# The Blade

Monthly Newsletter of the

***Grey Wooded Forage Association***

AUGUST 2020

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Published by Brenda Kossowan
Cover Photo: Medicine River atGilby,
By Brenda Kossowan


## In This Issue:



The Grey Wooded Forage Association is a member of the Agricultural Research and Extension Council of Alberta

ARECA

Alberta

This publication is made possible in part through funding from The Province of Alberta

# The Four Rs: Regenerate, Rejuvenate, Renew, Restore

*By Brenda Kossowan, Business Manager*

Let's add a fifth "R" to that statement: Riparian. If water is the stuff of life, then rivers are the leaves and branches that feed it. It follows, then, that environmental sustainability includes finding effective means of keeping those branches healthy. Cows and Fish was created a number of years ago by a number of people who recognized the impact grazing cattle were having in riparian areas—those strips of forest and field that lie along riverbanks and lakeshores. Pollution, erosion and destruction of habitat vital to native species in and along waterways were held up as the results of letting livestock have free access to the water's edge.

In the year's since its inception, Cows and Fish has worked with and alongside various other agencies, including rural municipalities, to encourage management systems that contribute to healthier riparian areas, with a goal of improving water quality for all species.

Staff from GWFA, Cows and Fish, Lacombe County and Clearwater County joined a handful of guests late in August to visit a site where producer Ward Nelson has fenced off the river's edge, using a solar-powered pump to supply river water for his cattle.

Our cover photo shows a view of the Medicine from his pasture. Please turn to page 11 for more photos from the pasture tour and a comparison photo showing a pasture where cattle have found a gap in the fence and made their way down the bank to drink from the creek.

This month's focus on riparian health continues with a two-page spread showing some of the progress ALUS programs have been making in three of the six counties GWFA serves.

A project of the Weston family and managed in Alberta by participating municipalities, the Alternative Land Use Services program helps secure long-term funding to aid producers in restoring natural spaces to improve biodiversity and water quality. From their national website: We support simple solutions to the biggest environmental crises of this generation -biodiversity loss, blue-green algae, extreme flooding and more-with practica, on-farm projects that literally improve the Earth, one acre at a time."

I would like to close by thanking McDonald's Canada for their efforts to keep it real. As of September 1, McDonald's Canada restaurants are committed to serving 100-per-cent Canadian beef. Additionally, they have quietly closed their experiment with plant-based burgers. CBC published a story earlier this month stating that trials in Southwestern Ontario had wrapped with no immediate plans to put Beyond Meat sandwiched on the company's regular menu.

Watch our Facebook and web pages for the video when I first step across that threshold.

**Founding member Ken Ziegler was presented with a jacket and cap to recognize his contributions to the GWFA Board of Directors over most of the last 36 years. In the photo, from left to right, are Ken, Director Jess Hudson, Chair Dallas Jenson, Summer Staff Olivia Handel, Agricultural Field Specialist Greg Paranich and Director Lee Eddy/*Brenda Kossowan Photo.***

# Two Programs, Two Showcases: ALUS and Green Acreages

*By Ken Lewis, Conservation Coordinator, Red Deer County*

Farmers, ranchers and acreage owners in Red Deer County are leaders when it comes to looking after their land.
With financial support like the County's ALUS Program (for farmers and ranchers) and the Green Acreages Program (for acreage owners), people all over the County are doing on-the-ground projects to produce increased ecosystem services and make the environment better for all.Here are a few pictures from an ALUS project (Ken and Jill Wagers) and a Green Acreages project (Mike and Andrea Wiseman).
To find out how you can get funding (typically seven per cent of costs, but sometimes higher), please contact me. I can be reached any time at 403-505-9038 or klewis@rdcounty.ca

***In the top two images, Mike and Andrea Wiseman have done multiple Green Acreages Projects on their place, including planting native flowering plants and creating habitat that benefits our native pollinator insects like bumblebees.***

***To the left, Ken and Jill Wagers have put in well over a mile of fencing along creeks through their place. With it, they have created a unique riparian pasture. They've also got this portable alternative livestock waterer that they can use to draw cattle away from the creek.***

# Wetaskiwin-Leduc ALUS: Habitat Structures

ALUS participants can enhance their projects by adding habitat structures like nest boxes. This spring we teamed up with Leduc County Parks and Recreation on a virtual Mountain Bluebird nest box building project.
Families pre-registered and picked up box kits. They built the boxes on their own or followed along on a Zoom webinar.
Families brought boxes to the ALUS participant's farm for installation by appointment. Although the boxes are meant for Mountain Bluebirds, other native cavity nesters like tree swallows may be attracted.

This spring another participant added five nest boxes to his wetland fence and tree swallows made nests in them all.
An appreciation of nature and farming often go hand and hand. One ALUS participant said: "I love to have wildlife around me and I'm sure there's many others that do also."
Enhancing their projects with habitat structures is another way ALUS participants provide nature's benefits to all.
If you live in Wetaskiwin or Leduc County and are interested in their ALUS program, call the Coordinator at 780-387-6182 or email kbarkwell@county10.ca

ALUS Canada

*A Weston Family Initiative*

# Water Systems For Beef Cattle

This is the third installment from an online information page published by the Beef Cattle Research Council and reprinted here with permission. The article is being published as a series in *The Blade.* It can be viewed in its entirety at beefresearch.ca

## Water Systems and Sources

Water systems can be designed that utilize either ground water or natural sources. Water can then be pumped to a bowl or trough, through pipelines, to nose or other pumps, or to reservoirs. They can be powered by electricity, solar energy, windmills, gravity, gas or diesel engines, and even cattle, in the case of nose pumps.

Seasonal changes in weather will impact water sources and systems. While cattle are able to water from sources such as dugouts, lakes and sloughs during summer months, access to these sources is more difficult during winter months. Chopping frozen dugouts or lakes to water cattle requires more labour, creates challenges for cattle accessing the water, and has the additional risk of animals breaking through the ice and drowning. Water sources need to provide safe access, with solid footing to ensure cattle consume adequate amounts.

**Cattle can negatively impact natural water sources when free access is permitted. Reduce and manage access to wetlands to preserve** riparian areas. Cattle can destabilize the bank, accelerate erosion, damage vegetation and the nests of grassland birds, and reduce water quality. When cattle have direct access to water sources, they will defecate in and around the edges of the water body. This can introduce pathogens as well as nutrients that contribute to excess algae growth, which can produce fatal toxins. Cattle who linger in water sources may experience higher rates of foot rot[5]. Allowing access can also reduce the lifespan of the dugout through the degradation and erosion that can occur. Where possible, fence cattle out of water sources.

***When implementing a stock water system, make sure that the system has ample storage capacity and that it is checked regularly. Consider a back-up water supply in case of a system malfunction to ensure that livestock have a steady supply of water.***

**Fencing off water sources and pumping to a trough improves water quality and reduces water losses.** Clean, pumped water can improve herd health, weight gain and backfat. Water consumption and forage intake are closely related; when cows drink more water, they spend more time grazing, and produce more milk for their calves.

Research from two separate studies in 2002 and 2005 found that calves who drank clean water from a trough gained up to 9% more weight, an average of 18 pounds each, than the calves who drank directly out of the dugout. Yearlings gained 23% more when drinking clean water, rather than drinking from a pond[6]. For more information, see the BCRC blog post on how to calculate the time needed for a good water system to pay for itself.

Benefits of well-designed water systems that provide a quality water source include:

- increased weight gain
- improved herd health and reproductive performance
- safer watering sites
- increased longevity of water source
- enhanced wildlife habitat
- environmental benefits, including improved riparian health and reduced erosion
- improved pasture utilization

## Improving Pasture Utilization with off-site Watering Systems

Access to a reliable, quality water source can be a limiting factor in pasture utilization. When using pastures and water sources that are not in close proximity to electricity, other power sources, such as wind, solar, and animal can be used effectively to operate the system. These remote/off-site water systems and alternate power sources afford producers greater flexibility with grazing management and pasture utilization. This can also extend grazing into fall and winter, reduce overgrazing of certain areas, improve manure distribution, reduce direct access to ponds and dugouts to keep water sources fresh, and reduce risk of injury to animals. Strategic placement of these water systems improves utilization of pasture and reduces impact on riparian areas[7].

## Designing a Water System

**Conducting an inventory of existing resources and determining how the needs and objectives for the new water system align with those resources, will help when designing the system best suited for each operation.**

Consider the following factors:

- grazing management system
- herd size and animal type (yearlings, cow/calf, bulls, dry cows)
- site characteristics and availability of water sources
- season of use
- proximity to electricity or alternate power source

*(continued on next page)*

# Water Systems For Beef Cattle *(continued)*

- cost to install, maintain and operate
- labour and time to check the system
- desired flexibility - portable system, trough, water tanker, shallow pipelines

Individual grazing management systems will impact water system design and development. Continuous, simple rotational and intensive or mob grazing systems may each require different water sources and systems. When water is supplied to paddocks of ten acres or less, cattle tend to drink individually. When water sources are centralized in a larger pasture, cattle tend to move as a herd and drink as a herd. Ensure adequate flow or capacity to accommodate the entire group in under twenty minutes to avoid excessive competition among animals[8]. In those instances, younger or weaker animals may not have a chance to drink enough before the herd moves off to graze again.

Grazing management systems that include mob grazing and electric fencing may use a portable water system, shallow pipeline or water truck and trough. In systems where cattle are in small paddocks or pastures, and are drinking individually or in small groups, large troughs are not usually required as long as water flow can be maintained while the animals drink. Rotational grazing systems can incorporate water systems such as shallow pipelines or fenced dugouts that pump to a larger trough, as the cattle will generally drink as a herd.

Continuous grazing systems require water sources that can accommodate the entire herd at once, and ideally, water sources should be located so cattle can access without travelling over 240 metres (800 feet)[9] to avoid overgrazing in areas close to water or under grazing in areas located further away from water sources.

Site characteristics and availability of water sources will influence the type of water system. Conduct an inventory of the site to match appropriate water systems that will function well within the area. Consider the desired time of grazing for the pasture as that will also influence the system selected. While dugouts can be effectively fenced out and pumped into troughs from spring to fall, winter systems require components that can remain frost- and trouble-free during extended cold periods.

Power sources are a key consideration when designing a water system. While electricity is often considered to be the most reliable power source, the cost to run power to systems can be prohibitive; therefore many alternate power sources are now available to operate off-site water systems. Costs to install, operate and maintain the water system must also be considered. Wind is a relatively inexpensive power source. Solar is a bit more expensive, with the batteries to store extra power contributing to the overall cost. Reliability is important, as systems need to be checked and maintained to ensure a consistent supply of water to livestock.

**In these photos, 1,000 pairs of cattle and bulls are mob grazing at TeeTwo Ranch near Kelliher, Sask. and drink from a customized water truck with tanks. The truck holds 38,000 litres (10,000 gallons) and the three tanks hold about 1,800 litres (500 gallons).**

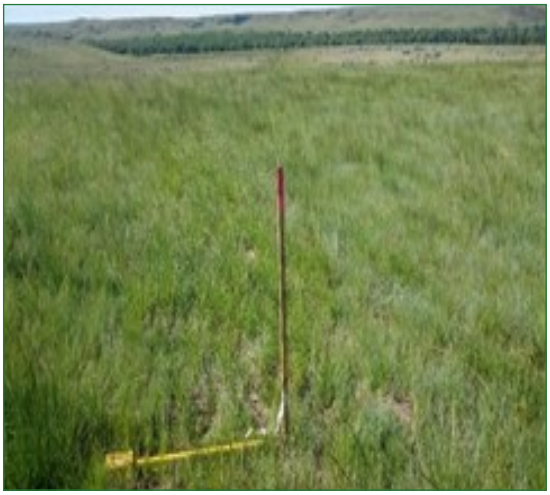
**Portable water troughs provide flexibility in various grazing management systems. Rotational grazing can be enhanced by using remote, portable systems. Recent research demonstrated that when given a choice, eight out of 10 cows will drink from a trough rather than a dugout or river. *Duane Thompson Photos.***

# The Orphan Well Association and Your Land

*Publishers's note:* The following article has been submitted by the Alberta-based **Orphan Well Association** through an agreement with members of the Agricultural Research and Extension Council of Alberta, including Grey Wooded Forage Association. Anticipating an exponential increase in the number of orphaned wells in the coming month, ARECA members will assist OWA's efforts to connect with producers and landowners.

Do you have orphan oil and gas infrastructure on your land and are wondering what happens next?

The Orphan Well Association (OWA) is responsible to decommission and reclaim the site. The OWA operates under the legal authority of the Alberta Energy Regulator (AER) and is a not-for-profit, industry-funded organization that works to decommission and reclaim the wells, facilities, and pipelines left behind by defunct oil and gas companies.



**An orphan site before and after reclamation**
***Photo submitted***

### *How the OWA works*

When a well, pipeline, facility or associated site no longer has a legally or financially responsible party that can be held accountable, it is known as an 'orphan.' At this point the orphan becomes the OWA's responsibility, and work will be undertaken to safely decommission the infrastructure and restore the land as close to its original state as possible.

To complete this work, the OWA hires experienced contractors with excellent safety records. Throughout the process, the contractors strictly adhere to Alberta Energy Regulator (AER) and Alberta Environment and Parks (AEP) regulations and requirements.

### *Is it an orphan?*

When it comes to which sites are considered orphans, only those with no responsible party are formally designated as orphans by the AER. Until the AER designates the site as an orphan, the OWA cannot undertake work on the site.

Within a month of a site being designated as an orphan, landowners will receive a letter from the OWA that will outline our process and seek your input on the site.

A listing of all orphans in the Province can be found on our website (http://www.orphanwell.ca/about/orphan-inventory/). If you have not received a letter and cannot find the well listed on the OWA website, landowners are encouraged to contact the AER to determine who is responsible for the site. The AER may be contacted at 1 855 297 8311 or LiabilityManagement@aer.ca.

Not all inactive sites are considered orphan under provincial regulations.

Some sites may be operated or owned by a solvent company or may be under the custody of a court-appointed receiver to be sold. In other cases, the defunct operator may have working interest partners (WIPs), which are viable partners that hold some working interest in the well, pipeline or facility. These WIPs are then legally responsible for the decommissioning or reclamation work.

New legislative changes may allow the OWA to work on these WIP sites, but only in cases where the OWA and the WIP have signed an agreement.

### *What does this mean for you as a landowner?*

After arranging access on your land, contractors will perform an inspection of the infrastructure. Once everything is deemed safe, and equipment is documented and photographed, the OWA will place signage at the site indicating the location is now under the care of the OWA.

A company will then be assigned to safely plug the oil and gas wells, otherwise known as decommissioning (abandonment in regulatory terms). The wells are plugged, cemented, and the surface wellhead is cut below ground.

Cutting below ground will allow landowners to safely culti-

*(continued on next page)*

## Accelerating Work and Access to Your Land *(continued from previous page)*

vate over the former well. Crews will also remove any equipment in the area and then purge and decommission any accompanying pipelines.

At this point, your land will be ready for remediation, if required, and reclamation.

Once sites have been examined, crews will work to clean up any contamination that may be present (remediation). This may involve using a hoe or small drill rig to determine the extent of contamination. Any realized contamination is typically excavated and sent to an industrial landfill for disposal or treated on site. Clean backfill, if required, is sourced with landowner approval before being brought in.

The reclamation process includes removing any leftover gravel on site, recontouring the site to original drainage patterns, replacing topsoil and returning the lease and access road to its previous state. Weeds are also controlled at this stage.

Once work is complete, a reclamation certificate will be obtained from the AER, and the land can again be used as it once was.

### *Access to your land*

Due to the downturn in the economy in recent years, the OWA has accelerated work because of the need to reclaim thousands of upstream orphan oil and gas sites in Alberta. This may mean that the OWA will need to access your land throughout the year, regardless of what agricultural stage your land is in. The OWA appreciates your cooperation in allowing access for work crews. Wherever possible we will limit our footprint to the former lease and access road held by the defunct company. If off-lease work is required, the OWA will compensate landowners for any off-lease access.

Of course, throughout the process, the OWA will be in constant communication with landowners, keeping you up to date about what is happening. The OWA is committed to developing positive relationships with landowners while minimizing impact to any agricultural practices.

### *What the OWA can and cannot do*

While the OWA does not take place of the former operator, the regulations grant the OWA the legal right to access both public and private land to complete work on a well, facility or pipeline that has been deemed an orphan.

### *Helpful Definitions:*

***Orphan***

When a well, pipeline, facility or associated site no longer has a legally or financially responsible party that can be held accountable. This requires formal designation by the AER.

***Inactive***

A well or site is considered inactive when there has been no production for one year (six months in the case of a sour well). An inactive site may be due to economic or technical reasons.

***Decommissioned (Abandoned)***

Sometimes referred to as abandonment or decommissioning, the well is permanently plugged and cut off below ground, pipelines are purged and cut-off, and any associated surface equipment removed.

***Remediation***

The process of cleaning up any contamination left on site. Contaminants are managed and removed according to AER and AEP requirements. Contaminated soil may be hauled to a landfill and then replaced with clean soil, or may be treated onsite until it meets AEP guidelines.

***Reclamation***

The process of returning the land to how it looked and was used before oil and gas development took place. This may involve recontouring the subsoil, replacing the topsoil, and re-establishing the vegetation.

Any surface lease remains in the name of the defunct operator. As such, the OWA is unable to compensate landowners/occupants for unpaid surface lease payments from any defunct company. Landowners may apply to the Alberta Surface Right Board (SRB) for the recovery of unpaid surface leases. For information respecting these payments, please contact the SRB (toll free at 310-000, then 780 427 2444) or visit their website at https://surfacerights.alberta.ca/.

The OWA enjoys a long history of working closely and cooperatively with landowners. In rare cases, some landowners have restricted access in an attempt to secure unpaid lease payments from the OWA. In these circumstances the OWA has an obligation to inform the SRB of the situation.

Section 36(8) of the *Surface Rights Act* gives the SRB the discretion to not grant any payments if the landowner is refusing access for decommissioning and reclamation.

Landowners can obtain further information regarding the impact of restricting access through the Farmers Advocate Office at 310-FARM (3276) or visit https://www.alberta.ca/farmers-advocate-office.aspx, or the Pembina Institute at https://www.pembina.org/pub/landowners-primer-what-you-need-know-about-unreclaimed-oil-and-gas-wells).

Interested in learning more about the OWA? For additional information please visit www.orphanwell.ca or contact the OWA at via email at landowner@orphanwell.ca.

## Online Courses Available at Lakeland College

See something that interests you? Contact the Continuing Education program at Lakeland College for details. Visit lakelandcollege.ca or call 1-800-661-8462

| Course Number | Course Name | Tuition | Date |
|---|---|---|---|
| QAGR 135 | Extension Program Planning | $838.95 (includes GST) | Sep 7 - Dec 18 2020 |
| QAGR 136 | Integrated Crop Management | $786.45 (includes GST) | Nov 9 2020 - Feb 5 2021 |
| QAGR 137 | Winter Feeding & Grazing Management | $681.45 (includes GST) | Nov 2 - Dec 18 2020 |
| QAGR 138 | Nutrient Management | $786.45 (includes GST) | Jan 4 - Apr 16 2021 |

# Gallery: Minding the River's Edge

GWFA has strengthened its partnership with Cows and Fish in promoting management systems that support healthy creeks and rivers. On August 25, the two organizations joined Lacombe County in hosting a pasture walk along the Medicine River, north of Eckville. The top three photos show participants examining a water system set up to keep cattle away from the river's edge and learning how to assess conditions in an adjoining pasture.

Below, this portion of a 140-acre pasture along the Last Hill Creek, south of Leslieville, shows signs of erosion where the herd has found a break in the fence and started navigating the creekbank to drink. *Brenda Kossowan photos*

# GREY WOODED FORAGE ASSOCIATION

greywoodedforageassociation.com | 403-844-2645

## 2020/21 Membership Application Form

***Membership in the GWFA is open to anyone interested in forage production, grazing management and environment sustainability***

**The fee is $40 per year, running from April 1 to March 31**

**For information, call 403-844-2645 or email office@greywoodedforageassociation.com**

### Benefits of joining GWFA:

- Discounts on courses, seminars, workshops and tours.
- An automatic subscription to *The Blade,* published monthly online. Hard copy is available on request.
- Assistance with your Environmental Farm Plan.
- Equipment rental (deposit required).
- Access to our reference library.
- Access to our members-only Facebook group.
- Networking with like-minded producers and advisors.
- Farm consultation services (farm calls are 55 cents per kilometre, each way).
- A copy of the GWFA Annual Report.

**Please mail your completed form and cheque to:**
***Grey Wooded Forage Association***
***PO Box 1448, Rocky Mountain House, AB T4T 1B1,***
**Or scan and email the completed form and send an e-transfer to *office@greywoodedforageassociation.com***

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|---|---|
| Renewal ☐ New member ☐ | How should we send your copy of *The Blade*: Email☐ Canada Post☐ |
| Name: | Email: |
| Mailing address: | |
| Landline: | Cell: |

| ***How do you describe your operation (tick all that apply)** | ***How many head of livestock do you manage:** | ***How many acres of land do you manage:** |
|---|---|---|
| ☐Beef producer<br>☐Sheep/goat\ producer<br>☐Dairy producer<br>☐Annual crops producer<br>☐Forage producer<br>☐Other_____ | Beef cows/heifers_____<br>Dairy cows_____<br>Feeders_____<br>Ewes_____<br>Does_____<br>Other_____ | Pasture_____<br>Hay_____<br>Crop_____<br>Other_____<br>**These questions are voluntary. We do not share your information* |

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|---|
| How can we improve our service to you? |
| |
| |
| Please suggest topics you would like to learn more about: |
| |
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