





2018 ENVIRONMENTAL PROGRAM UPDATE

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FOREWORDS



WHEATLAND COUNTY REEVE AMBER LINK

Characterized by golden fields and fertile soils, divided by two scenic river watersheds, and laden with creeks, wetlands, and lakes; the picturesque agricultural environment in Wheatland County is

something to be proud of. While there is an inherent desire to ensure that future generations may enjoy the same experiences that we, our parents, and our grandparents did growing up with a rural lifestyle, long-term residents have experienced changes in their lifetimes to the landscapes that they know and love. For this reason, Wheatland County recognizes the importance of preserving the values that our land, air, water, soil, wildlife, vegetation, and other natural resources provide to our residents. Our Environmental Program is about managing our impacts in a way that protects the environment, encouraging and supporting our ratepayers to do the same, and effectively balancing the environment with the social and economic needs of our community. This Environmental Program Update describes the efforts we made in 2018 to achieve these important goals.



WHEATLAND COUNTY CHIEF ADMINISTRATIVE OFFICER ALAN PARKIN

In 2015, Wheatland County recognized environmental stewardship as a key component of our organizational responsibility and accountability to all citizens. In just three years,

what started as a team of four members of staff meeting to discuss addressing our environmental impacts has grown to become a formal Environmental Program. Now, driven by a steering committee of ten staff and council representatives and adhering to an Environmental Policy adopted by Council, we look forward to continued environmental achievements in 2019. While Wheatland County has a long history of participating and leading in initiatives intended to benefit the environment, our Environmental Program has allowed us to more effectively communicate and expand upon the great things happening for the environment in our municipality. With continual improvement in our sights, we are proud to demonstrate our commitment to environmental stewardship with this 2018 Environmental Program Update.



WASTE MANAGEMENT SHOWCASE

A. APPROXIMATE RECYCLING VOLUMES FROM 2018:

This information represents the success of recycling programs at Wheatland County's eight Waste Transfer Sites, through partnerships and cooperation with Drumheller and District Solid Waste Management Association, various contractors, and Wheatland County's Public Works and Agriculture and Environment departments. The numbers represent materials that have been successfully diverted from the landfill.

Total weights and counts are approximations of recycling volumes collected through Wheatland County's Waste Management Program for the 2018 calendar year. Numbers are based on record keeping, information from contractors, and invoicing





If we add up the total tonnage in this data, we see that in 2018 Wheatland County saved more than 750 tonnes of waste from going to the landfill.

A small car weighs approximately 1 tonne. This is like reducing waste by a weight of 750 small cars!









B. WASTE TRANSFER SITE UPDATES:

Waste Transfer Site Upgrades: Wheatland County is in the process of upgrading our Waste Transfer Sites. Our Gleichen, Carseland, and Wheatland West locations have all been upgraded, with our Standard location nearing completion. When upgrading we clean up the site, add plenty of signage, recontour ramps for easier access by residents and waste pick-up contractors, and divide collection areas using cement blocks. Our upgrades make the waste collection process much cleaner and therefore, more environmentally-friendly!







Compost: Following the success of a compost collection pilot project at Wheatland West in 2017, the County expanded the program to include the Carseland location at the beginning of 2018. With an estimated 30 tonnes of material expected to be collected and diverted from the waste stream this year the County, in cooperation with Waste Management, has moved to expand the trial program to 3 additional locations. The Gleichen, Rockyford and Standard sites will be accepting compostable materials as of Fall 2018.

Household Hazardous Waste: A need to have a permanent drop off location for household hazardous waste within the County was identified and a pilot project was set up for this purpose. The Wheatland West and Standard sites were chosen based on location and user volume. With a total of 1.6 tonnes of this waste being collected at the 2 locations, the County is exploring the possibility of expanding the successful program to other sites.

Wood Chip Pits: For safety, health and environmental reasons, the County made the decision that it would no longer be burning material at transfer site locations. A pilot project began in 2016 whereby only clean, bare wood products, trees, and brush can be accepted in wood collection pits. The collected material is grinded into wood chips and then either utilized by residents for landscaping proposes, or for compost additions at the Strathmore Waste Management facility. With the program producing approximately 329 tonne of wood chip material in 2018 alone, the County has begun improvements to the collection areas and a new collection pit is open at the Hussar location as of November 1, 2018.



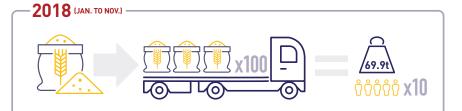


Since its pilot months at the end of 2015, Wheatland County's Grain Bag Rolling Program has been a success. Agriculture and Environment Department staff attend farms to clean, roll, and collect plastic grain bags, to keep them from landfills and prevent them from being buried or burned. The plastic grain bags are taken to a local recycler who repurposes the material so that it can become things like garbage bags.

In 2018, Wheatland County collected more grain bags than we did from 2015-2017. This means that more producers are taking part in the program, and more plastic is being recycled.

Year	Number of Bags Hauled	Volume of Bags Recycled	Number of Producers Using the Service
2015- 2017	610	116.6 tonnes	87*
2018	631	127 tonnes	89

*Some producers used the service in more than one year and therefore were counted more than once



D. WHEATLAND COUNTY RECYCLES!

In 2018 Wheatland County realized that we could be doing more to manage wastes generated in our office complex. Staff were surveyed, indicating a need for more recycling and identifying an opportunity to incorporate small-scale compost. In response, Wheatland County added an additional cardboard recycling bin in an area accessible to more staff and launched an enhanced mixed recycling and compost program. Color-specific bins were added to lunchrooms and common areas to collect recyclable and compostable materials, and waste collection was coordinated with Waste Management in Strathmore. In 2019 we will seek more opportunities to install additional color specific bins, to better ensure that recyclable and compostable wastes are being diverted from the landfill!

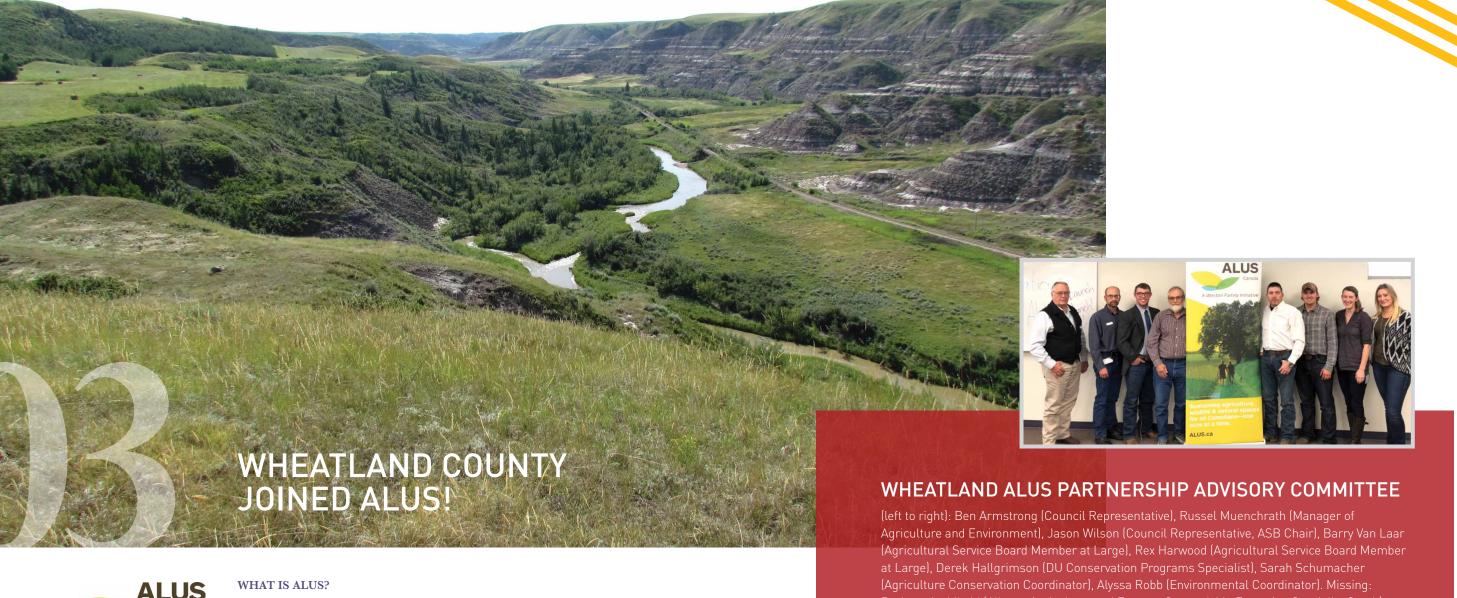
DID YOU KNOW?

Wheatland County recycles its used oil from maintenance of equipment. Here is our new collection tank at the Agricultural Services Shop to make the recycling process even cleaner!





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Alternative Land Use Services (ALUS) Canada is a national charitable organization that supports the delivery of the ALUS program across the country. Their goal is to create a healthy landscape that sustains agriculture, wildlife and natural spaces for all Canadians. The ALUS program helps farmers produce valuable ecological services on Canadian farmland by providing funding for beneficial management and environment-enhancing projects. ALUS also provides per-acre annual payments for land that is enhanced and managed in a way that provides ecological services to the community. ALUS Canada's principle sponsor is the W. Garfield Weston Foundation, but ALUS also has contributions from more than 50 public and private organizations nationwide.

INTRODUCING ALUS WHEATLAND!

In 2018, Wheatland County signed a Memorandum of Understanding with ALUS Canada and kicked-off the "ALUS Wheatland" program. Two meetings were held with the newly formed Partnership Advisory Committee, or PAC, made up of two members of Council, two Agricultural Service Board members-at-large, a representative from Alberta Agriculture and a representative of another local agri-environmental non-profit organization. The PAC makes decisions about how ALUS funding dollars are spent in the community and helps to promote the program. Wheatland County's Agricultural Conservation Coordinator is the lead for the program and other staff from the Agriculture and Environment department are actively supporting it. Partnering with ALUS Canada for this project allows Wheatland County landowners to access these national funding sources.

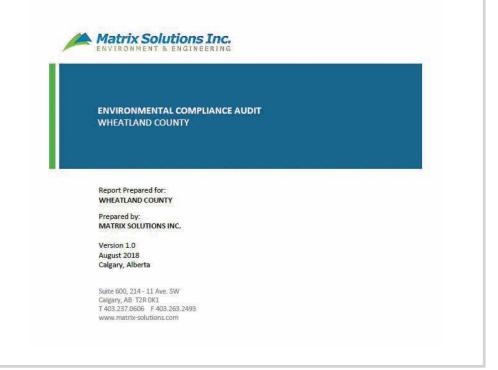
Barbara Archibald (Alberta Agriculture and Forestry Stewardship Extension Specialist South)

WHAT DOES ALUS DO?

- ALUS is a funding program for producers. It provides fair market per-acre annual payments and project funding to agricultural landowners who are interested in profiting by managing land in a way that provides ecological benefit to the community. The program can increase revenue generated on-farm.
- Marginal agricultural land is the program target, and the intent is to provide producers with an alternative way to profit from marginal acres.
- Ecological services supported by the program include clean air, clean water, flood mitigation, climate adaptation, carbon sequestration, species at risk habitat, and support for pollinators.

HOW DO I SIGN UP?

- · Get in touch with Wheatland County's Agricultural Conservation Coordinator, Sarah Schumacher, for more information. Sarah can work with you to find opportunity areas where ALUS may be a good fit for your operation.
- Watch out for updates throughout 2019, our first active year as an ALUS Community!



ENVIRONMENTAL AUDIT: TAKING PROACTIVE INITIATIVE

In 2018, Wheatland County hired a consultant to complete an external environmental audit of Wheatland County operations. The purpose of the audit was to assess compliance with federal and provincial environmental regulations applicable to Wheatland County's operations, and to identify opportunities for improvement according to industry best management practices. Wheatland County chose to undertake this project to proactively identify areas where improvements needed to be made, to be accountable for our impacts, and to recognize and mitigate our environmental risks.

As part of the audit the consultant noted positive observations or, practices that they were impressed to have seen in Wheatland County. Here are a few of them:

• Very tidy pesticide storage and clean handling of pesticides

County operations

County Public Works

Services Shops and

Water and Wastewater

Pesticide Activities

• Gravel Pits and

Stockpiles

• Waste Transfer Sites

Grader Shop Locations

Road Construction and

Reclamation Activities

and Agricultural

audited include:

Yard Area

Utilities

- Spot-spraying weeds rather than blanket-spraying ditches reduces the amount of pesticides used
- Chemical storage in the Public Works shop was impressive, with secondary containment used for most chemicals
- Flammable cabinets are used throughout the shops to store flammable materials
- Wheatland County has partnered on innovative wastewater treatment projects (i.e. Symbiotic project at Rosebud and Floating Islands at Carseland)
- Waste Transfer Sites are very accessible, well-maintained, and have great signage
- The grader shops visited were very tidy with good clean up practices for spills
- Proactive erosion and sediment control was used at recent road construction projects
- Gravel pits and stockpiles were very well-maintained with good signage, and records were readily available







All non-compliance findings and opportunities for improvement were organized based on level of risk, and immediately reviewed by the appropriate Wheatland County staff. Wheatland County plans to correct all outstanding findings in 2019. Findings included:

- Including additional information on pesticide application records
- Developing a procedure for off-site mixing of pesticides
- Assessing the withdraw of water from a pond in the County yard to determine if a license is required
- Placing additional TDG stickers on containers that transport dangerous goods
- Ensuring that adequate amounts of spill control materials are present at all County fuel tanks
- Separating oily rags from general waste
- Monitoring secondary containment of all fuel tanks
- Ensuring that vegetation is only removed outside of general nesting periods for birds OR ensuring that nest sweeps are performed prior to removing any vegetation when birds may be nesting
- Implementing additional erosion and sediment measures and procedures for road construction projects
- Monitoring Bow River Flow to meet daily water diversion requirements
- Ensuring consistent testing of potable water at all County sites serviced by wells
- Installing secondary containment for used oil and oil jug collection areas at Waste Transfer Sites
- Improving records management for records that are associated with environmental regulatory requirements
- Installing signage at topsoil and subsoil piles from site-clearing at all sites as a best management practice

If you are interested in learning more about Wheatland County's Environmental Audit, please contact the County's Environmental Coordinator, contact information is included at the end of this document.



DID YOU KNOW?

If leaving the room for just one minute, it still saves more energy to turn lights off. It is commonly thought that leaving lights on is more energy and cost efficient, because it takes more "surge" energy to flick the switch on. Discovery Channel's Mythbusters took on the topic!

Mythbusters tested 5 different kinds of bulbs and were able to calculate how long a bulb would have to be turned off in order to make it worth the energy savings. They found that:



Incandescent: 0.36 seconds



Compound Fluorescent: 0.015 seconds



LED: 1.28 seconds



Fluorescent: 23.3 seconds

Based on this, even if you are leaving a room for just a minute – it is better to turn the lights off! In 2018, Wheatland County put stickers on the light switch panels throughout our offices as a reminder to staff and visitors to remember to turn the lights off and save energy.



MANAGING WEEDS AND PESTS

WEEDS IN 2018

Wheatland County has an Agricultural Services Officer dedicated to our weed and pest programs, among other duties. Here are some of the highlights of their weed-program work in 2018:

221 WEED INSPECTIONS PERFORMED

21 WEED COMPLAINTS AND/OR INQUIRIES RECEIVED FROM RATEPAYERS

50 WEED CASES RESPONDED TO AND CONTROLLED

2 SURVEYS OF ALL COUNTY AND PROVINCIAL ROADS

2 SURVEYS OF THE BOW RIVER

- Controlled weeds at all Wheatland County property and participated in Alberta Parks weed control
- Participated in the Calgary and Area Government Weed Committee as Chairman
- Surveyed hamlets and villages in accordance with agreements
- Sampled seed at Seed Cleaning Plants





Flowering Rush is an aquatic invasive species affecting the Bow River and Canals

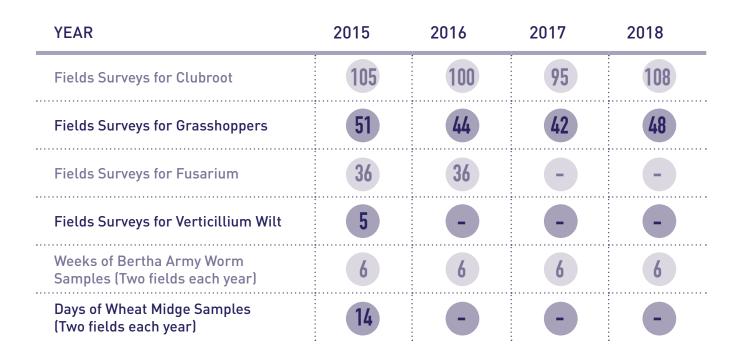


Yellow Toadflax

Purple Loosestrife found during Bow River Survey



Wheatland County takes part in agricultural pest surveys each year in partnership with Alberta Agriculture and Forestry. This work helps to forecast pest populations to assist producers in crop management. Surveys performed each year include Clubroot, Bertha Army Worm, and Grasshopper Surveys; and in recent years Wheatland Agriculture and Environment has also participated in collection of survey samples for Fusarium Head Blight, Verticillium Wilt, and Wheat Midge. Fields for sampling are randomly chosen each year.



County crop pest surveyors have not found clubroot in Wheatland County, and to date clubroot has not been confirmed in our municipality. In 2018 clubroot was confirmed in Rocky View County, and cases were confirmed in Newell County in both 2007 and 2017. It is important that producers in Wheatland County remain on high alert for the disease, and Wheatland County's Agriculture and Environment department will remain vigilant in surveying fields.

Data from Wheatland County surveys contribute to maps and information about each listed pest or disease. Pest and crop disease maps and forecasts can be found on the Alberta Agriculture and Forestry website.

Wheatland County also has a Richardson Ground Squirrel Control Program. Get in touch with our Agriculture and Environment department for more information.



ENVIRONMENTAL STEWARDSHIP AWARDS Wheatland County presents the Environmental Stewardship Awards as a way to recognize and reward notable efforts within the community to practice and promote environmental stewardship and innovation. 2018 was the first year that the awards were presented; in late 2017 the Wheatland County community was invited to submit nominations for outstanding people, projects, or programs that they felt demonstrated a commitment to environmental stewardship. There were two categories, the Community Stewardship Award and J. Laslo Legacy Award, which were presented at Wheatland County's Annual General Meeting in March to two strong members of our agricultural community.

COMMUNITY STEWARDSHIP AWARD

The Community Stewardship Award recognizes a Wheatland County community member or group that has made an outstanding contribution to environmental sustainability in the municipality. The award honors notable projects, programs, or activities performed by businesses, individuals, or community groups, in an effort to acknowledge the people and organizations that make Wheatland County a great place to live. The award is available to all Wheatland County community members and were pleased to present the 2017 award to Roy and Karen Clark and Family of Crowfoot Creek Ranch.

The Clark's have demonstrated outstanding commitment to implementing environmentally beneficial practices on their farm and have been strongly integrated in the community in learning from and sharing in such initiatives. Roy has an extensive history of involvement in community groups, where he emphasized the importance of protecting the watersheds we live in. Roy was a founding member of the Crowfoot Creek Watershed Group and continues to be a vocal advocate of beneficial management in agriculture, always openly sharing information about the ranching practices he has implemented throughout the years. Roy and Karen and their family are role models in the community as they demonstrate how to run cattle while preserving riparian areas and rangelands for the benefit of the environment and future generations.

J. LASLO LEGACY AWARD

The J. Laslo Legacy Award is named in honour of the retirement of long-term Wheatland County employee Jim Laslo. During his career, Jim was the Agricultural Fieldman, and then General Manager of Agriculture, Community, and Protective Services. Jim's passion for education and outreach about agricultural conservation initiatives, and dedication to harnessing the power and innovation of the agricultural community, lead to the implementation of many environmentally beneficial projects and the uptake of sustainable agriculture practices throughout the municipality. The J. Laslo Legacy Award is awarded to an agricultural producer in Wheatland County that has shown exemplary leadership in the implementation of beneficial management practices on their farm. We were honored to present the 2017 award to Rick Skibsted of Spruce Coulee Farms and Skibsted Farms.

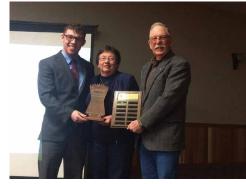
Rick Skibsted is dedicated to promoting environmental stewardship within the communities along the Rosebud River Valley. Rick has a long history of involvement in community groups, most recently the Save the Rosebud Community Group. Rick has always managed his cultivated land with recognition of environmental effects, often acting as the earliest adopter of new technologies for reducing environmental impact. Seeding acres to grass on the fringes of coulees and valleys to provide a watershed buffer, protecting acres of native grassland from cultivation, maintaining wetlands on his property, and reducing the impact of practices on wildlife, are just a few of the ways that Rick has remained dedicated to the environment in his operation. As a culmination to all Rick's stewardship work on his farm, he moved to protect 2000 acres of his land in and above the Rosebud River Valley.

YOUTH STEWARDSHIP AWARD

We are pleased to announce that moving forward there will be a third award category available, the Youth Stewardship Award, to recognize the important role that youth play in sustainability.







AGRICULTURAL CONSERVATION PROGRAMS



A. FUNDING PROGRAMS:

Wheatland County's Agricultural Conservation Coordinator is available to assist producers with on-farm stewardship initiatives. As part of this programming, 18 farms completed an Environmental Farm Plan in 2018, and 30 producers were assisted with Canadian Agriculture Program and Growing Forward 2 applications for funding. Both programs underwent changes in 2018, with Growing Forward 2 ending to be replaced with the Canadian Agriculture Program, and a 10-year renewal requirement being implemented for the Environmental Farm Plan. Completing an Environmental Farm Plan is a necessary requirement for accessing Canadian Agriculture Program Funding. In addition, Wheatland County maintained its own Water Protection Initiative funding program and supported 10 groundwater and 3 surface water projects in 2018.



In partnership with the WID, Wheatland County received \$198,500 from Alberta Environment and Parks' WRRP program. The money is intended to be distributed to agricultural producers in the Crowfoot Creek Watershed to install off-site watering systems for cattle and establish riparian fencing along the banks of the creek and its tributaries. In 2018, 8 Riparian Health Assessments were completed by Cows and Fish in the watershed, and 12 applications were received for access to the funding. To date, 4 projects were implemented to protect the creek and its banks, and 7.97 km of WID canals were fenced to prevent cattle access. The money will be spent by 2020.

C. RED-BOW AGRICULTURAL PARTNERSHIP



The Red Bow Agricultural Partnership is a collaboration created with the purpose of sharing resources, information and knowledge, and facilitating networking opportunities for the benefit of sustainable agriculture within the rural

communities in which they operate. The current partnership consists of Clearwater County, Kneehill County, M.D. of Bighorn, Mountain View County, Red Deer County, Rocky View County, and Wheatland County; our events target producers in this region. Resource partners include the Foothills Forage and Grazing Association, Cows and Fish, Alberta Agriculture and Forestry, Grey Wooded Forage Association, and Olds College. Since 2007, the committee has hosted two annual events: Ladies Livestock Lessons and Ranching Opportunities, and have intermittently hosted additional events; which are pertinent to the agricultural industry at the time. In 2018 we hosted an additional conference titled Agriculture and Water which focused on the benefits to producers of protecting water resources on the land.





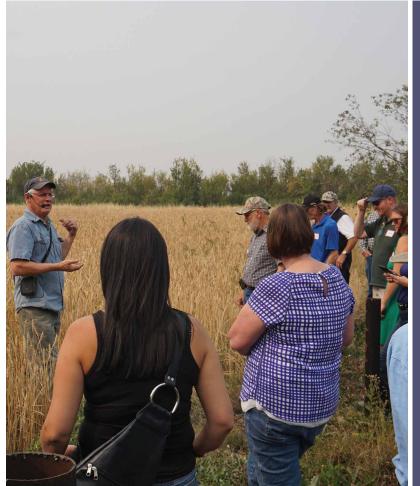




D. EVENTS

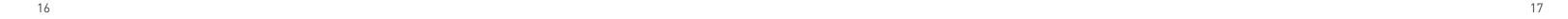
In 2018, Wheatland County hosted or partnered to host 8 workshops targeting a rural landowner or agricultural producer audience. These included:

- Ladies Livestock Lessons
- Ranching Opportunities
- Septic Sense
- Working Well
- Small Livestock Holdings
- Grazing Workshop with Steve Kenyon
- Water and Agriculture Conference
- Feed What You Need



LEAST CONFLICT LANDS PILOT PROJECT

In 2018 Wheatland County took part in a "Least Conflict Lands Pilot Project" in partnership with the Miistakis Institute and Newell County. The intent of the project was to develop a decision support tool to inform planning around renewable energy development, recognizing the increased pressures to develop renewable energy in our region. The process aimed to identify areas for utility scale wind and solar developments that would avoid important agricultural, ecological, and culturally scenic lands at the municipal scale. The process was completed in 6 months and involved 37 stakeholders including 6 representatives of Wheatland County's municipal staff and Council. The process resulted in a series of maps that identified high value agriculture, ecological, and cultural resources. In the coming months, Wheatland County staff and Council will work together to determine how the products may be used.









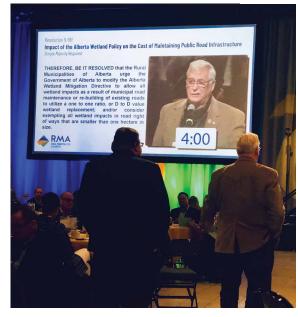
ROAD CONSTRUCTION PROGRAM HIGHLIGHTS

In 2018 Wheatland County's Road Construction Crew completed 5 miles of unpaved road upgrades on Township Road 252 Northwest of Standard, Range Road 224 Southwest of Standard, Range Road 201 South of Hussar, and Range Road 254 South of Strathmore, with an additional mile being initiated on Range Road 243 South of Nightingale at the end of the 2018 season. An additional 4 miles were completed by a tendered contractor at Range Road 270, south of Highway 1.

In recent years, Wheatland County's road construction operations have paid special attention to the prevention of siltation and erosion impacts. In 2018, Wheatland County purchased a reusable silt curtain to prevent sediments from impacting major wetlands alongside road projects (photos 3 and 4). We also purchased a silt fence installer attachment for our equipment, to more efficiently install silt fence protections in project areas (photo 2). In addition to this, our crews have been diligent in using additional erosion prevention tools such as coconut matting and straw chaff to protect our projects from wind and surface water impacts (photo 1). Our attention to siltation and erosion prevents sediments from reaching surface water in our municipality, in an effort to conserve environmental quality.

ATTENTION TO THE ALBERTA WETLAND POLICY:

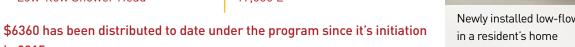
Wheatland County has taken care to adhere to the direction of the Alberta Wetland Policy as it effects our road construction program. Where wetlands may be impacted as a result of road construction projects, approvals must be obtained from Alberta Environment and Parks with any conditions being met prior to commencing work. Such conditions include completing Wetland Assessment and Impact Reports, having spill response procedures clearly outlined to guickly prevent environmental impacts from any spills, and following formal Erosion and Sediment Control plans to prevent sediment access to waterbodies. Under the Alberta Wetland Policy, where impacts to wetlands are permanent, compensation must also be paid to a central fund that in-turn is used by the Province for wetland restoration and related projects. Recognizing the cost to taxpayers caused by such compensation payments while respecting the intentions of the Alberta Wetland Policy; in November Wheatland County Council presented a resolution at the Rural Municipalities of Alberta conference in hopes of working with the Province to find cost-effective alternatives to the current compensation structure for municipal road projects. The resolution was passed by a wide margin at the convention. Councillor Ben Armstrong is pictured presenting the resolution at the Rural Municipalities of Alberta conference.



WATER REBATE PROGRAM

In an effort to reduce water consumption in our municipality, Wheatland County supports residents who retro-fit water appliances to low-flow fixtures. Wheatland County ratepayers are eligible for \$60 per fixture for three fixtures including the following:

Certified Fixture	Water Savings/Year
High Efficiency Toilet	38,000 L
Faucet Aerator	20,000 L
High Efficiency Washing Machine	18,000 L
Low-flow Shower Head	17,000 L



in 2015.

2017 TOTAL

Newly installed low-flow shower head

FOUR KEY COMPONENTS:

Wheatland County's Environmental Program consists of 5 key components:

- An Environmental Policy to guide the direction of the program and establish guidelines for programming to follow:
- An Environmental Steering Committee made up of staff and Council members that advise the direction of the Environmental Program to ensure it upholds commitments made in the Environmental Policy and reflects the needs and priorities of Wheatland County:
- An Environmental Coordinator, hired to develop, implement, and monitor the Environmental Program, provide technical support to County residents and staff, report progress to all stakeholders, and promote environmental stewardship on behalf of the municipality; and
- Effective Reporting in the form of monthly updates to Council, quarterly updates to the Agricultural Service Board, and annual reporting to the community such as in the case of this document.

This Environmental Program Update is the second annual update of the program. A permanent Environmental Coordinator has been on staff since November 2016, and a formal Environmental Policy has been in place since October 2016. The County's Environmental Coordinator is available to the community for questions related to regulations, County programs, and external environment-related information and programs.

In 2017 a total of 92 technical inquiries by staff and the community were responded to, and in 2018 the technical case count exceeded the previous year with 108 resolved



technical inquiries.





