as a valuable resource is just icing on the cake.

Kelsey Watershed District offers an incentive to livestock producers to bale graze and encourages all producers to inquire for more information.



Dougald Lamont MLA St. Boniface	Jon Gerrard MLA River Heights	Cindy Lamoureux MLA Tyndall Park
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Let's Connect: manitoba.liberals@leg.gov.mb.ca		

Partnerships Key to Project Delivery

By Colin Gluting, Manager

The Northeast Red Watershed District (NRWD) was fortunate to complete several projects highlighted in the Cooks-Devils Creek Integrated Watershed Management Plan in the 2020 season. One of which was on the District’s wish list for many years. In the early 1990’s the Board purchased a ¼ section adjacent to the Cooks Creek near the town of Ste Genevieve with the foresight that it could be an ideal water retention location. Surface water management is a priority in the area, and was the focus of many community and town hall meetings. Municipal and NRWD infrastructure was often overwhelmed during periods of heavy precipitation.

With the help of the Conservation Trust, Lake Winnipeg Basin Program, and the RM’s of Springfield, Ste Anne, and Tache the District was able to complete the project in 2020. The project consists of diverting water from the main stem of the Cooks Creek into the District owned ¼ section. The physical works included constructing internal and external drains, perimeter diking, and culvert installations armoured with rip rap. The project stores approximately 110 acre feet of

water during snow melt and heavy rain events. Site samples of the soil were taken to determine if the existing on site material was suitable for dike construction. It was recommended that the District use a Geosynthetic Clay Liner on the inside of the dikes to act



Adding a Geosynthetic Clay Liner to act as a water seepage barrier.

as a water seepage barrier. The project was originally slated to begin in the fall of 2019 but because of excessive precipitation it got delayed to the summer of 2020, which allowed for perfect construction conditions.

Heavy precipitation in the fall 2019 also highlighted the importance of streambank stabilization projects. In 2020 the NRWD partnered with the Conservation Trust and Lake Winnipeg Basin Program to establish vegetation in many of our waterways to alleviate erosion and ongoing phosphorous transfer to the Red River and Lake Winnipeg. The project allowed for 75 acres of vegetated waterways which will prevent future washouts within the watershed. The District utilized both hydro seeding and traditional seeding methods.

The District also worked with a local landowner and the Ag Action program to enhance an existing wetland from a class 1 to a class 5. The landowner provided the land and many hours of site preparation. The project area is 12 acres and has the ability to store 18 acre feet of water. The project works towards many goals within the Cooks-Devils Creek IWMP and will provide numerous benefits to the producer and watershed.

The District is excited to deliver its new NRWD GROW Program in partnership with the GROW Trust and the Ag Action program. The program will focus on water retention, wetland enhancement, and riparian area management. Working with local landowners to provide ecological goods and services is a major step forward for the area.

By protecting and preserving native prairie grassland, Manitoba’s beef producers are helping to provide critical habitat for a number of species at risk, including:

- Sprague’s Pipit
- Ferruginous Hawk
- Chestnut-collared Longspur
- Loggerhead Shrike
- Burrowing Owl
- Baird’s Sparrow

www.mbbeef.ca




Photo courtesy of Christian Artuso



Manitoba Climate and Green Plan Initiatives
delivered by The Manitoba Habitat Heritage Corporation



Photo by: Peter Lindsay

Supporting conservation groups in Manitoba with grants for



Watersheds



Habitat and
Wildlife



Soil Health



Connecting
People
to Nature



Conservation
Planning



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PVWD Stabilization – You Can Bank on It!

By Renee Waldner, Summer Student

The Pembina Valley Watershed District (PVWD) has worked alongside the City of Morden for many years. One focus of this partnership is the Deadhorse Creek stabilization efforts. The Deadhorse Creek runs right through the city of Morden with areas that are public and some that are private. New developments have a public area next to the creek to protect the land owners from this high risk area.

The area next to a creek is often undervalued. Shrubs and trees are needed along the bank in order to hold the soil in place. When these areas are cleared, erosion begins taking place and the creek wanders a different path. Erosion is a natural process, neither good nor bad, and something that happens in our natural world. Streams in particular exhibit this phenomenon as their energy moves soil and rock in an ever-changing theatre, refreshing and revitalizing the landscape over long periods of time.

There are times when too much change of this nature needs to be slowed down or arrested. This is an area where the District has expertise in applying varied techniques to remedy the situation. Our staff is trained in fluvial geomorphology, bioengineering, rip rapping, and using erosion control blankets to combat this problem. The problem is only a problem if we have done one

or more of the following three things: degraded the riparian vegetation, significantly increased the flow, or placed something of value in the way of the moving meander pattern.



Before and after river bank stabilization.

In this situation, private lots and public parks are threatened by the moving waterway.

Over the years, PVWD has helped fund and participate in many projects along the creek. The district designed a two tier format in the park, planted many shrubs to increase bank stabilization, and encourage a “no mow” zone along the creek to increase stabilization.

The Pembina Valley Watershed District would like to thank the City of Morden for their continued dedication to this project and for all of the work thus far.

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canoeprocurement.ca



Mini-Binney Travelling Road Show

By Angie Smith, Administrator and Justin Reid, Manager

Watershed education is an important part of Watershed District programming. We strive to give our local residents, young and old, as many opportunities as possible to learn about who we are, what we do, and why we do it. We partner with School Divisions, educational groups, and other environmental organizations to create awareness of sustainable land-use & conservation practices through community and school programs.

Since 2009, the Redboine Watershed District, the Pembina Valley Watershed District and the Prairie Spirit School Division have partnered together every year to put on a water festival for Grade 4 and 5 Students at the Binney Nature Preserve Centre of Excellence. Students make their way along the trails at Binney in groups of 6-8 and stop at eight different stations to participate in an activity. The goal of the water festival is to show students that water is connected to everything, from the t-shirts we wear to the oxygen we breathe. Each station incorporates water in a fun, hands-on way. Students see how precious that clean, drinking water really is (we sometimes take it for granted living in Canada), how water moves through the water cycle, and the ways we can change/affect the quality and quantity of water. Stations on soil, forestry, mammals, and plant life cycle also get the students looking at water from different perspectives, and the critter dipping, and identification stations are always a highlight.

COVID restrictions in 2020 saw the cancellation of many educational events, including the Binney Water Festival. 2021 was much the same and as our Binney organizers watched many other educational events cancelled for a second year in a row, they decided that we could not let another year go by without providing our students with some sort of activity. After much discussion and planning from the organizing crew and the School Division, it was decided to bring a travelling water festival road show to some of the schools in our districts. This new smaller version of the event includes a subset of the original water festival stations and has been christened the Mini-Binney Water Festival!

COVID precautions on group size, social distancing, and equipment sanitizing have been factored into the new Mini-Binney Water Festival. Students will be able to participate in activities at five



Students will hopefully soon be able to return to in-person education events like Binney Water Festival.

stations that will all take place outside in the school yard. Each student will be given their own individual “bag” of the resources they will need at each station, as well as an Activity Guide to keep a record of their activities. They will still be able to Critter dip, and ID the invertebrates they find in their individual pond basins, as well as do leaf rubbings and try to identify the age of a tree from a “cookie”. Students will learn about our national animal of Canada, the beaver, and how it impacts our wetland, and follow a droplet of water through its Incredible Journey. Finally, they will be able to hand texture a provided soil sample.

Delivering the Mini-Binney Water Festival to our students will still come with adversities to overcome in terms of all of the COVID precautions, but still being able to connect with students and share our knowledge of the watershed that we all live in, makes this road show a success story in our eyes!

Launching New Field Erosion Control Program

Joey Pankiw Assistant Manager

The Seine Rat Roseau Watershed District (SRRWD) developed and implemented a new field erosion control program in 2020. The objective of our program is to sustainably manage surface water and enhance water quality by reducing erosion and downstream flooding. Our goal is to reduce the loss of topsoil from cultivated fields and prevent sediment from depositing into waterways through the design and implementation of site-specific erosion control techniques. Examples of field erosion projects are grassed waterways, field edge buffers and edge of field control structures like side inlets and small berms.

Erosion control projects also qualify under the Alternative Land Use Services and GROW Program with an annual incentive payment up to a maximum of \$100 per acre along with 80-100% of the cost of the erosion control structure.

2020 saw the first field erosion control project established by SRRWD. Jeremie Lussier, who farms along the Marsh



With no vegetation to hold the soil in place drains are very susceptible to large-scale erosion problems.



Perennial grasses along this waterway will reduce the amount of sedimentation getting into the Marsh River.

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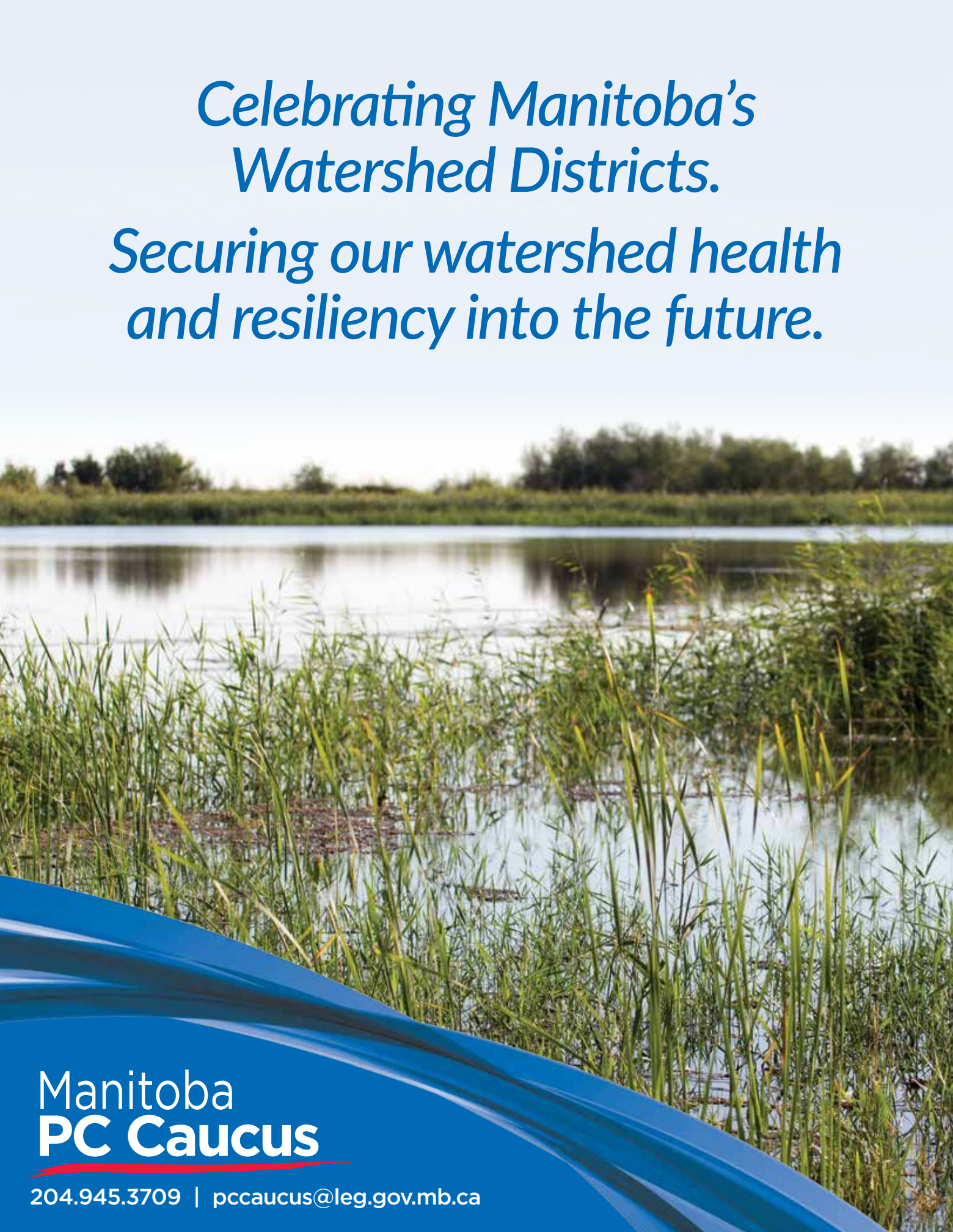
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River in the RM of De Salaberry, signed up to participate in the SRRWD Alternative Land Use Services program. Jeremie created a grassed waterway by planting perennial grasses along a quarter mile section of a drain that flows into the Marsh River. Jeremie says participating in a program like this is great for his operation because it minimizes the risk of planting crop in an area that is prone to flooding. At the same time, Jeremie can contribute back to the community at large through the environmental benefits the project provides by reducing nutrients and sediment that currently flow into our waterways.

The SRRWD is looking forward to helping other producers around the Seine Rat Roseau Watershed in reducing erosion on their properties. For more information on the SRRWD Field Erosion Control Program please visit www.srrwd.ca or email info@srrwd.ca.



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Restoration of Grassland Bird Habitat in the Mixed Grass Prairie Region

By Dean Brooker, Manager

Souris River Watershed District is running a multi-year Habitat Stewardship Program Species at Risk project, which is primarily focused on the habitat improvement of grassland bird habitat in southwestern Manitoba. The project began in April of 2019 within the Mixed-Grass Prairie Manitoba (Prairie Region) level 1 priority place. The study area is located within Important Bird Area MB024 the southwestern Manitoba Mixed Grass Prairie and is a critical habitat for a number of grassland birds that are species at risk.

The approximate grassland habitat within the study area is 26,000 ha. There are four species at risk that will be targeted for this project: Chestnut-collared Longspur, Bobolink, Bairds Sparrow, and Spragues’s Pipit. One threat facing these species is the encroachment of wood vegetation specifically Western Snowberry *Symphoricarpos occidentalis* which degrades their nesting habitat.

The project activities will include selecting sites totalling 260 hectares of native prairie that are currently grazed by livestock throughout the study area. The Western Snowberry will be



Weed wiper used to apply the chemical to the western snowberry. The weed wiper allows us to target the snowberry only.

treated using a shrub mower or herbicide treatment during the month of August in 2019, 2020 and 2021. The mechanical and herbicide treatment will reduce the density and canopy of the Western Snowberry and will directly improve the habitat of the species



Western Snowberry

at risk and increase the density of native grasses and plants. Baseline data will be collected on grassland birds as well rangeland assessments for each project site and combining this information with existing and future projects will assist managing grassland bird habitat. Nature Manitoba has been carrying out the Grassland bird monitoring in year 1, 2 and 3. The collected grassland bird data will be added to existing species at risk databases. Early results of the chemical application on the Western Snowberry has been promising and further field investigations in 2021 are needed to confirm.

Staff from the Critical Wildlife Habitat Program and the Manitoba Conservation Data Centre have completing rangeland assessments of each project site and generating reports. Funding for this project was obtained through Environment and Climate Change Canada Habitat Stewardship Program for Species for Risk.

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Miller Water Retention: Mitigating Flooding and Preventing Downstream Soil Erosion

By Edward Shao, Interim Manager

The Swan Lake Watershed District's (SLWD) Miller Retention structure is a 650-foot long retention structure that runs North-and-South, located approximately 13 miles West of Swan River before the Saskatchewan (SK) border. This structure was designed for this location due to the high water volumes draining from SK during spring runoff and high rainfall events, which has resulted in road washouts and severe soil erosion problems downstream into Manitoba (MB). After inspecting on the SK side, it was determined that the MB side was not able to handle the volume of water being drained in SK and resulted in water over-topping the Municipal Road.

The intention of this project is primarily flood and erosion control combined with water retention. It was decided that the ideal water retention structure would be a dry dam, which essentially retains water back during spring runoff and high water events only allowing a certain volume through, but eventually drains itself dry to prepare for the next event. The retention structure incorporates a 6-foot diameter pipe at the bottom of the waterway; has a 6-foot diameter pipe on top of the bottom pipe that acts as an emergency spillway when volumes of water rise over the passable limit for the bottom pipe; has 3:1 slopes on both sides of the structure to ensure the embankment will withstand water impoundment; rated for a 1 in 50 year flood; and the reservoir has an estimated storage capacity of approximately 40 acre-feet.



Miller Retention structure - flood and erosion control with water retention.

This water retention project was made possible by funding from the Ag Action Manitoba (Assurance: Watershed Ecological Goods and Services) Program and the Lake Winnipeg Basin Program (LWBP), and the great work done by Adams Contracting Ltd. The Swan River Valley saw little to no high water event in the spring of 2021, which is a benefit that will allow the structure to settle and grass to grow, but hopes that we will be able to see it in action in future years.





GROW: What We've Accomplished with Funding So Far

By Kelsey Benson, GIS Technician

Since the introduction of Growing Outcomes in Watersheds (GROW) and the Conservation Trust the WIWD has been able to provide more projects and programs than ever before.

So far we have:

- 2,022 acres of restored upland area 297 acres of enhanced riparian area
- 64 acres of conserved wetlands
- 10 kilometers of riparian fencing
- 4 offsite watering systems providing 1350 head of livestock with clean water

For our upland area we will be covering the cost of soil samples. Cover crop and perennial species will be planted in the upland area, and will contain various blends of plant species. With the use of soil samples we can determine the type of benefits each mixture brings to the soil. We send our soil samples to Ward Laboratories to have the Haney and PLFA tests done. The Haney test will determine the nutrients in the soil, and PLFA test will determine the microbiology of the soil. These two tests will give us the information we need to determine the benefits to soil health. The soil sampling information will then be analyzed and imputed into ArcGIS, along with pictures of crops and soil improvements. Landowners have also shown a lot of interest in their soil sample results, which has increased their incentive to continue with the program so they can see what improvements have occurred in their soil. We hope that this information will encourage agricultural producers to change their practices even without the use of seed subsidies.

GROW funding has also significantly increased our budget, allowing us to use funds that were once funding the above mentioned projects to new programs. This May we provided free and subsidized water samples to our residents, and will be transporting nearly 400 bottles to Horizon Lab. Residents were able to get a Coliform and E.coli Test for free, and/or an advanced water quality sample at a subsidized rate. This program was used by residents across our district, and helped us to become more involved in our communities during times when we cannot see our residents face to face.

We were recently gifted a water pipeline plow, which can be rented by both residents and non-residents of our district for various projects. The plow will run a shallow underground pipe so water can be pumped from a well to another watering trough. We are also able to continue our Community Tree

nursery program which has been running since 2014 and has provided over 61,000 trees to our residents. Many residents are already starting to ask about the program, and we are expecting to have hundreds of residents applying for the program again this year.



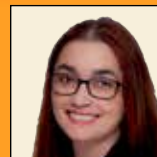
Tree seedlings from our Community Tree Nursery Program.

These are just some of the plans that we have put to use with the help of GROW funding. We are excited to see so many of our residents interested in our programs, and are eager to see what else we can do this year!

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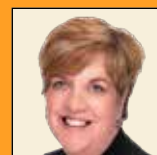
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Westlake Watershed District – A Year in Review

By *Lindsay Cherpin, Manager*

Westlake Watershed District allocates a large amount of its resources to maintaining drainage infrastructure. 2020 was a season of planning and preparation for major drain reconstruction and drain maintenance projects. The District brushed 41.8 km of drain, levelled 2.4 km of spoil piles, replaced 12 crossings and completed 6 water rights applications that licenced works for 2020 projects and reconstruction projects for 2021. The Hamlin Drain and HWY 276 Drain convergence is an example of some of the District’s maintenance projects – this convergence was reinforced to reduce bank erosion that results in siltation of the drain and reduced integrity of the bank structure. This convergence also required the installation of a berm with gated pipe to prevent backflow during high flow conditions.



Westlake Watershed District is also working on building its conservation programming. Programs that had been offered by the District included Abandoned Well Sealing and a Forage Seed Rebate Program. The opportunity to apply for grants from the GROW Trust through the Manitoba Habitat Heritage Corporation has enabled the District to expand its conservation programming efforts by offering an enhanced Forage Seed Rebate Program, a Livestock Exclusion Fencing Program, and a General Program application that enables landowners to apply for funding towards any project that meets the Districts Integrated Watershed Management Plan goals. 2020 GROW Programming resulted in 324 ha seeded to perennial forage, 2 livestock exclusion fencing projects and aerial surveying was completed as part of the planning process for several water retention projects. The District assisted landowners to properly decommission 5 water wells, which reduces the risk of ground water contamination and public safety.



The Forage Seed Rebate Program now offers landowners up to \$25/acre for up to 50 acres, towards the cost of certified seed for perennial forage stands. Perennial forage stands increase biodiversity, helps to prevent soil erosion, increases rates of water infiltration and the increases the water holding capacity of the soil.

The Exclusion Fencing Rebate Program offers landowners up to \$3200/mile towards the cost of construction supplies for fencing that excludes livestock from bodies of water. This helps to maintain a healthy riparian area that functions to control bank erosion, decrease sedimentation in the water, and helps to reduce excess nutrients in surface water.

With the assistance of the Provincial Hometown Green Team Grant program, the District hired two local students to maintain 10 recreational sites throughout the District as well as maintain the 14 community hugelkultur garden beds located in Alonsa. The garden beds keep local residents and students engaged in sustainable agriculture practices while offering an outdoor opportunity for residents to connect with each other.

The District also received grants from Canada Summer Jobs and the Information and Communications Technology Council, which enabled the District to engage a Red River College Civil Engineering student for 16 weeks. This grant enabled the District to work towards creating a precise digital asset inventory that will provide accurate information to aid in effective management decisions. This project will be continued in the 2021 season.

Westlake Watershed District is proud to contribute to drainage infrastructure maintenance and conservation efforts that help support a sustainable and productive future for agriculture.



Bridge Preservation

By Rodney White, Manager

Whitemud Watershed District is responsible for over 200 bridges and a number of other crossings. Many of these bridges are in constant need of improvements. The importance of bridge maintenance and inspection can't be understated.

In the fall of 2020 this bridge on Road 74N near Katrime was found to have large amounts of damage and had to be closed until it was fixed. More and more bridges, such as this one, are having issues like this occur. There is always going to be normal wear and tear on structures. The wear and tear we are now seeing from super-B's full of grain or even houses being moved over these structures is far from normal.

The fact is that some of these structures can be repaired and if the damage is drastic enough some can be replaced with culverts. In saying that, there are multiple others which, if the damage gets to a certain level, will have to be closed and will



Whitemud Watershed District is responsible for over 200 bridges and a number of other crossings.

not be feasible to replace. We, as a district, need to consider all of this and ensure that we are doing our part to take care of the infrastructure we have!

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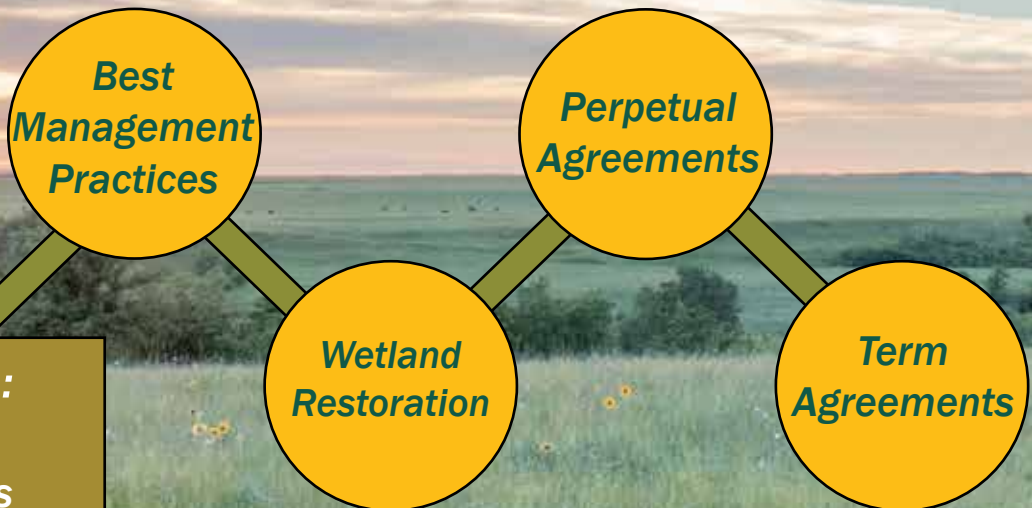


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For more information contact:

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