

# Montana Solid Waste News



**FALL 2015 ISSUE**



## SOLID WASTE—A NEW ADVENTURE

By Fred Collins

I never thought I would be saying that. For those of you that don't know me, I am Fred Collins, a new inspector for the DEQ Solid Waste Section. Still being the newbie, there are many, many things that I have learned and continue to learn about the solid waste arena. I remember starting last summer as an intern, and referring to the transfer station as...wait for it...the DUMP! Kathy O'Hern promptly corrected me. That hand slap keeps me in check to this day. Not once have I called it the dump since then.

This job has held me accountable for my daily habits. As I continue to learn more, my understanding and awareness is shifted, and I am able to see the bigger picture when it comes to waste management and disposal. Before, trash was trash. You fill up your truck with some stinky bags, empty food containers, half-empty bottles of anything, take it to the dump (OR transfer station), and then its gone. Poof. Vanished. Right? WRONG. That is when the real work happens. Our landfill managers, operators and staff work hard to make sure our waste is handled safely and efficiently. That way, us producers of trash can keep believing that trash disappears once we leave the dump (last time, I swear).

I have some very big shoes to fill, as Kathy embarked on her new adventure last fall. One thing I have since taken over is the newsletter. If there is anything you would like to contribute or would like to see in our newsletter, please contact me here at DEQ. I am thrilled to be able to keep you all in the loop. Have a great Fall!



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## HOT OFF THE PRESS!

ARTICLES	PAGE
Solid Waste—A New Adventure	1
Ya Done Been Trained!	2
DEQ—What's the SCOOP?	3
Lending Library, SWAC, Solid Waste Training, Who Accepts What	3
The Painted Landfill?	4
Read About Real Recycling—Fort Benton Recyclers Award Recipient	5
Recycle Mercury-Containing Thermostats	5
Journey of a Jalopy	6
On the Lighter Side of Trash	7
Rick's Ramble	8
Solid Waste Section - Flowchart	9
I Saw the SIGN!	10



## **YA DONE BEEN TRAINED!**

**BY FRED COLLINS**

The DEQ Solid Waste Section has hosted 3 trainings since the start of 2015.

First, the “Manager of Landfill Operations” (MOLO) training was held on May 18-22, at the Hilton Garden Inn in Kalispell. Neal Bolton, of Blue Ridge Services, Inc., instructed the 4-day course. 27 people of the solid waste community were in attendance. During the course, a tour of Flathead County Landfill was scheduled. The tour was coordinated by the landfill manager, Jim Chilton. The tour was extensive, outlining anything from ground-water monitoring to their Waste-to-Energy facility, where they utilize landfill gas to generate electricity to an estimated 1,200 local homes.



On June 16 and 17, a “Compost Operator Course” took place at the Best Western Grant Creek Inn in Missoula. Jean Bonhotal, of the Cornell Waste Management Institute, instructed the course. After her month-long stay in Africa spreading her knowledge of composting, she came to Missoula to offer her expertise to our operators. Phil Oakenshield, of EKO Compost, lead a tour of his composting facility, along with Jason Duffin, EKO’s foreman. The tour offered attendees a closer look at the daily operations of a composting facility, offering opportunities to see the different phases of compost, the operator’s duties, and the finished product.

The Spring Septic Tank Pumper Training took place at the Montana Association of Counties Building in Helena, MT on June 20, 2015. DEQ staff members that instructed the course include Mary Louise Hendrickson, Shasta Steinweden, and Lisa Peterson. The course covered septic-related topics such as land application site selection, car wash and other sup wastes, recordkeeping, DEQ’s Enforcement Division responsibilities, public relations, image, and marketing tactics. Though brief, the course was well-received by attendees.



DEQ’s Solid Waste Section plans on hosting trainings this Fall 2015. On October 20, 2015, a Crisis Management, Cybersecurity, and Social Media course is taking place at the Holiday Inn Express and Suites in Bozeman, MT. If you have inquiry on this training, or other trainings you want to attend, please notify Fred Collins or Andrea Staley by email at [fcollins2@mt.gov](mailto:fcollins2@mt.gov), or [astaley@mt.gov](mailto:astaley@mt.gov). We appreciate your input and your attendance at these trainings. Thank you for your dedication and service to the people of Montana!





# What's the SCOOP?

DEQ. What's the SCOOP? So glad you asked. This page will outline all things DEQ including training ideas, upcoming trainings, SWAC Meeting date, DEQ's Safety Training DVD Lending Library, and any DEQ updates that we can give you. If you have anything you want to know about DEQ that you want updated in the newsletter regularly, please contact Fred Collins by email or phone.



## SWAC ATTACK!

The next *Solid Waste Advisory Council (SWAC)* meeting will be held *Thursday, October 8, 2015*, in the *DEQ Metcalf Building, Room 111*. Attend and come learn more about what's happening in Montana's solid waste arena. If you have agenda items for the fall meeting, please contact:

**Rick Thompson** at [rithompson@mt.gov](mailto:rithompson@mt.gov), or call **406-444-5345**.

## SOLID WASTE TRAINING ALERT

**WHAT:** Crisis Management, Cybersecurity and Social Media

**WHERE:** Bozeman, MT @  
*Holiday Inn Express & Suites*

**WHEN:** OCTOBER 20, 2015, 9am - 4pm

**WHO:** John MacDonald and Tom Mullins

Brochures have been sent. Registration information is on our website. For more information, please contact:

**Fred Collins** or **Andrea Staley** at  
[fcollins2@mt.gov](mailto:fcollins2@mt.gov), [astaley@mt.gov](mailto:astaley@mt.gov) or call  
**406-444-9879**, or **406-444-3463**.

## WHO ACCEPTS WHAT WASTE?

Our "**Who Accepts What Waste**" table is complete. An email has been sent to facilities to make sure the information is accurate. The new table has been published on our website. Contact **Fred Collins** for questions or comments about the table.

## 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	Blood borne Pathogens
TS-28	Dealing With Unruly Customers

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

**Andrea Staley** at [astaley@mt.gov](mailto:astaley@mt.gov), or call  
**406-444-3463**.



# The Painted Landfill?

By Fred Collins



The Environmental Protection Agency (EPA) enacted the Resource Conservation and Recovery Act in 1976 to govern the disposal of solid waste and hazardous waste, ensuring human health and environmentally sound practices. Though all landfills are required to meet minimum requirements set by the EPA, one facet of landfilling is given "alternatives", depending on characteristics of certain communities. Daily cover.



To apply the cover, they use a Bowie Hydro-Mulcher Victor 100. In the 1000 gallon tank, they mix 800 gallons of water, 10 bags of mineral mortar, and 80 gallons of water latex paint, and tow that with a tractor along the face of the landfill to apply.



Over the 90-day demonstration period, the results were astounding.



According to the Code of Federal Regulations, Title 40, Part 258: "...the owners or operators of all MSWLF units must cover disposed solid waste with six inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging." "Alternative Materials of an alternative thickness (other than at least six inches of earthen material) may be approved by the Director of an approved State if the owner or operator demonstrates that the alternate material and thickness control disease vectors, fires, odors, blowing litter, and scavenging without presenting at threat to human health and the environment."



They calculated the cost of using a scraper to lay soil for daily cover, versus the cost of using a tractor and the Bowie to apply the spray slurry mix. Here are the projected numbers:

**\$638,400** = savings in air space (53,200 cubic yards @ \$12/cubic yard)

**\$17,282** = savings on operations when using this method of ADC vs. soil cover

**\$20,727** = savings in disposal fees (assuming slurry is used 190 days/year)

**\$676,409 = PROJECTED ANNUAL SAVINGS**



Well, the Mesa County Landfill in Grand Junction, Colorado decided that they would use an alternative daily cover. Paint. Really? An abundance of waste latex paint is brought to their Household Hazardous Waste Collection Facility, screened, and stored in 55 gallon drums, filled approximately 66% full. Since this facility collects approximately 9,000 gallons of waste latex paint per year, they decided to use that to their advantage.



After 5 months of using this alternative daily cover in 2014, the landfill saved \$284,892 in lost revenue, operation costs, the reusing of 1,880 gallons of paint, and disposal fees. Aside from the savings, using the slurry and latex paint mix made for better waste adhesion, durability, and reduced threat of landfill fires. Other states, such as Minnesota, Utah, California, Virginia, and Wisconsin are approved to utilize the slurry blend on their landfills.

Proposed as a case study, the Colorado Department of Public Health and Environment (CDPHE) granted the Mesa County Landfill a 90-day demonstration period. They tried two different commercial slurries in various combinations, applied the cover in all types of weather conditions, and documented the rate of degradation in 24 and 72 hour periods. After some time, they chose a mineral mortar spray slurry mixed with 10% waste latex paint. Because the waste latex paint creates a potential for VOC emissions, they sought further approval from the CDPHE and the Air Pollution Control Division (APCD). Some approval conditions needed to be met, such as only utilizing the slurry mix when freezing conditions aren't present, only using when rain isn't anticipated for longer than a day, and documentation of usage and amount of the alternative daily cover. Analytical was also compiled, and submitted.





# READ ABOUT REAL CYCLING



## Fort Benton Recycles: They Are The Champions!

Fort Benton Recycles (FBR) is a volunteer organization in Fort Benton, Montana.

In 2013, FBR started hosting collection events for local residents to bring their flattened cardboard, discarded magazines, and paper to recycle. As time went on, and their diligence in educating the community on recycling, they were able to include the recycling of plastic bottles, tin, steel cans and aluminum cans to their list of accepted materials. In June, there were participation from 64 households and 25 businesses in the area.



Because of FBR's efforts, the residents have habitually gathered recyclable on the first Saturday of each month and delivered them to the FBR collection site. This effort did not go unrecognized.

"The Delta Kappa Gamma Society International promotes professional and personal growth of women educators and excellence in education." Dusty Kuehner and Mary Meissner, members of the Alpha Mu State of Montana Chapter, nominated the recycling group for the Champion of Education Award, that recognizes FBR's hard work in educating the public on recycling, and for their accomplishments in successfully building this recycling collection program.

Fort Benton Recyclers was presented with the award on July 23, 2015.

## Recycle Mercury-Containing Thermostats

By Sandra Boggs



\$25 one-time only fee for unlimited recycling.

The Thermostat Recycling Corporation (TRC) takes back mercury-containing thermostats\* in order to recover the mercury inside. For a one-time fee of \$25, the TRC will provide a bucket, handling instructions, educational materials, and cover all future shipping. The program makes it easy to recycle mercury thermostats and already works with HVAC wholesalers in Montana.

On average, TRC has recovered around 400 mercury-containing thermostats or switches annually since 2010. The amount of mercury recovered has varied from 1.9 lbs. in 2010 to 3.09 lbs. in 2013. Unfortunately, TRC saw a significant decline in 2014, with less than 300 thermostats returned from Montana, with just 2.44 lbs. pounds of mercury recovered.

Landfills, transfer stations, retail locations and more can participate in the TRC program and DEQ encourages solid waste facilities across the state to take an active role in keeping mercury-containing thermostats out of landfills. Let's help TRC recover more mercury by offering more drop-off locations by SIGNING UP @ [www.thermostat-recycle.org](http://www.thermostat-recycle.org).

**\*The "Mercury-Added Thermostat Collection Act" (75-10-1509 MCA) was passed by the 2009 Montana legislature to reduce the amount of mercury disposed of as household hazardous waste. The Act requires HVAC wholesalers to participate in a program like TRC's, and it prohibits the sale or installation of mercury-containing thermostats in Montana.**



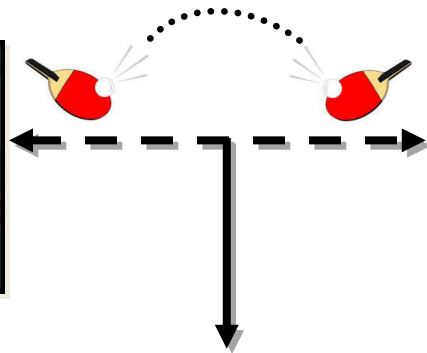
# Journey of a Jalopi

From new purchase to recycling, take a look at your car's journey.

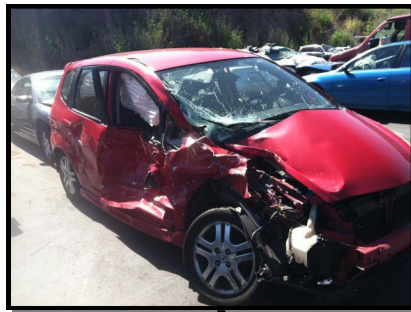
**Purchase new/used car**



**Sell used car**



**Car wrecked/inoperable**



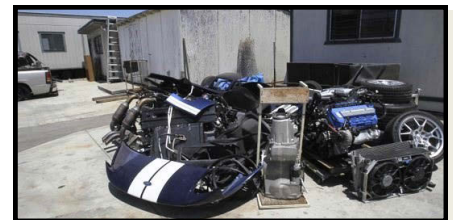
**Sold to Recycle Facility**

**Sold to Wrecking Yard**

**Car shredded/separated**



**Car parted out to sell to public**



**Rest of car crushed**



**Metal melted/  
processed into new  
product**



**Crushed cars sold to Recycle Facility**



## ***On the Lighter Side of Trash***

By Tim Stepp

### **REAL or IMAGINARY?**

Plastic polymers have properties that provide for some amazing feats. Yet, one should justifiably question claims of performance that appear “too good to be true” under normal scrutiny.

Material properties, based on lab testing, provide a set of specific conditions under special circumstances that may not match “real world” situations. Try this one at home.



**HINT:** Use very sharp pencils and practice your skills over a sink before amazing your friends.

I recently attended **Geosynthetics 2015**, an excellent conference in Portland. The most popular and interesting event involved discussions on landfill liner integrity. It was led by a panel of experts from various stakeholder viewpoints. The concerns centered on the mistaken impression that liner leakage can usually be avoided given the actual flaws (leading to punctures, etc.) in our typical “state of the practice” during design and installation. All folks in the room agreed that real and available improvements that are now possible in the quality of installation for many circumstances should be considered by design.

Most believed that the best current solution would be a liner system design that acknowledges the most probable outcome. One example may be present when installing a secondary leak detection and leachate removal system, at least in key areas of risk (e.g. below collection sumps and pipe trenches). Such realistic assessment avoids the often imaginary hope that a state of “no leaks” prevails when even a high level of construction quality assurance and control is usually neglected based on the specter of cost. Many questioned this logic based on the culture of avoidance. The special conditions of actual landfill liner performance instead require attention properly focused on available “fixes” (e.g. minimizing extrusion welds, pinhole detection using conductive geomembrane) to ensure that leaks are truly minimized.

**Reference:** *An Approach to Approaching Zero Leakage*, *Geosynthetics*, V33No.3, June 2015, p34.



# RICK'S RAMBLE!

By Rick Thompson

Summer 2015 is over but the summer like weather persists. The persistent warm dry conditions are not always a good thing in Montana, but it has afforded the Solid Waste Program staff the opportunity to visit all licensed facilities at least once this summer. As we transition into the cooler seasons, inspections and compliance assistance visits will continue at licensed facilities until the weather conditions become prohibitive.

With that said, it is pleasing to note that Montana solid waste management facilities continue to maintain a high level of compliance. Major violations were rare, and minor violations are corrected in a timely manner at the facilities where they are observed. Keep up the good work!

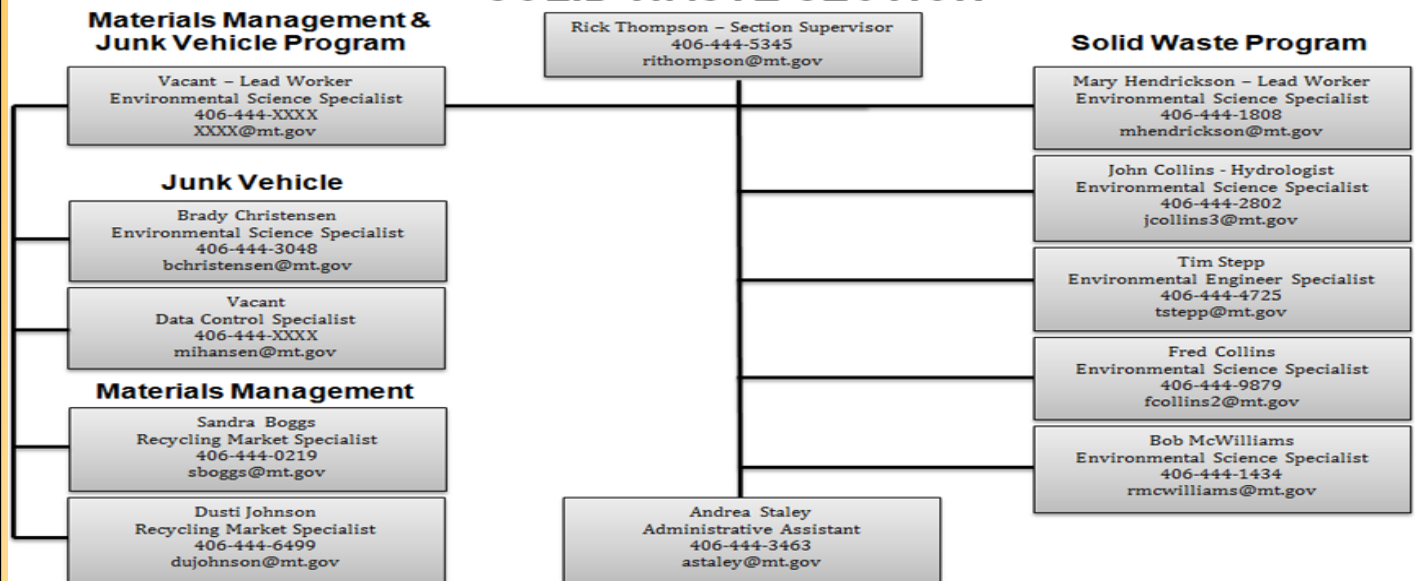
The announcement of changes seems to be a constant theme in each edition of this newsletter. This edition is no different. The Solid Waste Section has under gone somewhat of a minor restructuring to better serve the needs of customers and to develop materials management (MM) in the state. Under the new structure, the Solid Waste Section has been divided into two programs. The Solid Waste\Septic Tank Pumper Program (SWSTP), and the Materials Management\Junk Vehicle Program (MMJVP). Mary Hendrickson continues as the technical lead worker for the SWSTP. The technical lead worker for the MMJVP is currently vacant, and is I hope to have the position hired by November 1, 2015. With the addition of the materials management functions, Dusti Johnson and Sandra Boggs have joined the Solid Waste Section from the Planning Division where they had similar duties as recycling specialists.

I don't have much more at this time, but I encourage you to regularly check the Solid Waste Section webpage for training announcements and Solid Waste Advisory Committee meeting agendas.

Have a good, safe and productive fall season, and I will touch base again in the next winter.



## SOLID WASTE SECTION





# Solid Waste Section

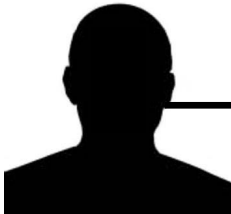
*Rick Thompson - Section Supervisor*



*Mary Hendrickson -  
Technical Lead SW/STP Lic./Reg.*



*Vacant - Materials Management/JV Lead*



*John Collins - Hydrologist*



*Brady Christensen - Junk Vehicle*



*Tim Stepp - Environmental Engineer*



*Dusti Johnson - Recycling Market Specialist*



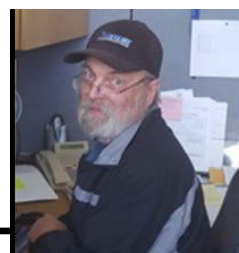
*Fred Collins - Solid Waste Inspector*



*Sandra Boggs - Recycling Market Specialist*



*Bob McWilliams - STP/Solid Waste Inspector*



*Andrea Staley - Admin*

# I Saw the SIGN!

**COMIC RELIEF!** Take a look at these signs, and keep a lookout for our **WINTER ISSUE** of Montana Solid Waste News!



## HERE'S A JOKE!

What has four wheels and flies?

A garbage truck!



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