Swift Current Creek Watershed Stewards

Know Your Watershed

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Improving the Watershed by Improving Riparian Health

Riparian area in need of repair

In 2006 the Swift Current Creek Watershed Stewards (SCCWS) became part of the Agri Environmental Group Plan (AEGP), assisting producers to implement Beneficial Management Practices (BMPs) to improve water and watershed health.
These BMPs included cross fencing to keep livestock away from surface water, developing off site watering systems and moving livestock confinement facilities. In 2007 Riparian Health Assessments (RHA) were completed on sites where these BMPs were adopted. In 2015 and 2016 RHAs were done on the same sites and the results from 2007 were compared to 2015 and 2016 results.

Why would SCCWS compare results of RHAs done 8 and 9 years apart? Riparian Health is the ability of a waterbody to perform a number of key ecological functions. A healthy riparian area keeps the watershed resilient, giving it the ability to bounce back from floods, droughts and other problems. A healthy riparian area provides stable landscapes that maintain themselves, and are sustainable.

Healthy riparian areas work by trapping sediment to build soil to improve the moisture storage. Healthy riparian areas filter contaminants out of run-off water, enhancing water quality of waterbodies. Healthy riparian areas reduce erosion and
increase recharge into aquifers by holding and slowly releasing water. Biodiversity is increased in healthy riparian areas by creating and maintaining habitat for fish, wildlife and plants.

SCCWS is committed to enhancing water quality and stream health of the Swift Current Creek Watershed; improving riparian health helps us and watershed residents meet that goal. SCCWS embarked on the project to re-evaluate the Riparian Health
of sites that had implemented BMPs to evaluate the effectiveness of practices such as exclusion fencing, off-site watering and moving livestock facilities.

SCCWS found the when the RHAs were compared, average Range Health scores increased 65% in 2016 from 59% in 2007. The overall health of the riparian area in the watershed from changed from unhealthy in 2007 to healthy with problems in 2016. Six of the seven sites that were re-evaluated in 2016 had improved scores from the 2007 assessment.

We found that riparian areas had more vegetation of non-invasive species in 2016 than 2007, there was more woody vegetation and the streambanks were held together better and there was less bare ground in the riparian area in 2016 than 2007. This is important to riparian health and water quality as more vegetation will trap sediment to keep it out of the creek building soil in the riparian area, increasing plant growth. More plants trap more contaminants, filtering more water going into the creek. As plants grow and soil is built up; the banks of the creek are protected as erosion is reduced and the riparian area is expanded.

Reducing erosion and increasing the size of the riparian area stores more water, releases it slower to help recharge aquifers. Increasing the water holding capacity of the riparian area reduces the chances of flooding and reduces the impact of flooding around the riparian area. As the size of the riparian area is increased so does the habitat for fish and wildlife.

After comparing the results of the Range Management Assessments of 2016 to those of 2007, we see that BMPs such as exclusion fencing, off site watering and moving livestock facilities has had a positive effect on Riparian Health.

As Riparian Health is increased in the watershed, water quality and stream health of the Swift Current Creek have been enhanced.

These are only seven sites that had implemented a total of about 20 BMPs. There have been several producers in the Swift Current Creek Watershed that have implemented similar BMPs over the past ten years, improving the health of the watershed. However

Healthy Riparian Area

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Doing your part to keep zebra mussels out of our watershed

You have likely heard that you need to “Clean, Dry, Drain” your boat many times. Why have the Swift Current Creek Watershed Stewards and other groups been so adamant that boat owners and others need to be so diligent to keep boats and other watercraft clean? It is because we need to keep zebra and quagga mussels out of our watershed and province. These aquatic invasive species are starting to get closer to our watershed with quagga mussels discovered in Montana and zebra mussels in Manitoba. This article will hopefully shed some light on why is there such urgency to keep Saskatchewan free of these mussels.

These mussels are not native to North America, having come from Eastern Europe and Asia, likely from water in ship’s ballasts from vessels originating from these areas being released into the Great Lakes. As they are not native to North America they have no natural predators which have allowed them to flourish in new waterways that they are moved to. As watercraft with mussels attached to it or living in water on the boat move from an infested lake to a non-infested lake, mussels are also transported, increasing the distribution of these invasive species. Once in a waterbody, they are able to multiply rapidly as one female mussel is able to produce up to one million eggs per year. After they are established, these mussels attach to hard surfaces such as rocks, cement and watercraft hulls with tough byssal threads that are almost impossible to remove. This allows them to thrive and keep reproducing further increasing the infestation.

Cleaning your boat is important as the adult mussels can survive up to 30 days without water, meaning that if they were on your boat and you do not clean it after coming out of an infected lake, you could be transporting adult mussels to every other lake or waterbody you go to within 30 days of the original visit. Draining and Drying your boat is important as the larvae (called veligers) can be easily transported in standing water in live wells, storage tanks, ballast and bilge tanks and wet equipment. Water currents then can spread these veligers from water body to water body further spreading the infestation, so when you drain your boat and dispose of unwanted bait do it away from waterbodies so that the mussels and veligers do not get swept into the water by run-off or other such events. Do not clean or drain your boat or dispose of unwanted bait in your driveway as the mussels and veligers will get into the storm drain system and eventually into other waterbodies further spreading the infestation.

If you follow the practice of Clean, Drain, Dry and Dispose every time your watercraft leaves the water, you are doing your part to keep Zebra Mussels and Quagga Mussels out of our watershed. SCCWS and everybody who relies on our waterbodies thank you.

If you see either of these on your boat, your dock or on the beach call the TIP Line at 1-800-667-7561 or

Sask Cell Phone #5555

Save Water and Money with Rain Barrels

Rain barrels are containers that have been re-purposed to catch rain water that runs off the roof of your house or other buildings. Rain barrels allow you to collect and store rain water to be used on your garden and flowerbeds later when rainfall is not as plentiful. Not only will your water bill be lowered, but the rainwater you collect and use has not been treated so it will not contain any minerals and chemicals that may impede the growth of your plants. By collecting and storing rainwater, the amount of water going into the sewer and storm drain systems is lowered putting less pressure on these systems, reducing the work load of the wastewater treatment plant. It also reduces run-off going into the creek reducing the pollutants going into the creek.

Swift Current Creek Watershed Stewards will be conducting workshops throughout the summer to instruct on how to assemble, use and maintain your rain barrel. When you attend one of these workshops, you will be supplied with all of the materials to assemble your own rain barrel. The cost to attend one of these workshops and the cost of materials is $50. One afternoon or evening and $50 is not a steep price to pay to save money and collect water to use in your yard.

You are not limited to one rain barrel per house, you can connect a network of as many barrels as you want or space permits. This will allow you to save as much water as you think you would need to water your plants throughout the growing season. There are many examples of how to link barrels together online, allowing you to be as creative as you like.

If you are interested in learning more about rain barrels or registering for a workshop contact our office or check our web-site for workshop dates and

Stop the Spread of Invasive Weeds!

Spring is here and planting season is soon to begin! The Swift Current Creek Watershed Stewards reminds you to be aware of what species of flowers are in “Wildflower” seed mixes advertised for sale or to be given away. Most flower seeds in these packages are for native flowers, but check the package as some imported seed mixes contain species that are classified as noxious weeds to our area and can invade our watershed very quickly reducing the population of beneficial native plants. Noxious species to watch for are: Dame’s Rocket, Purple Loosestrife, Oxeye Daisy, Scentless Chamomile, Common Tansy, Absinthe, Baby’s Breath, Yellow Star Thistle, Field Bindweed, and Dalmatian Toadflax. There are many other noxious weeds listed for Saskatchewan, but these plants have been in wildflower mixes and have become invasive weeds in our watershed. If you are unsure of the seed mix that you may be planting, do not plant it! For more information on invasive species please visit *http://www.saskinvasives.ca/*

If you are looking to seed wildflower mixes, consider planting native species in your flowerbeds and gardens. These plants are drought tolerant requiring less water and many are perennial. Plus the prairies have beautiful native flowers! There are also many species that are pollinator friendly, for those wishing to promote their spaces for bees and butterflies. If you have any questions about what type of native plants to plant in your garden or flower bed please

If you see people in the creek taking samples this summer, or people dragging a net to catch fish or bugs; do not worry there is nothing going wrong with the creek. The Swift Current Creek Watershed Stewards are once again completing our Swift Current Creek Water Monitoring Program. We will be taking water samples throughout the summer and surveying for fish and aquatic bug species to see if there have been any changes to the health of the creek and watershed since 2007, the last time SCCWS completed a similar large scale project. Look for our report on the results of this project in 2018.

Drainage done right

Southland Colony was started in 2006 when Beechy Colony bought land north and east of Herbert to expand their farming enterprise. A location was selected for their headquarters, homes and livestock operations based on access to major roads, proximity to land base and water supply for humans, livestock and crop spraying needs. Just south of the selected location was a field of 320 acres that had a small slough in it. In the early years of the colony they were able to farm most of the 320 acres and where able to harvest some slough hay once the slough had dried off enough to get equipment on the land. However by 2016, almost the entire area was under water and the colony was unable to farm any of the land, harvest hay or find any use for the land.

In the summer of 2016 Southland Colony decided that changes needed to be made. The land was no longer useable for farming; water was up to the only road into the colony threatening their business. If water ran over the road or damaged the road so that heavy trucks could not get into the colony, they would be unable to deliver grain, milk, hogs and eggs. The state of the roads also concerned the local Rural Municipality as not only was the road into the colony threatened, but also a major grid in the RM that sees heavy traffic delivering grain to a terminal could be compromised as a second large slough was starting to form across the road from the big slough on the colony. The RM has been supportive of the efforts of Southland Colony to control the water that has been accumulating the past several years.

While they were looking at solutions for the excess water, the colony was also looking at their farming operations and the need to find feed for their dairy and hog operations. The colony wanted to ensure a steady feed supply and wanted the ability to grow feed crops close to the colony to reduce the transportation costs to get the feed to their barns. In order to reach these goals, Southland Colony decided to construct an irrigation system on some of the land that had been farmed in the past but has under water for the past number of years. In order to achieve these goals the colony decided to construct a large dug-out to collect the water that has been accumulating on the land and then hold it for irrigation use.

Once the decision had been made to build a dug out the colony knew that they needed to do the project right and get proper authorizations for all the different aspects of a project of this size and scope. The colony contacted Water Security Agency to get information on how to proceed with project and to start he approval process. Dan Wipf worked with Scott Klippenstein of the Swift Current office of Water Security Agency on the drainage portion of the project to receive the necessary permits and approvals. Brian Hauck of the Moose Jaw office of Water Security Agency and Randy Holmlund from the Outlook office of the Ministry of Agriculture have been instrumental in the irrigation portion of the project.

Once all of the Approval to Construct had been issued and plans finalized the colony went to work to construct the dug-out. In total they calculated that 297,327 cubic feet of soil was moved to create a dug-out that could hold up to 165,000,000 liters of water. There is still some work that needs to be done to finish the project. The area the around the dug-out needs to be landscaped, the Approval to Operate must be finalized and some more ditches need to be completed to drain areas south of the grid road.

Southland colony is very appreciative of the assistance that Water Security staff has given in obtaining permits and ensuring compliance for the works.

Drainage is not a dirty word. Using the proper channels to design and obtain approval to construct a drainage project of any size ensures that it is done correctly. It also ensures that projects meet standards and is approved at all levels so that your project is not shut down and all of the time and money that you put in is for nothing.

It is very important that everybody works together when looking to drain land and construct water works. This way you can avoid affecting neighbors and/or people miles away by diversion of water. Southwest Saskatchewan will likely never see the issues of drainage that other parts of the prairies are dealing with but by working together and following the correct steps we can ensure that small issues are resolved before they become big issues.

View of dug-out from South toward colony

Soil from water going right up to road and power poles starting to lean over due to wet ground and water pushing

Native Rangeland Grazing Management and Native Plant Establishment

The Swift Current Creek Watershed has a variety of land and resource uses; from crop and livestock agriculture, natural resources such as oil and gas, to urban areas and small towns. A common component is the presence of native prairie. Native prairie grasslands are unique and are a vital part of the biodiversity within our watershed and the health of these native rangelands is important to producers that manage grasslands as a part their livestock operations. Proper rangeland management practices ensure that native range creates a beneficial relationship for both domestic livestock and the native plants and animals that exist there. In addition to this symbiotic relationship, proper rangeland management reduces soil erosion, improves forage productivity, and reduces populations of invasive plants.

When native range is used in conjunction with tame forages, a balanced grazing management plan minimizes the negative impacts of overgrazing. Native plants are adapted to the climate and require fewer inputs, and are excellent source for livestock feed. Well managed native grassland supplies a stable long term perennial forage supply, which can be grazed later in the season to extend the grazing season. Keeping cattle in pastures longer keeps nutrients on the land where they can stimulate more forage growth instead of concentrating them in corrals where they can be lost to the atmosphere, leached into the ground, or carried away in runoff. Implementing a good rangeland management plan can ensure the long term health of both the rangeland and your livestock.

Growing Forward 2 is a Federal-Provincial-Territorial policy framework that aids Saskatchewan farmers and ranchers to implement Beneficial Management Practices. It is broken down into two programs: The Farm Stewardship Program and The Farm and Ranch Water Infrastructure Program. These help to improve or minimize negative impacts to the soil, water, and air quality. Two Beneficial Management Practices that are funded under the Farm Stewardship Program that aim to protect native rangelands and improve grazing efficiency include native rangeland grazing management and native plant establishment. Both of these projects are pre-approval applications that must be submitted by June 30, 2017 to the Ministry of Agriculture.

The Swift Current Creek Watershed Stewards is an organization that can assist farmers and ranchers to apply for funding to implement Beneficial Management Practices through the Agri-Environmental Group Plan (AEGP). If you are interested in these Beneficial Management Practices or any other projects offered through the Farm Stewardship Program or Farm and Ranch Water Infrastructure Program you can contact the Swift Current Creek Watershed Stewards AEGP at 306-770-4606 or the Ministry of Agriculture at 1-877-874-5365. You can also visit *Saskatchewan. ca* for information on all the Beneficial Management Practice projects as well as the Farm and Ranch Water Infrastructure Program.

Funding Available to Landowners for Decommissioning Old Abandoned Wells

As farms sizes have increased and the number of people living in the rural areas decreased, many farm yards are no longer occupied. Many of these yards have one or more wells that are no longer in use. In addition many occupied farm yards may have wells that are no longer in use. These old and abandoned wells pose many dangers. If they are not marked or covered properly they pose dangers of livestock, pets, people or vehicles falling into them. In many cases they old wells and the ground around them have started to cave in, increasing the dangers these old wells pose.

The Swift Current Creek Watershed Stewards is an organization that promotes the enhancement of water quality and stream health of the Swift Current Creek by promoting awareness and understanding among users and stakeholders in the Swift Current Creek Watershed. These abandoned wells are of a particular concern to SCCWS as they pose a risk of contamination to ground water especially during these years of higher than average moisture.

Abandoned wells provide a direct pathway for water from the surface to get into the aquifers from which most of our drinking water is taken from. When a well is abandoned and not maintained the risk of contamination from surface water increases. Once an aquifer is contaminated it is difficult and costly to fix the water supply and may limit development as the only water supply is not suitable for agriculture or human consumption.

Well decommissioning of large diameter wells is not difficult once the proper process has been learned. The Swift Current Creek Watershed Stewards has people available to come out to your abandoned wells to help you with the application process and direct you what material and how much of each are needed. We can also help you find a qualified person to help guide you through the process if you want to decommission the well yourself. For small diameter or bored wells a certified well driller is required to decommission the well.

The good news is that there is financial help available to decommission these wells through the Farm and Ranch Water Infrastructure Program. Decommissioning of abandoned wells is funded at 90% of the cost of decommissioning up to $10,000 per well, with no limit on how many wells you decommission. This is a great opportunity to protect our water supply by properly seal up any old wells on your land or yard site in a safe, effective, and environmentally friendly manner. For more information on well decommissioning call our office at 306-770-4606 or the Ministry of Agriculture Toll Free at 1-877-874-5365. We are happy to assist with applications at no charge to you!

Growing Forward 2 is coming to and deadlines are fast approaching!

Farm Stewardship Pre-Approval applications: **June 30th, 2017**
Farm Stewardship Rebate applications (and completion of pre-approval projects): **January 31, 2018**
Farm and Ranch Water Infrastructure Program applications: **August 1st, 2017**; projects completed by **February 15, 2018.**

SCCWS WOULD LIKE TO THANK OUR SPONSORS

Water Security Agency

Government of Saskatchewan