Spring 2018
Quarterly Newsletter

"PROMOTING ECONOMIC, ENVIRONMENTAL AND SOCIAL BALANCE TO SUSTAIN AND IMPROVE THE WATERSHED FOR FUTURE GENERATIONS"

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Lower Souris Watershed Committee Inc.

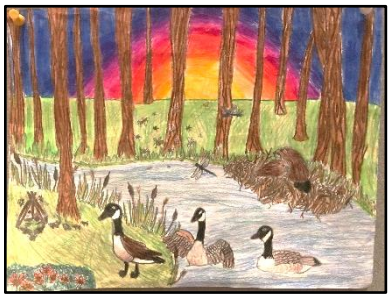
LowerSouris watershed committee

Beyond Water

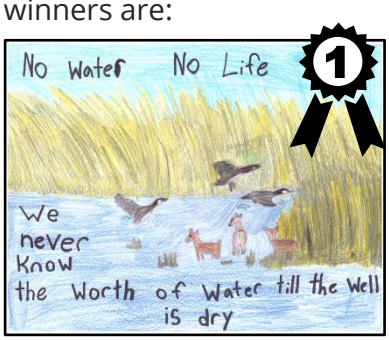
An Update on Water and Sustainability

The 2018 SAW Poster Competition

Every year, the Saskatchewan Association of Watersheds hosts a poster competition for students in grades 5 through 7. If a teacher decides to have her class participate, students will create letter sized posters on a specific theme. This year, the theme was **Wetlands and Wildlife**. The top poster from each watershed is picked and then goes to the annual SAW conference for a shot at winning $1000. This year, a student from Assiniboine Watershed won first place, congratulations! (right)



In addition, the LSWC chooses the top three posters in its own watershed and awards prizes to these individuals. The winners are:



Lindsay Schmidt - Maryfield (left):
*Accurate to local environment
*Aesthetically pleasing

Hannah-Louise Adams - Carievale (right):
"The wildlife and its habitat can not speak for itself, so we must and we will"
- Theodore Roosevelt

Kaydence Kamp - Redvers (left):
*Strong artistic skill
*Explanation section of contest was done well

Upcoming Events*

Redvers & District Oil Showcase
May 30th and 31st, 2018
Redvers, SK
(306) 452 3225 or
http://www.redversoilshow.com/

Webinars
Busy but still want to learn? There are many webinars throughout the year that are free to attend and are usually about an hour long.

*More events and webinar information on our website: **lowersouris.com/events**

Inside this issue:

CANADIAN AGRICULTURAL PARTNERSHIP

Water Security Agency

Government of Saskatchewan

Canada

An Introduction to Cover Cropping

Cover Crops are crops grown during times when no other crop would be growing in a field, generally after harvest or before a late season crop. Cover Crops are primarily used to help improve a site and are often used to help repair soils that have been depleted or eroded.

What are the Benefits of Cover Crops?

- **Reduced Soil Erosion** – Stabilizes the soil by binding soil particles and improving structure, reducing runoff
- **Reduce Compaction & Improve Soil Structure** – Pore space created by the roots allow moisture infiltration and aeration. It also provides pathways for insects and other soil micro-organisms to move
- **Add Organic Matter** – Although a slow process, cover crops help build organic matter through decomposition of above ground and below ground plant material
- **Suppress Weeds** – Cover crops compete with weeds for available nutrients in the soil as well as for light and space above ground, chocking out weeds
- **Reduce Nutrient Losses** – Some cover crops such as legumes can fix nitrogen from the air. Others such as rye and oilseed radish are excellent scavengers of nitrogen reducing leaching into ground water and shallow aquifers
- **Water Management** – Cover crops can be used to reduce moisture loss, however with strategic planning, they can also be used to reduce soil moisture in early spring.
- **Forage Supply** – Cover crops offer a potential forage supply. They can also be incorporated in a pasture rotation to reduce grazing pressure on tame and native pastures later in the season
- **Biodiversity** – All plants have their own unique characteristics including how they interact with other plants and organisms. Biodiversity attracts a wide variety of insects, including pollinators, to your site. Increased organic matter and soil nutrients feed beneficial microbes that help control fungal and bacterial infections
- **Reduce fertilizer, herbicide and pesticide costs** – By improving soil health, suppressing weeds and affecting pest populations, there can be a reduced chemical cost
- **Improved Crop Yields** – Cover crops improve yield by speeding up water infiltration in the spring, improving soil fertility, nutrient cycling, relieving soil compaction, and improving soil structure

Examples of Cover Crop Species

These can be seeded alone or in a cocktail to achieve the desired goals.

Grasses: oats, rye, barley, corn, wheat


Legumes: peas, alfalfa, clover, soybeans, hairy vetch


Non-legume broadleafs – forage radish, buckwheat, beets, turnips, mustard, canola


What to Consider When Planting Cover Crops?

Making the decision to plant cover crops requires planning. Some things to consider are:

- What are your goals – erosion control, grazing, or nitrogen production, for example
- What crop family is the cover crop in and how does that relate to other crops in the rotation?
- Do you need different equipment to plant the seed?
- How sensitive are they to herbicide residues from other crops in the rotation?
- What available window do you have to grow your cover crop – after the cash crop, before a late planted crop, etc
- Is it a nitrogen producer or a nitrogen scavenger?
- What is the crop rotation, tillage system, soil types, drainage conditions, and herbicides used?

LSWC Workshops

This winter and early spring, the LSWC hosted two workshops and a conference. The workshops were based around water quality and livestock and were held in Carnduff and Moosomin.

We had a diverse group of presenters talking about:

- **Water Quality Impacting Livestock** - Colby Elford (866.457.2377) and Naomi Paley (306.786.1686) - *Ministry of Agriculture*
- **Pasture Management in Drought Conditions** - Charlotte Ward (306.786.1608) - *Ministry of Agriculture*
- **Offsite Watering Systems** – Carl Driedger (204.556.2346) - *Authorized Dealer with Kelln Solar*
- **Well Drilling and Decommissioning** – Wes Maley (306.699.2254) and Daniel Phalen (204.510.1759) - *Hwy One Drilling and LSWC*
- **Dugouts** – Clint Hanson (306.848.2353) and Adrian Prybylski (306.848.2555) - *Water Security Agency*
- **Producer Panel on Offsite Watering** – Trevor Branvold, Sheldon Kyle, Werner Skappel, Teresa Walker

Water Workshop Take-Home Messages

Forages

- Plants need effective rest during growing season to develop an effective root system. Leaving grass behind optimizes stocking rate and profit
- A drought preparation plan is important
  - Manage for a diverse plant community
  - Flexible livestock management. Can you
    - Sell or Wean Early
    - Heavier cull if necessary
    - 1/3 to 1/4 yearlings for more flexibility
  - Alternative Feeds
  - Forage rainfall insurance from Saskatchewan Crop Insurance Program

Dugouts

- Less surface area = Less loss. Go deeper (6-7 meters)
- Recommended 1.5/1 slope with fence. Steep sides reduce livestock access and plant growth
- Level spoil piles and seed 10m buffer strip
- Licenses and Permits!

Water Wells

- Mapping groundwater and using test holes will allow contractors to determine best well type, depth, casing, intake, and the annulus seal
- Water level measurements are important to monitor well health and show problems before well failure

Wells (Continued)

- Water testing should be done regularly or if there was nearby construction or land use changes
- Decommissioning wells protects ground water, ensures safety, and reduces liability. Follow the WSA Well Decommissioning Guide (available online)

Offsite Watering

- Solar/Offsite watering systems can improve water quality, riparian areas, and animal health, growth, and safety.
- Easy and safe access to water improves feed intake, nutrient absorption, and overall health

Water Quality and Livestock

- Know the limits
  - TDS or Salinity: 1-3000 is ideal, 4000-5000 is max
  - Sulphates: <500 is good, >2000 is risky and can lead to PEM
  - Nitrates: Take caution at 1000mg/L
  - Sodium: 800mg/L is upper limit, can reduce feed, water, and mineral uptake
- Sulphates are a big problem in our area. Close to half of SK dugout water tests were greater than 2000, deeming them unacceptable
- There is little correlation between water appearance and water quality. You need to test it to know

Conferences

Sustainable Agriculture

The LSWC hosted its first independent conference this April at the Moosomin Convention Centre. Our Sustainable Agriculture conference was free to attend, with 8 speakers ranging from industry specialists to Nuffield Scholars. We would like to thank these speakers, our sponsors, and all our attendees for coming out and supporting the LSWC. One of our main goals is to provide educational opportunities so we will continue to bring in fascinating speakers to share their stories and knowledge. We hope to grow this conference and improve our workshops year after year so keep an eye out for our upcoming events and join in!

2018 SAW Conference and AGM

The Saskatchewan Association of Watersheds hosted its annual conference in partnership with Swift Current Creek Watershed Stewards. The SAW conference is a gathering of the 13 watershed groups across Saskatchewan, along with representatives from governing agencies, educational institutions, and industry. This event gives watersheds a great opportunity to discuss strategies and learn from each other. In 2019, the LSWC was chosen to host the conference and it will be held in Moosomin, Saskatchewan.

Sponsors

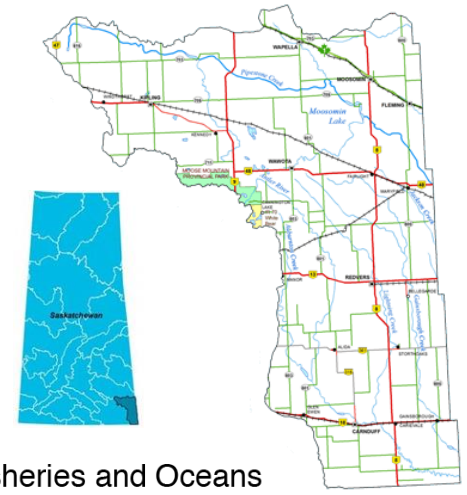
Village of Fairlight
Village of Fleming
Village of Gainsborough
Village of Manor
Village of Maryfield
Village of Storthoaks
Town of Redvers
Town of Moosomin
Town of Wapella
RM of Argyle #1
RM of Storthoaks #21
RM of Reciprocity # 32
RM of Moose Creek #33
RM of Antler #61
RM of Maryland #91
RM of Walpole #92
RM of Wawken #93
RM of Moosomin #121
RM of Martin #122
RM of Silverwood #123
RM of Kingsley #124
RM of Chester #125
RM of Willowdale #153

Do You Have a Waterfront Property?

Funding Is Available for Shoreline Naturalization Projects within the Lower Souris Watershed

The Natural Edge Program helps landowners plant native plants, trees, shrubs, groundcovers, wildflowers, and grasses along the water's edge. These plants help to reduce soil erosion and nutrient runoff while providing food and habitat to animal species in the area.

Contact Us at Info@LowerSouris.com or by phone at (306) 452 3292



The Natural Edge Restoring the Ribbon of Life

Fisheries and Oceans Canada

Would you be interested in becoming more involved with the LSWC? We are currently looking for nominations for our Board of Directors. Contact your local town, RM or the LSWC for more information!

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