

SSTS Advisory Committee Agenda

June 11th, 2014

Watab Town Hall - Sauk Rapids

9:30 – 10:00 Coffee and conversation

10:00 – 10:10 Introductions and agenda review

10:10 – 12:00 Programing and Policy discussions

Goal -- AC informed of ongoing activity and provides input and approval

1. Pipelayer update, Nick Haig
2. New factsheet – Disposal of non-sewage wastes from single-family dwellings served by subsurface sewage treatment systems, Mark Wespetal
3. Amish discussion, enforcement activity, Ron Swenson and Gretchen Sabel
4. Land application of waste, liability for MnDOT or other organizations, Sara Heger

12:00 – 12:45 Gretchen SSTS AC farewell lunch, \$5 contribution

12:45 – 2:00 MPCA short updates

Goal -- AC informed of ongoing activity and provides input

1. Ordinance adoption update, Gretchen Sabel
 - Two Type I sites issues with a few ordinances, Gretchen Sabel
2. Annual report, Aaron Jensen
3. Grants, Gretchen Sabel
4. Registered products update, Barb McCarthy
 - Bottom Draining Sand Filter
 - Two treatment products currently under review
 - Sewage tanks
5. MPCA unsewered initiative - report on Continuous Improvement project, Gene Soderbeck
6. Legislative initiatives, Gretchen Sabel
 - Tank fee changes
 - Ticketing authority for SSTS violations

2:00 – 2:30 Open forum for discussion – members invited to share information of mutual interest.

Goal – provide AC members the opportunity to discuss other issues of interest.

2014 Meeting dates: ?

Committee Website: <http://septic.umn.edu/events/sstsac/>

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Attendees: Barb McCarthy, Marilee DeGroot, Lisa McCormick, Aaron Jensen, Dick Vukonich, Sara Heger, Hank Schreifels, Ron Thompson, Mark Wespetal, Roger Berggren, Michael Rutten, Ron Jaspersen, Eric Van Dyken, Nick Haig, Terry Neff, Chris Le Clair, Jim Larson, Cathy Tran, Cindy Tieman, Troy Johnson, Pete Otterness, Gretchen Sabel

The meeting came to order at 10am with introductions and agenda review. An item was added to the end of the agenda to review the processes for sieve analysis.

Pipelayer Update and Discussion of Possible SSTS AC Position on the Issue: Nick reviewed the document he had provided to the committee, and then reported on yesterday's meeting with the plumbing board. See Nick's document (Request for Feedback from Potentially Affected Parties and Responses) and subsequent summary table that he sent to the committee. The plumbing board says that they

Support streamlining bond and business application/renewal process
Support property trained SSTS inspectors' ability to inspect building sewers
Support MPCA/DLI working out how co-definition could work to allow SSTS designers to design and submit building sewer designs connected to SSTS to the appropriate plumbing authority.

Cathy noted that this discussion has been high-level; there is a lot of work to be done as we get into the detail level. Sara asked what committee can do here. Nick noted that there have been responses from eight organizations. Ron asked whether the authority to grant variances on building sewer issues would also go to the SSTS inspector. Cathy replied that the rules were clear that this authority is lodged at DLI. Nick said that he would see this applying to those areas where there is not a plumbing authority.

Comment: Doesn't the well program have something like this co-definition? Ron – yes. Well contractors are allowed to connect the well to the home plumbing. If a well contractor does the work, then MDH inspects this line along with the well. If a plumber does the work, this line is inspected as part of the plumbing. Comment: This would be a workable approach for SSTS. Discussion. The well program's authority for the connection pipe is through an exemption from plumbing licensure and some responding organizations are reticent to support any exemption. Nick pointed out that this proposed solution is different than an exemption.

Comment: Will a co-definition approach lead to confusion at the local level? Cathy said that this is a concern with DLI, but that the details can be worked out. Comment: An option would be to say that only SSTS professionals can design, construct or inspect the building sewer leading to an SSTS. Ron noted that MDH and DLI are working on a memo of agreement that will guide and explain responsibilities; this may be an approach to consider for building sewers, too. Nick noted that the Plumbing Board was also concerned about how the eventual education of SSTS and plumbing professionals would take place.

Motion Van Dyken, second Le Clair to support the streamlining of the administrative processes and to support further pursuit of a co-definition of building sewers that results in SSTS professionals being authorized to design, submit plan, and inspect building sewers connected to SSTS. Passed unanimous. Sara asked Nick for the timeline; he replied that this is the end of the input gathering process and that next steps will come along later this year. 2015 would be when any legislative changes would be sought so significant work will need to be completed in the remainder of 2014. The goal is to get this all done with new bond language available by October of 2015. Question: Are the Plumbing Rules still open?

Another comment period will come up soon. Amendments to the UPC are being voted on by the plumbing board at their July meeting. These rules (4714 instead of 4715) will then be published in the state register and an open comment period will follow.

New Factsheet on Non-Sewage Wastes: This factsheet was prepared by MPCA with input from DLI. Several programs at MPCA were involved in this as the desire was to be as inclusive as possible. Barb noted that this factsheet is now posted on the MPCA website but Mark noted back that changes can still be made if areas of disagreement with what's in it now turn up.

Question about daylighting: Do setbacks apply? Yes, any daylighted water conditioning waste must discharge must meet setbacks.

Question: when a pumper finds a holding tank from a residential garage, can the pumper land apply the stuff on the person's land? Discussion – there are some considerations; once the waste is in the pumper truck the pumper has liability. It makes sense that if they could daylight it, they should be allowed to haul the waste elsewhere. This is beyond the scope of this factsheet, as are several other things.

Amish issues and Enforcement: Gretchen shared some of the concerns that counties have raised relative to regulation of Amish sewers, and what MPCA is doing so far.

Seven counties in Minnesota have significant Amish population. Gretchen talked about situations in several counties. Fillmore County looking to MPCA for help in addressing related to Amish non-compliance issues. Erik suggested the county work with the County Attorney to seek compliance. MPCA will be meeting in Fillmore County; there are over 90 straight pipe issues that Fillmore County will be submitting these cases to the MPCA later in June.

The committee briefly discussed Todd County and how the Amish are treating waste there. There is no uniform approach from county to county. There are typically zoning issues that are related to building permits, and sewage systems are part of this.

Land application of wastes, liability for MNDOT: Sara discussed the lessons she has learned in the work the U is doing to evaluate and maintain SSTS at MNDOT rest areas. One lesson is that there are few pumpers capable of pumping out 10,000 gallon tanks. The big problem is finding somewhere to discharge the removed wastes; cities often do not like to take these wastes and MNDOT has a policy of not allowing their wastes to be land applied.

Comment: Wastewater plants should be required to take this waste. Pete noted that if they take public money this is a requirement, but there is no limit to what a plant can charge. If they don't want the waste, they charge a rate that is meant to discourage people who would bring waste there.

Sara feels that if MNDOT is not willing to land apply, this sets a tone for the state that land application is bad. She is going to talk to MNDOT advisors and deciders about this, and would like to involve MPCA staff in this discussion. This adds cost, not value.

County ordinance adoption: Gretchen gave an update on the ordinance adoption status. Most ordinances are complete with a few that are still in the works. Base grant funding will be withheld from counties that have not adopted a current ordinance or have an ordinance that does not meet state

requirements. Currently there are a few ordinances that do not meet the two type I sites provision of the state rule. Work will continue with the remaining counties as they finish or fix their ordinances.

LUNCH

Discussion of Annual Report: Aaron gave an update on the status of the 2013 annual report. The report is nearly complete and will be posted on the website sometime in July. Currently the draft version is being reviewed and appropriate corrections will be made before it needs to go through the agencies publications team for final approval. If there are any questions in regards to the annual report please feel free to ask Aaron and he will be happy to answer them.

Aaron talked about the new Excel version of the Existing System Compliance Inspection form. This is just a new version of the form. The Word and PDF format are still available and remain unchanged. All three versions of the form are identical and again nothing has changed. Just a new version was created. Counties requested this so they can dump the info into their county databases. Excel aligns better with Access databases than Word or PDF. Sara Heger and Chris Le Clair from Washington County did the majority of the work on the new Excel form. There are some features to this form that are more functional than with the Word version so folks are encouraged to give this a try.

Sara also noted that the Maintenance form was also updated on the U of M's website for this very same reason.

Grants: Gretchen discussed the currently open grant round. Click here for more info. <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/subsurface-sewage-treatment-system-ssts/ssts-local-units-of-government.html#financial>

Advanced Inspector Grants – will cover 75% of the cost of Advanced Inspector work for systems greater than 2500 gpd. 16 counties are participating in this now; one bill has been paid so far. Work has to have been done within the contract period, by an Advanced Inspector on a system over 2500 gpd; allowable expenses are laid out in the agreement.

Unsewered Initiative: Lisa discussed the project and what has been going on to date. We are currently drafting the implementation plan for the program and how we will go about verification of the 1600 potentially problem areas in the state. The number was derived from the 2008 county survey and the 2010 census data for the state. Anything without known treatment (both community and individual systems) was added to the list to verify. Please expect communication from the MPCA on the future to update the status of the areas listed on the 2008 survey or verification from the 2010 census information. Discussion of what a community is in the project. Comment: How this information is portrayed in the media will be critical... we don't want to go from 180 problem communities to 1600 problem communities without a clear communication strategy to help people understand why it is being done this way.

Legislative initiatives: MPCA is beginning to figure out how these will be implemented. Aaron is on the committees for this and will be reporting back as time goes on.

Testing Mound Sand: Sara described this issue. Two labs tested the same sand and got different answers. The U is very concerned about the fines in the sand that is being used – anything over 7-8% will ultimately affect system longevity. The U thinks people need to be reminded to run at least jar

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tests. Washed sand will need to be used; local contactors on the eastern part of the Range are concerned.

Lab testing of sand is costly and time-consuming. Sara supports develop of a uniform lab testing, this was discussed. Question: how often does a pit have to test and verify that the sand meets specs? As often as need be. Can you assure that the sieve analysis that comes from a pit reflects the answers found in testing? Question: how many counties require pit testing before OKing. There were only a few examples where this has been required by those in attendance.

Comment: Jar test only shows fines, not coarse pieces. There was a lot of discussion here. Many seemed to support development of a consistent procedure for testing so that when a lab runs a test it is the same as the process run in another lab.

More discussion. Much more. Sara concluded by saying that she will work with MPCA to develop more information. One idea was to develop a mound sand standard through TAP, like the rock document. This seemed to have support.

Meeting adjourned at 2:15.

Next meeting September 11th 2014, following meeting December 11th. Email will be sent out to determine location/method.

Thanks to all who brought food to share.

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Marilee DeGroot and Gretchen Sabel with the cake Marilee made.

Photo by Aaron Jensen.

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The group:

First row, left>>right: Ron Jaspersen, Terry Neff, Eric Van Dyken, Chris Le Clair, Aaron Jensen, Gretchen Sabel, Cathy Tran, Sara Heger, Mark Wespetal, Nick Haig, Barb McCarthy

Second Row: Michael Rutten, Hank Schreifels, Troy Johnson, Jim Larson, Dick Vukonich (spelling?), Cindy Tieman, Marilee DeGroot, Roger Berggren, Ron Thompson



Photo by Lisa McCormick

Organization	Feedback Rec'd	Comment 1	Comment 2	Comment 3	Comment 4
Minnesota Plumbing Board	On Agenda for 6/10/2014				
Board of AELSLAGID	Not submitting comments				
Minnesota Mechanical Contractors Association	6/3/2014	Supports simplified application process and aligned bond requirements but stated concern about moving pipelayer registration to MPCA* Nick sent follow up	Not supportive of statutory redefinition of SSTS building sewer or expansion of scope of pipelayer and SSTS personnel work	Open to co-definition of building sewer	Takes issue with language and characterization of attached illustration.
Minnesota Pipe Trades Association	6/3/2014	Supportive of bond increase and MPCA management of SSTS pipelayer applications; maintain pipelayer requirements	Not supportive of statutory redefinition of SSTS building sewer nor exemption of SSTS professionals from pipelayer requirements Supportive of co-definition of building sewers subject to plumbing code and as a component of SSTS	Neutral on statutory expansion of SSTS pipelayer authorities and co-definition of building sewer subject to plumbing code and as component of SSTS	
Minnesota Utility Contractors Association	5/21/2014	Supportive of streamlined process for SSTS professionals			
Minnesota Associated Builders and Contractors, Inc	No comments				
Minnesota Laborers-Employers Cooperation and Edu	5/30/2014	Maintain pipelayer requirements	Open to MPCA management of SSTS pipelayer applications	Urges care be taken to clarify codification of work completed by non-plumbers outside of buildings	Does not embrace artificial distinctions between design and installation
Minnesota Onsite Wastewater Association	6/4/2014	Supportive of elimination of pipelayer requirement for SSTS professionals	Supportive of redefinition of building sewers that are connected to SSTS and separation of plumbing and SSTS jurisdictions Supportive of co-definition of building sewers subject to plumbing code and as a component of SSTS	Accepting of bond increase and MPCA management of SSTS pipelayer applications; maintain pipelayer requirements	Accepting of co-definition of building sewers with clarification that building sewer designs would be accepted by DLI under 326.03 licensure waiver.
University of Minnesota Onsite Sewage Treatment Pi	5/23/2014	Supportive of elimination of pipelayer requirement for SSTS professionals			
Subsurface Sewage Treatment Systems Advisory Con	On Agenda for 6/11/2014				
Minnesota Surety Association	5/29/2014	Supportive of moving to a continuous bond	Concerned about "cumulative liability", but open to dialogue* Nick sent follow up.	New bond costs not expected to be an issue as a result of these changes	



Subsurface Sewage Treatment Systems

Disposal of non-sewage wastes from single-family dwellings served by subsurface sewage treatment systems

Introduction

Most of the liquid waste generated by rural households is considered to be sewage. Sewage, as described in the Subsurface Sewage Treatment Systems (SSTS) rules (Minn. R. ch. 7080), is defined as follows:

Sewage is a waste generated by toilets, bathing, laundry, or culinary operations or the floor drains associated with these sources, and includes household cleaners, medications, and other constituents restricted to amounts normally used for domestic purposes.

In accordance with state rules, all sewage generated by households must be discharged into the subsurface sewage treatment system (also known as a septic system) when a municipal sewer is not available.

However, in addition to sewage, there are other liquid wastes which are not classified as sewage by M.R. Chapter 7080 that need to be disposed. This factsheet describes the options for disposal of non-sewage liquid wastes for **single-family dwellings** which are served by SSTS. In the document, we will identify wastes that may not need to be discharged into a SSTS.

This factsheet does **not** apply to the disposal of non-sewage wastes:

- From multi-family dwellings, dwellings which also serve as a home business, or dwellings connected to municipal sewer. For those situations, please contact the Minnesota Pollution Control Agency's (MPCA) SSTS program (800-657-3864) for assistance.
- From either commercial or industrial establishments. For these situations, please contact the MPCA's Industrial Permits Section (800-657-3864) for assistance.

The proper disposal of non-sewage wastes from single-family dwellings served by SSTS is described below. Please contact the MPCA for assistance on any waste not listed in this factsheet. Furthermore, please check with appropriate local authorities to determine if more restrictive standards apply.

Chemical wastes

- Possible constituents of concern – *Hazardous chemicals, hazardous waste, solvents, pesticides, flammables, photo finishing chemicals, paint, dry-cleaning chemicals, unused products or substances, and unused medicines*
- Can the waste be discharged to a SSTS? *No*
- Is waste detrimental to SSTS? *Yes*
- Can waste be discharged into separate trench? *No*
- Can wastes be discharged to the ground surface? *No*
- Disposal Options – See MPCA website at: <http://www.pca.state.mn.us/8cc9uuu>.

Footing and roof drainage

- Possible constituents of concern – *None*
- Can the waste be discharged to a SSTS? *No*
- Is waste detrimental to SSTS? *Yes, volume of water*
- Can waste be discharged into separate trench? *Yes*
- Can wastes be discharged to the ground surface? *Yes*

Floor drains from single-family garages

- Possible constituents of concern – *Oil, antifreeze and stored materials in garage (spills)*
- Can the waste be discharged to a SSTS? *No*
- Is waste detrimental to SSTS? *Yes*
- Can waste be discharged into separate trench? *No*
- Can wastes be discharged to the ground surface? *Yes. Daylight pipe must be visible to the owner, the discharge must stay on the property, the discharge must not enter surface water or conveyance to surface water, the discharge point must meet the water supply well setback. See MPCA factsheet regarding floor drains from garages at: <http://www.pca.state.mn.us/publications/wq-wwists4-05.pdf>.*

Water conditioner waste – ion exchange units (water softener units)

- Possible constituents of concern – *Hardness, iron, arsenic, radium, chlorides*
- Can the waste be discharged to a SSTS? *Yes*
- Is waste detrimental to SSTS? *Unknown. Limited research on the affects to SSTS range from mildly beneficial to adverse. Limited anecdotal observations indicate scum production may be impacted. Backwash from newer salt efficient units will likely cause less adverse impacts on septic tank performance. Older inefficient softeners may be a problem with both volume and salt concentrations of the backwash. Performance of older units may improve if the operational settings are correct and the system is properly functioning. Some manufacturers of advanced treatment devices prohibit water softener backwash from being discharge to the treatment device. Some designers and installers prefer not to discharge the backwash into the SSTS. Chlorides are not treated in the soil.*
- Can waste be discharged into separate trench? *Yes. Trench bottom must be above the periodically saturated soil or bedrock and the trench must meet water supply well setbacks.*
- Can wastes be discharged to the ground surface? *Yes. But the waste cannot be directly discharged to a surface water, wetland or intermittent stream (dry run). Waste must soak into the ground where it has been discharged. Discharge must stay on the property and not cause erosion or nuisance conditions.*
- Do plumbing requirements apply? *Yes. The discharge must be through a code complying plumbing receptor and building sewer in accordance with the MN Plumbing Code.*

Water conditioner waste – precipitate forming units (example – iron filters)

- Possible constituents of concern – *Iron*
- Can the waste be discharged to a SSTS? *Yes*
- Is waste detrimental to SSTS? *Yes. Discharge to a SSTS is not recommended due to the nature of the solids.*

- Can waste be discharged into separate trench? *Yes. The trench bottom must be above the periodically saturated soil or bedrock and trench must meet water supply well setbacks. Trench should be preceded by a septic tank.*
- Can wastes be discharged to the ground surface? *Yes. The waste cannot be directly discharged to a surface water, wetland or intermittent stream (dry run). Waste must soak into the ground where it has been discharged. Discharge must stay on the property and not cause erosion or nuisance conditions.*
- Do plumbing requirements apply? *Yes. The discharge must be through a code complying plumbing receptor and building sewer in accordance with the MN Plumbing Code.*

Membrane treatment units (example – reverse osmosis)

- Possible constituents of concern – *Hardness, iron, other cations, anions (nitrate), and pathogens. The degree of removal is dependent on membrane type.*
- Can the waste be discharged to a SSTS? *Yes*
- Is waste detrimental to SSTS? *Single fixture membrane units should pose little problems. Whole house membrane units can greatly increase the volume of discharge from the dwelling. If whole house unit is discharged to SSTS, the SSTS must be adequately sized and flow equalization is recommended.*
- Can waste be discharged into separate trench? *Yes. The trench bottom must be above the periodically saturated soil and bedrock and trench must meet water supply well setbacks.*
- Can wastes be discharged to the ground surface? *Yes. The waste cannot be directly discharged to a surface water, wetland or intermittent stream (dry run). Waste must soak into the ground where it has been discharged. Discharge must stay on the property and not cause erosion or nuisance conditions.*
- Do plumbing requirements apply? *Yes. The discharge must be through a code complying plumbing receptor and building sewer in accordance with the MN Plumbing Code.*

Furnace condensate drainage

- Possible constituents of concern – *Low pH*
- Can the waste be discharged to a SSTS? *Yes*
- Is waste detrimental to SSTS? *Unknown. The slow release and low volumes of liquid may freeze in the building sewer.*
- Can waste be discharged into a separate trench? *Yes. The trench bottom must be above the periodically saturated soil and bedrock and the trench must meet water supply well setbacks.*
- Can wastes be discharged to the ground surface? *Yes. The waste cannot be directly discharged to a surface water, wetland or intermittent stream (dry run). Waste must soak into the ground where it has been discharged. Discharge must stay on the property and not cause erosion or nuisance conditions.*
- Do plumbing requirements apply? *Yes. The discharge must be through a code complying plumbing receptor and building sewer in accordance with the MN Plumbing Code.*

Pool water, treated hot tub water and pool filter backwash

- Possible constituents of concern – *Chlorine*
- Can the waste be discharged to a SSTS? *No*
- Is waste detrimental to SSTS? *Yes*
- Can waste be discharged into separate trench? *No*
- Can wastes be discharged to the ground surface? *See the factsheet 'Swimming Pool and Hot Tub Water Discharges Best Management Practices' at: <http://www.pca.state.mn.us/publications/wq-wwprm2-03.pdf>.*

Sauna floor drain (a free standing structure with no plumbing)

- Possible constituents of concern – *Perspiration, condensation, and cleaning agents*
- Can the waste be discharged to a SSTS? *Not applicable*
- Is waste detrimental to SSTS? *Not applicable*
- Can waste be discharged into separate trench? *The drain can be deadheaded into the soil.*
- Can wastes be discharged to the ground surface? *Yes. However, the waste cannot be directly discharged to a surface water, wetland or intermittent stream (dry run). Waste must soak into the ground where it has been discharged. Discharge must stay on the property and not cause erosion or nuisance conditions.*

Open-loop geothermal discharge

- Possible constituents of concern – *None*
- Can the waste be discharged to a SSTS? *No*
- Is waste detrimental to SSTS? *Yes, volume of water*
- Can waste be discharged into separate trench? *Yes. The trench bottom must be above the periodically saturated soil and bedrock and trench must meet water supply well setbacks.*
- Can wastes be discharged to the ground surface? *Yes. The waste cannot be directly discharged to a surface water, wetland or intermittent stream (dry run). Waste must soak into the ground where it has been discharged. Discharge must stay on the property and not cause erosion or nuisance conditions. Please see the Minnesota Department of Health's website at: <http://www.health.state.mn.us/divs/eh/wells/geothermal.html>.*