Subsurface Sewage Treatment Systems Licensing Report

Report to the Legislature

February 15, 2008

Minnesota Pollution Control Agency

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Acknowledgements:

The MPCA wishes to acknowledge the wisdom and dedication of the persons who members or alternates in the Licensing Stakeholders Task Force. These were:

- Tim Bayerl and Dan Bigalke - *American Council of Engineering Companies of Minnesota*
- Damon Powers - *American Institute of Professional Geologists - Minnesota Section (Geoscience Professional Organization)*
- Terry Neff - *Association of Minnesota Counties*
- Terry Bovee and Bob Whitmyer - *Minnesota Association of Professional Soil Scientists*
- Mary West and Duane Blanck - *Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design*
- Ron Mares and Roger Molenaar - *Minnesota Land Improvement Contractors of America*
- Eric Larson and Ron Jaspersen - *Minnesota Onsite Wastewater Association*
- Brian Malm and David Morrill - *Minnesota Society of Professional Engineers*
- Sara Christopherson and Dan Wheeler - *University of Minnesota Water Resources Center*
- Paul Brandt - *National Society of Consulting Soil Scientists*

MPCA also thanks those interested parties who attended meetings and shared their viewpoints. They took time from their jobs and businesses to participate in this process. Special thanks go to Charlie Petersen, Department of Administration, who helped to plan and facilitate the meetings.

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Subsurface Sewage Treatment Systems Licensing Report

Executive Summary

Minnesota Session Laws 2007, Chapter 131 addresses issues associated with the interpretation of Minnesota Statutes §§115.56 and 326, specifically regarding certification and licensing requirements to prepare designs for Subsurface Sewage Treatment Systems (SSTS) also known as septic systems.

Chapter 131 has two main parts. First, it adds a temporary exemption to licensing requirements, other than those found in MS § 115.56, for those who conduct work on SSTS. This statute states that no additional certification, beyond SSTS licensing, is required for performing SSTS work. The Legislature recognized that MS chapter 326 contains additional requirements relating to professional engineers and geoscientists and that more work was needed to reconcile the two statutes. The second part of Chapter 131 requires the Minnesota Pollution Control Agency (MPCA) to work with stakeholders to perform a comprehensive analysis of this issue and report back to the legislature by February 15, 2008. This report summarizes the work of the Licensing Stakeholder Task Force, which led to development of the following recommendation proposed by the MPCA.

This recommendation, endorsed by MPCA, creates a two-stage process. The first stage involves the use of a team approach. The team would require MPCA-certified designers and Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID) - licensed professionals to work together to design systems with wastewater flows greater than 5000 gallons per day (gpd). The team approach would also be used in limited situations for systems between with flows 2500 and 5000 gpd, depending on the complexity of projects.

The second stage involves a comprehensive evaluation of stage one followed by possible recommendations for changes to rules, statutes and/or policies.

The MPCA's two-stage recommendation is based on the following:

1. The team approach brings together all the best resources for new standards which require that SSTS meet specific environmental performance outcomes. The larger SSTS (5,000 – 10,000 gpd), which pose a greater environmental and public health risk, will benefit from the varied expertise required in the design team approach since there are no readily-available state design standards for these systems and there are new performance requirements in the recently adopted SSTS rules.
2. This proposal should not cause any significant business hardship.
   a. The proposal does **not** exclude appropriate SSTS certified or Board licensed professionals from participating in the design of large, complex SSTS. In fact, SSTS Advanced Designers (AD - new category of designer established in the new SSTS rule) would be required on all sytems with flows greater than 2500 gallons per day.
   b. The design team approach does not impact a significant market share of system design work. These projects represent less than one percent of the annual total project load.

3. The Advanced Designer certification process may become unnecessarily difficult if they alone must demonstrate competency for complex wastewater system designs. The "knowledge, skills, and abilities" necessary to design large and/or complex SSTS has not yet been fully defined by the MPCA Need to Know Process, and therefore is not being fully taught in the University of Minnesota Onsite Sewage Treatment Training Program, or tested for in the MPCA competency exam. If the training and certification exam become too complex to allow ADs to do all of this work alone, the number of persons interested in obtaining this certification may be limited. It may also be difficult for local units of government to achieve the appropriate training level for their staff if the AD level is too complex.
4. The proposal includes a provision to re-evaluate the best design approach for SSTS. This approach grants a window of time necessary to develop appropriate training and certification procedures based on the new SSTS rules. While the development process is underway, large and/or complex SSTS projects can continue to move forward with assistance from the required design teams.

This recommendation cannot be implemented at the state level without a change in the provision in MS § 115.56 sub 2 (i) that provides a temporary exclusion from additional licensure. MPCA is not proposing legislative change to address this issue at this time.

Subsurface Sewage Treatment Systems Licensing Report

Purpose

As required by MS § 115.56, this document provides a report on Stakeholder meetings held during 2007 regarding which professional certification and/or license(s) should be required to design SSTS to protect public health and the environment. In addition, this report includes a recommendation by the MPCA on this issue.

Legislative Requirement

Subsurface Sewage Treatment System (SSTS) practitioners are certified by the MPCA under authority granted in Minnesota Statutes 115.56. The Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design (AELSLAGID) licenses Professional Engineers and Geoscientists under authority granted in Minnesota Statutes 326. There is some crossover in the interpretation and application of these statutes as they relate to SSTS work. The Minnesota Onsite Wastewater Association (MOWA) requested that MPCA work with the AELSLAGID Board to clarify this issue.

A series of meetings took place in 2007. The meetings, while educational, were largely unsuccessful in developing specific solutions. Following the meetings, MOWA sought legislation to develop a resolution. Minnesota Laws 2007, chapter 131 addressed this issue in two ways. First, a temporary exemption was added to the SSTS licensing statute, MS 115.56:

> Sec. 73. (i) Until December 31, 2010, no other professional license is required to:
> (1) design, install, maintain, or inspect an individual sewage treatment system with a flow of 10,000 gallons of water per day or less if the system designer, installer, maintainer, or inspector is licensed under this subdivision and the local unit of government has not adopted additional requirements; and
> (2) operate an individual sewage treatment system with a flow of 10,000 gallons of water per day or less if the system operator is licensed as a system designer, installer, maintainer, or inspector under this subdivision and the local unit of government has not adopted additional requirements.

The other provision requires MPCA to work with stakeholders to develop a report on the issue:

> Sec. 95. The commissioner of the Pollution Control Agency must report to the legislative committees with jurisdiction on environmental policy by February 15, 2008, after consulting with officials from the Minnesota Onsite Wastewater Association; the Minnesota Society of Professional Engineers; the American Council of Engineering Companies; the Minnesota Association of Professional Soil Scientists; the Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design; the Geoscience Professional Organization; the University of Minnesota Water Resources Center; the Association of Minnesota Counties; the League of Minnesota Cities; the Coalition of Greater Minnesota Cities; the Minnesota Association of Small Cities; and the Minnesota Association of Townships, on further issues relating to the licensing of individual sewage treatment systems.

MPCA Rules and Current Practice

Rules governing septic system design are developed and enforced under the authority of the MPCA as Minnesota Rule, chapter 7080, 7081, 7082, and 7083. Recently, these rules were significantly modified and became effective on February 4, 2008. In these rules, SSTS are divided into two size-based categories, each with its own set of requirements. Individual Sewage Treatment Systems (ISTS) represent the smaller systems, with wastewater flows less than 5000 gallons per day. Systems in this category with wastewater flows between 2500 and 5000 gallons per day (gpd) have some increased requirements over those ISTS less than 2500 gpd. Systems with flows between 5000 and 10000 gallons per day are considered Midsize Subsurface Treatment Systems (MSTS).

Prior to 2008, SSTS design standards were based on the needs of a single family home. The rule gave some additional requirements for larger or non-residential systems, but these were limited in nature. The rule changes that went into effect on February 4, 2008, make significant changes in the requirements for systems between 5000 and 10,000 gpd by instituting an outcome-driven approach to design. Rather than requiring that systems in this size range be built completely to specific prescriptive standards, the new rule specifies environmental outcomes that must be met and leaves many areas of system design to the designer and the local permitting authority.

The new MPCA requirements include new performance standards for the MSTS that are more protective of ground water and public health. These standards will make the SSTS design more complicated for the systems with higher risk potential. MPCA is working to develop some prescriptive guidance that will assist designers in meeting the environmental outcomes, but there are some areas where advanced knowledge of geoscience and engineering will be necessary to ensure the required environmental outcomes are met.

Stakeholder Task Force Meeting Process

The Licensing Stakeholder Task Force included 14 members, nine alternate participants and 12 interested parties. Some groups chose not to actively participate (League of Minnesota Cities, Coalition of Greater Minnesota Cities, Minnesota Association of Small Cities and Minnesota Association of Townships) but followed the proceedings through minutes, notes and other correspondence.

A facilitator, Charlie Petersen from the Minnesota Department of Administration, was retained to plan and facilitate the meetings. Mr. Peterson also served as a communication hub for committee members. Meeting agendas and notes were posted on the MPCA Web site to further increase communication opportunities.

The Licensing Stakeholders Task Force met six times, from August to December 2007, at the Monticello Community Center. Agendas and notes from the meetings, along with supplemental materials, are posted on the MPCA's website at: http://www.pca.state.mn.us/programs/ists/news.html#taskforce .

Subsurface Sewage Treatment Systems Licensing Report

This report summarizes the issues discussed by the stakeholder group leading to this recommendation by the Minnesota Pollution Control Agency. Responses from the Stakeholder members, who chose to share them, are included in the appendices.

Recommendation

This MPCA recommendation is based in part on the Stakeholder concerns as well as the agency's goal of protecting public health and the environment. The recommendation outlines when an SSTS-licensed Advanced Designer may work alone on system design and when Board-licensed professionals (Engineers and/or Geoscientists, as appropriate) must also be involved. SSTS provide a necessary and valuable service towards meeting wastewater treatment needs and we want to make sure that all appropriate certified and licensed professionals that can effectively add value, are participating in the design of SSTS.

This recommendation attempts to strike a balance between those who believe that design of all SSTS greater than 2500 gpd should include Board-licensed professionals and those who feel that only MPCA-required certifications are necessary for design of all SSTS up to 10,000 gpd. This recommendation also reflects the need for advanced knowledge and skills to meet more stringent water quality standards found in the MPCA's revised SSTS rules. Not all participants agree with all areas of this recommendation. Stakeholder organizations were invited to include their comment letters in this report, see Appendix 3.

MPCA Recommendation -Who does the work: SSTS Designer or Board Registered Professional? - This is the core question that led to the development of the Licensing Stakeholder Task Force and ultimately to this recommendation. The recommendation outlined below received the most positive comments from those in attendance at the final Task Force meeting. The recommendation includes a two phased process and is presented by system category (size, type and characteristics).

Phase I: Team-Based Approach

Systems with flows less than 2,500 gallons per day:

1. Advanced Designers (AD*) required for system Types IV and V
2. Basic Designers for all other system Types

Systems with flows between 2,500 and 5,000 gallons per day:

1. AD for Working Principles Designs**
    a. Includes working principles-based nitrogen assessments
2. AD and a Board-licensed professional (or a person with both qualifications) where a working principles approach is not applicable.
    a. Includes all Type V systems
    b. Includes some nitrogen reduction methods/best management practices (BMPs) with limited supporting research:
        i. presence of a downgradient riparian zone,
        ii. groundwater conditions which naturally denitrify,
        iii. installation of downgradient recovery wells for non-potable use

iv. dilution by downgradient storm water basin before property line
v. green space maintained downgradient of system to allow for dilution by precipitation
vi. when groundwater monitoring is required by the local government unit to verify the efficacy of the chosen BMP.

c. Collection systems with complex designs including pressure systems transporting more than 2500 gpd.

Systems with flows between 5000 and 10000 gallons per day: AD **and** a Board-licensed professional (or a person with both qualifications)

** Advanced Designer is a new category established in the new SSTS rule. The University of Minnesota will begin specific training in this category in January 2009, once the MPCA develops the "Need to Know" (NTK) criteria. NTK forms the backbone of the training. Training will be offered as needed to meet the demand. To obtain the AD certification, individuals will be required to complete the coursework offered by the U of M and pass a competency test administered by the MPCA. The new SSTS rule allows a three-year grandfathering period during which current Basic or Advanced Designers will be able to design systems of all sizes. The new AD certification will be required for all who design more complex or larger (greater than 2500 gpd) systems after February 4, 2011.*

***Working Principles Designs will be outlined in MPCA guidance. It will incorporate comments from the SSTS Advisory Committee and other interested parties.*

Phase II: Re-evaluation:

The Re-evaluation Phase begins in four years (2012). The MPCA will collect information for the re-evaluation beginning with the rule implementation and throughout the fifth year. Development of recommendations will conclude in the fifth year (2013). The following topics will be addressed.

- Assess Working Principles Designs (prescriptive guidance and product registration) to determine whether there are implementable prescriptive options for doing MSTS work. *Example questions: Have useful designs been developed? How will new or prescriptive designs be implemented? MPCA certification will require competency examinations for new "Need to Know" requirements prior to implementation of new knowledge skills and abilities. The MPCA is committed to maintaining up-to-date NTK documents on a regular schedule, as needed. Have treatment products for use in MSTS-sized systems been registered and is the guidance on their use appropriately detailed?*
- Are problems observed in system design, installation and operation or are the new standards adequate to answer most questions? *MPCA will need to work with Stakeholders to develop a cost effective plan to evaluate system adequacies.*

- If possible, review the design and operation of 10-20 MSTS to assess their environmental performance and identify areas of needed improvement. Resources would need to be allocated to complete this work.

The MPCA recommendation, which is not supported by all stakeholders, is based on work done by the task force in developing a matrix of responsibilities and which is provided in Appendix 2. This matrix is considered a "work in progress" and is not intended to take the place of, or supersede, MPCA's recommendation. It is included to illustrate the issues discussed and provide a basis for continued discussion and refinement. The shaded sections delineate areas where additional work is needed to determine the level of knowledge, skills, and abilities to perform each sector of work. In these areas, there are no readily-available state design standards to be used. When complete, MPCA intends that the guidance will inform decision making and standardize the process, clarifying those specific areas where the services of Board-licensed professionals will be needed.

Benefits of the Recommendation

The team approach brings together all the best resources for new standards which have no current guidance. The design of larger SSTS (5,000 – 10,000 gpd), which pose a greater environmental and public health risk, will be required to be designed by a team of experts including MPCA-certified and Board-licensed professionals. These SSTS will benefit from the varied expertise required in the design team approach since there are no readily-available state design standards for these systems at this time and there are new performance requirements in the recently adopted SSTS rules which will come into effect as local ordinances adopt them. Advanced knowledge and skills are needed to meet the more stringent water quality standards of the revised MPCA rules, at least until prescriptive guidance (Working Principles Designs) are developed. Where prescriptive guidance cannot be provided, involvement of Board-licensed professionals will remain a necessity.

This recommendation should not cause any significant business hardship. This recommendation requires that both MPCA-certified Advanced Designers (AD - new category of designer established in the new SSTS rule), as well as appropriate Board-licensed professionals, would be responsible for the design of all systems with flows greater than 5000 gallons per day. In addition, this recommendation clarifies that MPCA-certified Designers and Advanced Designers would be allowed to design systems with flows up to 2500 gallons per day. This recommendation only brings in additional expertise on larger systems with potentially higher risk, more stringent standards, and those where prescriptive design standards are not available. Additionally, the design team approach does not impact a significant market share of system design work. Local governments report that between 15,000 and 19,000 SSTS are designed and installed every year. More than 99 percent of these systems have flows less than 5,000 gallons of wastewater per day. It should be noted that although the number of MSTS designs per year is small, MOWA has raised concerns that the design of larger systems, specifically

those in the MSTS category, represents a significant portion of the overall SSTS industry design revenue.

With the two-phase approach, this recommendation provides time for the ongoing development of the NTK, training criteria, Working Principles Designs, competency testing and for local governments to put in place the technical requirements of the new rule. The NTK is currently being developed so that curriculum and exams can be created for the new SSTS license categories. The pending rule changes allow a three-year period for transition from the current to the new licensing structure; it is essential that training and exams begin as soon as possible so that there are enough licensees to perform the needed work when the rule is fully implemented. This work cannot be completed until the scope of the AD certification is defined. This recommendation addresses this issue.

The Advanced Designer certification process may become unnecessarily difficult if ADs alone must demonstrate competency for complex wastewater system designs. The "knowledge, skills, and abilities" necessary to design large and/or complex SSTS has not yet been fully defined by the MPCA Need to Know Process, and therefore is not being fully taught in the University of Minnesota Onsite Sewage Treatment Training Program, or tested for in the MPCA competency exam. If the training and certification exam become too complex to allow ADs to do all of this work alone, the number of persons interested in obtaining this certification may be limited. The Association of Minnesota Counties has raised concerns that it may also be difficult for local units of government to achieve the appropriate training level for their staff if the AD level is too complex.

A side benefit of this recommendation is that it will reduce the scope of the NTK and subsequent training needed from the University of Minnesota and the need for MPCA to certify ADs competency to design the largest and most complex SSTS on their own. This will make the AD certification more readily obtainable for those interested in helping with these design needs. The University of Minnesota's Onsite Sewage Treatment Program notes that few, if any, college courses specifically address MSTS design, and does not agree that the scope of training for ADs would necessarily be reduced.

The recommendation includes a provision to re-evaluate the best design approach for SSTS. This approach grants a window of time necessary to develop appropriate training and certification procedures based on the new SSTS rules. While the development process is underway, large and/or complex SSTS projects can continue to move forward with assistance from the required design teams. During the re-evaluation phase, the Working Principles Designs will be shared with the SSTS Advisory Committee and other interested parties. The MPCA considers it essential to allow time for all interested stakeholders to comment on the proposed design guidance and how it can be implemented. This guidance must be practical and effective.

One final benefit, with regards to providing extra time for this process in phase 2 of the recommendation, is that since the technical requirements of the rule are only implemented when adopted into local ordinance, more time is needed for ordinance adoption and to gain experience in working with the new requirements.

Implementation Mechanisms and Recommended Changes to Statute
This recommendation cannot be implemented at the state level without a change in the provision in MS § 115.56 sub 2 (i) that provides a temporary exclusion from additional licensure. The current statutory exemption for SSTS-licensees is in place until 2010. MPCA is not proposing legislative change to address this issue at this time.

The MPCA will begin the process of completing the NTK for Advanced Designers from which the University of Minnesota will complete necessary changes to their training curriculum and MPCA will complete development of our competency examination. Any subsequent changes to the program would need to be managed through MPCA's NTK process.

Unaddressed Issues
The statute that directed development of this report also required that issues relating to SSTS operation and maintenance be discussed. The Licensing Stakeholders Task Force did not have time to address this provision, but MPCA will work to further define the issue and will work with stakeholders to determine the need for additional work beyond this report.

Appendix 1: List of Participants and Interested Parties

Organization	Contact Person
American Council of Engineering Companies of Minnesota	Tim Bayerl
American Council of Engineering Companies of Minnesota	Dan Bigalke
American Council of Engineering Companies of Minnesota	David Oxley
American Institute of Professional Geologists - Minnesota Section (Geoscience Professional Organization)	Damon Powers
Association of Minnesota Counties	Terry Neff
Association of Minnesota Counties	Annalee Garletz
Coalition of Greater Minnesota Cities	Nancy Larson
Interested Party	Kevin Kloeppner
League of Minnesota Cities	Craig Johnson
Minnesota Association of Professional Soil Scientists	Terry Bovee
Minnesota Association of Professional Soil Scientists	Bob Whitmyer
Minnesota Association of Professional Soil Scientists	Peter Miller
Minnesota Association of Professional Soil Scientists	Scott Smith
Minnesota Association of Small Cities	Dave Engstrom
Minnesota Association of Townships	Eric Hedtke
Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design	Mary West
Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design	Duane Blanck
Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design	Doreen Frost

Organization	Contact Person
Minnesota Department of Administration	Charlie Petersen
Minnesota Land Improvement Contractors of America	Ron Mares
Minnesota Land Improvement Contractors of America	Roger Molenaar
Minnesota Land Improvement Contractors of America	Nordis Estrem
Minnesota Onsite Wastewater Association	Eric Larson
Minnesota Onsite Wastewater Association	Ron Jasperson
Minnesota Onsite Wastewater Association	Bernie Miller
Minnesota Onsite Wastewater Association	Ken Olson
Minnesota Pollution Control Agency	Gretchen Sabel
Minnesota Pollution Control Agency	Bill Priebe
Minnesota Society of Professional Engineers	Brian Malm
Minnesota Society of Professional Engineers	David Morrill
Minnesota Society of Professional Engineers	Dan Zemke
Minnesota Society of Professional Engineers	Mary Detloff
National Association of State Boards of Geology	Mike Kunz
National Society of Consulting Soil Scientists	Paul Brandt
University of Minnesota Water Resources Center	Sara Christopherson
University of Minnesota Water Resources Center	Dan Wheeler

Subsurface Sewage Treatment Systems Licensing Report

Appendix 2: SSTS Licensing Stakeholders Task Force – "Who Does the Work" Matrix from 11/29/07 Meeting

	Size	Rule Type	Assessment					Design			Permitting authority & type
			Impact to aquifer: **Nitrogen**	Impact to aquifer: **Phosphorus**	Impact to shallow ground water: **fecal organisms**	**Hydraulics**		**Collection system**	**Secondary treatment (P, N, BOD-TSS, Fecal, FOG)**	**Soil treatment & dispersal systems**	
						Infiltration	Mounding				
ISTS/Small Type I to III	1 to 2500 gpd	Prescriptive	Does not apply			**D**	Does not apply	**D**	Does not apply	**D**	Inspector LGU
ISTS/Small Type IV to V	1 to 2500 gpd	Prescriptive (Type IV) Performance (Type V)	Does not apply		**AD**	**AD**	**AD**	**AD**	**AD**	**AD**	Advanced Inspector LGU
ISTS/Large	2500 to 5000 gpd	Prescriptive (Types I to IV) Performance (Type V)	Types I to IV AD	Types I to IV AD	Types I to IV AD	Types I to IV AD	Types I to IV AD Develop by 2010 (SOME)	Types I to IV AD Develop by 2010 (SOME)	Types I to IV AD Develop by 2010 (SOME)	Types I to IV AD	Advanced Inspector LGU: option defer to state/ technical assistance
			Type V **AD, PE, PSS**	Type V **AD, PE, PSS**	Type V **AD, PE, PSS**	Type V **AD, PSS**	Type V: **AD, PSS, PG**	Type V **PE**	Type V: **AD, PE**	Type V **AD, PE, PSS**	Same as above
MSTS	5000 to 10,000 gpd	Performance w/ Some Prescription	Prescriptive: **AD** Develop by 2011	Prescriptive: **AD** Develop by 2011	Prescriptive: **AD** Develop by 2011	Prescriptive: **AD** Develop by 2011	Prescriptive: **AD** Develop by 2011	Prescriptive: **AD** Develop by 2011	Prescriptive: **AD** Develop by 2011	Prescriptive: **AD** Develop by 2011	Advanced Inspector LGU: option defer to state/ technical assistance
			Performance: **AD, PE, PSS, PG**	Performance: **AD, PE, PSS**	Performance: **AD, PE, PSS**	Performance: **AD, PE, PSS**	Performance: **AD, PE, PSS, PG**	Performance: **PE**	Performance: **AD, PE, PSS, PG**	Performance: **AD, PE, PSS, PG**	Same as above

D – Designer, **AD** – Advanced Designer, **PE** – Professional Engineer, **PSS** – Professional Soil Scientist, **PG** – Professional Geologist

NOTE: Highlighted (in yellow) areas are to be determined at future identified dates.

Appendix 3: Comments from Stakeholder Organizations

Stakeholder organizations were invited to submit comments for inclusion in the final report. Comments are included here from:

- Minnesota Association of Professional Soil Scientists
- Minnesota Board or Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design
- Minnesota Chapter, Land Improvement Contractors of America
- Association of Minnesota Counties
- Minnesota Onsite Wastewater Association
- American Council of Engineering Consultants

December 18, 2007

To: Gretchen Sabel, MPCA
From: Terry Bovee, P.S.S.- Minnesota Association of Professional Soil Scientists
Subject: Licensing Stakeholders Task Force Compromise

Gretchen:

I have reviewed the Draft Report to Legislature regarding the Licensing Stakeholders Task Force Compromise dated December 13, 2007. As the duly appointed representative of Minnesota Association of Professional Soil Scientists (MAPSS), I endorse the Draft Report to the Legislature.

I believe that most of the stakeholders entered into this process with the spirit of cooperation. I am concerned that the compromise that resulted from this effort will be chipped away or potentially circumvented over time. It is MAPSS's expectation that the MPCA stand by the compromise as drafted.

The entire process has been very beneficial in identifying many of the issues related to larger-scale SSTS. The collection and interpretation of soils data is central to any SSTS design. One benefit of determining 'who should do the work' on larger SSTS should lead to acknowledgement of existing professional expertise and thereby reduce redundancy in future soils training efforts.

It is my opinion the reevaluation phase needs to answer the question: Is the public health being protected? I would advocate for a science-based, quantifiable approach to reviewing large SSTS (>2500 gallons/day). This phase should not rely solely on a qualitative review of training and permitting functions to answer the question.

Finally, I request that MAPSS be a participant in any MPCA-guided exercise in producing 'Working Principles Designs'. Also, the revision of any current statutes, or formulation of new statutes that address SSTS licensing should include representation from MAPSS.

Thank you for the opportunity to participate.

Sincerely,

Terry L. Bovee, P.S.S.
MN License #30269
620 Ridge Road
Henderson, MN 56044

Cc: MAPSS Executive Board

THE MINNESOTA BOARD OF ARCHITECTURE, ENGINEERING, LAND SURVEYING,
LANDSCAPE ARCHITECTURE, GEOSCIENCE & INTERIOR DESIGN

Gretchen Sabel
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

January 9, 2007

Re: SSTS Licensing Stakeholders Task Force Compromise

Dear Gretchen:

As requested, here are the comments from the Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design (AELSLAGID) regarding the draft SSTS Licensing Stakeholders Task Force compromise document. We appreciate the effort you and your staff have put forth in drafting this compromise position.

As has been stated throughout the meetings, the Board's legal counsel has advised the Board that it does not have legal authority to enter into any agreement, including a Memorandum of Understanding (MOU) that will in any way circumvent or negate the exception created by 2007 Minn. Laws Ch. 131, § 73. Upon further thought and discussion amongst Board members, it doesn't seem a MOU would be necessary. If the compromise position and Statute 115.56 amendment, as drafted, is accepted by the legislature it will be in effect from 2008-2013, with the re-evaluation phase beginning in 2012. Provided all parties involved adhere to the compromise position for this time frame, a MOU would not be necessary.

It is the Board's primary concern that the health, safety, and general welfare of the public be kept at the forefront of the SSTS licensing discussions, not who should or should not be doing the work. Given the small number of SSTS this compromise effects, we believe the compromise position strikes a good balance between the overlapping statutes and trust all parties involved will stand by the compromise position as drafted.

Therefore, we can support the technical content of the Draft Report dated December 13, 2007. However, if any additional changes are made, or the 115.56 amendment changes do not occur, we would need to review, discuss, and bring the topic to the attention of the full Board again before endorsing any changes.

Thank you for the opportunity to participate.

Sincerely,

Doreen Frost

Doreen Frost
Executive Director

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February 5, 2008

The following is LICA's comments on the last draft.

1. The January draft of the MPCA proposal does not reflect the MATRIX as agreed upon by the stakeholders.

2. On Page 4, the draft states that 1% of the annual project load is in larger systems. This reflects the number of systems but not the workload. This does not reflect the business impact on small design firms because the larger systems can generate a significant percentage of the annual cash flow for some small onsite designers.

3. Item #3 of the executive summary demonstrates the inconsistency of this proposal.

   First—The recommendation calls for the Advanced Designer training on all systems regardless of size. How can the level of training be lowered and still be considered adequate for ALL systems regardless of size.

   Second—This report appears to all professional engineers without advanced designer training to hire an onsite advanced designer, who is not an engineer, to do the design for them. How will the engineer, not trained in onsite, know if the advanced designer is doing it right? And if he can do it right in that circumstance, why can't he do it alone? Now factor in the lower level of training and what do you get?

   Third—The local county inspectors will still be responsible for reviewing and permitting systems up to 10,000 GPD. If the level of training is lowered, how will they be qualified to review a 9,990 GPD system? If the LGU can review and approve the design for permits, why can't they make the decision to involve teams?

   Fourth—The report states "there may not be enough ADs certifiable to meet the needs statewide" yet the proposal requires an AD as part of the team on ALL systems.

4. We did not participate in discussions before the stakeholders meetings. This appears to be basically a licensing "turf war" between MOWA and the board-licensed professionals.

5. Although the designers have the greatest stake in this process they seem to have the least amount of influence. There was no in depth discussion of qualifications from either side. No evidence of poor quality work from the onsite industry was presented suggesting that the quality of work was not an issue. As one of the stakeholders said at one of the meetings; "this appears to be trying to solve a perceived problem that is not a problem."

Respectfully submitted,

Ron Mares

Roger Molenaar

ASSOCIATION OF MINNESOTA COUNTIES

Memo

To: Gretchen Sabel, Pollution Control Agency SSTS Coordinator

From: Annalee Garletz, AMC Staff

CC: Terry Neff, Aitkin County Planning and Zoning Administrator

Date: 2/12/2008

Re: AMC Comments on the Subsurface Sewage Treatment Systems Licensing Report

The purpose of this memo is to voice county concerns regarding the training requirements for septic systems that are 1 to 2,500 gallons per day and that are a type IV. These systems are as prescriptive in design as type I, II and III systems. Many single-family homes are using these systems where a standard system can not be installed. The additional cost for designs and permits will likely persuade the landowners to install holding tanks versus a type IV system and this is not in the landowners or environments best interest. The largest area of concern Association of Minnesota County (AMC) members have are the costs associated with training staff to review these systems. With this proposal, the cost to train county staff will significantly increase for contract inspections and continuing education. As a result, counties may need to subcontract these types of inspection to the private sector. This may in turn, eliminate the unbiased inspections local units of government currently provide.

A suggested solution to these concerns would be to eliminate the additional training requirements (advanced designer) for type IV systems with flows of less than 2,500 gallons per day and allow basic designers to design these systems.

AMC staff working in coordination with the Minnesota Association of Planning and Zoning Administrators (MACPZA) would be happy to answer any further questions you have regarding these concerns. With increased costs for providing services and lack of adequate staff in county planning and zoning offices, local units of government are very concerned about any proposals that would put further strain on their departments. In light of the new adoption of SSTS rules that are not paired with additional funding, SSTS programs are increasingly burdensome to counties. We appreciate you taking the time to consider our comments and appreciate the opportunity to participate in the meetings leading up to this report.

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MOWA
minnesota onsite wastewater association

MOWA's Response to the MPCA Proposal

MOWA's goal from day one has been "to have the right people with the right skills, qualifications and authorization doing the work of designing, building, operating, and maintaining the small and midsize wastewater treatment systems needed to provide cost effective protection of human health and the environment in Minnesota". We developed that mission statement nearly two years ago for the members who were going to be involved with the conversations with MPCA and the professional licensing board to keep them focused on the primary objective and not on the underlying turf issue.

At that time members of the Board Licensed Professional (BLP) community stated their belief that designing Sub Surface Treatment Systems (SSTS) over 2,500 Gallons Per Day (GPD) is "an activity of engineering as defined in MS 326" therefore anyone designing SSTS over 2,500 GPD must be a BLP.

The MPCA established the 10,000 GPD ceiling in Rule 7080 in 1996. Individual sewage treatment system basic designers have established businesses designing ("an activity of engineering") collection systems, applying advanced treatment technologies, and subsurface disposal sites for onsite systems from 0 to 10,000 GPD.

MS 115.56 requires the MPCA to establish the SSTS license, establish the rules governing the onsite industry, **and** ensure adequate training exists for onsite sewage treatment system professionals.

MOWA believes that:

- The "activities of engineering" applied to designing SSTS are subject to the training and licensing required by MS 115.56.
- Rewriting the Rule with more stringent standards does not relieve the MPCA of the responsibility of ensuring that training exists for the onsite professional as the statute requires.
- Mandating the team concept on all systems over an arbitrary flow level does not fulfill the statutory requirement to ensure adequate training exists for the onsite professional.

The Rule allows for type 1-4 systems that are designed using proven Working Principal Designs (WPD) and pre-engineered technologies applied within manufacturer's specifications. The Rule also recognizes the need for new discoveries to advance the industry and classifies those systems as type 5 performance systems.

The MPCA proposed compromise does not allow the working principal design on any pressure collection system over 2,500 GPD regardless of simplicity or available WPD. This is a prime example of what MOWA fears most about this proposal—unrealistic design guidance that unnecessarily mandates the BLP into the team **under** 5,000 GPD simply because it is considered an "activity of engineering". MOWA believes that working principal design guidance either exists or can be developed in the very near future for type 1-4 systems.

MOWA believes that:

- The intent and the historical effect of MS 115.56 is to license onsite practitioners who are not BLPs to design type 1-4 systems using working principal designs to 10,000 GPD and also license the professionals who are BLP to design type 1-5 systems of any size. It created an open and equal field of competition for type 1-4 systems under 10,000 GPD.
- The MPCA "compromise recommendation" does not fulfill the intent or the historical effect of MS 115.56. We **do not** believe it represents the work of the stakeholders task force. It does represent the position of the BLPs by applying restrictions on some systems between 2,500 and 5,000 GPD and mandates BLP involvement in **all** systems over 5,000 GPD regardless of simplicity or potential risk.
- Unnecessary mandated BLP involvement will increase cost and place financial burden on privately funded individuals, resorts, and non-profit church camps. Publicly funded small community projects have already experienced increased costs due to mandated BLP involvement.

Experience in the field of SSTS has proven that complexity and potential risk of a system is not determined by the gallons of wastewater generated each day alone. The MPCA proposed compromise uses the GPD as the **only** criteria to involve the team between 5,000 and 10,000 GPD and some over 2,500 GPD.

- MOWA supports using the team concept for more complex systems and challenging sites.

The MPCA recommendation uses an arbitrary GPD to mandate the use of the team concept, not an actual assessment of the complexity of the system or site. MOWA recognizes that some sites will require the additional field experience of the board licensed Geosciences professionals to assess for the new nitrogen and phosphorus impact and the ground water mounding assessment required in the new 7081 Rule. MOWA believes that design guidance worksheets can be developed to determine a "trigger" for the team concept.

MOWA **does not support the assumption:**

- **All** systems between 5,000 and 10,000 GPD are too complex for practitioners who are not BLPs to design alone.
- That practitioners who are not BLPs cannot be trained to the level required to design type 1-4 systems in the new Rule.

MOWA **believes:**

- The MPCA proposed recommendation mandates unnecessary work sharing on all systems over 5000 GPD and some under 2,500 GPD, not just the more complex systems.
- This grants a competitive advantage to one industry (BLP) over another (onsite).
- The three year phase in period of the new Rule and the current MS 115.56 amendment will allow adequate time to develop the training and the working principal design guidance and establish the Advanced License in the field. As allowed in MS 115.56, during this phase in period the local unit of government and the designer should be allowed to assess the system and make the decision to involve the team concept when necessary.

MOWA believes the MPCA proposed recommendation does not reflect the matrix the task force agreed to.

Despite the lack of discussion on actual training or experience, the task force came to a consensus on a matrix to do the elements of design. Part of the second meeting and all of the third meeting was spent building the matrix and assigning the right license categories to do the work. At the fourth meeting we re-examined the matrix process and came to the same conclusions. At the fifth meeting we compared the MPCA proposal against the matrix. The group agreed (6-2 among the group reps, no position from the MPCA) that they thought the matrix still assigned the proper training levels to elements of design.

The matrix allowed the Advance Designers who are not BLPs to work on systems up to 10,000 GPD without BLP involvement when the systems were designed using working principal (prescriptive) designs. The MPCA proposed recommendation **does not** follow the principles agreed to in the matrix.

The group discussed and agreed that "more time" is needed. MOWA's perception of more time is to allow the original three year transition process from old Rule 7080 to new Rule 7081 to happen, and let the designer and LGU decide when teams are necessary.

MOWA does not believe the MPCA proposal will insure "we have the right people with the right skills, qualifications and authorization doing the work of designing, building, operating, and maintaining the small and midsize wastewater treatment systems needed to provide cost effective protection of human health and the environment in Minnesota".

The irony is that basic designers have been designing working principal designs between 5,000 and 10,000 GPD for many years and they are working well. There has been a recent rash of problems with larger systems, predominately designed by Board Licensed Professionals. Perhaps that explains why the task force recommends all BLP onsite designers receive advanced onsite designer training, but it does not explain the Agency's report recommendation to mandate including BLPs in all systems over 5,000 GPD.

Respectfully submitted,

Eric Larson and Ron Jasperson (MOWA Representatives)

Sabel, Gretchen

From: Tim Bayerl [Tim.Bayerl@wsn-mn.com]
Sent: Wednesday, February 13, 2008 10:46 AM
To: Sabel, Gretchen
Subject: Subsurface Sewage Treatment Systems Licensing Report

Gretchen,

As the task force representative for the American Council of Engineering Companies (ACEC) of Minnesota, I want to state that we support the compromise position developed as a result of the meetings held, and support the report prepared by the MPCA.

Thank you for the opportunity to participate in the report development process.

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