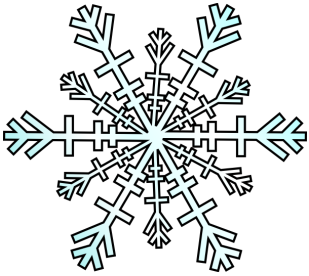


Montana Solid Waste News

2017 WINTER (ISH)UE



WE ARE BACK!

By Fred Collins

We are BACK! This last year has been quite busy, but rest assured the newsletter has been marinating for awhile. You are in for a treat. We have had many changes in the last year here in the office. As time passes, the wastes we generate and discard change and morph, as well. Packaging now comes in all forms, from cans to bottles, plastic to cardboard. Here is a timeline of milestones over the years:

- 1810 - Peter Durand patents the “tin can”.
- 1895 - King C. Gillette, a traveling salesman, invents a razor with disposable blades.
- 1900 - Hills Brothers Coffee puts first vacuum-packed coffee on the Market.
- 1924 - Kleenex facial tissue is introduced.
- 1928 - Cellophane is invented by the DuPont Cellophane Company.
- 1929 - Aluminum foil is invented.
- 1930 - DuPont manufactures Freon, a refrigerant.
- 1935 - Krueger’s Cream of Ale produces the first can of beer.
- 1945 - First ballpoint pens go on sale for \$12.50 each at Gimbel’s in NY.
- 1950 - First time plastic garbage bags are used.
- 1960 - Bubble Wrap was invented.
- 1968 - Plastic sandwich bags are introduced.
- 1980 - Polypropylene introduced and used for butter tubs.
- 1982 - CDs arrive.
- 1986 - Rhode Island enacts the nation’s first statewide recycling law.
- 1989 - Fred was born. :)
- 2001 - iPod introduced by Apple Inc.

Now we have super stretchy garbage bags, iPads, and glass growlers for beer. I would say things have taken a bit of a leap over the last few hundred years. We will see what the next hundred years have in store for us.



SNOW NEWS IS GOOD NEWS!

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What's the SCOOP?

SOLID WASTE TRAINING ALERTS

DATES TO BE DETERMINED

24-HOUR HAZWOPER & FIRE SAFETY TRAINING

Late March

Great Falls

PERSONNEL MANAGEMENT & ACCOUNTABILITY

April

Billings

SPECIAL WASTES

May

Sidney OR Lewistown

COMPLIANCE INSPECTION & O&M TRAINING

June

Helena

Flyers and brochures will be sent out once dates have been determined!

Contact Fred Collins at
fcollins2@mt.gov or call

406-444-9879 for questions about trainings or the newsletter. Visit our training website at <http://deq.mt.gov/Land/solidwaste/training> for updates.



Solid Waste Safety DVD

Lending Library Titles

#	Title
LF-01	The Basics of Landfill Safety
LF-05	Working in Dusty Conditions
LF-06	Traffic Safety/Road Design
LF-13	Working in Extreme Weather - Hot Weather
LF-14	Preventing Landfill Fires
LF-21	Extreme Conditions - Rain Storms/Wet Weather
LF-41	Methane Gas Safety
LF-47	Slope Stability - Excavation Slopes
LF-55	Leachate Management & Handling
LF-70	Landfill Odors: Safety Issues
TS-01	The Basics of Transfer Station Safety
TS-03	Equipment Safety - General Issues
TS-06	Bloodborne Pathogens
TS-28	Dealing With Unruly Customers

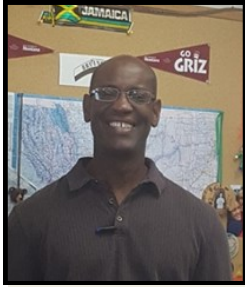
DVDs from DEQ's Lending Library are loaned out for fifteen days. To borrow a DVD, contact:

Sara Nelsen at snelsen@mt.gov, or call

406-444-3463.



RICK'S C O RNER



Greetings to all from Helena!

We've had a few changes worth noting since our last newsletter.

We want to first let you know that Bob McWilliams passed away in December 2016. Bob was a good man and brought a wealth of experience to the Solid Waste Section when – he will be missed by all of us.

We've added two new staff members: David Sanborn was hired to replace Bob when he retired in December 2015. David's specialty areas are Septic Tank Pumpers and Landfarms. He hails originally from Wisconsin and has worked in the environmental field for 5 years. He will be performing field inspections as soon as the weather is conducive to travel and the snow is gone.

Dianna Robinson was hired in the Materials Management Program. Not only will Dianna help you with your recycling and sustainability efforts, she will also be performing Junk Vehicle inspections. Dianna came to us from Michigan where she worked at the nonprofit called Green Restaurant Association and as the district manager for the Antrim Conservation District.

The new compost and landfarm rules should become effective very soon. The comment period for these new rules ended February 3, 2017.

Last year, the Waste and Underground Tank Management Bureau became part of the Remediation Division and the new Waste Management and Remediation Division was formed. The work that we do within the Division is very similar and this gives all of us the opportunity to work more closely with and use each other's unique expertise as needed.

Finally, we still need a SWAC representative from an Eastern Montana landfill. This person would only need to come to Helena once a year (for our barbeque in July), but otherwise could participate in SWAC by conference call. If you are interested, please contact me directly.

Since Puxhatawny Phil didn't see his shadow the other day, looks like we're going to experience a longer winter this year. Stay warm and stay safe. See you all soon!

On the Lighter Side of Trash – New 'CD' Releases

Well, it's again time for the annual license renewals and financial assurance (FA) updates. And what can be more fun than that process? Gotcha!

What's the difference between a ski instructor and a 'CD'?
The 'CD' eventually matures and earns money! ...Dadum dadum...



No offense intended, but please read on for the hidden riddle. The mechanisms now allowed by Montana DEQ for landfill financial assurance have been expanded by addition of the CD (Certificate of Deposit, or share certificate) alternative as a viable option. This cash mechanism is uniquely familiar to many people and is best suited to situations at smaller landfills where the closure and post-closure costs are generally less. The money is controlled by a local bank that provides return from interest based on the term and initial balance involved.

The annual percentage yield (APY) depends on the compounding period (varies from daily to yearly) as chosen by the local bank. Interest rates may be variable if tied, for instance, to the prime rate or to Treasury bills. Callable CDs may have higher rates, but the term may be shortened by the bank. Liquid CDs lack the usual penalty for early withdrawals.

A few landfill facilities have selected the CD option for FA. Most CDs established for landfill FA are liquid and short term to allow for required adjustments based on annual inflation and changes in the cost estimates. Some could be laddered to ensure yearly access by alternating maturity of more than one CD, if rapid changes in the landfill costs or inflation are anticipated. All approved CDs are established for the benefit of DEQ by executing the required assignment form when the CD is established. Furthermore, all CD returns must be reinvested during the grace period, and the CD must be renewed upon maturity, *i.e.* only DEQ may cash it.

With all these options, a person could wonder at what point would any landfill operator consider a new CD?

You may be over the hill, if when you hear "CD", you think of "Certificate of Deposit".

-Tim Stepp

SWAC Minutes



SOLID WASTE ADVISORY COMMITTEE MEETING BULLET POINTS

January 12, 2017 - 1:30-2:51pm - DEQ Metcalf Building, Room 45

- **Julie Ackerlund (DEQ, Air Quality Bureau)** - EPA finalized air quality rules for landfills
 - **Rick Thompson (DEQ, Solid Waste Section)** - license renewals coming up; City of Billings Expansion public meeting was very lively; process for EAs (scoping, 30 day comment period, then able to focus EA efforts); handful of inspections done in December, compliance rates are high
 - **Brady Christensen (DEQ, Materials Management Lead)** - sent out 149 invoices, 3 withdrew, 2 denied, 144 will be issued; Recycle MT held event at Capitol, Fort Benton Recycles won 'Recycler of the Year'; renewals will go out and inspections will be performed
 - **Mike Rieger (DEQ, Enforcement Division)** - 12 new complaints, 3 junk vehicle and 9 solid waste
 - **Emily Ewart (DEQ, Rule Writer)** - Filed landfarm and composting rules on December 9; some changes allow butchers to compost waste and small composters to compost food; public hearing January 27, receiving public comments via email or at the hearing; landfarm rules are a single flat fee; drafting TENORM rules, hope to be out by March or April; amendment to CCR rules, doesn't affect landfills
 - **Fred Collins (DEQ, Solid Waste Section)** - Fire Safety and 24-HR HAZWOPER training in March in Great Falls; Personnel Management and Accountability training in April in Billings; Special Wastes training in May in Miles City, Sidney or Lewistown; Compliance Inspection and O&M Training in June in Helena; MOLO in late August or September; please provide feedback as to what trainings are wanted
 - **Deb Grimm (DEQ, Hazardous Materials Section)** - Asbestos Advisory Group came up with 9 recommendations; will become part of the Asbestos Program business plan; recommendations on the website
 - **Matt Elsaesser (Helena Industries)** - gave presentation on Helena Industries and Big Sky E-Recycling
- * **NEED SWAC REPRESENTATIVE FROM EASTERN MONTANA LANDFILL (contact Rick Thompson for further questions about representing in SWAC)**



SWAC ATTACK!

The next **Solid Waste Advisory Council (SWAC)** meeting will be held

Thursday, April 6, 2017, in the **DEQ Metcalf Building**.

For more information or agenda topic suggestions, contact:
Rick Thompson at rithompson@mt.gov, or call **406-444-5345**.

The ComPOST



Should You Consider Carcass Composting?

By Cora Helm

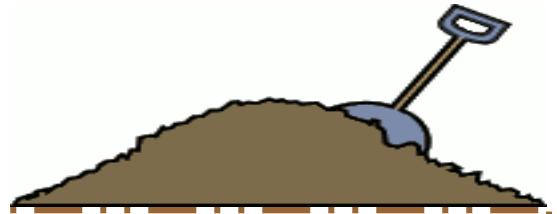
The Montana Department of Transportation (MDT) operates seven carcass composting operations around the state, primarily to manage road kill carcasses. Composting carcasses is an efficient and relatively clean way to manage carcasses, as opposed to burial. While MDT looks to remove carcasses from the roadside environment to discourage scavengers and reduce hazards for the traveling public, landfills that compost carcasses and offal provide a valuable service to the surrounding communities, and make the landfill environment a more pleasant place for operators to work.

Increasingly, in the areas of the state where wolves and bears frequent, Montana ranchers are seeing the benefits of removing ranch mortalities from area ranches and composting them in centralized locations or on individual ranches. This eliminates the need for on-ranch burial of carcasses, thus improving ground-water quality and reducing scavenging by predators which could prey on livestock and sensitive species, such as Sage Grouse.



Landfills are an ideal location to compost carcasses and other animal wastes due to presence of equipment, staff and permitting. Many landfills are already fenced, have a supply of composting bulking materials such as wood waste, and have easy access to water, all of which are necessary for successful composting. Combining wood waste with carcasses reduces both waste streams and creates a great reclamation and stabilization material - a win-win for a landfill.

Carcass composting is an easy, effective and sustainable process. Hundreds of animal carcasses, butcher waste, and liquids can be managed with only a small increase in man-hours.



Why compost

ROAD KILL?

It can be done ANY time of the year.

Common highway equipment can be used.

Relatively odor-free

All sizes of animals can be composted.

Relatively low labor and management required.

Low cost.

(Cornell Waste Management Institute)



READ ABOUT REAL RECYCLING



Fort Benton Recycles wins award from Recycle Montana on January 10, 2017



HELENA—Fort Benton Recycles won the first "Recycler of the Year" award from Recycle Montana.

At the Capitol on Tuesday, MT State Representative James O'Hara presented Fort Benton Recycles with a golden composite of aluminum cans as a symbol of successful recycling.

Recycle Montana president Candi Zion said Fort Benton is a perfect example of a grass-roots recycling effort.

They operate in a county of just 5,000 people, but they collected more than 100,000 pounds of recyclable commodities in just three years.

About 40 people from Fort Benton were on hand to accept the award.

"They are the folks that represent the next generation. They've been helping with the recycling efforts in Fort Benton and they've been tremendous, especially in their collection of cardboard to that organization," said Zion.

-By Frances Lin

New Recycling Rules in Gallatin County

By Rob Pudner

In November 2015, the board for the Gallatin Solid Waste Management District voted to switch from accepting plastics bearing all numbers between one and seven to only those marked with a number one or two. Beyond the numeric criteria, this change also includes a focus on bottles only – clamshell containers and tubs are no longer accepted in any of Gallatin County's seventeen free drop-off bins. The change was requested by Four Corners Recycling, the company contracted to collect and process the county's recyclables, due to a lack of markets for plastics number three through seven. By source separating materials that still have markets, we can receive a better return on these commodities and maintain the overall health of our recycling program. How much extra garbage will this generate? The estimated increase in landfilled material due to this change is roughly 60 tons per year, equal to 1/18th of one percent of the total trash brought to Logan Landfill in the same year.

A few general guidelines help to identify what is and is not accepted for recycling in county bins: If plastic bottle has a neck (top is narrower than the base) and held a liquid or gel, the bottle is likely acceptable. If the container held a solid product (rather than a liquid or gel) or has no neck, it is probably not accepted for recycling. Take a look in your refrigerator, pantry, and bathroom to see what types of containers are marked with a number one or two. The best way to find out what is recyclable is to look at what you already have at home and pay attention at the grocery store. Numbers are typically found inside of a triangle on the bottom or side of the bottle.

The change to Gallatin County recycling bins is specific only to the free drop-off bins in Bozeman, Belgrade, Four Corners, Manhattan, Three Forks, Amsterdam, Logan, Gallatin Gateway, and West Yellowstone. Roll-off bins are currently being outfitted with new labels that reflect this change and all bins should be complete in the next few weeks. No curbside services offered by private companies have been impacted and customers should consult their recycling provider with any questions about those programs. Questions about the drop-off bins and acceptable materials may be directed to Rob Pudner with Gallatin Solid Waste Management District at 406-582-2493 or Robert.Pudner@gallatin.mt.gov.

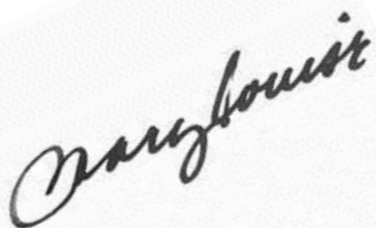
Mary's Musings

We've been pretty busy in the Solid Waste Program. During the last year, we've had the opportunity to work more closely with our MEPA folks on making our Environmental Assessment's (EA's) a more defensible document. The public participation process is an important element of the MEPA, and while it may be a little frustrating to our regulated community as we evaluate each new application, it's important that we complete a thorough review of applications according to MEPA. I believe that our documents are much better at explaining the details of the proposed projects and our process here at DEQ. On behalf of all of us in the Solid Waste Program, I'd like to thank everyone that has been a part of that process for your efforts and patience!

License renewals were mailed to our facilities the end of January. If you'd like an electronic copy of your renewal, just let me know and we'll get it sent to you. You'll notice that we are asking for a little more information this year. As we begin to prepare for our field inspection season, we want to be sure that we have the most current facility information.

Please also let us know what sort of training you'd like us to consider. Sometimes, we run out of ideas and really don't want training to become stale. THANK YOU in advance for helping us to make sure our records reflect the latest and greatest from each facility. We appreciate the work that you all do very much!

Finally, in an effort to be available to provide more compliance assistance to our regulated community, you might see us a little more frequently this year. Our goal is to inspect our Class II facilities at least three times during 2017. So, I guess we'll be seeing you all soon!



Pumper Sentenced to Prison for Illegal Dumping

By: Doug Day

The owner of a South Carolina septic company has been sentenced to 18 months in federal prison and a \$10,000 fine for illegally dumping septic waste. Timothy Howard, 51, owner and operator of American Waste Inc., was charged in federal court for two violations of the Clean Water Act. He was accused of dumping septic waste into a grease trap at a restaurant in April 2011 and into a local sewage system in June 2013. Court documents also said he made false statements to local police and hid more than 85 percent of his septage handling activities from records submitted to the state. Intentional acts by rogue septic haulers pose serious risks to the health of our community and environment," stated Andy Castro, assistant special agent in charge of EPA's criminal enforcement program in Atlanta, Georgia, in a news release from the U.S. Attorney's Office. "Those who operate within this industry must adhere to the regulations and laws for which they are permitted."

TAKE NOTE:

Emission Guidelines and New Source Performance Standards

Emission Guidelines and New Source Performance Standards for Municipal Solid Waste Landfills; Final Rule

October 6, 2016

Julie Ackerlund, Air Quality Bureau, 444-4267

EPA reviewed the 1996 Emission Guidelines (EG) and New Source Performance Standards (NSPS) for Municipal Solid Waste (MSW) landfills in 40 CFR part 60 subparts Cc and WWW, respectively. Due to significant development in MSW landfill technology, and input from stakeholder organizations, EPA finalized new EG and NSPS rules for MSW landfills as 40 CFR part 60 subparts Cf and XXX.

I. Timeline

August 29, 2016 – EPA published the Final rules in the Federal Register

- 9 months (May 30, 2017) – State shall submit a State Plan for the EG to EPA
- 4 months (September 2017) – EPA shall complete their review State Plan for the EG.
- 2 months (November 2017) – State shall address EPA’s comments on the State Plan to receive regulatory authority over the EG.

The NSPS will go through an incorporation by rule to obtain regulatory authority for the state.

II. Applicability

Rule	Dates of Applicability:	
EG, subpart Cf- (existing sources)	Accepted waste after November 8, 1987 and	Commenced construction, reconstruction, or modification on or before July 17, 2014.
NSPS, subpart XXX – (new sources)	-	Commenced construction, reconstruction or modification after July 17, 2014.

III. All MSW Landfills Meeting Applicability Dates Must Submit an Initial Design Capacity Report

- New Source – November 27, 2016 (90 days after the NSPS was published in Federal Register) or 90 days after construction commenced whichever is first.
- Existing Sources - 90 days after the EPA approves the State Plan, possibly late 2017.

IV. Design Capacity Threshold for Further Action: 2.5 million Mg (million metric tons) and 2.5 million cubic meters

- If greater than both thresholds then annually prepare an non-methane organic compounds (NMOC) Emission Rate Report until eligible for a reduced schedule.

V. Significant Rule Provision Changes

A. Threshold for Installing a Gas Collection and Controls System (GCCS)

The NMOC emission threshold that triggers the requirement to install a GCCS at an active landfill is ≥ 34 Mg/year, calculated as follows:

- Existing Tier 1 (calculated using default values), Tier 2 (calculated method with site-specific NMOC concentrations), and Tier 3 (both site-specific CH₄ generation rate

Emission Guidelines and New Source Performance Standards (continued)

and NMOC concentration) methods for determining NMOC emission rates will be retained from subparts Cf and WWW.

- In addition, a new Tier 4 (surface emissions monitoring (SEM)) method is allowed: If Tier 4 SEM monitoring shows CH₄ under 500 ppm for 4 consecutive quarters, no GCCS is required even if Tier 1, 2 or 3 calculations indicate the 34 Mg/yr threshold has been exceeded.

Note: Tier 3 calculations are not required to be completed before using Tier 4. If a facility emits >50 Mg/yr of NMOC; the facility is not eligible to use Tier 4.

B. New Closed Landfill Subcategory - Only in the EG (Subpart Cf)

EPA adopted a new subcategory for managing closed landfills in the EG. The EG only require installation of a GCCS at landfills that:

- closed on or before September 27, 2017 and
- that have a capacity of more than 2.5 million Mg or 2.5 million m³ and
- NMOC emissions are ≥50 Mg/yr.

C. Capping or Removing a GCCS

Low landfill gas producing areas must meet all three criteria below for capping or removing all or a portion of the GCCS:

- the landfill is closed;
- the GCCS has operated for at least 15 years or the landfill owner or operator can demonstrate the GCCS will be unable to operate for 15 years due to declining gas flows; and
- the calculated NMOC emission rate at the landfill is less than 34 Mg/yr on three successive test dates.

Note: the final rule does not contain a GCCS removal criterion based on Tier 4's SEM.

D. Clarifications

- Uses of treated landfill gas to also include use as vehicle fuel, as high BTU gas for pipeline and a raw material for chemical manufacturing
- Defined treated landfill gas and treatment systems

E. Wellhead Operational Standard Changes

EPA changed certain operational standards for N₂/O₂ levels at the wellheads. When N₂/O₂ levels exceed specified operational standards, the owner is not required to take corrective action but must continue to monitor and maintain records of N₂/O₂ levels on a monthly basis in order to inform any necessary adjustments to the GCCS and must maintain records of monthly readings. Temperature and pressure parameter monitoring remains unchanged.

F. Surface Monitoring

Landfills must conduct SEM at all cover penetrations and openings within the area of the landfill where waste has been placed and a GCCS is required to be in place and operating. Surface monitoring must be conducted quarterly at the specified intervals and where visual

***Emission Guidelines and New Source
Performance Standards (continued)***

observations indicate elevated concentrations of LFG, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations.

G. Startup, Shutdown and Malfunction

The rules clarify that the NSPS and EG apply at all times, including periods of startup, shutdown, and malfunction (SSM) of the GCCS.

H. Criteria for When an Affected Source Must Update its Design Plan

- Within 90 days of expanding operations to an area not covered by the previously approved design plan; and
- Prior to installing or expanding the gas collection system in a manner other than the one described in the current plan and clarifying when landfill owners or operators must submit requests to extend the timeline for taking corrective action.

VI. Current Provisions that Remain

- Best system of emission reductions (BSER) for controlling landfill gas remains a well-designed and well-operated landfill GCCS.
- Submit a GCCS design plan to the State within 12 months after the first annual report in which NMOC emission rates are ≥ 34 Mg/yr. (Remember closed landfills have the old threshold of ≥ 50 Mg/yr.)
- Install the designed GCCS within 30 months after the first annual report with a NMOC emission threshold exceedance.
- Landfill owners with a GCCS would be required to expand that system into new areas of the landfill with 5 years for active areas, and 2 years for areas that are closed or at final grade.

VII. Montana MSW Landfills must:

- Determine if they are a Subpart Cf (existing) landfill that has collected waste since November 8, 1987 and commence construction or a modification on or before July 17, 2014; or
- Determine if they are a subpart XXX (new) landfill that has commenced construction or modification after July 17, 2014.
 - If the landfill is a subpart Cf or XXX affected source, then:
 - ✓ Landfill must submit and Initial Design Capacity Report within 90 days.
 - ✓ If the landfill exceed both design criteria of 2.5 million m³ and 2.5 million metric tons the facility needs a Title V operating permit.
 - If the calculated NMOC emissions are > 34 metric tons/yr a GCCS system must be designed and installed.

NOTE:

More information can be found at: <https://www3.epa.gov/airtoxics/landfill/landflpg.html>

PROPOSED CHANGES:

Water Quality Standards Rules

DEQ-7

The Department of Environmental Quality Circular DEQ-7 (DEQ-7) contains numeric water quality standards for Montana's surface and ground waters. The standards were developed in compliance with Section 75-5-301, Montana Code Annotated (MCA) of the Montana Water Quality Act, Section 80-15-201, MCA (the Montana Agricultural Chemical Groundwater Protection Act), and Section 303(c) of the Federal Clean Water Act (CWA). Together, these provisions of state and federal law require the adoption of narrative and numeric standards that will protect the designated beneficial uses of state waters, such as growth and propagation of fishes and associated wildlife, waterfowl and furbearers, drinking water, culinary and food processing purposes, recreation, agriculture and industry and other commercial purposes.

To see the proposed changes, please visit: <http://deq.mt.gov/Water/WQPB/Standards>



COUNTIES CROSSWORD



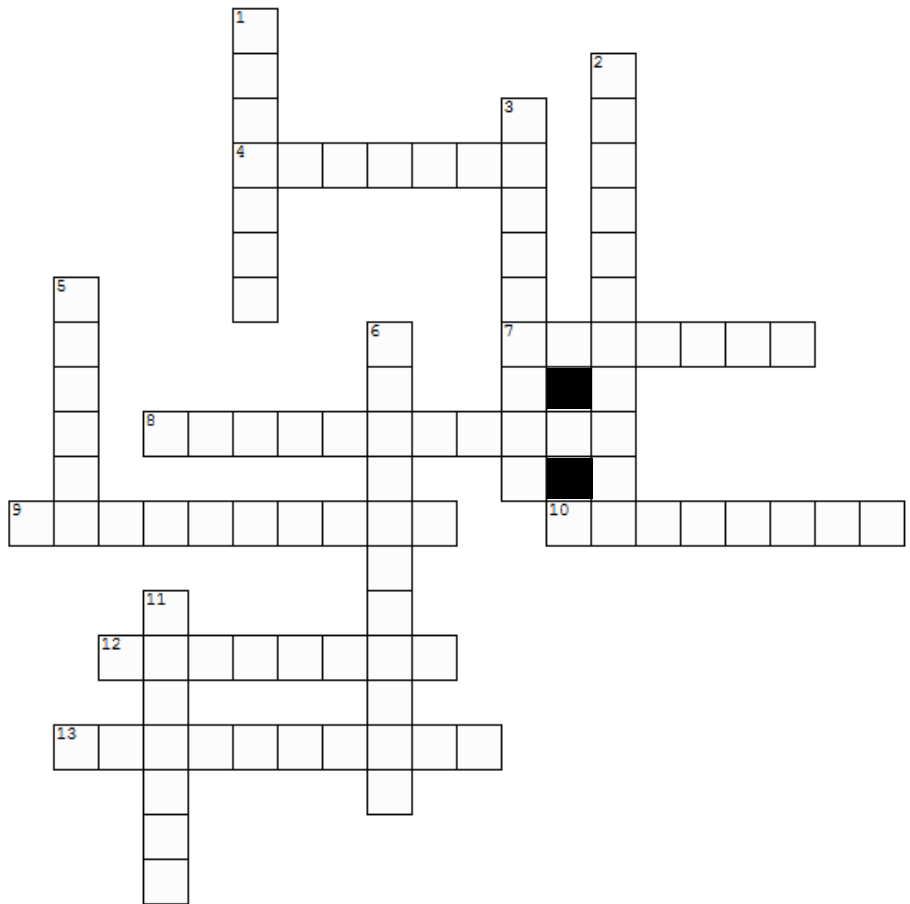
Do you know your Montana counties?

Complete this crossword and see!

The clues are cities in Montana. All you have to do is fill in the correct county. ***First 3*** to fax them to Fred Collins at 406-444-1374

will receive a prize!

Good Luck!



Across

- 4. Great Falls
- 7. Forsyth
- 8. Billings
- 9. Townsend
- 10. Kalispell
- 12. Bozeman
- 13. Dillon

Down

- 1. Libby
- 2. Roundup
- 3. Whitehall
- 5. Miles City
- 6. Broadus
- 11. Hamilton

