



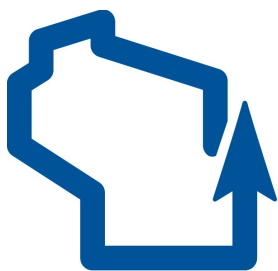
On June 8, 2019, a group of SWANA YPs and AROW Emerging Leaders cleaned up a portion of the Beaver Dam River as part of Living Lands and Waters' Adopt-A-River Mile program.

This newsletter is intended to highlight the hard work and dedication of the Badger Chapter Young Professionals (YPs).

It serves as a communication tool to help keep all Chapter members, and other industry professionals, informed of YP

activity, industry technologies, and emerging environmental issues.

We want to hear from you! If you would like to contribute content to this newsletter, please contact: swanawi@gmail.com



**Wisconsin
Badger Chapter
SWANA**

Solid Waste Association of North America



CHAPTER NEWS

SCHOLARSHIPS

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Badger Chapter announces the recipient of the 2019 Brenda Lee Quinnell Rising Leader Scholarship.

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Get answers for some of your questions about the contaminant of emerging concern.

RIVER CLEAN-UP

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Check out some great photos from SWANA and AROW's First Annual River Clean-Up.



In August 2018 the solid waste and recycling community lost one of its most devoted members.

Brenda Quinnell, former director of the Adams County Solid Waste Department, served for over 10 years as the Wisconsin Badger Chapter's administrative assistant. During her years of service, Brenda was much more than an "assistant"; she was a leader.

The Wisconsin Badger Chapter is proud to announce the Brenda Lee Quinnell Rising Leader Scholarship which will be awarded to an applicant who demonstrates commitment and passion just as Brenda did in all aspects of her life.



2019 BRENDA LEE QUINNELL Rising Leader Scholarship Recipient

BAILEY MILLER

UNIVERSITY OF WISCONSIN – STEVENS POINT (STUDENT MEMBER)

For the 2019 scholarship program, the applicants were asked to write an essay about what leadership means to them. One application caught the attention of the selection committee due to a clear demonstration of leadership, years of continued dedication to an organization, and active roles in UWSP's Waste Management Society, WIRMC, and SWANA. In addition, Bailey's communications with the committee were prompt, professional, and courteous.

Bailey was born and raised in Green Bay, WI. He is in his senior year at UWSP and studying Waste Management with minors in Biology and Spanish.

He became interested in resource management thanks to his lifelong involvement in the Boy Scouts of America (BSA) and he has also earned the rank of Eagle Scout.

He wants to share his passion for the environment with everyone that he's able to. For the summer of 2019 he was the 'Operations Intern' at Madison Municipal Sewerage District.

During the '18-19 school year, he was elected as Co-President of UWSP's Waste Management Society and with this opportunity has partnered with the community on projects. His anticipated graduation is Spring 2021.

"I'm deeply humbled that I was selected for the Brenda Lee Quinnell Rising Leader Award. I hope that I am able to leave such an influential mark on not only the industry, but everyone that I mentor throughout my life. I would also like to thank SWANA for making my dreams and my education possible. I would like to thank my family and FFA advisor, Whitney Barnes-Liermann for teaching me to never give up on yourself, always put in 110% and that you'll never know the places that you'll go."

2019

BADGER CHAPTER SCHOLARSHIP RECIPIENTS



SAVANNA HAYGOOD

DAUGHTER OF JILL MARTENS

Savanna is studying Water Resources with minors in Conservation Biology and Biology. Through her coursework at University of Wisconsin-Stevens Point, she continues to collect knowledge on sustainable science that can be implemented to improve solid waste management. Her main area of study encompasses water resources including hydrology of storm sewers, waste water treatment tactics, and other environmentally influential topics.

VIOLET ANDERSON

DAUGHTER OF CHRIS ANDERSON

Violet Anderson graduated from Green Bay East High School last June and she is attending Lake Forest College in Illinois. Throughout high school, Violet participated in numerous extracurricular activities including the varsity swim team, student council, the school newspaper, and National Honors Society. She also dedicated herself to serving the community, volunteering for more than 100 hours with various organizations. Violet will be swimming for the Foresters this fall. She is interested in science and math, but is undecided on a major.



ADAM GORSKI

STUDENT MEMBER

Adam is a student member of the Badger Chapter and an undergraduate student at the University of Wisconsin-Madison pursuing a degree in Civil/Environmental Engineering. Much of his interest in sustainability and solid waste began with an Eagle Scout project as Outagamie County transitioned to single stream recycling and a local nature center needed to educate the public. While working alongside Tri-County Recycling, Adam created a new recycling center at the nature center that included new bins, signs, and literature to educate the public of the new regulations. Adam's interests include running marathons, classic vehicle restoration, and backpacking.

CARLEE DOVERSPIKE

DAUGHTER OF CHAD DOVERSPIKE

Carlee graduated from Ashwaubenon High School in Spring of 2019. Throughout high school, she was very involved in extracurriculars such as Student Council, Girls Golf Team, and Band. She is currently pursuing a degree in elementary education at St. Norbert College in De Pere, Wisconsin.



JANA SURIANO

STUDENT MEMBER

Jana is a non-traditional student originally from Northeast Wisconsin who came to study at University of Wisconsin-Stevens Point out of the workforce. She had been out-of-state for schooling and working at an environmental nonprofit, and returned to Wisconsin to work in field research of environmental microbiology and water quality issues. Professionals in the field recommended UWSP and she enrolled with the intent of studying soils, but ended up in the Waste Management major offered by the College of Natural Resources. Jana has always been interested in responsible use of resources, recycling, and environmental protection, and how we manage our waste brings together all of those things. Her internship with Marathon County's Solid Waste Department has been a great learning opportunity and she is excited to continue her studies and role as Vice President of UWSP's Waste Management Society with new knowledge and ideas.



CONNOR ACKER

STUDENT MEMBER

Connor is a second-year master's student in the geological engineering program at the University of Wisconsin-Madison, where he also completed his undergraduate studies. As an undergraduate, he assisted with the research of gaseous emissions at the Dane County Sanitary Landfill. For his master's degree, he is continuing similar research at other landfills under Professor James Tinjum. He has been a member of the Wisconsin Badger Chapter of SWANA since April 2018.





Abby Lichtscheidl graduated from UWSP in December of 2017 with a BS in soil and waste resources. While in school, she was an intern at the Marathon County Solid Waste Department and is now a full time Waste Specialist for the county.

At work, she operates heavy machinery for daily operations and does general site maintenance.

When she's not working, Abby keeps busy by attending group fitness classes at the YMCA, going to local community events, and spending time with her cat, Tilly.

WASTED SPACE



**A LOOK INTO
Maximizing
Efficiencies at
Marathon County
Solid Waste**

WRITTEN BY ABBY LICHTSCHEIDL

The new age of solid waste is here! We are constantly integrating new technology into the industry in an effort to more efficiently manage our waste. One form of technology is a Global Positioning System (GPS). GPS's aren't only used to get you from A to B, the solid waste industry utilizes it daily! It's mostly associated with landfill construction, but here at Marathon County Solid Waste (MCSW) our main use is for daily landfill operations.

MCSW has two machines on site equipped with GPS: the compactor and bulldozer and a separate rover. Each machine utilizes the GPS in different ways. The compactor uses the GPS for rough elevation and compaction data. The bulldozer is for fine elevation changes, and the rover is used for designing special projects and construction quality assurance (CQA) work.

The majority of the time we use the GPS in the compactor. It gives us a constant data stream of elevation and compaction data in real time. This

information is important because when creating new lifts, we need the surface to be solid and uniform. This is not only an efficiency aspect, but a safety one as well; an uneven surface can result in poor driving areas and vehicle rollovers. There's a function in the GPS system called *flatpad* that we often use when creating new lifts. You simply enter in the desired elevation and the GPS creates a "flat pad" for the entire area of the landfill. From then on the screen shows you the cut/fill of the point where the machine is sitting. The accuracy on our cut/fill data is within a tenth of a foot!

While compacting, the screen also shows a color coded grid indicating the density of the surface. It compares how much deflection there is to the previous time that same area was rolled over. In addition to the compaction grid, a daily compaction report is created and then emailed to all operators. Entering the daily tonnage of garbage calculates the waste density of the working area for each specific day.



While compacting, the screen also shows a color coded grid indicating the density of the surface. It compares how much deflection there is to the previous time that same area was rolled over.

This allows us to try new techniques and fine tune our compaction methods to fully maximize the airspace we are filling. Moisture, temperature, waste type, machine speed, lift height, and skill all play a role in the science (and art) of waste compaction. All that being said, our current compaction rates are around 1,800 pounds per cubic yard.

Last year, MCSW experienced trouble with rainwater collecting in low areas of the landfill. Uneven settlement and different waste types resulted in multiple low areas and uneven surfaces. Contrary to what many might think, a landfill doesn't close when it rains 3" during the spring thaw, and we do not have blacktop access to our active working face. These low areas caused significant operational issues with traffic flow and stuck vehicles. To combat, we used the GPS to create a *slope file* instead of using a *flatpad* for our new lift. We wanted rainwater to shed rather than collect and saturate the traffic areas while still staying in the landfill. This is when we utilize the rover to design our grades. We marked the elevations on a previous cell and used the elevation of the

current lift to determine what percent slope would work the best. A 1% slope seems like a small percentage, but when cast along 500 feet horizontally, it means a drop of 5 feet vertically across the surface. Once we determine the percent slope desired, we save the file and it can then be downloaded to every machine on site. With the new sloped surface directing stormwater away from traffic areas, we've seen less accumulation of rainwater on the landfill surface, decreased drying time after rain events, and greater efficiency in traffic flow throughout the working area.

The GPS works off a solar powered repeater system comprised of nodes. Each machine has a node, along with four nodes strategically placed throughout the site. For the machines to retrieve the instantaneous data they must be connected to the base station. Everything communicates via line of sight. As you can see in the picture, there is not a direct line of sight from the machines to the base, thus the stationary nodes must pick up the machines signal and repeat it back to the base.



We find significant value in the GPS however, we now utilize it while filling every day. We can monitor density on a daily basis and find trends that may influence compaction. When creating new lifts or outside banks, we don't have to rely on eyeballing; we have a sure way of telling if the surface is up to grade. Looking at the life cycle of building a landfill, GPS has always been utilized in the initial liner protecting human health and the construction and capping process, environment.

however, we now utilize it while filling to make daily operations more efficient. With strict DNR regulations, focus on maximizing airspace, and increased cost for constructing a new landfill, it is in our best interest to utilize the technology available in an effort to better manage the challenges of landfill operations, while protecting human health and the environment.

Diagram shows how the machines in the landfill are able to communicate with the base.

YOUNG PROFESSIONAL OF THE YEAR!

**The Wisconsin Badger
Chapter of SWANA is now
accepting nominations for
YP of the Year!**

Each year, the Chapter recognizes a YP for his or her outstanding achievements in the solid waste industry.

The YP doesn't need to be a SWANA member at this time, but must exhibit passion and enthusiasm for the industry. Additionally, the YP must be 35 years of age or younger at the start of 2020.

Contact
GShereda@trccompanies.com
for more information.



Have you heard of PFAS? Hopefully you have, but if you haven't, I'm here to fill you in! I believe everyone should be "in-the-know" about these contaminants of emerging concern.

KRYSTAL CLARK graduated from the University of Wisconsin – Green Bay in May 2016 with a Bachelors of Environmental Science and currently works at Foth as an Environmental Scientist.

She is an active member of the SWANA Badger Chapter and AROW. She currently serves as the Chair of the AROW Emerging Leaders and as an appointed member of the Wisconsin Integrated Resource Management Conference (WIRMC) Planning Committee.

HAVE SOME QUESTIONS ABOUT PFAS?

WRITTEN BY KRYSTAL CLARK

WHAT DOES PFAS STAND FOR?

PFAS is an acronym for per- and poly-fluoroalkyl substances. You don't need a chemistry background to understand what these compounds are about. I'll break it down for you. PFAS is an umbrella term for an enormous family of 4,000+ man-made, fluorinated, synthetic, organic chemicals. When picturing their molecular structure, they consist of a fluorinated chain of carbons plus a functional group at the end. If the molecule is per-fluorinated, it means all carbons are bonded only to fluorine; this is the most stable. If it is poly-fluorinated, it means not all of the carbon atoms are bonded to a fluorine. Two of the most commonly discussed PFAS compounds are perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS).

HOW ARE PFAS ENTERING OUR BODIES AND THE SURROUNDING ENVIRONMENT?

Their fate and transport occurs ubiquitously. PFAS can be present in air, soil, sediments, groundwater, surface water, and biota such as humans, animals, and plants (think our agricultural crops). The most concerning contamination is typically localized and associated with a specific facility, for example: an industrial facility where PFAS were used or locations where firefighting foam was used. However, just as our natural

resources flow and migrate across spatial areas, PFAS goes with them.

WHY ARE PFAS A CONTAMINANT OF EMERGING CONCERN (CEC)?

The potential health effects include high cholesterol, decreased response to vaccines, increased risk of certain conditions (thyroid disease, high blood-pressure, pre-eclampsia), decreased fertility in women, and lower infant birth weights. Studies indicate that PFOA and PFOS can cause reproductive and developmental, liver and kidney, and immunological effects in laboratory animals. The concentrations at which PFOA and PFOS become dangerous is still undefined. PFAS have been shown to bioaccumulate, with detectable blood serum levels found in >98% of the US population. PFAS are biopersistent in not only our bodies, but in the environment, as well.

Evidently, it is difficult for us, the consumer, to manage the amount of PFAS we come into contact with from our water, food, or air. This may sound like nothing but bad news, but there is some nationwide progress on PFAS regulation taking place. In 2016, the EPA published a limit for drinking water of 70 parts per trillion (ppt). Nationwide, states and municipalities are taking action by testing for PFAS in drinking water and rolling out guidelines or regulations.

WHAT IS BEING DONE ABOUT THE PROBLEM?

Our home-state of Wisconsin is making headway. Gov. Tony Evers recently announced he is directing the Department of Natural Resources (DNR) to take additional efforts to address PFAS in drinking, ground, and surface waters. Gov. Evers directed the DNR to pursue rulemaking using science-based recommendations from the Department of Health Services (DHS). The DHS has recommended a cumulative groundwater enforcement standard of 20 ppt, which is similar to guidelines or standards in New Hampshire, New Jersey, Vermont, Minnesota, and Michigan.

Members of the public and interested parties will have opportunities to provide input throughout this process. The DNR intends to adopt the DHS recommended enforcement standard. Moreover, in light of recent discoveries of contamination of drinking water and groundwater sources across the state, the DNR is initiating a new voluntary PFAS testing program.

The DNR has asked 125 municipal wastewater treatment facilities to begin sampling and analyzing for PFAS. The included facilities were selected because they are more likely to receive wastewater from businesses that knowingly or unknowingly use PFAS. Data from the sampling results will be used to assist facilities to identify and implement a

plan to reduce the amount of PFOA and PFOS entering their facility.

Source reduction efforts may include: product substitution, operational controls, pretreatment, and clean-up of historical contamination.

Currently, there are no USEPA-approved analytical methods for PFAS analysis of wastewater, but the DNR recommends that facilities use a laboratory that utilizes an isotope dilution procedure.

I conducted a search for sites with listed PFAS contamination on the Bureau for Remediation and Redevelopment Tracking System (BRTTS on the Web) platform and revealed a total of 25 sites listed in the database.

With the voluntary PFAS testing program for municipal wastewater treatment facilities, this number is sure to increase. It is not clear what the future holds regarding PFAS contamination.

You can stay up to date on statewide PFAS news by **SUBSCRIBING TO RESOURCES OFFERED BY THE DNR**, including their **PFAS TECHNICAL ADVISORY GROUP**.

WHERE DID PFAS COME FROM?

They were invented in the 1940s by 3M and used at DuPont and other manufacturers until the 2000s. They were widely used in industrial and consumer product applications. They were designed to make our lives better and easier by incorporating them into everyday products. PFAS have unique properties such as repelling liquids and heat resistance. PFAS were/are used for firefighting foam, scotchguard, Teflon on cookware, waterproof textiles, cosmetics, the photography industry, paper products, metal plating materials, and more. The reason I used “were/are” is because other molecular forms of PFAS are still being used today for select applications, including a form called “GenX”. In addition, despite the fact that use of PFAS has declined in the US, other countries are still utilizing PFAS which makes its way into the US via import of consumer products.



Allison Rath sack is Special Projects & Materials Manager at Dane County's Department of Waste & Renewables. She holds a Bachelor of Civil Engineering, with environmental and geotechnical emphases, from the University of Wisconsin-Platteville.

Allison has over 5 years of in-depth solid waste experience and currently manages a variety of Dane County's projects, including the start-up of the RNG facility.

Allison enjoys travelling the world and spending time with her husband and two dogs; Cali Rose, a Shih-Tzu Bichon Frise mix, and Frank, a miniature dachshund.



DANE COUNTY RNG FACILITY

A Path Forward for
Municipalities

WRITTEN BY ALLISON RATHSACK & BILL BLOOMENKRANZ

Dane County, Department of Waste & Renewables owns and operates a large municipal landfill located in Madison, Wisconsin. The landfill, called Rodefild Landfill, generates biogas from decomposing municipal solid waste at a current rate of 1,750 standard cubic feet per minute (scfm) with an estimated increase to 2,500 scfm over the next 5-10 years.

Prior to May 2019, all the biogas generated at Rodefild was combusted in engines and used to produce renewable electricity for a local utility. Like many others in the industry, Dane County's Power Purchase Agreement (PPA) was sunseting in 2019, leaving the contract up for renegotiation at substantially lower rates.

This forced Dane County to reevaluate the economic feasibility of electrical production compared to renewable natural gas (RNG) to be used as transportation fuel. With the increase in value of RNG due to federal programs and the lower

value of landfill gas derived electricity, the decision was made to produce RNG.

Dane County began their journey toward conditioning their landfill gas to RNG in late 2016, hiring a local consultant, EcoEngineers, to help traverse the various facets of the Renewable Fuel Standard (RFS).

The RFS is a federal program that incentivizes the biogas industry to produce renewable transportation fuel with a goal of national energy independence. The RFS categorizes various biogas sources and incentivizes certain sources. The biogas sources valued the most are called "D-3" and include wastewater treatment facilities, manure digesters, and landfills.

After EcoEngineers conducted a full economic evaluation of Dane County's potential, the County Executive gave the Department of Waste & Renewables the green light to start the design and construction processes.



"This project produces renewable vehicle fuel, reduces greenhouse gas emissions, incentivizes digesters to help clean up our lakes, and provides significant revenue to the County. It really is a win-win-win project for our Department, the environment, and Dane County tax payers."

**John Welch, Director
Dane County Department of Waste
& Renewables**

Dane County, with a strong backing of the County Board, started looking for a company to begin the design of a biogas conditioning facility in early 2017.

By late 2017, Dane County partnered with a local company, BIOFerm Energy Systems, to start procuring equipment for the biogas facility. Shortly after, construction of the biogas facility began in the summer of 2018. With a tight deadline of May 2019, all parties were hands-on-deck.

In late 2017, another local company, Tetra Tech, was brought in to design the ancillary components of the biogas facility. During the middle of the design, Dane County saw another opportunity to open the market for other sources of biogas and aid in the growth of the biogas industry in Wisconsin.

A truck off-loading station was added to the biogas facility for local area digesters to bring in trucked RNG.

By offering an off-loading station to nearby farms, another important environmental benefit can be realized; cleaner lakes. For years, the Clean Lakes Alliance has worked to reduce the leaching of phosphorous, a pollutant found in cattle manure, into the Yahara River Watershed.

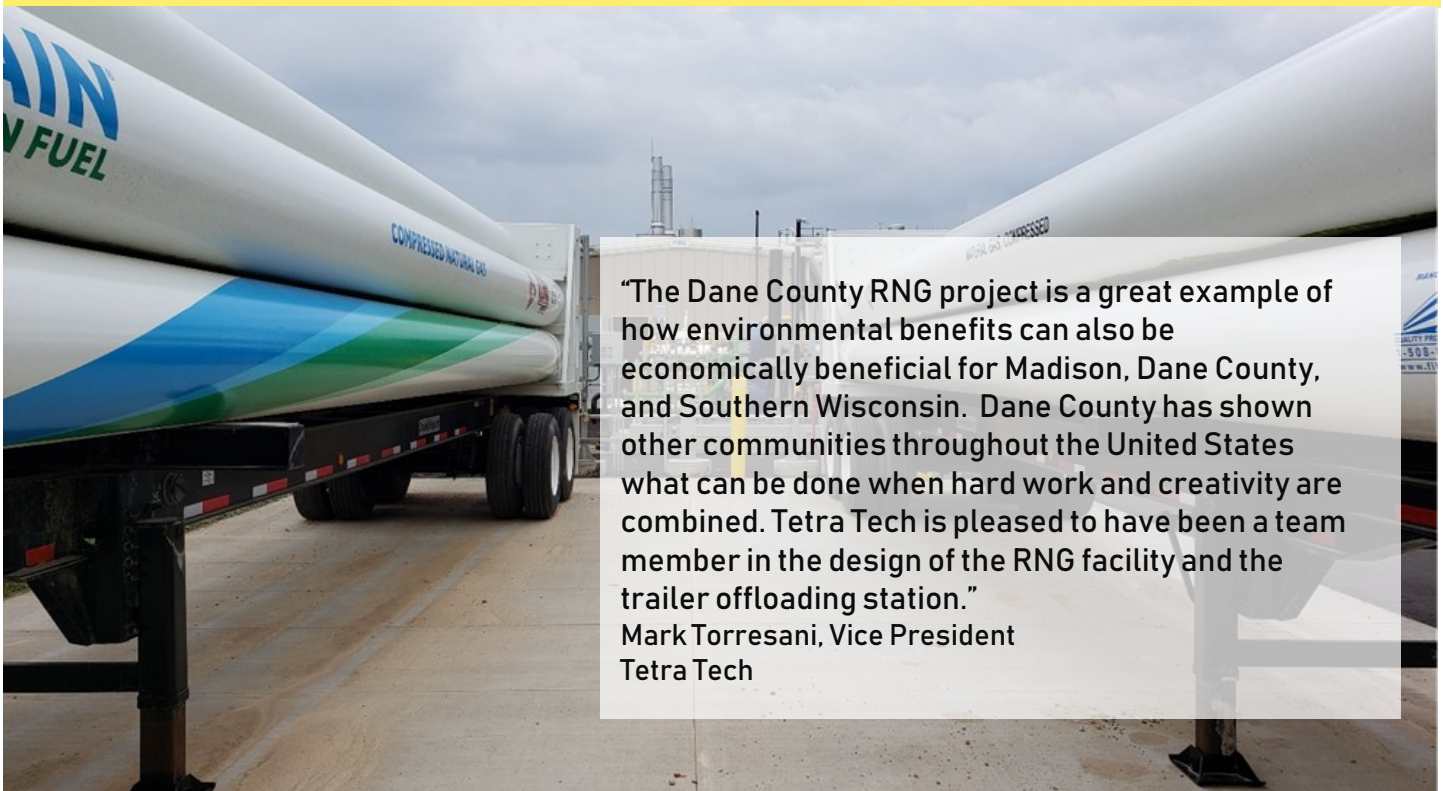
When manure is spread on farm fields, phosphorous can runoff into nearby streams and groundwater sources, eventually making its way into the beautiful lakes of Dane County. When phosphorous is in a stagnant body of water it forms noxious algae blooms that emit a foul odor and can significantly impact aquatic life.

"BIOFerm is very excited to be a part of this innovative project at the Dane County Landfill. This project has set a successful example for all other municipal landfills that are looking to monetize their landfill gas to renewable natural gas."

Not only does this project have economic benefits, but huge environmental benefits as well. This gives local farmers the opportunity to produce RNG, resulting in better manure management, which in the long term helps create cleaner lakes for generations to come."

**Nadeem Afghan, CEO
BIOFerm Energy Systems**





"The Dane County RNG project is a great example of how environmental benefits can also be economically beneficial for Madison, Dane County, and Southern Wisconsin. Dane County has shown other communities throughout the United States what can be done when hard work and creativity are combined. Tetra Tech is pleased to have been a team member in the design of the RNG facility and the trailer offloading station."

Mark Torresani, Vice President
Tetra Tech

Dane County off-loading station opens the doors for area farms, with looming PPA deadlines, to install digester facilities to produce RNG from biogas generated by manure. As part of the digester process, phosphorous-rich fiber can be separated from nutrient-rich liquids, referred to as centrate, and removed from the watershed. The centrate can be applied to farm fields as an effective fertilizer.

Dane County RNG Facility is a shining example of how environmental benefits can be economically beneficial for not just a biogas generator, but the community as a whole. Dane County continues to show their commitment to the environmental protection of Wisconsin through innovative projects and inspires other communities throughout the United States as to what can be done

For more information on this project or if interested in a tour, please contact

John Welch at Welch@countyofdane.com or
Allison Rathsack at Rathsack.Allison@countyofdane.com.



Bill Bloomenkranz graduated from the University of Minnesota in 2011 with a Bachelor's of Aerospace Engineering and a minor in Climatology. Bill is a project manager with Tetra Tech, and has seven years of experience working on renewable natural gas, compressed natural gas and anaerobic digestion facilities. Bill is an avid weather enthusiast, and in his spare time enjoys observing and documenting severe storms. He will also never turn down a motorcycle outing with friends.



LINDSEY CARLSON works at SCS Engineers on their solid waste management team performing Construction Quality Assurance and reporting for field projects, as well as operations, monitoring and maintenance on landfills and assisting with landfill reporting and compliance. She is spending the 2019 construction season in Iowa where she is providing CQA for a CCR pond closure project.

Currently, she spends quite a bit of time on the road but in her free time, Lindsey volunteers at a parrot rescue.



WRITTEN BY LINDSEY CARLSON

In the last issue of the YP Newsletter, we introduced the exciting news that solid waste professionals from both the Badger Chapter of SWANA and Associated Recyclers of Wisconsin (AROW) would join forces and conduct a riparian version of “Adopt a HWY”. The cleanup was a part of Living Lands and Waters’ (LLW) mission to clean the Mississippi River and her tributaries- the Adopt-A-River Mile program is a way people can support LLW’s mission in their own communities.

On June 8th, armed with hip waders, kayaks, trash bags and proper PPE, 8 members from our organizations, 2 of their friends, and 5 Beaver Dam residents/kayak enthusiasts joined forces to clean a one mile stretch of the Beaver Dam River, including both banks and everything visible in between!

The hip wader wearers, or “land lubbers” trudged along the banks of, and at times IN, the river to collect

anything that didn’t belong. One notable item collected from the river was a tractor tire, which when lifted from its submerged state became alive with the river worms and leaches that had found a home in it.

YUCK! (THANKS PHIL GEARING AND ADAM GORSKI FOR TAKING CARE OF THAT ONE!)

The kayakers then collected the spoils and unloaded at predetermined collection points, later to be drug up to the road and loaded into a trailer or back of a pick-up. The city Department of Public Works (DPW) building, just down the road, allowed us to separate tires and metal for recycling, with the rest going into the dumpster.

One 5x8 utility trailer, plus 2 pickup truck beds worth of garbage (or ≈8 cubic yards) was recovered and kept from reaching its imminent destination of America’s River, the grand ol’ Mississipp.

"The cleanup was a lot of fun as both a networking and social event! It brought us to a part of the state I hadn't seen before. Based on highway litter picks I've done, I was expecting more small litter and we ended up with a lot of large pieces and items, especially tires! I think everyone enjoyed getting muddy for the project. We would do it again"

Jana Suriano, Student, UWSP
2019 SWANA Scholarship Recipient

"I was astonished by not only the volume of waste recovered, but also the variety. We discovered items big and small, old and new. My most interesting items were very large sheets of foam insulation and a motorcycle helmet"

Krystal Clark, Environmental Scientist
Foth



Thank you to everyone who participated in and supported the River Clean-up. Thank you to:

KRYSTAL CLARK, PHIL GEARING, ADAM GORSKI, AMANDA HAFEELE, LILY KOSS, ABBY LICHTSCHEIDL, JANA SURIANO, LINDSEY CARLSON, AVALON AEGERTER and JASON TEWS for giving up your Saturday to take action and make a difference.

The **BEAVER DAM COMMUNITY MEMBERS** that volunteered.

A special thank you to Garbage Barge Captain **JOE SCHROEDER** for connecting us with his community and for his excellent reconnaissance and cartography skills.

MAYOR BECKY GLEWEN for supporting our adoption of the river, connecting us with the DPW team, coming out to greet us and the donuts!

DR. ROB MICHITSCH and **AUSTEN DOHERTY** of University of Wisconsin – Stevens Point for lending us hip waders from the College of Natural Resources Stockroom.

SWANA BADGER CHAPTER YP COMMITTEE for sponsoring supplies for the clean-up and the cook out

LIVING LANDS AND WATER for supplying garbage bags and the opportunity to be a part of something bigger than ourselves.

What we recovered:

- 1 tractor tire
- 7 or so regular car tires
- 1 aluminum truck topper
- 1 office chair
- 2 bicycles (1 still rideable!)
- A motorcycle helmet
- 15+ ft of culvert piping
- 10+ bags of plastic bottles, Styrofoam, and other
- miscellaneous small litter



THANK YOU

to the SWANA YPs who contributed to this issue and to the Badger Chapter Board and advertisers for the support!

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