President’s Corner
By Cathy Hall

Wrapping up another successful year

As we wrap up the year, I want to give an overview of what we as a Chapter have accomplished. It was another great year as we continued to grow our membership to record levels, as of today we have 292 members. We are expanding throughout the Rocky Mountain region as well, with thirty-one members coming from Wyoming and three new members from Montana. If you happen to come across our new members to the north, give them a big welcome.

Training and technical session opportunities continued this year with the MOLO class offered in May in Colorado Springs. The Chapter also held a brand new one-day compost course during the Annual Conference. The compost course was created from scratch by Colorado compost experts Bob Yost of A-1 Organics and Aaron Byrne of Summit County. The Chapter will continue to bring timely training and learning opportunities to the membership in the New Year.
The Chapter held its two annual events, the Road-E-O in June and the Annual Conference in early October. The Chapter sent two representatives to compete, Joel Esquibel, a side loader driver from the City and County of Denver, and Bobby Ruszkowski, a track Dozer operator from Summit County. The annual conference was a big success, this year we brought in a record number of sponsors. Our sponsors provide support to the conference and help keep registration fees low. Planning will begin soon on the 2020 Annual Conference. I would love to hear your thoughts on where you would like to see the conference held, and any networking activities you would like to happen. More to come on dates and locations.

As Chapter President, I commit we will continue to grow the Chapter and bring timely education opportunities. We will also pursue new opportunities to grow the Chapter through strategic partnerships with like-minded organizations. If there is something you want to see us pursue, do not hesitate to reach out to me, I would love to have your feedback.

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**Request for Members List - Update**

*By David Adams*

Following Colorado’s Rocky Mountain Chapter SWANA annual conference, many attendees asked if there would be a list of members included with the registration. After asking SWANA National for guidance, we were provided with this response:

“Our policy is not to distribute the list due to privacy issues. If someone wants to pull up a list of members in Colorado, a member can go to the member directory on MySWANA and get a list. You can’t print it out but you’ll be able to see members from Colorado.”

If you would like to access the membership directory, here are the step to follow:

1. Log into: [https://community.swana.org/home](https://community.swana.org/home)
2. Select <Network>
3. Select <Advanced Search>
4. Under <Location>, enter <State/Province> = Colorado, <Country> = United States *(There is an option to also enter the “City,” if desired.)*
5. Click on <Find Members>
**Something New! Speaker Summary Articles**

By Dana D’Souza

We’re trying something new in this quarter’s newsletter. We’re including short writeups of presentations from speakers who presented at the 2019 Colorado SWANA Annual Conference. If you missed the chance to see any of these presentations, here’s your chance to hear what they had to say. If you would like to find out more, presentations have been uploaded to the website [https://coloradoswana.org/resources/past-presentations/](https://coloradoswana.org/resources/past-presentations/). Not all of the articles submitted could be included in this newsletter, but will be included in the next quarter’s newsletter.

**PFAS Cycling Between Landfills and WWTPs**

By Stephen Zemba

Stephen Zemba of Sanborn Head & Associates spoke about the PFAS Cycle in which some landfills and wastewater treatment plants (WWTPs) exchange per- and polyfluoroalkyl substance (PFAS) loadings through leachate and sludge disposal. He presented data that indicate that both landfill leachate and WWTP sludge contain elevated levels of PFAS – a consequence of the ubiquitous presence/use of PFAS in consumer products and commerce – and that the mass flows of PFAS are of similar magnitude. However, he emphasized that there is no simple PFAS cycle, as the compounds in landfill leachate differ markedly from those in WWTP sludge: data indicate that short-chain PFAS are prevalent in landfill leachate, whereas long-chain PFAS dominate in WWTP sludge. He concluded that landfills may sequester significant quantities of certain PFAS, particularly perfluorooctane sulfonate (PFOS), which is largely absent from landfill leachate.

**Using Residual Nitrogen to Troubleshoot Wellfield Performance**

By David Adams, PE and Matthew Estabrooks, PE

The objective for a gas collection and control system (GCCS) operator is to extract gas from the landfill at approximately the same rate at which it is generated. The residual nitrogen concept differentiates between the nitrogen associated with air leakage and the nitrogen (or residual nitrogen) associated with aerobic activity. Air entering a landfill gas collection system that is not subject to aerobic consumption by bacteria is not of concern for refuse fires. If oxygen is not being consumed, it is likely that the source of the oxygen is short-circuiting of air into the upper well casing or collection pipe, commonly called leakage.

Residual nitrogen is a useful parameter in evaluating wellfield performance, and in our experience, an under-utilized tool for assessing wellfield data for the possibility of ambient air infiltration and aerobic conditions within the waste mass. In our case studies, we use a multi-step approach with mapping and graphing as visual aids to evaluate wellfield performance. Particular emphasis is placed on using residual nitrogen values calculated from measurements at GCCS monitoring points to evaluate the impact of wellfield balancing on energy extraction, surface emissions, and the potential for landfill fires.
How Habits are Formed
By Sharon Lipinski

New neural science has shown us that a habit is more than just a behavior. If you were watching your brain activity when you do something for the first time, you’d see your prefrontal cortex (PFC) activate and communicate in a loop with your striatum.

The PFC is the part of the brain that sits above the eyeballs. It’s essential in decision making, planning ahead, focusing thoughts, paying attention, learning, and considering several different yet related lines of thinking. It’s used for evaluating the future consequences of current activities, working toward a defined goal, predicting outcomes, interpreting social cues, moderating social behavior, and determining good and bad, better and best. The PFC helps retain information while performing a task, determine what information is relevant to the task in progress, and keep the objective of the task in mind at the same time. All of these behaviors make up a wishlist of safety behavior. The PFC is advanced and powerful and an amazing safety resource, but it’s also intensive in its use of energy and effort.

The striatum is located in the center, interior of the brain at the top of the brain stem. The striatum is the habit, reward, and goal motivated behavior center of the brain.

When the brain is doing something new, the brain activates all the neurons along this path between the PFC and the striatum. It’s working hard to make sure you’re successful at this action. However, the brain is a quick learner. The next time it repeats that action, it’s a little more familiar, and it doesn’t have to work quite as hard. A few less neurons will fire. Then you do it again and again and again, and it gets easier and easier. Fewer and fewer neurons fire. When a person has done something often enough that the action is habitual, the PFC is no longer required. On top of that, only the neurons at the beginning of the action and the end of the action fire. The bulk of the action is on autopilot- freeing up all that mental activity for thinking about other things and being complacent.

A habit is a neural pathway created in the brain through repetition. By repeating an action over and over, you carve a neural pathway deep in the brain that requires very little work to activate and perform.

Habits are a double-edged sword. Sometimes habits can be good. For example, always wearing the appropriate PPE is a good habit to have. But habits can also be dangerous, because it allows the brain to hang out in the striatum and go on autopilot. It’s not paying attention to what it’s doing and what is going on around it. When you want your employees to master their habits, you want them to learn how to use habit when it will keep them safe but short circuit it when it could be dangerous.

Sharon Lipinski was the opening keynote speaker and is the Habit SuperHero and CEO of Habit Mastery Consulting. Find out more at http://habitmasteryconsulting.com
SB 19-192 - Front Range Waste Diversion Enterprise Created

By Steve Derus

Section 1 of the act under Senate Bill 19-192 creates the Front Range waste diversion enterprise. The enterprise will collect a user fee on each load of waste disposed of at a landfill in the front range and credit the fee to the new front range waste diversion cash fund to finance the front range waste diversion grant program.

Section 2 sets the user fee at 15 cents per cubic yard per load from January 1, 2020, through December 31, 2020. The fee increases 15 cents per year so that on and after January 1, 2023, the fee is 60 cents per cubic yard per load; except that this amount is adjusted annually by inflation after January 1, 2024.

Section 3 adjusts the fine amount for littering on public or private property annually, commencing on January 1, 2020, by inflation and credits the increased amount of the fine to the fund.

The front range is defined as the counties of Adams, Arapahoe, Boulder, Douglas, Elbert, El Paso, Jefferson, Larimer, Pueblo, Teller, and Weld and the cities and counties of Broomfield and Denver. The following entities that are located or provide services in the front range are eligible to apply for grants: Municipalities, counties, and cities and counties; nonprofit and for-profit businesses involved in waste disposal or diversion; and institutions of higher education and public or private schools.

The enterprise shall administer the grant program and provide technical assistance to eligible entities to achieve the following municipal waste diversion goals within the front range:

- 32% diversion by 2021;
- 39% diversion by 2026; and
- 51% diversion by 2036.

The board of directors of the enterprise shall submit a report by July 1 of each year to the committees of reference of the general assembly with jurisdiction over the environment regarding the grant program. The enterprise, increased user fee, and increased amount of the littering fine are repealed, effective September 1, 2029.

Composting, Collaboration, Continuing Education Credits, and Career Connections...at the Colorado Springs, Annual Conference!

By Kathy Andrew

There are so many benefits to attending the Colorado Rocky Mountain SWANA Annual Conference. This year, in excess of 130 attendees and a record number 25 sponsors were treated to an exceptional experience in Colorado Springs. Two days were jam-packed with great talks vetted by the conference committee and all were top-notch. There was something for everyone with plenty of opportunities to hit the key sessions that were relevant to one’s focus of work. It was easy to come away from this conference with three or four useful tips that could be employed.
right away in the workplace. There was ample time to interact directly with the speakers and get to know them personally and take home something far more valuable than you might imagine. As always, networking is an indispensable component of the conference. Simply building relationships with others in the field can help you immensely. Over the years, I personally have come to meet, socialize with, and get to know some amazing people at our annual conferences. I call them all friends, and we all look forward to meeting and learning from each other at every conference we attend. Ask Randy Gorton to tell a few rural coroner stories – fascinating. The vendor volume and variety this year was simply astonishing. Thank you to each one. The knowledge gathered from them does not always seem relevant at the time, but trust me, many times I have come across a need, and because I took a few moments to learn about key vendor offerings, I could recommend products and services that solve immediate problems. There is always something to learn and vendors will educate you for free. SWANA Certified members earned all the Continuing Education Credits they required for the year by simply attending the conference. What a deal! Finally, the Monday prior to the conference, the chapter hosted 24 attendees at an 8-hour course focusing on providing the knowledge one needs to compost successfully. Whether just getting started or composting for a while, every individual came away with something that met their needs. So, get thinking about the 2020 conference. Not sure where it will be. The board will decide that early in the year. Make 2020 the year that you decide to get some professional recognition and submit an original scholarly article for review and consideration for a speaking session.

Website Job Listing – Up and Running!
by David Adams

Colorado SWANA is pleased to announce the creation of a job listings page on our website.

In an effort to reduce email traffic, we intend to post future solid waste-related job opening on the job listings page:

https://coloradoswana.org/resources/job-listings/

If you are interested in posting a position on the job listings page, please email a job description and application information to David Adams (dadams@sanbornhead.com).

This email news update is a service provided to members of the Colorado Rocky Mountain Chapter of SWANA. If you would like to share information with chapter members in future updates, please email your information to Dana D’Souza at dsouza@serainc.com.

Also, don’t forget to visit us online at www.coloradoswana.org.