



THE LITTLE

MOWA
onsite wastewater association

DIGGER

June / July 2016 - Vol. 31, Issue 3

A bi-monthly publication

MPCA, MOWA working to extend flexibility in determining need for SDS permit to all Other Establishments

(not just campgrounds/resorts); tank inspection rule change also near

By the MPCA

In 2015 a legislative initiative was proposed by Hospitality Minnesota regarding when a State Disposal System (SDS) permit is necessary for seasonal resorts and campgrounds. In the past, this determination was required to be the higher of estimated flow or measured flow of the SSTS serving the location.

Legislation was passed and signed into law that created a means for using measured flows in determining if the 10,000 gpd threshold for an SDS permit has been exceeded, even if these calculations are below estimated flows.

Calculated estimated flows can also still be used to make the determination of whether or not an SDS permit is required for a facility. This choice and flexibility is now in place for a limited number of resorts/campgrounds.

The MN Hospitality Initiative is being further

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advanced by the Minnesota Onsite Wastewater Association (MOWA) which has, along with county representatives on the SSTS Advisory Committee, been working with the MPCA to amend the SSTS rules to extend this same flexibility in determining the need for an SDS permit to all Other Establishments as defined in the rules.

“The proposed rule change applies only to existing systems and only for determining if an SDS permit is required,” says the MPCA’s Brandon Montgomery. “This has nothing to do with system design.”

MOWA and the MPCA are still working on finalizing language in the rules to accomplish this goal.

The second proposed rule change requires pumping septic tanks prior to inspection (in most cases)

The MPCA has also been working with stakeholder groups on changing language in the SSTS rules to require that a septic tank be pumped dry prior to

SDS Flexibility, Continued on Page 8

Summer Soils Seminar Recap - Page 6



Safety Training - Friday, September 30th in St. Cloud - Open To All!

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From MOWA's Executive Director

By Pat Martyn, MOWA Executive Director

Thank you to James Brothers Construction

James Brothers Construction in Elysian hosted the 2016 Summer Seminar in late June. Many, many thanks to Wayne and Teri James for hosting such a successful event. Many thanks, also, to our sponsors: Fiedlers, Infiltrator, Overland Insurance, Pipeline Supply, and Wexco Environmental. And also thanks to MOWA volunteers Bernie Miller, Eric Blasing, Dean Flygare, Pete Otterness, and Cindy Tiemann for putting on such a great event. We had good attendance at both tracks, and everyone went home with a commemorative t-shirt. All in all, the day was a great success.

Low-Cost Safety Training in St. Cloud on Friday, Sept. 30th!

MOWA, in association with the University of Minnesota OSTP, is pleased to announce a Septic Industry Specific Safety Training Friday, September 30th, 2016 in St. Cloud. This all-day event (8.0 CEUs applied for) is oriented to Service Providers/Operators, Inspectors, Designers, Maintainers, Installers and Regulatory staff working in and around sewage and wastewater treatment systems. The program is open to all interested parties for a fee of \$30.00. See pages 4 and 5 of this issue for details and registration.

Annual Tony Ruppert Scholarship - Apply Now

Each year, MOWA gives away up to \$5,000 in scholarship money to MOWA members, or a child, sibling, grandchild, or niece/nephew of a MOWA member. These funds are raised at the auction held at our Convention each winter and are available to high school graduates (as of June 2016) who will be enrolled as a full-time student in post-secondary undergraduate education during the 2016- 2017 school year. If you or someone in your family qualifies, we strongly encourage you to submit your application and essay by the August 15 deadline. Please see page 17 of this issue for details.

Annual MOWA Convention is being held in Duluth, January 30 - 31, 2017

We are back in Duluth for the 2017 Convention! The Convention location is in the heart of Duluth at the Duluth Entertainment Convention Center. This year, we will be staying at a brand new resort, Pier B, a short walk from Canal Park. Many of you will be glad to know that Pier B will be offering free shuttle service to/from the DECC and Canal Park from 7:00 am to 11:00 pm. The resort also features a restaurant, indoor pool, and free parking and wifi. Check it out at: <http://www.pierbresort.com/>

Also new this year: in response to your feedback, we are pleased to announce a two-day convention. You will still have the same opportunities to network with your colleagues, attend the trade show, and attend classes for your CEUs, as well as our annual meeting and fun evening social events. Details of the show will be on our website in the near future. But please mark your calendars.

The Convention Committee is already hard at work on this event, but is always looking for more volunteers. If you are interested in volunteering on any MOWA committee, please let the office know and we will get you set up.

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

Editor: Carla Tourin E-mail: MOWAcarla@aol.com

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, 5200 Willson Road, Suite 310, Edina, MN 55424 Phone: (952) 345-1141 Toll Free: 888-810-4178 Website: www.mowa-mn.com

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**Minnesota Onsite Wastewater Association (MOWA),
in association with the University of Minnesota OSTP,
is pleased to announce**

Septic Industry Specific Safety Training
Friday, September 30th, 2016
8:00 am – 5:00 pm
(Registration starts at 7:30 am)

◆ **St. Cloud MnDOT Headquarters** ◆
3725 – 12th Street, No. (Lower Level) ◆ St. Cloud, MN 56303
<http://www.dot.state.mn.us/d3/graphics2/tostcoffice-www.pdf>

The class is oriented to Service Providers/Operators, Inspectors, Designers, Maintainers, Installers and Regulatory staff working in and around sewage and wastewater treatment systems.

Construction Focus Four Training - 6 hour program

This program is a septic system industry specific training that is intended to raise worker awareness of the OSHA Construction Focus Four hazards in the Onsite Industry. The course also helps workers and employers develop and use root-cause analysis tools to identify and mitigate exposures to workers in the Focus Four categories:

- Opening session: 1.5 hours
- Falls – 1.5 Hours
- “Caught in” or “Between” – 1.0 Hours
- Struck-By – 1.0 Hours
- Electrocution – 1.0 Hours

**Hazard Assessment, Mitigation and Training for Workers Exposed to Residential Sewage –
2 hour program (Pathogens)**

This 2 hour program is designed to raise awareness to safe work practices, evaluation and selection of personal protective equipment and key exposures to industry workers and owners that have frequent exposure to untreated raw human waste in their workplace.

Speaker Biography: John Thomas has served as the Executive Director for the Washington Onsite Sewage Association for the last 15 years. He manages the NWOTC training center and the WOSSA online distance learning center that provides education to over 600 industry service providers. He is the lead instructor for safety related classes on Pathogen Exposure to Service Providers, Safety Management Principles for Small Business owners and also teaches Confined Space Entry and program development for the association to industry service providers. He holds a B.S. degree in Environmental Earth Sciences from Northern Michigan University.

For full course description, visit our website: www.mowa-mn.com

OPEN TO ALL INTERESTED PARTIES

8.00 Indirect CEUs*

\$30.00 per person (includes instruction, CEUs*, lunch, and breaks)

*CEUs will be applied for and are subject to MPCA Approval

Please visit our website for updated information: www.mowa-mn.com or call 1-888-810-4178

Minnesota Onsite Wastewater Association & The University of Minnesota OSTP 2016 Safety Training—St. Cloud, MN

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REGISTRATION FORM

One form per person. Please copy for additional registrants

Name: _____ Organization: _____

Address: _____

Phone: _____ Fax: _____ E-mail: _____

Friday, September 30, 2016
8:00 AM – 5:00 PM (registration starts at 7:30 AM)
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<http://www.dot.state.mn.us/d3/graphics2/tostcoffice-www.pdf>

Open to All Interested Parties!

This program is a septic system industry specific training that is intended to raise worker awareness of the OSHA Construction Focus Four hazards in the Onsite Industry. The course also helps workers and employers develop and use root-cause analysis tools to identify and mitigate exposures to workers in the Focus Four categories. This 6-hour program is followed by a Hazard Assessment, Mitigation and Training for Workers Exposed to Residential Sewage – 2 hour program (Pathogens).

8.00 Indirect CEUs*
**CEUs will be applied for and are subject to MPCA Approval*

PAYMENT:	TOTAL COST	\$30.00
<i>Cost includes instruction, lunch, and breaks</i>		

A. A check payable to MOWA is enclosed in the amount of \$ _____

B. Please charge the amount of \$ _____ to: _____ VISA _____ MasterCard _____ American Express

Name on card _____ **Signature** _____

Account number _____ **Exp. Date** _____

I agree to indemnify and hold harmless Minnesota Onsite Wastewater Association (MOWA) and MnDOT from any and all liability, loss, damage or expense from any incident that may arise while attending any portion of the 2016 Safety Training. I authorize any photos taken of me at this event to be published in MOWA's Little Digger and/or other MOWA-related promotional materials.

Signature: _____ Date: _____

For updated information, including how to become a MOWA member, please visit our website: www.mowa-mn.com

Thank You To Summer Seminar Hosts & Sponsors



Close to 50 MOWA members attended the 2016 Summer Seminar hosted by James Brothers Construction in Elysian, Minnesota. Members had their choice of two tracks— a classroom and field Soils Session on Geology of the Des Moines till plain; and the Cluster & Technology Tour, an overview of a large cluster system being installed, and a performance review of existing pretreatment systems installed at the Singing Hills Girls Scout Camp. The day ended with the First Annual “Bellyachers Pigout” cookout.

Thanks to MPCA staff and instructors, MOWA volunteers, James Brothers Construction and sponsors: Fiedlers Pump Specialists, Infiltrator Water Technologies, Pipeline Supply, Inc., Overland Insurance Agency and Wexco Environmental.



2016 Summer Seminar Sponsors





MPCA Clean Diesel Grant Program offers incentive

About \$400,000 available this fall to upgrade older diesel engines



Highland Sanitation's Dave Stewart (co-owner) and Tom Harmon (shop manager) pose with their two new trucks purchased with assistance from an MPCA Clean Diesel grant

The MPCA's Clean Diesel Grant Program offers incentive funding to help upgrade big, old diesel engines. Typically grants up to 40% help replace and install new engines in off-road construction equipment. New truck replacement grants are typically up to 25%.

Examples of 2015 Grant Criteria:

- Must be fully operational and expected to operate for 3 more years.
- Must consume at least 1200 gallons of fuel per year. (More is better.)
- If off-road, equipment should be greater than 175 HP & be Tier-0 – Tier-2.
- If on-road, trucks generally must be 2004 and older, class 6 to class 8.

Additional stipulations include:

- Equipment/truck must be fully operational
- Not a backup vehicle
- Good to operate for another three years
- Once the new vehicle or engine is received, the old truck must be disabled so it can't operate or pollute anymore (EPA requires a 3" diameter hole be cut in the engine block).

New truck replacement grants are typically up to 25%.

Visit the MPCA clean diesel web page for more information about this grant program.

Sign up for the MPCA Clean Diesel email list at www.pca.state.mn.us/cleandiesel to receive updates on the upcoming grant application period.

The annual grant round should open around October. If you have questions, call Mark Sulzbach at 651-757-2770.

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SSTS Flexibility, Continued from Page 1



“We understand this viewpoint,” says the MPCA’s Brandon Montgomery. “There are two provisions in the rule change that should address these concerns.”

Number one, he said, if an inspector knows ahead of time that a particular

septic tank is not going to pass inspection for whatever reason, then pumping the tank is not required. But a tank can only pass an inspection if it has been inspected when empty.

The other provision Montgomery said, is that a tank may pass inspection without first being pumped if there is a tank integrity inspection report available that shows the tank has passed inspection (with the tank empty) within the past three years.

The MPCA hopes to complete the rule changes in time for them to be in effect for the 2017 field work season. Contact your regional MPCA SSTS staff person if you would like to provide input on either of the pending rule changes.

Others told the MPCA they felt such a change in the rules was too prescriptive and that completely pumping a septic tank dry prior to an inspection was not always necessary, especially given the many tools SSTS professionals now have at their disposal to make an adequate assessment.

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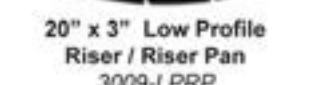
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MPCA's time-saving maintainer's app available

For septic maintainers swimming in paperwork, there's an app... (a database, actually)... for that!

By the MPCA

If you're a septic system maintainer looking for a better way to manage record keeping and reporting... there's an "app" for that. Working together, Douglas County officials and area septic maintainers have developed a computer-based, user-friendly Microsoft Access database that makes it easy to record land application site and daily hauling information. And that's just for starters.

The system was developed based on federal regulations, and allows users to import daily records and quickly view yearly disposal records instead of having to wait for hard-copy reports. The system also helps maintainers calculate vital information like maximum allowed nitrogen, or total gallons of sewage that can be applied to a given land application site.

There are two versions of the database, one for maintainers and one for county staff. Information from the maintainer's



database is easily transferred to the county database. Both versions offer an extensive list of benefits.

Douglas County Access Database

- Greatly reduces time needed to collect, process and report information submitted by SSTS maintainers about the pumping and condition of septic tanks, and the land application of septic waste.
- Notifies county when required septic system monitoring/maintenance reports have not been received.
- Provides a means for more easily conducting risk assessments of particular lakes or other areas that might be at risk of excessive pollutants from noncompliant system or lack of data.
- Helps fill out MPCA Yearly Report.
- Tracks operating permits.
- Writes letters regarding noncompliant systems, operating permit monitoring/renewal notices.
- Can track any data entered into the system.

Maintainers Access Database

- Greatly reduces duplication and time needed to document and report septic tank pumping/inspection, and land application of septage information to federal, state and local authorities.
- Easy to quickly search for and use information on parcels/addresses/owners within the county
- Easier to prepare, send and store invoices.
- Automatically does Application Rate Worksheet calculations.
- Reduces or eliminates paper files.
- Tracks accounts receivable.
- Can be customized for individual maintainers.

Maintainer app, Continued on Page 11

Maintainer app, Continued from Page 10

The County Access database

The county version of the database contains complete information about many of the septic systems in the county, with inspection data, comments from inspectors, and information on operating permits and monitoring periods for larger systems. Eventually they hope to have information about all of the septic systems in the county.

“This system will automatically let us know if a required monitoring report has not been received for a particular location and then a letter is generated letting that resident know we have not yet received that report and they need to send it in,” says Patrick Schultz.

“Our goal is to have our Access database talk to the maintainer’s database. So at the end of the year, each maintainer can send us a file containing all of their pumping records and we can just dump that into our database. We don’t have to re-enter all that information,” Schultz says. “We currently have to go through thousands of paper records at the end of the year. What before took me weeks to do, I plan to do in less than half a day.”

In another example of the power of the database, Schultz said the county pulled up a parcel map of a lake in the county, selected all the parcels around it and had the database generate a risk assessment based on the information in the

system related to those parcels.

“Another way I envision using this system is we could collect observations from our maintainers about a widespread problem, let’s say with risers on tanks for example that make it hard to adequately maintain the system, and then use that information to address the problem on a broad scale,” Schultz says.

“I can bring that information to the MPCA or the Clean Water Legacy Fund and say we need this much money to get everything up to date. We have 1,500 systems and it’s going to cost this much. We can put a number to it.”

Maintainer database

Maintainers use a laptop or tablet loaded with the database to make daily record entries onsite that include a pumping record for each visit as well as a structure observation record where they record details about the condition of the tank that day.

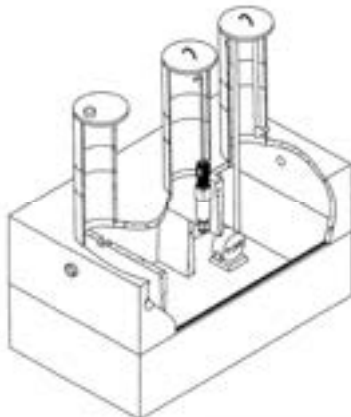
Next is a tab for disposal information which is where a maintainer chooses the location they are going to land apply the waste. They then enter all information related to how they applied that particular load of waste.

“One professional maintainer in our county is using this right now and he normally does not like computers, but he actually likes this and he’s using it, which is really nice,” Schultz said

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MPCA SSTS Public Education Challenge!

Is that redox or mottles? Here's how to tell (and describe it to others)



This soil profile exhibiting redoximorphic features (redox) within 40-60 centimeters of the surface (less than a foot) would make this site an unlikely candidate for an in-ground soil treatment

By Brandon Montgomery, MPCA

Correctly describing the soil and its associated characteristics is one of the most important steps in designing and inspecting subsurface sewage treatment systems (SSTS) in Minnesota. While the end goals of designing and inspecting are very different, making a mistake on the soils portion can have disastrous consequences, such as: polluting Minnesota's groundwater, causing a system to prematurely fail, or creating an imminent threat to public health. An essential distinction to make when describing soils to homeowners and others is to clearly differentiate between mottles and redoximorphic features commonly referred to as redox. Although you will frequently hear people use mottles and redox as though they are interchangeable, this is not the case and hopefully by defining and demonstrating the differences between the two we can all start to use the terms correctly.

Mottles are defined by the Field Book for Describing and Sampling Soils as "areas that differ from the matrix color" and by the Merriam Webster dictionary as "colored spots" or "a surface having colored spots or blotches." Essentially, mottle is a term that is used to describe any feature having a color

different from the matrix soil color. This phrase, mottled soil, could be used to describe anything from carbonate masses to volcanic glass or even shell fragments found within a soil. However, one of the soil features mottles should not be used to describe is a redoximorphic feature. The interpretation of redox features in both Minnesota Rule 7080 and soil science as a discipline are drastically different than the interpretation of a mottle and as such redox features warrant their own section in the Field Book for Describing and Sampling Soils.

Redoximorphic features are defined in the Field Book for Describing and Sampling Soils as "color patterns in a soil caused by loss (depletion) or gain (concentration) of pigment compared to the matrix color." These depletions and concentrations occur when iron or manganese is exposed to water for an extended period of time, or when the soil is exposed to water repeatedly year-after-year. The Field Book also goes on to state that the "process of formation for a soil color or color pattern must be known or inferred before it can be described as a redoximorphic feature." What this means is that you should never describe a soil feature as redox unless you are sure that the cause of the change in color is due to the depletion or concentration of iron or manganese, or unless you are sure that those red and gray colors are due to periodic exposure to water year-after-year.

So how does using these two terms interchangeably or incorrectly affect SSTS professionals in Minnesota? Indicating that a soil layer is periodically saturated by noting the presence of mottles is incorrect and has no justification in MN Rule 7080 so we shouldn't be doing it. In addition, using the wrong term can have a negative impact in the public's perception of SSTS if a homeowner is in contact with multiple professionals and hears two different terms used to describe the same thing. They may be confused and not well informed on the decisions being made. Or even worse, it's possible the homeowner loses confidence in the capability of the professionals. Finally, there is always the chance that using the wrong term ends up costing you time, money, or both! None of these situations is beneficial to anyone involved and could easily be avoided by using the correct terminology.

So, as a state let's start saying what we really mean. If it's a redox feature, call it that. And if what you really want to describe is a mottle then feel free to do that as well, but from now on let's not call redox features mottles. It's not worth the hassle; plus, why would you want to say something that now you know is wrong?

North Carolina State University has created a series of images showing various landscapes along with their soil profiles indicating saturated soil conditions.

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MPCA SSTS Staff Announcements

Robinson joins MPCA SSTS policy/planning unit; Theresa Haugen promoted to SSTS supervisor



Cody Robinson (*left*) has joined the MPCA as a soil scientist with the SSTS policy/planning unit. Robinson graduated this past December from St. Cloud State University. He is stationed in St. Paul.

Theresa Haugen (*right*) has been named supervisor for the MPCA SSTS compliance and enforcement and southeast region unit. Previously she was an industrial wastewater permit writer for the MPCA.

Stacey Feser joins U of M soils training team under contract

The University of Minnesota's Onsite Sewage Treatment Program (OSTP) welcomes Stacey Feser to its Subsurface Sewage Treatment Systems (SSTS) certification program.

She has earned all SSTS certifications and designed over 100 residential and commercial septic systems. In the past, she was the Health Specialist and Wetland Specialist with Blue Earth County and also administered the county SSTS program.

Dan Wheeler is the Soil Science lead for the OSTP, and continues to be the primary contact for soils-related training, research or technical assistance related issues. He can be reached at 612-625-8791 or wheel027@umn.edu.



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NOWRA Legislative Fly-In Establishes National Caucus

NOWRA Makes Progress in Efforts to Gain Greater Congressional Support for the Onsite Wastewater Industry

More than a dozen NOWRA members traveled to Washington, DC June 14-15, 2016 to participate in the association's Legislative Fly-In, and made significant progress in advancing its advocacy goals. The most significant achievement which arose from more than three dozen visits to Congressional and Federal Agency offices was *securing a bi-partisan commitment to establish a Decentralized Wastewater Caucus*. Further, two members of the influential House Transportation and Infrastructure Subcommittee on Water Resources and the Environment immediately committed to joining the caucus during NOWRA members' visits with them.

In addition, NOWRA learned that language which it requested be included in the House Appropriations Bill was voted out of committee



Participants are from left: A. Jay Dolby (DE 1st), DOWRA Board, President of Dolby & Associates, Inc.; Leah Rubin Shen, Aide to Senator Chris Coons (D-DE), ACS/AAAS Congressional Science Fellow; Bruce Stowe (NY 24th), Technical & Regulatory Affairs Manager of Roth Global Plastics; Tracy Hammond, Senior Policy Advisor for Polsinelli; and Jackie Book (DE 1st), Office Manager of Dolby & Associates, Inc.

Photo Credit: Nancy Mayer-Minahan (MD 2nd).

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and included in the legislation which goes to the full House for approval. *The language directs EPA to devote more financial and staff resources to assist the 85 million Americans who use onsite/decentralized treatment.* Also, NOWRA representatives met with officials from USDA Rural Development and secured a commitment to help educate industry professionals about how they can assist communities to better understand the benefits of onsite/decentralized treatment when they are making wastewater infrastructure decisions.

NOWRA is seeking to secure greater Congressional support for onsite/decentralized wastewater treatment because it offers a host of economic, environmental and public health benefits to communities around the country, but has not received adequate support from either Congress or the federal agencies which have mandates to address issues facing our industry. Among their many benefits, onsite/decentralized systems:

- Protect public health and the environment.
- Are a green technology (by any definition other than EPA).
- Replenish groundwater supplies.
- Treat water to the same levels as municipal water treatment facilities.
- Are the local, small business job creators.

NOWRA Legislative Fly-In, Continued on Page 15

NOWRA Legislative Fly-In, *Continued from Page 14*

For too long, NOWRA maintains that the onsite/decentralized industry has been overlooked by Congress and federal regulators. For example, in the last 30 years, municipal treatment works have received \$100 Billion in grants and loans from EPA's Clean Water State Revolving Fund Program to address wastewater treatment problems. 99.7% of that money has gone to fix sewer systems. Over that same period, funding support for onsite wastewater treatment has been less than 1% of that amount – even though onsite systems serve more than 25% of properties the country. The 85 million taxpayers served by onsite systems deserve better, as do the industry's dedicated professionals.

Our industry faces a set of challenges which is nearly identical to those faced by public wastewater utilities – aging infrastructure, compliance with new anti-pollution mandates, inconsistent regulation, economic constraints, and a need for more qualified practitioners. However, the industry has been told – repeatedly – to go it alone. NOWRA believes the intent of Congress when it passed the Clean Water Act was to ensure clean water for all Americans, not just those served by public wastewater utilities. However, for more than three decades, federal funding and policies have virtually ignored Americans served by onsite/decentralized Treatment.

The “Big Pipe” folks are well-organized, well-funded and well-known in Washington. While NOWRA takes these steps to level the playing field, its goal is to galvanize the onsite wastewater industry's help and support that will make the changes happen. The more people who contact their elected representatives to help them better understand why onsite systems matter and the impact decades of neglect have had on their constituents, the more likely the industry will be successful in getting more support and a fairer share of federal money.

A number of NOWRA members who had not previously been involved in NOWRA's lobbying efforts took the time to come to Washington to meet with their Members of Congress to share the great story we have to tell regarding the benefits and advantages of onsite/decentralized wastewater treatment and to explain to their representatives why Congress and the federal agencies need to step up and enact policies which will remove barriers which hamper our industry's ability to increase our share of the wastewater treatment market and also provide greater funding to address the challenges we face as a result of decades of government neglect.

Among the members who attended the Legislative Fly-In were: Trapper Davis of Virginia (incoming VOWRA President), Nancy Mayer of Maryland (former MOWPA board member), Jay Dolby and Jackie Cook of Delaware (Jay is a DOWRA board member), and Mark Shepard of Kansas (KSFA Board member). Those participants reported that they found their efforts rewarding and most came away believing that it is

possible to change the current situation. One participant, Nancy Mayer, owner of Mayer Brothers, Inc., in Elkridge MD, put it this way “I had a great time and now ‘Get’ the whole lobbying thing.....and do think we can make a difference.”

As NOWRA continues its lobbying and advocacy efforts we will be doing more to encourage involvement from its affiliated state organizations and from individual members.


To learn more about upcoming lobbying efforts, visit <http://www.nowra.org/advocacy>.

About NOWRA: *Founded in 1992, the National Onsite Wastewater Recycling Association (NOWRA) is the largest organization within the U.S. dedicated to educating and representing members within the onsite and decentralized industry. Our members include educators, regulators, engineers, contractors, manufacturers, suppliers, service providers, and other parties in the protection of North America's water resources and environment. All segments of the industry are represented on NOWRA's Board of Directors that provide broad perspectives to promote and sustain our industry and service to the public. NOWRA headquarters is located in Alexandria, Virginia, with local constituent groups throughout the U.S. and Canada.*

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2015 Tony Ruppert Scholarship 2nd Place Essay

Minnesota Water Quality Deteriorating *by Ben Veitch, Sartell, MN*



A problem that Minnesotans have long been aware of, but does not get front-page headlines, is the issue of deteriorating water quality in Minnesota. The water quality has gotten so bad that some regions of the state cannot support aquatic life, and are considered unsafe for recreational use. While some steps have been taken to correct this, not enough is being done. For a state that is famous for its lakes, it is appalling that we have allowed the standard of water quality to fall this low. Having an understanding of the source of a problem is the first step to fixing any issue. Thankfully we are beginning to understand the cause of the deterioration.

The largest source of contamination in southern Minnesota comes from agriculture. According to a study done by the MPCA, run-off from pastures finds its way into lakes and streams and raises the nitrogen and phosphorous levels significantly. This is bad because these contaminants lead to a sharp rise in algae blooms, which makes many lakes virtually unusable for recreation. (Marcotty, 2015) Another issue with the run-off is the large amount of sediment that is being deposited into these bodies of water. What this does is create solid suspensions, which lowers water clarity and is detrimental to the desirable aquatic plant and animal life. (Dunbar, 2015)

Urban areas also are contributing to the issue of subpar water quality. The practice of storm drains forcing water into streams

quickly is also detrimental. What this does is increase erosion and ultimately increases the amount of sediment in the water. (Davis, 2015)

The good news regarding this issue is that there are already steps being taken to try and fix Minnesota's water quality. Six and a half years ago Minnesotans voted to raise taxes for this specific issue. Increased attention and allocating extra funds have helped move this issue in a positive direction. The way to proceed from here is still unclear, with many different ideas and plans still being discussed in the state legislature. (Dayton, 2015)

Minnesota is famous for its magnificent lakes and rivers. In order to insure that future generations get to enjoy this beauty, we must all pull together and act! We must set forth plans to reduce the

phosphorous and nitrogen run-off from farms, and also better manage the storm drains from cities. Everyone is contributing to this problem and thus it will take all of us to come together with a comprehensive solution to improve water quality and protect it for years to come.

References

Davis, Don. "Minnesota's Water Quality Varies by Region, Report Says." *TwinCities.com*. 29 Apr. 2015. Web. 1 Aug. 2015. <http://www.twincities.com/politics/ci_28013528/minnesotas-water-quality-varies-by-region-report-says>.

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Marcotty, Josephine. "Nitrogen Pollution Widespread in Southern Minnesota Waters, Report Finds." *Star Tribune*. 27 June 2013. Web. 3 Aug. 2015. <<http://www.startribune.com/nitrogen-pollution-widespread-in-southern-minnesota-waters-report-finds/213247091/>>.

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Tony Ruppert Scholarship Deadline is August 15th

2016 Tony Ruppert Scholarship Application

The Minnesota Onsite Wastewater Association (MOWA) is pleased to announce that applications are now being accepted for the Tony Ruppert Scholarship Fund. Up to \$5,000 in scholarships are available to high school graduates (as of June 2016) who will be enrolled as a full-time student in post-secondary undergraduate education during the 2016- 2017 school year.

Applicants must be no more than 26 years old as of June 1, 2016 and be a MOWA member, or a child, sibling, grandchild, or niece/nephew of a MOWA member. Students may only win this scholarship once. Students must complete an application, write an essay, and provide certification of the relationship to a MOWA member or member's employee.

A complete application must include: (3 items)

Item 1: Application Form (To be completed by the student; you may use this form or print all required items on a separate sheet.) Please type or print clearly:

Name: _____ Social Security #: _____

Address: _____ City/State/Zip: _____

Phone: _____ E mail address _____

Year graduated from High school _____ MOWA Member Name _____

Name of school you are/will be attending: _____ (Must be a full time student)

Curriculum you are/will be enrolled in: _____

All of the above information is true and correct and I hereby grant permission to MOWA to reprint my essay or abstract in whole, or in part, or use the created digital media for informational or advertising purposes, such as on the MOWA website or as a MOWA newsletter article or press release.

_____ (Applicant's signature)

Item 2: Essay. See Essay Content Form.

Item 3: Certification Form: (To be completed by the MOWA member)

Name of Applicant for Tony Ruppert Scholarship: _____

The Tony Ruppert Scholarship Fund Applicant is my: _____ (insert relation).

I agree that the information contained in this form is true and correct to the best of my knowledge:

MOWA Member Name (printed): _____

MOWA Member Signature: _____ Date: _____

Business Name and Address: _____

All applications must be submitted to MOWA no later than August 15, 2016. Applications will be rated by a panel of MOWA members. Winners will be notified in September 2016.

Send the complete application in Word format to: mowacarla@aol.com

Calendar of Events | New Members

MOWA Events

September 30, 2016— Safety Training – MnDot Headquarters
– St. Cloud, MN (visit www.mowa-mn.com for details)

January 30 – 31, 2017—Annual Convention & Tradeshow
– Duluth Entertainment Convention Center (DECC) (visit www.mowa-mn.com for details)

Industry Events

October 26-29, 2016—NOWRA 2016 Conference at The
Nugget Hotel and Casino, Reno, NV (see www.nowra.org)

New Members

Martin County Planning & Zoning
Fairmont, MN
Pam Flitter

2016 OSTP Certification Course Descriptions and Offerings

Introduction to Onsite Systems (15 Direct Credits)

Fee: \$360 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
- Site evaluation
- Wastewater characteristics
- Soil treatment systems

10-3 St. Cloud - Moose Lodge 11/14-16/16 Deadline: 11/7/16

Installing Onsite Systems (12 Direct Credits)

Fee: \$265 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
- Tools for installing
- Construction practices
- Pipelayer certification

112-3 St. Cloud - Moose Lodge 11/17-18/16 Deadline: 11/10/16

Installer Continuing Education (12 Direct Credits)

Fee: \$265 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

69-3 Grand Rapids - Sawmill Inn 11/29-30/16 Deadline: 11/21/16

Pipelayer Certification (2 Direct Credits, 1 Related Credit)

Course begins at 1:00PM Exam: Yes

Fee: \$75 or \$50 as add-on to enrollment in Installer CE
This 3-hour workshop is once again offered this year to accommodate a change in the Minnesota Plumbing Code that requires all septic system installers be either certified pipelayers, licensed plumbers, or registered apprentices in order to install sewer or water service pipes outside of a building in Minnesota.

Topics include:

- MN Plumbing Code
- Pipelaying
- Code compliance bond packet instruction

92-3 Grand Rapids - Sawmill Inn 11/30/16 Deadline: 11/22/16

General Continuing Education (12 Direct Credits)

Fee: \$265 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

60-3 N. Mankato - Best Western 11/2-3/16 Deadline: 10/26/16

60-4 Cloquet Forestry Center 12/7-8/16 Deadline: 11/30/16

Soils Continuing Education (6 Soils-Specific Direct Credits)

Fee: \$240 or \$405 with Munsell Color Guide Exam: No

This 6-hour course couples classroom and field training to meet soils-specific MPCA continuing educational requirements 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

55-5 Detroit Lakes - Holiday Inn 7/26/16 Deadline: 7/19/16

55-6 Cloquet Forestry Center 8/16/16 Deadline: 8/9/16

55-7 Rochester South - Clarion Inn 9/20/16 Deadline: 9/13/16

Enroll online at: septic.umn.edu

Classes are filled on a first-come, first-served basis.

OSTP, 173 McNeal Hall, 1985 Buford Ave., St Paul, MN 55108

Fax: 612-624-6434

Phone: 800-322-8642

In Memoriam...

Glenn Larson of Enviro Pump Plus Inc. of Balaton, Minnesota died at his home on May 2nd after a battle with cancer. Glenn and his wife Karen have been members of MOWA since the 1990s.

Glenn is survived by his wife Karen and three children, Jessica, Elizabeth and Joshua, their spouses and five grandchildren.

Enviro Pump Plus, Inc. and the Larson family would like to extend their gratitude to all of Glenn's colleagues in the industry, Enviro Pump Plus, Inc.'s customers and Glenn's community for the outreach of condolences for the company's founder, Glenn Larson.

Glenn's legacy continues through his family, business and staff as they continue to serve communities throughout southwestern Minnesota.





2016 MOWA MEMBERSHIP APPLICATION

Membership: Renewal New Member

- Individual Member \$240 (1 person)
 Business Group /Government Unit \$340 (up to 5 people; \$100 /person after 5)
 Student \$140 (1 person)
 Life-time Honorary

Note: Your MOWA Membership includes one NOWRA membership

Memberships are based on calendar year - After July 1st, new members pay \$140-individual / \$190-business or gov't groups for remainder of 2016

Individual/Group Contact: This person will be listed as the NOWRA member on the Septic Locator website. They will be listed first in all MOWA publications. Please print clearly.

• 1st Member _____ Company Name _____
 Address _____ City/State/Zip _____
 Title _____ Phone _____ Mobile/800# _____ Fax _____
 Email _____ Website _____ County _____

Circle the counties you work in: *Needed for Directory and Website.*

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Becker 3	Cottonwood 17	Jackson 32	Meeker 47	Ramsey 62	Todd 77
Beltrami 4	Crow Wing 18	Kanabec 33	Mille Lacs 48	Red Lake 63	Traverse 78
Benton 5	Dakota 19	Kandiyohi 34	Morrison 49	Redwood 64	Wabasha 79
Big Stone 6	Dodge 20	Kittson 35	Mower 50	Renville 65	Wadena 80
Blue Earth 7	Douglas 21	Koochiching 36	Murray 51	Rice 66	Waseca 81
Brown 8	Faribault 22	Lac qui Parle Lake 37	Nicollet 52	Rock 67	Washington 82
Carlton 9	Fillmore 23	Lake 38	Nobles 53	Roseau 68	Watsonwan 83
Carver 10	Freeborn 24	Lake of the Woods 39	Norman 54	Scott 69	Wilkin 84
Cass 11	Goodhue 25	Le Sueur 40	Olmsted 55	Sherburne 70	Winona 85
Chippewa 12	Grant 26	Lincoln 41	Otter Tail 56	Sibley 71	Wright 86
Chisago 13	Hennepin 27	Lyon 42	Pennington 57	St. Louis 72	Yellow Medicine 87
	Houston 28	Mahnomen 43	Pine 58	Stearns 73	

Information: (Check all that apply)

- Installer Pumper Designer Inspector Gov't Regulator Educator Service Provider Student
 Soil Scientist Professional Engineer Manufacturer Operator/Maintenance Supplier Other: _____

Additional Business/Government Members:

• 2nd Member _____ Title _____ County _____
 Address _____ City/State/Zip _____
 Phone _____ Mobile/800# _____ Fax _____ Email _____

• 3rd Member _____ Title _____ County _____
 Address _____ City/State/Zip _____
 Phone _____ Mobile/800# _____ Fax _____ Email _____

(Please list additional business/government group members on separate sheet with complete contact information.)

Publications: Would you prefer receiving 'Little Digger' newsletters via ... Regular Mail Electronically

We currently send one publication per address to business/government groups. Contact the MOWA office if you'd like additional copies.

Additional NOWRA Memberships: MOWA membership fees include one NOWRA membership per company/organization. List names of members who want additional NOWRA memberships here: Cost - \$40 per person.

2) _____ 3) _____ 4) _____ 5) _____

Payment:
(Please print)

MOWA Membership \$ _____ + Add'l NOWRA Memberships = **Amount: \$** _____

- Check enclosed (Payable to MOWA) VISA MasterCard

Card Number: _____ Expiration Date: _____ Cardholder Name: _____

Signature: _____ Date _____

MOWA, 5200 Willson Road, Suite 310, Edina, MN 55424 Phone: 952.345.1141 e-Fax: 952.516.5550

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