



THE

LITTLE DIGGER

MINNESOTA ONSITE WASTEWATER ASSOCIATION

A Bi-Monthly Publication

NOWRA/MOWA Mega-Conference Special Issue 2018 - Vol. 33, Issue 5

NOWRA Mega-Conference Shines Spotlight on All Things Minnesota!

By Eric Casey, NOWRA Executive Director



Cindy Tiemann, Bobby Vaillancourt and Art Betker (shown above, left to right) were part of the group of conference attendees who took a guided tour of the U.S. Bank Stadium following the Mega-Conference Reception. For more photos of the Conference, go to Pages 4-5.

Nearly 400 people gathered in Minneapolis, MN for the 2018 Onsite Wastewater Mega-Conference. The conference was a joint effort between NOWRA, the Minnesota Onsite Wastewater Association (MOWA), the National Association of Wastewater Technicians (NAWT), and the State Onsite Regulators Association (SORA).

The expansive conference program featured six concurrent education tracks, a busy expo featuring more than 40 companies, three diverse and useful field trips, a general session offering high-level perspectives on the state of the onsite industry and its future, and several enjoyable social events. We also crowned a new Roe-D-Hoe Champion, Dean Flygare of Minnesota, and honored several industry leaders.

An early highlight of the conference was the announcement of the Dick Otis Award winner for 2018. The award, which was given to Greg Graves of Norweco, was presented by Dick Otis's son Charley and last year's winner, Tom Fritts. Graves was recognized for his long service on the NOWRA board and his many contributions to the onsite wastewater community.

The field trip offered a diverse range of topics. One was a soils and design tour focused on the importance of collecting the correct types of data during field inspections. Another visited a pair of facilities, which are reusing stormwater and wastewater, while a third visited a pair of large commercial onsite systems plus a large precast concrete plant.

In addition to tracks covering regulation, policy, management, technology and reuse, the education program offered numerous sessions on Minnesota-specific issues to ensure that MOWA-members in attendance could address their continuing education requirements. In addition, NAWT offered a robust training track

that concentrated on operation and maintenance issues. ■

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Industry Milestones—

America's Infrastructure Act of 2018 was signed into law in October with provisions that require the EPA to inform local government and non-profits seeking federal funds about the cost-effectiveness of alternative wastewater technologies, especially onsite/decentralized wastewater treatment. **MORE on Page 7.** ■

Coming Up For MOWA—

Don't forget to put the upcoming MOWA Annual Meeting on your calendar. All members are welcome. This is a great time to weigh in. You should also check out the letter submitted during the Public Comment phase of changes to Minn. Statute 7048.1000.

MORE on Page 6 and Page 10. ■

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From MOWA's Executive Director



By Pat Martyn, MOWA Executive Director

We hope you enjoyed the Fall 2018 Mega-Convention in Bloomington. It was so great to see some old friends and meet plenty of new ones, not just from around the country, but from around the world! We were very pleased with the turnout and received many compliments on the event from the attendees, exhibitors, and speakers. Throughout this Special Mega-Convention issue, you will see reporting on this event, including plenty of photos. Now, on to thanking the people who put this Convention together. A round of applause, please, for the Convention Committee that did such a good job helping to organize the 2018 Fall Mega-Convention, in addition to all their hard work on the successful 2018 Winter Convention earlier this year. Thanks also to our Membership Committee, which rolled out our new MOWA Store at the convention, chock-full of MOWA-branded merchandise, including apparel, tumblers, pens and lanyards. If you missed an opportunity to purchase any of these items at the convention, they are available year-round by contacting the MOWA office.

**And, last but not least:
Special Congratulations to
MOWA-Member, Past-President,
and Volunteer Extraordinaire
Dean Flygare for winning 1st
Place in the National Roe-d-Hoe
Competition** (shown right using
those exceptional skills)!



Now, we are moving onto planning the next MOWA Events: First up is our 2019 Annual Meeting, scheduled for February 7, 2019 at the DoubleTree by Hilton in Bloomington. Note that this is the site where the October Mega-Convention took place. We hope you can join us there for our Open Forum and to elect 2019 Board members. This is the time that your Association explains the ins and outs of what happened during the year and if you want to play a more involved role in the board decision-making process, let us know. If you're interested in running for a spot on the Board of Directors, we are always looking for a few good people to fill the post of departing Board members. There is no charge to attend the Annual Meeting, but we do ask that you RSVP to our office so that we can be sure to have enough seating and refreshments. See Page 6 for details. Our Summer Seminar Committee is also hard at work planning the 2019 Summer Seminar. Stay tuned for the Save the Date and other details to be announced soon.

Enjoy this special issue. We look forward to seeing you in Bloomington in February! ■

Calendar of Events

MOWA Events

Thursday, February 7, 2019 – MOWA Annual Meeting– DoubleTree by Hilton, Bloomington, MN (visit www.mowa-mn.com for details).

Industry Events

February 20th – 23rd, 2019 - Water & Wastewater Equipment, Treatment & Transport (WWETT) Show – Indiana Convention Center
(Visit <https://www.wettshow.com/> for details).

The is a bi-monthly publication of the Minnesota Onsite Wastewater Association

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The articles printed in the publication do not necessarily reflect the opinion of this organization. Readers are encouraged to respond to the articles with their own points-of-view. We welcome industry-related comments or articles. Information or inquiries should be sent to any of the following: MN Onsite Wastewater Association, MOWA, 5021 Vernon Ave, So., Suite 241, Edina, MN 55436 Phone: 612.801.5897 Fax: 952.487.4447 Website: www.mowa-mn.com

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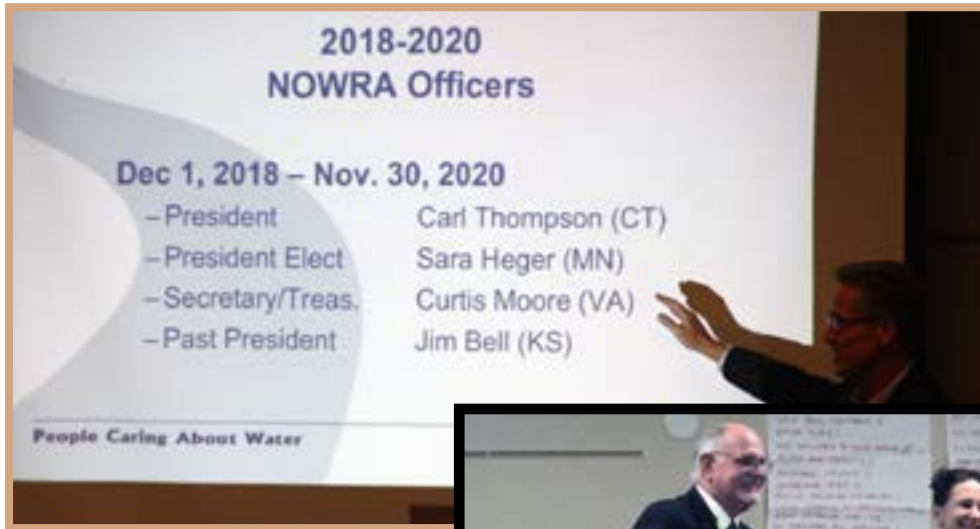
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MOWA and Minnesota Onsite Professionals continue to contribute to the industry by working at the national level.

Minnesota's Sara Heger will assume the duties of President-Elect for the 2018-2020 term on the NOWRA Board of Directors. Heger was recognized by her peers during the NOWRA Annual Meeting (shown below with NOWRA President Jim Bell).

2018 Mega-Conference Highlights...



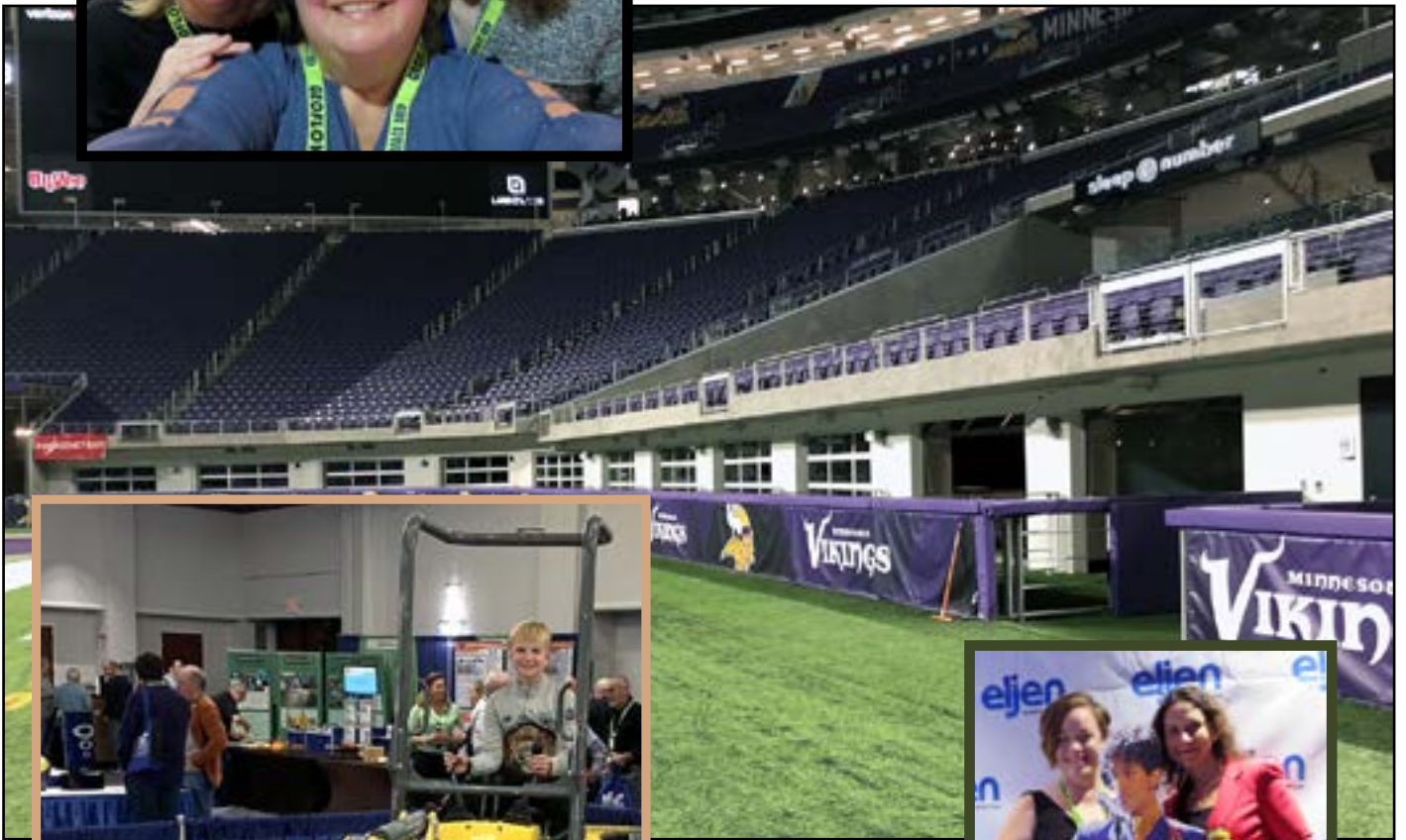
Whether in formal sessions (below) or through informal networking (MOWA members, left to right, Eric Blasing, Craig Gilbertson, Matthew Summers), the Conference provided multiple opportunities to learn.

NOWRA Vice-President Carl Thompson (shown below) facilitated a goal-setting session to improve NOWRA services. One strategy to increase effectiveness was to use online technologies to add NOWRA's affiliates to online learning modules and to develop state level online courses for practitioners.



Highlights of the Conference, as always, were camaraderie (below upper left), the Exhibitors Show (upper right) and the Evening Event, which included a tour of the Vikings' U.S. Bank Stadium (below middle) and the Roe-d-Hoe competition (below left).

A youthful future MOWA member became this year's Junior Champion. MOWA's Past-President Dean Flygare took first place honors in the 2018 Roe-D-Hoe championship competition (see the Executive Director's Report on Page 3).



And for those who wanted to commemorate the Mega-Conference by taking a photo with Minnesota's other purple celebrity, there was the opportunity to get a shot with the Prince cardboard cutout stand-up!

For more on the Mega-Conference, to to Pages 7 and 8. ■



MOWA—Annual Meeting Notice!***MARK YOUR CALENDAR!!***

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Legislative Alert! Feds Recognize Wastewater Benefits

Infrastructure Act of 2018 Signed: Includes Key NOWRA Act Provisions

On Tuesday, October 23, President Trump signed the America's Infrastructure Act of 2018, which contained key provisions of the NOWRA Act. This is a major milestone for NOWRA, as this marks the first legislation it has successfully passed.

The legislation President Trump signed contains the following provisions from the NOWRA Act:

- **Information Clearinghouse.** EPA is directed to set up a technology clearinghouse on the cost-effectiveness of alternative wastewater technologies, especially onsite/decentralized wastewater treatment.
- **Disseminate Information to Local Governments.** EPA must share information about the cost-effectiveness of onsite/decentralized wastewater treatment with local governments and non-profits seeking federal funding.
- **Report to Congress.** One year from now (and every three years thereafter), EPA must tell Congress how well it has met the first two objectives and also describe what other actions it has taken to increase deployment of onsite/decentralized treatment.

Ironically, NOWRA's Lobbying Board of Governors was in the middle of a meeting at the Onsite Wastewater Mega-Conference when the news crossed the wires that President Trump has signed the legislation. The legislation is a significant victory for the association

and the industry. NOWRA President Jim Bell said, "This is a big win for NOWRA and for our industry. Requiring EPA to develop information about the cost-effectiveness of onsite/decentralized treatment, and to share it with governments seeking federal wastewater funding will help level the playing field and enable decision-makers to better understand the benefits of our industry's technologies. There is much more we need to do for our industry, but this is a very good start."

The requirement that EPA must report back to Congress on what it's done to increase the use of onsite/decentralized technology is important also.

Tom Fritts, who serves as the chair of the Lobbying Board of Governors, noted, "This requirement will help keep the agency focused on how they can help more onsite systems to be deployed. I know that members of our Congressional Decentralized Wastewater Recycling Caucus will be interested in the results and the extent to which their efforts have produced measurable growth in use of our industry's technologies."

A presidential signature on the bill was never in doubt with Senator Ben Cardin (D-MD), the Ranking Member of the Senate's Environment and Public Works Committee, recording a video message for the 2018 Onsite Wastewater Mega-Conference before the legislation was signed. ■



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Mega-Conference Field Trip - Wieser Concrete Tour!



Wieser Concrete hosted an extensive, guided tour of its plant headquartered in Maiden Rock, WI for wastewater professionals attending the NOWRA Mega-Conference in October. The tour group, which included engineers, designers, installers, pumpers, manufacturers, and regulators, was able to see the entire 101,000 sq. ft. facility in action and the expansive product inventory. The company's history and background was provided to the group over lunch.

In addition to the plant tour, participants were bused to the new City of Afton Large Subsurface Sewage Treatment System and the St. Croix Bluffs Regional Park campground septic system site, both of which have utilized various Wieser Concrete tanks.

Wieser recently finished installing two 20,000 gallon holding tanks in Opole, MN (*shown right*). They'll receive all of the sewage and process water for their manufacturing facility. The mixed waste is not suitable for discharge to the soil, so they are contracted to the City of Avon to take it to their wastewater treatment plant.

Wieser staff said that the entire conference was a great networking experience for everyone involved. ■



MOWA—Members News!



Johnson joins Infiltrator Water Technology as new sales rep

Infiltrator Water Technology is excited to announce the addition of Travis Johnson (left), formerly with Septic Check in Milaca, MN. He will assume the sales representative position in the Minnesota, North and South Dakota territory. His

experience installing, designing, consulting and ambassadorship for our industry makes him uniquely qualified to take over this position. Travis will also continue his role on the MOWA Board.

Travis will be replacing Jeff Iverson (below), a veteran of over 23 years in the industry with Infiltrator Water Technology. Jeff will be retiring on January 18, and is looking forward to spending more time with his wife, Sue, traveling, hunting, fishing and consulting for IWT. He will also be starting a fish guiding business chasing walleyes and muskies primarily on Mille Lacs where he now lives. In Jeff's career with IWT, he helped establish Infiltrator's product line in our area and gained approvals for them with government agencies. He's worked in many of the Midwest states where he demoed, consulted and trained many of the designers and installers that use IWT products today. ■



What do sales reps do when they retire? Become fishing guides. That's one big muskie, Jeff Iverson! Must have been an amazing fight!

Patriot Awards go to Wieser Concrete in recognition of support for Reserve and Guard employees



Recipients of Patriot Awards at Wieser Concrete are (l. to r.) Andy Wieser, Dan Wieser, Tom Grober, and Andy Winkler. Damion Kosmosky (second from right) nominated them for the award, which recognizes their work to support Reservists and Guard members.

If you haven't heard of the ESGR (Employer Support of the Guard and Reserve), a Department of Defense program that was established in 1972, then you may want to learn about it!

The ESGR promotes cooperation and understanding between Reserve Component Service members and their civilian employers and assists in the resolution of conflicts arising from an employee's military commitment. This organization supports the implementation of the Uniformed Services Employment and Reemployment Rights Act of 1994 (USERRA), a federal law that establishes rights and responsibilities for uniformed service members and their civilian employers. The small ESGR staff is supported by a network of more than 3,750 volunteers in 54 committees located across all 50 states, the District of Columbia, Guam-CNMI (Commonwealth of the Northern Mariana Islands), Puerto Rico, and the U.S. Virgin Islands.

The Patriot Award is a ESGR honor given to recognize the sacrifices made by so many employers year after year in their support of employees who serve in the military. It is awarded to individual supervisors rather than entire companies and recognizes not only the adjustments employers make due to the difficulties that can arise in scheduling, but also the important support they provide military members following their service. Employer support enhances retention rates in the Armed Forces and strengthens national security.

Damion Kosmosky, former safety manager and drilling reservist, contacted the State of Wisconsin's ESGR Office and requested that Andy Wieser, Andy Winkler, Dan Wieser and Tom Gruber be considered for the award because of their active roles in hiring employees for the company.

According to Kosmosky, one of the biggest challenges for employers comes when the military member is no longer serving, since that is when the most support is needed by everyone. Wieser Concrete's has 11 active duty and retired service members in its work force. Kudos to Wieser for standing by those who serve. ■



December 11, 2018

(VIA EMAIL: carol.nankivel@state.mn.us)

Ms. Carol Nankivel

Minnesota Pollution Control Agency

520 Lafayette Road North, St. Paul, Minnesota, 55155-4194

Re: Public Comment Regarding Planned Amendment to Minn.R.pt 7048.1000

Dear Ms. Nankivel,

We are writing to you today on behalf of the Minnesota Onsite Wastewater Association (MOWA) board and membership. We are in support of the MPCA's planned rule Amendment related to decreasing the required number of continuing education hours from 9 to 6 for Type IV wastewater operators.

MOWA strives to ensure professionalism in the wastewater industry through education, networking, publications and local & national legislative advocacy. While we strongly promote knowledge and education in all areas of our industry, we also support our members when they voice concern related to the need for a balance between what is truly needed and what is redundant in terms of required education. Having reviewed the requirements and job duties of Type IV operators, we believe the MPCA to be correct regarding their proposal to decrease the number of required continuing education hours. We have no doubt the MPCA will be able to provide adequate training for this certification within the proposed 6 hour time frame.

We appreciate the MPCA's continued efforts in hearing the needs of our industry. We look forward to any questions or concerns regarding our comments.

Sincerely,

A handwritten signature in blue ink that reads "Pat Martyn".

Pat Martyn
Executive Director

A handwritten signature in blue ink that reads "Andy Winkler".

Andy Winkler
President



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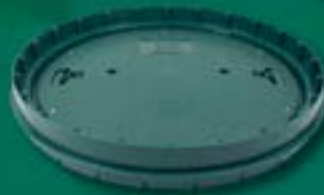
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2018 Tony Ruppert Scholarship Winning Essay

Nitrate Concentration in Minnesota Water Bodies

by Alec Nilson of Maple Grove, MN, 1st Place Essay



Known as the Land of 10,000 Lakes, one might make the assumption that water health is an essential issue in Minnesota. Relied on for recreation, commerce, and tourism, lakes and other water bodies are an integral part of the Minnesotan lifestyle. Thus, it becomes important to preserve this valuable natural resource. However, we also live in the post Industrial Revolution era, where air and water pollution are natural byproducts of industry and travel. To preserve our Earth so future generations may enjoy the same environmental luxuries that we do, we must limit our ecological footprint, in part by drastically reducing pollution.

One specific example of pollution in our water is the prominence of nitrates – salts including the polyatomic ion NO_3^- . While nitrates occur naturally about as frequently as 0-3 mg of nitrate per liter of water (mg/L), there are many places where human actions have caused the amount of nitrate to be significantly higher. While little over 90% of Minnesota households have nitrate amounts of 0-3 mg/L in their drinking water, there are some places where this is not the case. Nitrate levels are highest in southern Minnesota, where the rivers bring it downstream. As a result, about 6% of Minnesota households have 3-5 mg/L and 2% have 5-10 mg/L of nitrates in their water. While no households tested violate the U.S. Environmental Protection Agency's (EPA) maximum standard of 10 mg/L, there are still potential health risks involved with levels of nitrates as low as 3 mg/L ("Nitrate in Community Water").

These high levels of nitrates can have some minor symptoms and some more significant symptoms too. Nitrates in the bloodstream can have effects on how oxygen is carried in the blood, and as a result, consumption of nitrates can cause headaches, cramps, and vomiting. Additionally, it can cause another, much more serious symptom called methemoglobinemia. This can cause serious illness or potentially death. Also known as blue baby syndrome, babies are much more vulnerable to it ("Nitrate in Drinking Water"). Beyond pollution of human drinking water, high levels of nitrates can also have other effects on the ecosystem. It can negatively impact aquatic wildlife, too. In Minnesota, where fishing is a valuable commercial and recreational activity, the impacts on fish in our lakes are also impacts on the humans living here (Steil 2018). The final major nitrates can have on the environment involves

Minnesota's pivotal location. The Mississippi River runs through most of the state, then south from Minnesota, until it finally empties into the Gulf of Mexico. Currently, the Gulf of Mexico (around the area where the Mississippi empties into it) is experiencing a condition called hypoxia. This occurs when oxygen levels become inadequate and is caused largely by nutrient deposits in the Mississippi that then drain into the Gulf. One such nutrient is nitrogen, provided by nitrate ("Nutrient Reduction Strategy" 2018). As we can see, significant amounts of nitrates in our water has resounding consequences in places beyond just Minnesota.

While it is now clear that the contamination of Minnesota water by nitrates has undeniable negative effects on the environment and the humans living in it, to solve the problem, one must understand the causes. While nitrates do occur naturally, the significant amount of pollution caused by them is due mostly to human actions. Nitrates are used very commonly in fertilizer for agriculture. In fact, over 70% of nitrates in the water originate from fertilizers used on croplands. When the plants receive water, the nitrates wash away with the water into streams, rivers, and lakes (Wall 2017). Other unnatural sources of nitrates include wastewater treatment plants, septic systems, and urban drainage ("Nitrate in Community Water").

If we choose to address the problem after it is created by filtering and cleaning the water, any nitrate-infused water that runs through drainage pipes is much easier to handle than the natural water runoff. This would be an expensive process that includes running the water to water treatment plants, but this is certainly manageable. However, the natural runoff becomes nearly impossible to address, because even though the soil does filter out some of these nitrates, it doesn't filter all of them out, and the water can't be collected for further artificial treatment, as it could be if the water ran through drainage pipes (Wall 2017). Because of the logistical and financial issues of treating the water post-pollution, in March of this year, Governor Mark Dayton outlined a plan to encourage and potentially mandate farmers to reduce the amount of nitrates they are releasing into the environment through fertilizer. The plan will completely be in place by December

Ruppert 1st Place Essay - Nilson, Continued on Page 13

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Ruppert 1st Place Essay - Nilson, Continued from Page 12

of this year, and it will include encouragement for farmers to drastically reduce their nitrate output. If this fails, the farmer would be mandated to reduce their nitrate output through specifically defined steps (Steil 2018).

One method farmers could use to decrease nitrate runoff is an obvious solution: reduce the amount of fertilizer they use. This would very easily reduce the amount of nitrates, and a somewhat small reduction also would not have a major impact on crop output (Steil 2018). Another process of reduction includes increasing plant diversity and planting cover crops. Cover crops would primarily be used to prevent as much runoff as possible and to soak up any extra fertilizer before it permeates deep into the ground (Wall 2017). Another solution farmers could use would be to lay down their fertilizer in the beginning of the spring. Currently, most farmers lay their fertilizer down in the end of the fall, because with Minnesota's long winters, there is often not time to do it before the planting deadlines in spring. However, this allows much of the fertilizer to runoff when the snow melts, greatly increasing the nitrates in our water sources. If farmers could lay down the fertilizer in the beginning of spring instead, they would avoid this post-winter runoff problem (Steil 2018). Finally, farmers could be required to install tile drainage pipes to reduce the amount of natural runoff. As mentioned earlier, this would allow the water to be piped to a treatment facility, where nitrates could be removed from the water. This solution might be the most thorough, but it is also by far the most expensive. It may not even be realistic, because it would require all farmers to install these drainage pipes throughout much

of their fields, and it would also require many more treatment facilities to be built throughout the state (Wall 2017).

The ideal solution to the problem of nitrate pollutants in water would be a combination of a reduction in fertilizer use, increase in plant diversity, and change in the fertilization date. These are also the solutions that Dayton's plan will hopefully address and implement. There is no doubt that nitrates have become a crucial and urgent concern for the health of our state's water and for water further south. Luckily, it is also a problem that is manageable in time, so long as government institutions, private organizations, and commercial farmers find a way to work together to solve the problem.

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Homeowner Education—The Way to Reduce Emergencies

By Grace Johnson of Pelican Rapids, MN, 2nd Place Essay

I live in Northwestern Minnesota lakes country with a large population of seasonal secondary homeowners (cabin owners) and retirees who leave for months during the winter (snow-birds). All of which rely on septic systems. Whether cabin owner or snow-bird, it is very common for either to be gone for weeks to many months during the cold winter. The emergency arises when they come for a weekend after being gone for a time or when the snow-bird returns from warmer climates in March or April. They come home and start using water, if they are the sporadic visitor to the cabin, they may even leave after one (or two) weekends without any trouble, but on the following visit, here it comes the dreaded sewage backup. Or the snow-bird who comes home, starts opening up the house from the long winter, washing clothes and cleaning, and they too are not immune to a sewage backup.

So, what happened? The septic system froze.

And while this can happen to anyone on a septic system, for the demographics in this area, it's more common to see frozen systems when homeowners have been away for a while.

There are many causes to septic systems freezing; lack of snow, colder than normal temperatures, driving on tank/drainfield area, and lack of grass or plants on primarily newer, late fall installations

are some examples of not enough insulation on the system. Another common cause is a gas furnace condensation drip or leaky faucets. To compound the problem, when you add in irregular or no use of the system for extended periods of time, there is no regular use of hot or warm water keeping the tank contents from freezing.

So, now the homeowner has an alarm sounding or worse yet, sewage is backing up into the house and they have a full-blown emergency! And they call my dad and he come out to thaw the line, tank or both. To add to this already immediate emergency, if the homeowner did not mark the tank accesses in the fall, the snow has made finding the manholes nearly impossible. And now the emergency gets even more expensive with snow removal, locating the tank, maybe more snow removal, and pick-axing the ground when the manhole is not to the surface.

What's the most frustrating part to all of this? It could ALL be prevented with some homeowner education!

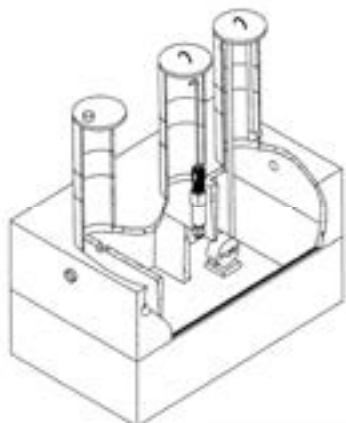
Many septic system owners do not have the desire nor take the time to educate themselves; as long as the toilet flushes and the water drains, most people believe that their septic system is

Ruppert 2nd Place Essay - Johnson, Continued on Page 15

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Ruppert 2nd Place Essay - Johnson, Continued from Page 14

working fine. On top of that, there are many misconceptions and myths about septic systems, from idea that bacteria in the tank creates the heat needed to keep the tank warm in the winter to the belief that it's not necessary to ever pump the tank until it gives you trouble, it's no wonder homeowners don't know some basic knowledge regarding their septic system.

So, if the septic system owner doesn't take the responsibility to learn about their septic system, whose responsibility is it? It falls on the septic provider, U of M extension, MOWA, and MPCA.

While there are a lot of resources out there, especially on the internet, if homeowners are not interested in educating themselves about their septic systems, it is the responsibility of the industry professional to put that information in their hands. And maybe it's time to educate realtors and general contractors and give them resource documentation to pass to new septic system owners.

And the industry is making progress, such as the U of M offering free septic system/private well homeowner classes (SSTS Bulletin May 2018). Additionally, MPCA is issuing press releases that are appearing in publications such as my local newspaper. More specifically, the Pelican Rapids Press published an MPCA press release about preventing septic system freeze ups. (Brosowske, 2018)

And while I started my paper on freezing septic systems, that was just one example of how educating septic system owners in the beginning could help eliminate or at least greatly reduce septic emergencies.

Education should begin when a person becomes the new owner of a septic system. Furthermore, every time an industry provider services a system it's another opportunity to offer information to the homeowner about that system, how to care for it, and reduce the chances of emergency situations. And when an emergency happens, like when a septic system freezes, the time to educate is then too. Servicing customers goes beyond just the service provided but giving them the tools to be better septic system owners.

So how **can** a homeowner prevent septic systems freeze-ups?

Insulate the tank and drainfield area by allowing grass to grow longer, rake leaves or spread straw a foot deep over the area.

Use snow fence to allow the snow to pile on top of the system, but AFTER you've marked the accesses with reflector fence posts.

Don't drive on any part of the system, this only drives the frost deeper.

Fix leaking plumbing, this can overload a drainfield and cause it to freeze or cause ice to form in the sewer line to the tank.



If you leave for an extended period of time, consider getting the tank emptied before you leave. Or have a neighbor come to the house daily to run a HOT cycle on the dishwasher or washing machine.

If you have a gas/propane furnace make sure a condensate pump has been installed to collect and dump the condensation, if not the drip can cause ice to form in the sewer line to the tank. (The Little Digger, October/November 2014)

References

Brosowske, S, 2018. *Don't let septic system freeze, Little snow means potential problems for septic systems*. Pelican Rapids Press. January 24, 2018, p. 7

Consumer Education: Winterize your septic system, 5 Tips to Get Your Septic System Ready for Winter. The Little Digger. October/November 2014, p. 16

Minnesota Pollution Control Agency, 2018. *U of M offering free septic system/private well homeowner classes*. MPCA SSTS Bulletin. May 18, 2018. <https://content.govdelivery.com/accounts/MNPCA/bulletins/1f017be>

University of Minnesota Onsite Sewage Treatment Program, 2018. *Freezing Problems and Septic Systems*. <https://septic.umn.edu/septic-system-owners/maintenance/freezing-problems> ■



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2019 OSTP Certification Course Descriptions and Offerings

Introduction to Onsite Systems (15 Credits)

Fee: \$370

Exam: Yes

This 15-hour workshop is the foundation for all SSTS certification courses and is best completed prior to the other workshops. It prepares participants for the Basic exam and provides an overview of onsite treatment options and concepts. Enrollment in this workshop includes a copy of the Manual for SSTS Professionals in Minnesota.

Topics include:

- Treatment of wastewater
- Wastewater characteristics
- Site evaluation
- Soil treatment systems

10-1	Brainerd - The Woods Event Center	2/4-6/19	Deadline: 1/28/19
10-2	New Ulm - Turner Hall	2/25-27/19	Deadline: 2/18/19
10-3	Cloquet Forestry Center	4/22-24/19	Deadline: 4/15/19
10-4	St. Cloud - Moose Lodge	11/11-13/19	Deadline: 11/4/19

Installing Onsite Systems (12 Credits)

Fee: \$275

Exam: Yes

This 12-hour workshop prepares attendees for the Installer exam and provides information about proper installation practices.

PREREQUISITE: Introduction to Onsite Systems

Topics include:

- Construction planning
- Construction practices
- Tools for installing
- Pipelayer certification

112-1	Brainerd - The Woods Event Center	2/7-8/19	Deadline: 1/31/19
112-2	New Ulm - Turner Hall	2/28-3/1/19	Deadline: 2/21/19
112-3	Cloquet Forestry Center	4/25-26/19	Deadline: 4/18/19
112-4	St. Cloud - Moose Lodge	11/14-15/19	Deadline: 11/7/19

Basic Design of Onsite Systems (24 Credits)

Course begins at 1:00 pm Fee: \$465 Exam: Yes

This 24-hour workshop teaches attendees to properly design various septic systems in preparation for the Basic Designer exam. Enrollees must have the current manual to use during the workshop. Onsite Manuals are available for \$50.

PREREQUISITE: Introduction to Onsite Systems

Topics include:

- Flow determination
- System design
- Tank design
- Pumps and pressure design

20-1	Alexandria - Douglas County Public Works Building	2/11-15/19	Deadline: 2/4/19
20-2	Cloquet Forestry Center	4/29-5/3/19	Deadline: 4/22/19
20-3	New Ulm - Turner Hall	12/9-13/19	Deadline: 12/2/19

Soils (15 Credits)

Fee: \$320 or \$490 with Munsell Color Guide

Exam: Yes

This 15-hour workshop prepares attendees for the Soils exam and provides participants with a detailed understanding of how particular soils affect the treatment of sewage. Participants will receive instruction at a field location. Munsell Color Guides are available for \$165 and Sand Cards for \$10. This class does NOT meet the 6-hour soils continuing education requirement for all Designer and Inspector categories.

PREREQUISITE: Introduction to Onsite Systems

Topics include:

- Percolation testing
- Field evaluations
- Soil characteristics
- Soil survey use

515-1	New Ulm - Turner Hall	5/22-24/19	Deadline: 5/15/19
515-2	Cloquet Forestry Center	6/18-20/19	Deadline: 6/11/19
515-3	Alexandria - Douglas County Public Works Building	9/18-20/19	Deadline: 9/11/19

Inspecting Onsite Systems (15 Credits)

Course begins at 1:00 pm Fee: \$20

Exam: Yes

This 15-hour workshop identifies Minnesota requirements for existing and new system inspections and prepares participants for the Inspector exam.

PREREQUISITE: Introduction to Onsite Systems.

Topics include:

- Administrative requirements
- Existing system inspection
- New system inspection
- Tools and procedures

30-1	Alexandria - Douglas County Public Works Building	6/4-6/19	Deadline: 5/28/19
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Maintaining Onsite Systems (15 Credits)

Fee: \$320

Exam: Yes

This 15-hour workshop gives participants an overview of system management, the federal requirements for land application of septage, and prepares people for the Maintainer exam.

PREREQUISITE: Introduction to Onsite Systems

Topics include:

- Land application rates
- Maintaining Type I SSTS
- Record keeping
- Soil survey use

415-1	New Ulm - Turner Hall	4/17-19/19	Deadline: 4/10/19
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Intermediate Design & Inspection of Onsite Systems (24 Credits)

Course begins at 1:00pm

Fee: \$465

Exam: Yes

This 24-hour course prepares individuals for the Intermediate Design and Inspection exam. Intermediate Designers can design Type I - IV systems for domestic strength wastewater up to 2,500 gpd. Intermediate Inspectors can review these designs, inspect these systems, and administer on-going compliance with their operating permits. Enrollment in this workshop includes copies of the MPCA Design Guidance.

PREREQUISITE: Full Certification as a Basic Designer or Inspector; Repeating the OSTP Basic Design course is highly recommended and can be counted as continuing education.

Topics include:

- ATUs
- Flow equalization
- Media filter applications
- Soil treatment design reductions

27-1	Alexandria - Douglas County Public Works Building	4/1-5/19	Deadline: 3/25/19
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Advanced Design & Inspection of Onsite Systems (21 Credits)

Fee: \$450

Exam: Yes

This 21-hour course includes a field portion and focuses on the design and inspection of Type IV systems with flows greater than 2500 gpd. This course explores high strength waste, site assessment techniques, and prepares attendee for the Advanced Design exam.

PREREQUISITE: Full Certification as a Basic Designer or Inspector and successful completion of Intermediate exam.

Topics include:

- Collection system design
- Groundwater mounding
- Nitrogen & phosphorus removal
- High strength waste

29-1	Alexandria - Douglas County Public Works Building	5/7-10/19	Deadline: 4/30/19
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Enroll online: septic.umn.edu

2019 OSTP Certification Course Descriptions and Offerings

Service Provider (21 Credits) Certification Course

Fee: \$495 Exam: Yes

This 21-hour workshop prepares attendees for the Service Provider exam and offers an in-depth look into the care of all system types. This course is based on the National O&M Service Provider materials and will include a field component. It is intended for system maintainers, designers or MPCA certified operators who need training for soil-based system management.

PREREQUISITE: Introduction to Onsite Systems

Topics include the management of:

- Type I O&M
- Type IV O&M
- Collection system O&M
- System troubleshooting

49-1 Mankato - AmeriLinn 5/28-31/19 Deadline: 5/21/19

Installer Continuing Education (12 Credits)

Fee: \$275 Exam: No

This 12-hour workshop will meet the continuing education requirements for any certification but is specifically tailored for Installers. All information will be provided from the perspective of a system installer.

Topics Include:

- Construction safety
- Keys to proper installation
- Pumps and dosing
- Rule change implications

69-1 St. Cloud - Moose Lodge 1/14-15/19 Deadline: 1/7/19
69-2 New Ulm - Turner Hall 3/18-19/19 Deadline: 3/11/19
69-3 Detroit Lakes - Holiday Inn 11/19-20/19 Deadline: 11/12/19

General Continuing Education (12 Credits)

Fee: \$275 Exam: No

This 12-hour workshop is designed to meet the continuing education requirement for SSTS professional registration. The topics will be varied to give a wide range of information for SSTS professionals.

Topics include:

- Rule change implications
- Pressure distribution
- Working on difficult sites
- MPCA update

60-1 New Ulm - Turner Hall 1/3-4/19 Deadline: 12/27/18
60-2 Bemidji - Hampton Inn 3/5-6/19 Deadline: 2/26/19
60-3 Little Falls - Initiative Fdn 11/6-7/19 Deadline: 10/30/19
60-4 St. Cloud - Moose Lodge 12/17-18/19 Deadline: 12/10/19

Maintainer Continuing Education (12 Credits)

Fee: \$275 Exam: No

This 12-hour workshop is specifically designed as continuing education for those involved in maintaining septic systems.

Topics include:

- 503 regulations
- Troubleshooting
- System care
- Other establishments

46-1 New Ulm - Turner Hall 1/24-25/19 Deadline: 1/17/19

Design/Inspector Continuing Education (12 Credits)

Fee: \$275 Exam: No

This 12-hour workshop is designed to meet the continuing education requirement of SSTS professional holding a designer and/or inspector certification. The course will focus on design and inspection issues.

Topics include:

- Rule/policy updates
- Commercial systems
- How to add capacity
- Challenging inspections
- System design with new forms

82-1 St. Cloud - Moose Lodge 4/15-16/19 Deadline: 4/8/19



SSTS Design Forms Training Continuing Education

(4 Credits) Fee: \$105 Exam: No

This 4-hour workshop will review and use the current design forms for completing and submitting a new system design. This allows for people with limited experience to get hands-on practice with design forms. This workshop will be in a computer lab and has limited enrollment.

Topics include:

- Design forms
- Management plans
- Preliminary and field evaluation forms

21-1 Chaska - Carver County Courthouse 2/19/19 Deadline: 2/12/19
21-2 Cloquet Forestry Center 3/21/19 Deadline: 3/14/19

Soils Continuing Education (6 Soils-Specific Credits)

Fee: \$245 or \$415 with Munsell Color Guide Exam: No

This 6-hour course couples classroom and field training to meet the soils-specific MPCA continuing education requirement for designers and inspectors. Munsell Color Guides are available for \$165 and Sand Cards for \$10.

Topics include:

- Regional geology and soils
- Local soil hydrology information
- Soils observations
- System siting and design

55-1 Alexandria - Douglas County Public Works Building 5/20/19 Deadline: 5/13/19
55-2 Fairmont - Holiday Inn 6/11/19 Deadline: 6/4/19
55-3 Pipestone - Pipestone Country Club 7/17/19 Deadline: 7/10/19
55-4 Pelican Rapids - Dunn Township Town Hall 8/13/19 Deadline: 8/6/19
55-5 Center City - Chisago County Government Center 8/22/19 Deadline: 8/15/19
55-6 Little Falls - Initiative Fdn 9/10/19 Deadline: 9/3/19
55-7 Red Wing - Goodhue County Law Enforcement Center 10/2/19 Deadline: 9/25/19

Design Field Day Continuing Education

(6 Credits) Fee: \$155 Exam: No

This 6-hour workshop combines a classroom and field component to discuss the process of design. The course will review the requirements for designing a system and the required aspects to be submitted to the LGU. The field portion will be an evaluation of the soil characteristics and completion of the design report.

Topics include:

- Required design steps
- System loading
- Working with elevations
- Soil applications and concerns

63-1 Pelican Rapids - Dunn Township Town Hall 8/14/19 Deadline: 8/7/19

Onsite Sewage Treatment Program 2019 Certification Classes and Continuing Education

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INTRODUCTION TO ONSITE SYSTEMS \$370 *Includes manual*

- ☐ 10-1 Brainerd 2/4-2/6/2019 Deadline: 1/28/2019
- ☐ 10-2 New Ulm 2/25-2/27/2019 Deadline: 2/18/2019
- ☐ 10-3 Cloquet 4/22-4/24/2019 Deadline: 4/15/2019
- ☐ 10-4 St. Cloud 11/11-11/13/2019 Deadline: 11/4/2019

INSTALLING ONSITE SYSTEMS \$275 * Manual included w/Intro*

- ☐ 112-1 Brainerd 2/7-2/8/2019 Deadline: 1/31/2019
- ☐ 112-2 New Ulm 2/28-3/1/2019 Deadline: 2/21/2019
- ☐ 112-3 Cloquet 4/25-4/26/2019 Deadline: 4/18/2019
- ☐ 112-4 St. Cloud 11/14-11/15/2019 Deadline: 11/7/2019

BASIC DESIGN OF ONSITE SYSTEMS \$465 1:00 PM START

- ☐ 20-1 Alexandria 2/11-2/15/2019 Deadline: 2/4/2019
- ☐ 20-2 Cloquet 4/29-5/3/2019 Deadline: 4/22/2019
- ☐ 20-3 New Ulm 12/9-12/13/2019 Deadline: 12/2/2019

SOILS \$320/\$490 with Munsell Color Guide

- ☐ 515-1 New Ulm 5/22-5/24/2019 Deadline: 5/15/2019
- ☐ 515-2 Cloquet 6/18-6/20/2019 Deadline: 6/11/2019
- ☐ 515-3 Alexandria 9/18-9/20/2019 Deadline: 9/11/2019

INSPECTING ONSITE SYSTEMS \$290 1:00 PM START

- ☐ 30-1 Alexandria 6/4-6/6/2019 Deadline: 5/28/2019

MAINTAINING ONSITE SYSTEMS \$320 * Manual included w/Intro*

- ☐ 415-1 New Ulm 4/17-4/19/2019 Deadline: 4/10/2019

INTERMEDIATE DESIGN AND INSPECTION \$465 1:00 PM START

- ☐ 27-1 Alexandria 4/1-4/5/2019 Deadline: 3/25/2019

ADVANCED DESIGN AND INSPECTION \$465

- ☐ 29-1 Alexandria 5/7-5/10/2019 Deadline: 4/30/2019

SERVICE PROVIDER \$495 (includes CIDWT O/M Manual)

- ☐ 49-1 Mankato 5/28-5/31/2019 Deadline: 5/21/2019

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- ☐ 69-2 New Ulm 3/18-3/19/2019 Deadline: 3/11/2019
- ☐ 69-3 Detroit Lakes 11/19-11/20/2019 Deadline: 11/12/2019

GENERAL CE \$275

- ☐ 60-1 New Ulm 1/ 3- 1/4/2019 Deadline: 12/27/2018
- ☐ 60-2 Bemidji 3/ 5- 3/6/2019 Deadline: 2/26/2019
- ☐ 60-3 Little Falls 11/ 6-11/7/2019 Deadline: 10/30/2019
- ☐ 60-4 St. Cloud 12/17-12/18/2019 Deadline: 12/10/2019

MAINTAINER CE \$275

- ☐ 46-1 New Ulm 1/24-1/25/2019 Deadline: 1/17/2019

DESIGN CE/INSPECTOR CE \$275

- ☐ 82-1 St. Cloud 4/15-4/16/2019 Deadline: 4/ 8/2019

SSTS DESIGN FORMS TRAINING CE \$105

- ☐ 21-1 Chaska 2/19/2019 Deadline: 2/12/2019
- ☐ 21-2 Cloquet 3/21/2019 Deadline: 3/14/2019

SOILS CE \$245/\$415 with Munsell Color Guide

- ☐ 55-1 Alexandria 5/20/2019 Deadline: 5/13/2019
- ☐ 55-2 Fairmont 6/11/2019 Deadline: 6/ 4/2019
- ☐ 55-3 Pipestone 7/17/2019 Deadline: 7/10/2019
- ☐ 55-4 Pelican Rapids 8/13/2019 Deadline: 8/ 6/2019
- ☐ 55-5 Center City 8/22/2019 Deadline: 8/15/2019
- ☐ 55-6 Little Falls 9/10/2019 Deadline: 9/ 3/2019
- ☐ 55-7 Red Wing 10/ 2/2019 Deadline: 9/25/2019

DESIGN FIELD DAY CE \$155

- ☐ 46-1 Pelican Rapids 8/14/2019 Deadline: 8/ 7/2019

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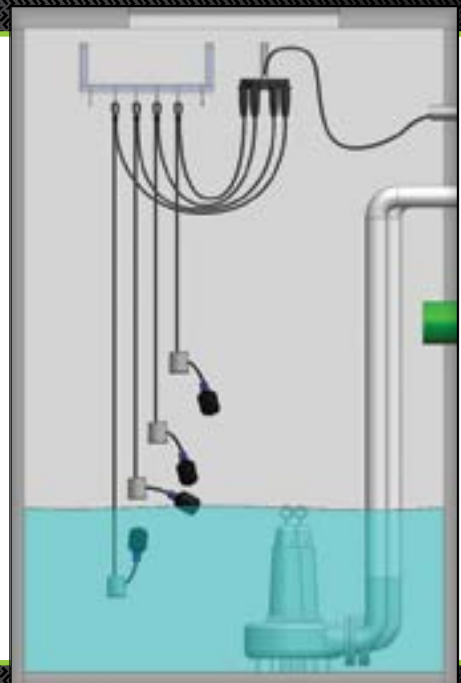
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