2026 MOWA Winter Convention
Duluth, MN – DECC

General Session:
MPCA Update & SSTS Technical Update
Cody Robinson & Felicia Merkson, MPCA
Monday, Harborside Ballroom 305-303 at 8:30 AM
1 Direct CE
The presentation will be an amalgamation of topics directly related to the administrative and technical parts of chapters 7080 to 7083 with intent to deliver high level statewide program updates, initiatives, and technical subject matter. The MPCA will continue to leverage inquiries and insights throughout the calendar year to develop appropriate training material for the MOWA audience for this session.

Keynote Address 1:
The Importance of Building an Online Presence in the Wastewater Industry
Luke Eggebraaten, Phaser Marketing
Monday, Harborside Ballroom 305-303 at 9:45 AM
0 CE
This session will provide wastewater professionals — including installers, service providers, and designers — with a clear, practical roadmap for building a strong online presence that drives measurable business results. Attendees will learn how to strategically combine website design, local SEO, Google Business Profile optimization, and online reviews to enhance credibility, attract new clients, and support workforce recruitment.
The presentation will connect each marketing strategy to industry best practices and regulatory expectations, ensuring that the information shared with the public online is accurate, clear, and representative of actual system capabilities. By tying digital marketing directly to MPCA Chapter 7080 and Design Guidance principles, attendees will see how a professional online presence not only grows their business but also contributes to informed decision-making by homeowners and property managers.
Through real-world examples and case studies from septic and wastewater companies, participants will leave with actionable steps they can immediately implement to improve their visibility, build trust, and compete effectively in a digital-first world.

Keynote Address 2:
On-site Wastewater International Perspective and the Importance of Associations
Ben Kele, Arris Pty Ltd
Monday, Harborside Ballroom 305-303 at 10:45 AM
1 Related CE
The science that underpins on-site wastewater treatment is the same the world over. But different parts of the globe have varying regulations & guidelines, and practitioners employ a wide variety of techniques. What drives these changes, and what does this mean in regards to ‘best practice’? Are any parts of on-site wastewater considered universal truths and identical regardless of where you are on the planet? This presentation will compare and contrast on-site & decentralized wastewater treatment from around the world; with an Australian accent.

Design Open Forum
Alex Pepin, Ten Thirty Environmental Solutions & Mike Heiman, Northern GeoSeptic, Inc.
Monday, Harbor Side 301-302 at 2:30 PM
2 Direct CE
This open forum will give septic system designers the chance to review key technical considerations from Minnesota Rule 7080 and MPCA Design Guidance, including soils, sizing, and site constraints. Discussion will also focus on common causes of design delays and ways to improve communication with clients, contractors, and regulators. By sharing real-world experiences and solutions, participants will help strengthen consistency and best practices across the industry.

What has been Questioned at CE: a Q&A Recap of Statewide from 2025
Dave Gustafson, University of Minnesota & Pete Otterness, Infiltrator Water Technologies
Monday, Horizon 203 at 2:30 PM
1 Direct CE
This discussion will answer questions that the attendees for the past year have had about the industry for the speakers from continuing education courses around the state.
Some examples of commonly addressed topics are clarification and application of soil dispute activities 7082.0700 Subp 5; specific design questions and applications 7080.1730-1880; review of proper application of registered technologies to treat wastewater 7080.2350 on specific tougher sites; and clarify and review the application of local standards compared to Chapter 7080 7082.0100 Sub 3 E, F. Tank breakdown and reuse 7080.1910 C.

Understanding MN Earned Sick and Safe Time Law and Other Recent State Labor Laws and Updates
Alanna Galloway & Diana Salas, Education and Engagement Specialist
Monday, Horizon 204 at 2:30 PM
0 CE
Education and Engagement specialists from the Minnesota Department of Labor and Industry's Labor Standards division will provide insights into key aspects of Minnesota Statutes 181.9445-181.9448 (Earned Sick and Safe Time) and 181.03 (Wage Theft Prevention Act), along with other relevant labor laws in the state. Alanna and Diana will answer questions and provide resources for more information.

Commercial Vehicle Safety
Jeff Shay, MN Highway Patrol
Monday, Horizon 203 at 3:20 PM
0 CE
This session will provide a comprehensive overview of Post-Crash Inspections, focusing on what companies and employees can expect when involved in a reportable crash. Sgt. Shay will address frequently asked questions and explain the inspection process, including the roles of law enforcement, safety investigators, and regulatory agencies. Attendees will gain clarity on how post-crash inspections may impact on your company's safety rating, compliance standing, and employee responsibilities.

Sampling - Who, What, Where, and When
Sara Heger, University of Minnesota
Monday, Horizon 203 at 3:20 PM
1 Direct CE
Taking wastewater samples from subsurface sewage treatment systems (SSTS) is an important task regularly performed by service providers and maintainers, along with designers and installers, to collect data on organic loadings and constituent levels. This data is often used for regulatory compliance under Minnesota Rules Chapters 7080–7083 or to better understand system operation and performance. Per Minn. R. 7080.2450, subp. 6, sampling may be required to evaluate the performance of systems with advanced treatment components. For systems requiring operating permits under Minn. R. 7081.0210, effluent sampling is a mandatory condition, with frequency, parameters, and reporting specified in the system's management plan (see Minn. R. 7082.0600). Wastewater sampling data can also be used to compare system performance, evaluate treatment efficiency, and calculate appropriate hydraulic or organic loading rates, as referenced in Minn. R. 7080.1550 and 7081.0130, which guide system sizing and design based on influent characteristics. This presentation will cover: The equipment and methods necessary to obtain representative and reliable samples, Instruction on how to properly collect, preserve, and document samples Appropriate sampling timing and frequency, particularly for Type IV treatment systems, as outlined in system-specific operating permits and management plans (per Minn. R. 7082.0600 and 7080.2450).

LGU Open Forum: Permitting Different System Type's
John Otterbein, St. Louis County & Mary VonEschen, Scott County Environmental Services Department
Tuesday, Harbor Side 301-302 at 8:00 AM
2 Direct CE
The summary of this presentation is for LGU inspectors to engage in a conversation with the regulated community in the room at the same time to discuss and debate best management practices related to how to best interpret rules/local ordinances standards outlined in MN rule Ch. 7080.2300 to 7080.2400 and 7082 for Type III-V systems. Also, will touch on operating and maintenance of Type Iv & V systems MN Rule Ch. 7081.0290.

From Permit to Performance: Bridging the Gaps in Onsite System Compliance
Lucas Caldwell, Septic Check
Tuesday, Horizon 203 at 8:00 AM
1 Related CE
Permitted systems are not always performing systems. While Minnesota Rules Chapter 7080 provides comprehensive standards for the design, installation, operation, and maintenance of Individual Sewage Treatment Systems (ISTS), real-world compliance often falls short. This presentation explores the critical disconnects that occur throughout the system lifecycle—from design and permitting to installation, maintenance, and long-term monitoring. Despite the detailed requirements in Chapter 7080, including provisions for system sizing (§7080.1900), installation specifications (§7080.2400), and ongoing operation and maintenance (§7080.2450), many systems underperform or fail due to breakdowns in communication, documentation, and enforcement across project phases and roles.
Key areas of focus include: How site changes, unclear specifications, or shortcuts during installation diverge from approved designs. The absence of accurate as-builts and installer-to-maintainer handoffs, leading to inadequate O&M practices. The lack of enforcement or monitoring, which allows failing systems to operate unchecked—contrary to the intent of the code.
Through real-world examples and case studies, we will highlight how these disconnects lead to environmental harm, increased public health risks, and costly system repairs or replacements.

Importantly, the session will showcase practical solutions—such as cross-role collaboration, final inspections, digital tracking tools, and performance-based monitoring—that can bridge the compliance gap. Aligning with the goals of Chapter 7080 to protect public health and water quality, this presentation challenges stakeholders to rethink what true compliance means—and how to ensure that permitted systems perform as intended in the field.

DLI Plan Review and Permit Applications
John Roehl, Department of Labor and Industry
Tuesday, Horizon 204 at 8:00 AM
2 Direct CE
Working on SSTS and aligning with certain Department of Labor (DLI) requirements can be challenging. This session will examine the differences in code and discuss options on how to work with both requirements. MPCA Code to be discussed: 1) Chapters 7080.1730 Phase I; Site Evaluation Reporting – How are DLI requirements different than SSTS reporting for site evaluation; 2) 7080.2050 Subp.2 C – Supply pipe requirements; 3) 7080.2440 Collection Systems – Multiple buildings or establishments and the discussion of who can design them; 4) 7083.0740 Design License – Designers of SSTS can design but how can we bridge the gap with DLI requirements of design; and 5) Discussion on permit application process with DLI when using SSTS standards.

Overlooked Safety Measures – Septic Tank Maintenance Hole Covers
Chris LeClair, Otter Tail County
Tuesday, Horizon 203 at 8:50 AM
1 Related CE
Lid safety is an often-overlooked safety hazard that is easily preventable. This talk will go over recent tragedies; code references related to lid safety and relatively inexpensive prevention strategies to ensure that systems installed are designed to prevent public safety risks. Relation to requirements of 7080.1970 Sewage Tank Access will be referenced.

Maintainer Open Forum
Keith Valento, Smilie's Sewer Service & Tristan Ende, Ende Septic Service
Tuesday, Harbor Side 301-302 at 10:00 AM
1 Direct CE
Proper maintenance access to complete maintenance tasks are imperative for Maintainers. This Open Forum will discuss the challenges for these professionals and work through ways to log maintenance visits productively. Discussion will center around the following code: 7080.2450 Maintenance, Subp.2. (B); Subp.3. Removal of Material; and 7081.0290 Operation and Maintenance (B).

Understanding Electrical Systems in Septic Services
Brian Koski, Septic Check
Tuesday, Horizon 203 at 10:00 AM
1 Related CE
This presentation aims to equip service providers with essential knowledge and practical skills related to electrical systems. Covering foundational concepts in electricity, floats & controls, and pump operation. Attendees will learn the basic principles that govern the electrical components within septic systems, emphasizing safety protocols for handling these systems. We will discuss common challenges and provide a hands-on troubleshooting guide to enhance service provider efficiency. These discussions will be based to cover: 7080.2100 Subp. 2 and Subp. 4; 7080.2450 Subp. 1-3.

Trench Safety for SSTS Professionals
Madison Princivalli, United Rentals Trench Safety
Tuesday, Horizon 204 at 10:00 AM
1 Related CE
Trench safety can include digging trenches or digging holes for septic tanks. This presentation touches on the OSHA excavation standard. It refers to the challenges of burying septic tanks in deep, excavated holes per Chapter 7080.2000. These standards must be met when installing a tank but safety for professionals is paramount as well. Trench safety equipment will be discussed to get the job done properly and confined space equipment will be briefly covered. Code covered: Chapter 7080.2000 Location and Installation of Tanks.

Service Provider Open Forum
Lucas Caldwell, Septic Check & Troy Davidsavor, Chisago County
Tuesday, Harbor Side 301-302 at 10:50 AM
1 Direct CE
The Service Provider Open Forum will focus on the practical challenges of operating and maintaining advanced treatment systems under Minnesota Rule Chapter 7080. Topics will include the role of LGUs, planning for system expansion or additions, and the difficulties of sampling and compliance. We'll also discuss how to handle situations where owners refuse required maintenance, what to expect when servicing neglected systems, and the unique pumping needs of advanced technologies. Finally, we'll highlight common installation issues that make long-term maintenance more difficult. This open discussion will provide service providers with a chance to share experiences, compare solutions, and identify future needs for the industry.

Setting Time Dosing Panels
Ryan Lashinski, Lashinski Septic
Tuesday, Horizon 203 at 10:50 AM
1 Related CE
This presentation will walk through time-dosing systems from design to after the install. We will discuss the MPCA design sheets determining how to properly fill out time-dosing pumps discussing different dosing frequencies and pump volumes and how to determine the actual flow of the establishment verses the design flow and how that effects how you set the time dosing panels. We will walk through calibrating the lift pump to determine actual GPM verses the design value and how that effects the time-dosing settings. We will also talk about determining actual flows verses design flow to properly set time-dosing systems.

Fluid Sampling – Adding Value Through Improved Data
Jim Bell, McCoy Construction & Forestry
Tuesday, Horizon 204 at 10:50 AM
0 CE
Presentation will include the following:
1. Detecting early signs of wear 2. Identifying contamination 3. Proactive data driven decisions 4. Proper equipment operation reduces maintenance needs and extends component life 5. Prevents costly downtime 6. Real-world examples from the field linking operating habits, sampling results, and repair prevention In short, fluid sampling turns reactive repairs into proactive maintenance. It transforms raw data into actionable insight, helping owners protect their investment, improve machine reliability, and lowering operating costs.

Troubleshooting Advanced On-Site & Decentralized Systems
Ben Kele, Arris Pty Ltd
Tuesday, Harbor Side 301-302 at 11:40 AM
1 Related CE
Murphy's Law: If something can go wrong, it will go wrong, is true all over the world. If you're installing and maintaining on-site and decentralized wastewater systems it's pretty much a given that Murphy is interested in what you are doing and will follow you around. Your company may also be called in to work on a failing system that somebody else has supplied. These customers have already made a substantial capital investment and typically are not looking for a replacement system; but somebody to make the existing installation work. Systems may fail for a number of reasons, including design error, maintenance issues, site changes, technology problems, and user issues. In this course you will learn how to diagnose why a wastewater treatment unit is failing. We will also learn, that several things can be going wrong at the same time. You will learn how to bring a system back into compliance. We will discuss when a repair becomes uneconomic and a replacement is required. We will examine how practical a partial replacement of a failed system is in reality. We will look at domestic and commercial case studies.

Panel Troubleshooting
Tyler Parks, SJE Inc
Tuesday, Horizon 203 at 11:40 AM
1 Related CE
We will have a live panel demonstration showing how to use a multimeter to troubleshoot real-world situations a contractor may encounter on a job site. Topics include pump tanks (7080.2100 Subp. 2. (B), (D), and (F); and dosing of effluent (7081.0250; 7080.0260 (A). The session will include open Q&A, giving participants the opportunity to ask questions and gain a deeper understanding of troubleshooting techniques.

Neutralize the Risk, Meet the Code
Jeremiah Brodie, Franklin Electric
Tuesday, Horizon 204 at 11:40 AM
1 Related CE
In any septic system there is potential to receive other wastes associated with residential use and in quantities related to residential generation of sewage as defined in 7080.100.Subp 73. As every house in Minnesota has heat generation, there is a high probability that the condensate from the combustion furnace will be discharged into the building sewer and thus into the septic system on non-municipal sewered properties.
In 7080, the definition of the building sewer is co defined with Minnesota plumbing code rules chapter 4714 via reference. Discharging residential waste is required to leave the building via an approved building sewer as defined in 2020 Minnesota plumbing code from the Department of Labor and Industry reference .0204 : Building Sewer - The part of horizontal piping that conveys the building drain to private disposal system. Additionally, in MN rule 4714.0814 condensate wastes are to be discharged into the drainage system. These are a clear water waste discharge that must be conveyed to the proper point of disposal. This can be through the building sewer (combined), building sewer(sanitary) or building sewer (storm) as defined in the 2020 Minnesota Plumbing Code .204
Clear water discharges into the septic system are a consideration in the design flow for residential system for the classification of houses in 7080.1850.subpart 1 as a water using device that are likely to affect the operation of the ISTS as reasonably anticipated. The flow from the condensate or other water conditioning as an allowed clear water discharge may need special design considerations.

As there is a common practice to add all the associated drains into one building sewer connected to the septic system, this talk will review the implications of the condensate connections to a drainage network and septic system as well as preventative practices to not have an impact to the septic system.

Installer Open Forum
Rick Viita, Viita's Excavating Inc. & Jake Bell, Bell Excavating Inc
Tuesday, Harbor Side 301-302 at 1:30 PM
2 Direct CE
1. Making a tank/risers watertight 7080.1970 Sewage Tank Access; 7080.2000 Location and Installation of Tanks (G-H) 2. Interpretation of a septic design to prepare for the installation 7081.0200 Soil and Site Report 3. You won the bid! Installation preparation before the excavator takes a scoop. 7080.1750 Design Phase II 4. Site layout. 7080.2000 Location and Installation of Tanks; 7080.2050 Distribution of Effluent 5. What a successful installation looks like.

Using Modern GIS Applications for SSTS Industry Needs
Madalyn Bollig, MPCA
Tuesday, Horizon 203 at 1:30 PM
1 Related CE
GIS (Geographic Information Systems) are computer based systems that are able to analyze and display various different types of geographically referenced data. In recent years, GIS has become an increasingly popular way to represent data and solve problems across a wide variety of disciplines. In this presentation we will explore the new methods of how GIS is being and can be used in the SSTS industry to standardize the information we use, increase industry productivity and efficiency, and to accomplish industry goals. From staying compliant with 7083 Licensing requirements, to helping with 7080 soils verification determinations, there is so much GIS can do for you!

Design Review & Approval - Is it a Complete Design?
Pete Otterness, University of Minnesota
Tuesday, Horizon 204 at 1:30 PM
1 Direct CE
A review of the 7080 requirements for the completion of required new system design review 7082.0100 subp 3 E, 7082.0500 subp 3. Describe what makes a complete design 7080.1700, 7080.1750,7080.1850, 7080.1880; explain the review process by all categories in the industry and the role each plays in the review process, from submittal to completed installation; apply what is in the University Design Suite program.

Community Septic System Rehabilitation
Lucas Caldwell, Septic Check
Tuesday, Horizon 203 at 2:20 PM
1 Related CE
This is a state permitted system so although it does not need to follow Chapter 7080, we still often reference it when working on any on-site installs**** This presentation will walk attendees through the successful rehabilitation of a failing community septic system in Minnesota, guided by the standards and design principles outlined in MN Rules Chapter 7080. The project involved a small residential cluster system that had fallen out of compliance due to a failing drainfield, and permit violations related to effluent quality. Attendees will learn how our team—working in close collaboration with a licensed engineer and the system owner—assessed operational issues, developed a design solution that met regulatory requirements, and implemented a compact treatment system that brought the site back into

compliance. Special focus will be placed on how the project aligned with Chapter 7080's requirements for system sizing, drainfield rehabilitation, and treatment performance standards. This case study offers practical lessons on teamwork, regulatory navigation, and innovation in decentralized wastewater treatment, with takeaways that can be applied to similar projects across Minnesota and beyond.

Non-Sewage Waste Streams
Alex Pepin, Ten Thirty Environmental Solutions
Tuesday, Horizon 204 at 2:20 PM
1 Direct CE
The purpose and intent of 7080 is in relation to treatment of sewage (7080.1050), however there are many other non-sewage waste streams that are regularly encountered. This talk will discuss the purpose and intent of 7080, what the definition of sewage is (7080.1100 subp. 73), what common types of non-sewage that are encountered in residential settings and in other establishments.
The presentation will also discuss Acceptable and prohibited discharges (7080.1550) and discuss the Prescriptive Design Guidance that is incorporated into rule in 7080.1550 Subp.2.C which expressly deals with non-domestic waste sources and how these differ from other non-sewage waste streams such as water softener reject water, furnace condensate or floor drains from garages.
Will also reference the fact sheet 'Subsurface Sewage Treatment Systems – disposal of non-sewage wastes from single family dwellings served by SSTS (wq-wwists6-13). As a reference for professionals.

Inspector Open Forum
Chris Schiewe, Schiewe Septic & Ryan Lashinski, Lashinski Septic
Tuesday, Harbor Side 301-302 at 3:20 PM
2 Direct CE
The main point of emphasis for an inspection open forum around soils, is to answer the following question: What work is necessary to ensure we meet the intent of the rules, maintain a professional standard, and protect homeowners from the human element in subsequent inspections? The answer would be to ensure accurate defensible soil observations done to newly permitted systems today, so future inspectors have enough information to justify a compliance determination without digging up or around the drain field. This would include either a joint soil observation done by the LGU and designer on site (ideal), evidenced by two signatures on a single soil observation, or two independent soil observations validating the system design. Next, it's important to note that while soil observations give you the depth of limiting conditions, consider the documentation or additional verification necessary to corroborate the required vertical separation distance. This might mean an inspector needs to physically probe the distribution media to obtain such a depth. Lastly, we need to emphasize the timing for soil verifications to occur during permit issuance, rather than in a final inspection for issuance of a COC.
Minn. R. 7082.0500 subp. 3 A:
A. A qualified employee with jurisdiction or licensed inspection business who is authorized by the local unit of government must review the permit application and other exhibits to determine whether site evaluation procedures, observations, and conclusions are accurate and fulfill applicable requirements and whether the proposed system will meet applicable requirements. An infield verification of the periodically saturated soil or bedrock at the proposed soil treatment and dispersal sites must be conducted by a qualified employee with jurisdiction or licensed inspection business who is authorized by the local unit of government. An advanced inspector is required to perform the duties listed in this item for Type IV and Type V ISTS as described in parts 7080.2350 and 7080.2400, ISTS design flow of greater than 2,500 gallons per day, and MSTS. The infield verification of the periodically saturated soil or bedrock must occur prior to issuance of the certificate of compliance.
7082.0700 subp. 4 B (2):

(2) A soil separation compliance assessment must be completed by a licensed inspection business or a qualified employee inspector with jurisdiction. Compliance must be determined either by conducting new soil borings or by prior soil separation documentation made by two independent parties. The soil borings used for system design or previous inspections are allowed to be used. If the soil separation has been determined by two independent parties, a subsequent determination is not required unless requested by the owner or owner's agent or required according to local regulations.
7083.0750 subp. 3:
Subp. 3. Certified inspectors. Certified inspectors are responsible for personally conducting the necessary procedures to assess system compliance. Certified inspectors must complete and sign the agency's existing system inspection form. Certified inspectors may permit, inspect, or permit and inspect a building sewer connected to a subsurface sewage treatment system.

SSTS Certification & Licensing Special Topics
Jimmy Lipps, Minnesota Pollution Control Agency
Tuesday, Horizon 203 at 3:20 PM
1 Direct CE
The Certification and Training Unit at the MPCA has compiled several situations and topics that individuals and business commonly have questions on navigating: • can individuals have multiple experience plans/ how to do so, • when do Continuing Education requirements change for an individual's certification, • what to do when there is a change of ownership in a business, and • properly submitting and tracking COI's Topics will reference 7083.0720 D (licensing/insurance), 7083.1000 (licensing/insurance), 7083.1050 (certification experience), 7083.1060 (continuing education requirements). Attendees will learn how to navigate these aspects of rule in the SSTS program, where and who to go for help, and how to submit necessary paperwork and documents properly.

Taking your Business Costs Seriously
Brian Koski, Septic Check
Tuesday, Horizon 204 at 3:20 PM
0 CE
Understanding your business's financial foundation is essential for profitability and growth. This session will guide you through the process of accurately calculating overhead, labor, and equipment costs. Attendees will learn how to identify hidden expenses, allocate costs effectively, and use this data to make informed pricing and budgeting decisions. This presentation will provide practical tools and real-world examples to help you gain control over your cost structure and improve your bottom line.

Using Low-Cost Software to Create Highly Detailed Designs
David Guenther,
Tuesday, Horizon 203 at 4:10 PM
1 Direct CE
This presentation will go through the process of using several low-cost software options like Bluebeam, to help designers satisfy the requirements of preliminary and field evaluation as found in 7080.1700 through 7080.1720. We will also go over how to use these in the field and their impact on accuracy in the office when completing highly detailed site maps, as required by 7080.2430.
We will go through a demonstration of creating a site map using Bluebeam drafting software, and how to incorporate county GIS software and field products like OnX maps to help designers create highly detailed site maps for builders, contractors, and property owners. Thus, ultimately erasing questions during evaluation, permitting, and saving installers critical time on installation day.

Challenging Site Installation
Rick Viita, Viita's Excavating Inc.
Tuesday, Horizon 204 at 4:10 PM
1 Direct CE

There are many challenges at different sites when installing SSTS. We will discuss site conditions that make the following steps to installation tricky: 1) Installing a plastic septic tank (7080.2000); 2) Installing materials once delivered to the mound site (7080.2220); and 3) best practices for top soil, seed, and erosion control (7080.2210 Subp 4, and 7080.2220 Subp. 3)