



The Auger



Autumn 2006

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The Newsletter of the Minnesota Association of Professional Soil Scientists

President's Message

By Roger Risley, MAPSS President

Hello Fellow Natural Resource Professionals.

We as professionals are connected to each other. Our work and our products do not stand alone but reflect and convey our values, capabilities and mission to society.

Our semi-annual MAPSS meetings are a vehicle where we can learn about and discuss old and new concepts for the betterment of ourselves and our professions. This year's summer tour demonstrated this concept well.

Landowners, planners, conservationists, scientists, regulators, teachers and students all worked in concert, each fulfilling an individual niche in the natural resource action plan we now know as total maximum daily load limits (TDML's). The MAPSS summer tour in conjunction with the Soil and Water Conservation Service (SWCS) summer tour (another example of harmony) explained this TDML topic concerning the Groundhouse River on the Tim Fisher Farm located in Kanabec County Minnesota. The tour was very educational and promising. I left feeling hopeful, knowing that good people were working together trying to clean up at least one watershed in Minnesota, where in reality this process is going on all over the State and Nation. I also came away from this tour with a renewed realization that all one needs to be is part of a process, not the entire package. A chain is only as strong as its weakest link, don't be a weak link. Thanks so much to Shannon Bengtson with the SWCS for envisioning and planning this event.

MAPSS also conducted an Individual Sewage Treatment Systems (ISTS) training session in Palo, Minnesota on September 8. Five soil pits were opened at various locations on the landscape and participants were instructed on methods to determine site loading rates based on described soil properties. Dr. James C. Balogh, PSS from Spectrum Research, Inc. spearheaded this training in conjunction with MAPSS, Natural Resource Conservation Service, Minnesota Pollution Control Agency and Minnesota Onsite Wastewater Association. Red soils and their particular troublesome interpretation was one of the themes represented at these sites. I had participated in a

similar training session several years ago. I was impressed by what I perceived as a much enhanced knowledge base by the participants. Education of the technicians in the field designing and installing onsite wastewater treatment systems fits well with the mission of MAPSS. I encourage similar endeavors throughout the State of Minnesota and with more frequency.



A pensive Roger Risley at the summer tour.



Roger Risley at an executive committee meeting, sporting one of our MAPSS hats!

Your MAPSS executive committee has been working on the following items.

1. A working and dynamic budget that reflects the priorities of its members.
2. A membership recruitment and renewal process that fits the technologies of today.
3. An updated Operations Plan that empowers members of our various committees with a budget to promote and recreate the mission statements for each committee.

President's Message - continued

4. Empowering our members to reflect their individual priorities concerning funding the various activities MAPSS supports.
5. The MAPSS winter technical meeting.

At this year's winter business meeting you will be asked to discuss and perhaps vote on several items.

1. Constitutional change to drop the re-instatement fee.
2. Proposal to fund the Soil Judging Team on a yearly schedule whether or not they qualify for Nationals.
3. Approval for membership cards.
4. Scholarships not restricted to University of Minnesota, St Paul campus students.
5. Virtual budgets for the various approved funding activities.
6. The role of the MAPSS members concerning the Professional Practice committee and continuing education.
7. Updates from each of the committees and the call for continued, additional and or new committee members.

Everyone and anyone please support MAPSS by considering running for President Elect and/or Secretary.

Brad Wenz's distinguished service as secretary is over and we need a new couple of candidates for this position.

Scott Smith's term is over as President Elect as he moves up to President. We need a couple of new candidates for this position.

Working behind the scenes in the MAPSS organization has been a rewarding experience. When I was first asked to serve as president my response was the same as everyone else's, **"No way, I mean sorry I am too busy."**

However now that I have done this job I encourage the rest of you to give it a try. This is your organization. You not only need to support it by being a member, but also by working on a committee. The executive committee meets six times per year either in person or by phone. We update the membership, we respond to concerns, eat pizza, help plan the tours and meetings, and we keep the membership informed. It is a good way to remain connected to your profession, your peers, as well as meet new people.

The soil texturing contest last year was a big hit. It was intended that you take all four samples back home with you in a plastic bag, with the lab results attached so you could start your own personal library of reference samples. I believe we can all see the tactile value of this. This year we plan to repeat the contest, with prizes and supply

sample bags. Please take part. It adds a little spice to the mix and it is fun. Howard Hobbs even proposed a location from where he believed each sample was from. Can we please have someone from Soil Survey try to rival his expertise, ahem...?

I am looking forward to serve along side Mr. Scott Smith, our incoming President of MAPSS. He is well spoken, intelligent and an above average child from Lake Woe-Be-Gone Minnesota. Please contact him for all your concerns and musings.

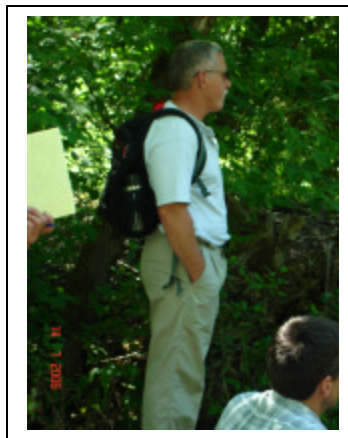
That's all I have for ramblings from the President. See you this winter.

Sincerely
Roger Thomas Risley

The next Executive Committee meeting will be held January. Please check the website for location information as this may be via teleconference.

President Roger Risley
roger.risley@mn.usda.gov

President Elect Scott Smith
smiths@co.st-louis.mn.us



**Scott Smith,
the MAPSS
President
for 2007.**

Inside This Issue

President's Message	1
Septic Systems and Professional Soil Scientists or Life in the Trenches	3
Upcoming Events.....	4
Legislative, Website and Board of AELSLAGID Update.....	5
2006 Summer Meeting Minutes – July 14, 2006.....	5
Soil Judging in Kansas – October 2006.....	7
Smithsonian Soil Exhibit Update.....	7

Septic Systems and Professional Soil Scientists or Life in the Trenches

By Mary West, PSS, MPCA Designer 1

Upcoming State Rule revisions to MN Rules Chapter 7080 are in their final version, and have been sent to the Governor's Office for his signature. If approved, a public comment period begins this coming winter which will initiate the final steps towards completion of a major overhaul of Minnesota's septic system regulations. I've been fortunate to have served on multiple committees involved in the Rule-writing process for the past four years, and while we may not have everything perfected yet the new Rules are definitely a major step in the right direction to keep regulations in pace with the rapidly changing onsite sewage treatment system industry.

What used to be known as MN Rules Chapter 7080, which governed requirements for Individual Sewage Treatment Systems (ISTS), will now be divided into 4 different chapters governing all Subsurface Sewage Treatment Systems (SSTS). Chapter 7080 will continue to address individual sewage treatment systems, single family dwellings or groups of dwellings of 3 or less. Chapter 7081 will address midsized systems, those generating 2,400 gallons per day up to 10,000 gallons per day. Chapter 7082 will regulate what is required for local units of government for all SSTS (permitting, inspections, enforcement), and Chapter 7083 will regulate the licensing of all SSTS professionals (individual, mid-size and large system design, inspection, installation, and maintenance.)

One component of the proposed new Rules which will affect our profession is the involvement of Professional Soil Scientists in situations where there is a discrepancy in the observed depth to soil redoximorphic features. Depth to redox dictates what type of system needs to be installed on a property, yet this depth is not always correctly identified. These discrepancies occur in a myriad of combinations involving many different parties; the septic system designer, the homeowner, the compliance inspector, the installer, and the local government official. The proper identification of this depth can, and does, affect whether a property transfer will be completed, what type of system needs to be installed, and how much money will need to be spent on a new system if one is indeed required.

So, how do we as PSSs fit into this mix? Subpart 5 of proposed 7082.0700, Inspection Program for Subsurface

Sewage Treatment Systems (SSTS), Seasonally Saturated Soil Disagreements, includes the provision to:

“Obtain an opinion from a Minnesota licensed professional soil scientist who is a certified SSTS designer or inspector and who is independent of, and agreed upon by, both parties.”

The local unit of government must still render the final decision; however it is this type of work which is becoming a larger and larger part of the SSTS arena and many local units of government lack the staff and the training to correctly make these soil interpretations. If a PSS receives a request to resolve a soils dispute, it is extremely important to also have the proper SSTS certification in order to offer their opinion on such disagreements, for that is what is required in the new Rule.

Currently, there are only about a dozen PSS who also hold the required SSTS licensure or certification. As the number of these disputes increases each year we will certainly need more PSS to join our ranks in offering this service.

For information on how to receive certification in SSTS, contact the University of Minnesota's Onsite Sewage Treatment Program at <http://septic.umn.edu>

The Auger is the newsletter of the Minnesota Association of Professional Soil Scientists. It is composed of articles by or submitted by the MAPSS membership and is published three times each year (February/March, June and October). The Auger is available in PDF format on our website, www.mnsoilscientist.org.

If you want to contribute articles, contact the editor: Suzanne D'Souza at 612-741-1365, suzdsouza@hotmail.com or mapss@mnsoilscientist.org

Articles for the Winter Auger will be accepted until February 1, 2007.

MAPSS Officers - 2006

President	Roger Risley
President Elect	Scott Smith
Past President	Dennis Fuchs, PSS
Secretary	Brad Wenz, PSS
Treasurer	Bob Whitmyer, PSS
Exec. Secretary	Suzanne D'Souza, PSS (<i>ex officio</i>)
Student Rep.	position open (<i>ex officio</i>)

Upcoming Events

November 1 & 2, 2006 – Wednesday and Thursday

Farmer Cooperatives Conference will be held in Bloomington, Minnesota. Focuses on how cooperatives can better position themselves for future success. <http://www.uwcc.wisc.edu/farmercoops06/>

November 3, 2006 – Friday

Supporting Local Entrepreneurship will be held in Staples, Minnesota. Developing rural entrepreneurs. <http://www.minnesotaruralpartners.org>

November 8, 2006 – Wednesday

Ethanol: A Small Farmer's Perspective will be held at Café Latte in St. Paul, Minnesota. This event is free. <http://www.cafelatte.com/>

November 12, 2006 – Sunday

Smithsonian Soils Exhibit: Next Year and Beyond will be held in Indianapolis, Indiana.

November 14, 2006 – Tuesday

Groundwater Management will be held in St. Paul, Minnesota. This is sponsored by the Minnesota Groundwater Association. <http://www.mgwa.org/meetings/meetingf2006.html>

November 14-17, 2006 – Tuesday through Friday

AIA Minnesota Convention will be held in Minneapolis, Minnesota. <http://www.aia-mn.org/convention.cfm>

November 15, 2006 – Wednesday

Growing a Sustainable Ethanol Industry will be held in St. Peter, Minnesota. Sponsored by the Minnesota Environmental Initiative. <http://www.mn-ei.org/policy/events.html>

November 15, 2006 – Wednesday, 7:30 am

Economic Opportunities of Climate Change will be held in the Cargill Building on the St. Paul Campus of the University of Minnesota. Sponsored by the Forum of Women in the Environmental Field. www.fwef.org

December 1, 2006 – Friday

MAPSS Winter Meeting will be held in St. Cloud at the Best Western Kelly Inn from 8:00am to 4:30pm. Topics will include: ethics, mercury deposition in soils, environmental review in Minnesota, modeling hydraulic mounding, NRCS Soil Data Mart and new diagnostic horizon designations.

Advertise in the Auger!

Ad Type	Amount	Cost
classified	first 40 words	\$5.00
	additional words	\$0.20/word
position*	first 40 words	\$5.00
	additional words	\$0.20/word
ad copy	MS Word ready format	\$15.00/column in
business card	standard size	\$25.00

Your advertisement will also be added to the MAPSS website for the duration of one issue of the Auger. Contact the editor: suzdsouza@hotmail.com or mapss@mnsoilscientist.org.

*free to MAPSS members and will be included on the website

MAPSS Committees - 2006

Award Committee – to be appointed by June 2006

Education Committee

Peter Hartman, PSS – Chair
Jorja DuFresne, PSS
Howard Hobbs, PG
Thomas Jackson, PSS
Kim Steffan, PSS

Election Committee – to be appointed by November 2006

ISTS Committee

Robert Whitmyer, PSS – Chair
Peter Miller, PSS
Mike Rutten, PSS
Mark Wespetal, PSS
Mary West, PSS

Membership Committee

Dennis Fuchs, PSS – Chair
Al Giencke, PSS

Professional Practice Committee

Peter Miller, PSS – Chair
Jim Arndt, PSS
Kelley Bopray, PSS
Tom Fait, PSS

Scholarship & Funding Committee

Roger Berggren, PSS – Chair
Jim Anderson, PSS
Al Giencke, PSS



Dr. Terry Cooper, the face of soil judging in Minnesota. See Page 7 for 2006 soil judging results.

Legislative, Website and Board of AELSLAGID Update

By Suzanne D'Souza, PSS

Legislative

The legislative session begins again in January. Besides changes to the Minnesota Rules Chapter 7080 and the MPCA ISTS information, legislation regarding indemnification may be introduced. Contact me for information during the day at 612-252-3687 or at suzanne.dsouza@amec.com. The website for the Minnesota Legislature is: <http://www.leg.state.mn.us>.

Website

If you see anything that needs changing on the website, know of an event or job, hired a new employee, retired, or have any ideas, please send it to Suzanne or to mapss@mnsoilscientist.org for posting on the website.

Board of AELSLAGID

The Fundamentals of Soil Science exam was held on October 20, 2006. The next exam date has not yet been posted on the Board's website.

<http://www.aelslagid.state.mn.us/deadlines.html>

Of the 14,958 professionals licensed through the Board of AELSLAGID, only 92 are Professional Soil Scientists.

www.mnsoilscientist.org

2006 Summer Meeting Minutes – July 14, 2006

Riverwalk Co. Park on North Branch of the Sunrise River, Chisago County

Call to order 12:45 PM

President Roger Risely introduced the members of the Executive Committee to the group. In attendance were:

Roger Risely, President
Scott Smith, President Elect
Brad Wenz, Secretary
Suzanne D'Souza, Executive Secretary

Not present: Bob Whitmyer, Treasurer and Dennis Fuchs, Past President

An estimated 27 MAPSS members attended out of approximately 45 people on the tour. Sunny and humid, temperatures in the low 90s.

Approval of Minutes from the 2005 Winter business meeting.

Correction to the 2005 Winter meeting minutes: Scott Smith did not give ballot results to President Dennis Fuchs.

Motion to approve corrected minutes Terry Cooper, second by Bob Haugan, motion passed

Treasurer's Report

Roger Risely presented the Treasurer's report. It was noted that the newsletter editor expenses were not included in the report. This will be added.

Motion to accept the Treasurer's report with newsletter editor expenses added Peter Hartman, second by Terry Cooper, motion passed

Secretary's Report

Brad Wenz announced that the MAPSS Standard Operating Procedures has undergone many changes and the updated version will be posted on the website after virtual accounts have been decided.

Executive Secretary's Report

Suzanne reported that there is not much happening in the legislature right now regarding soil science. Information is posted on the website along with a link to legislative news. Suzanne announced that the Minnesota soil exhibit at the Smithsonian was 99% paid for as of April 30th (\$9,899.65 out of \$10,000 needed). She also reported that Dawn Gibas (Tracey) has accepted a faculty position at Ohio State. Suzanne also reported that there have ISTS complaints brought up to the Board of AELSLAGID. The Board has no jurisdiction over these matters as they are on structures that are exempt. This may be a good thing because it increases awareness of the soil science profession. Peter Miller suggested that some of this is occurring because of the differences between MPCA and the Board regarding designer certification requirements for the larger treatment systems. MPCA is re-evaluating its requirements. Suzanne also called for announcements or other info for the website and articles for the next Auger.

COMMITTEE REPORTS

Education Committee

Peter Hartman reported that the committee was involved in a special event at the Minnesota Science Museum called Science Madness on April 1st. Norm Mofjeld and Peter worked at the event. Community based science organizations had stations set up. MAPSS had a nice location by the front door. They demonstrated a "good soil – bad soil" tray and exhibited Decorah shale and

Minutes – continued

prairie loess monoliths. Many people stopped by. We may try to do the Science Madness event on an annual basis. A comment was made that MAPSS should try to reach more teachers. Howard Hobbs reported that there is a science program called Teaching Investigative based Minnesota Earth Science (TIMES) for earth science teachers once or twice each summer. Howard has been doing the soils part for several years. We should do what we can to promote this program. MAPSS could help Howard find a new site each year and help with the soils descriptions. The event was held June 25th this year. Roger said that if anyone has any requests for education outreach they should contact the ed committee to request assistance.

ISTS Committee

Peter Miller reported that MOTSCA and MPOWR merged in March 2006 to one association called the Minnesota Onsite Wastewater Association (MOWA). There is a lot going on with the Chapter 7080, 7081, 7082 and 7083 rules in which Pete and Bob Whitmyer have been actively involved. MAPSS had a booth at their meeting in Rochester in which Bob and Pete attended. This was good exposure for MAPSS.

Wetland Delineator Certification

Wayne Jacobson reported that he and four biologists put together some test questions for the examination re-write for the annual certification program. The exam was given to 200 people statewide and about 75% passed. They also have an in-training wetland delineation exam. They have a strong soils section in the test.

Professional Practice Committee

Roger reviewed the background of the interest in setting up virtual accounts. A membership survey was conducted to determine worthy activities for MAPSS and where the funding for each should come from. It was suggested that funding for these activities should be managed in “virtual accounts”. The Professional Practice Committee recommended that seed money from our general fund be inserted initially into these accounts. Continued funding will come from donations, fundraisers, etc. as directed by the committee responsible for that account. The virtual accounts will make it easier and faster to fund requests. If the fund is empty requests will go on hold until the balance improves.

The account recommendations are as follows:

Professional Development

\$1,200 (seed money from general fund)
Self funded through training, CEU fees, etc.
Responsible to the Professional Practice Committee

Education/Outreach

\$750 (seed money from general fund)
Self funded through donations, fundraising
Responsible to the Education

Scholarships

\$1,000 (seed money from general fund)
Self funded through donations, fundraising (no endowment)
Responsible to the Scholarship Committee

State Soil Legislation

\$0
donations, fundraising (no balance)
Responsible committee – undecided at this time

Gary Elsner recommended that soil judging not be included because it already is funded for the national contest. Terry Cooper said that funding for the regional contest comes from the University of Minnesota soils department and a grant from the Minnesota Plant, Food and Chemical Association. However, additional funding would be helpful to defray increasing regional contest costs and to provide better training for the team. This could be a discussion item at the next meeting. The Smithsonian fund will also not be included because the goal is nearly reached. Gary also recommended that a framework needs to be set up for determining scholarship awards. Committees will be in charge of maintaining their account balance and will decide which activity or request is to be funded. Final requests will be sent to the executive committee. It was felt that the \$10,000 endowment account proposed for scholarships is not realistic for this association. Jim Balogh reported that MAPSS is not eligible to receive tax exempt charitable contributions to an endowment account. Line items for each account can be placed on membership application and renewal forms for donations.

Motion by Jim Balogh to set up the virtual accounts and amounts as proposed by the Professional Practice Committee. Accounts will be line items on the membership renewal and application forms, second by Terry Cooper, motion passed

Winter Meeting

Scott Smith announced that the MAPSS Winter meeting will be held at the Best Western Kelly Inn on December 1, 2006 in St. Cloud.

Motion to adjourn Greg Larson, second by Terry Cooper, motion passed. Meeting adjourned at 1:24 PM

Respectfully Submitted by Brad Wenz, MAPSS Secretary,
8/1/06

Soil Judging in Kansas - October 2006

By Dr. Terry Cooper

The University of Minnesota Soil Judging Team traveled to Manhattan, Kansas this past October to compete against six other teams. Forty-eight students participated in the Region V soils contest. The University of Minnesota team consisted of: Jennifer Mold, Erin Andrews, Bill Fouks, Danielle Waldschmidt, Becca Beduhn and Lerna Schultz. Bill Zanner was the assistant coach while Terry Cooper was the ever present coach.

The team practiced on Monday, Tuesday and Wednesday in preparation for the Thursday contest. Practice included texturing silt loam, silty clay loam and silty clay, along with finding the argillic horizons.

Contest day saw cool temperatures, but loads of sunlight. Students worked alone to describe two pits in the morning. Site 1 was an Argiustoll with six horizons formed in glacial till, loess and local colluvium/alluvium. Site 2 was also an Argiustoll formed in till and residuum. Textures were silt, silty or c.

After a box lunch, the team worked together to describe three soils. Site 3 was another Argiustoll formed in till, local alluvium and residuum, with more silty clay loam textures. Site 4 was an alluvial soil in a floodplain with buried A and Bw horizons. Textures were silt loam or silty clay loam for this Haplustoll. Site 5 was a shallow soil over limestone bedrock. This soil did not have an argillic due to the high carbonate content of the soil. Textures were silt, silty or c for this Haplustoll.

The University of Minnesota team placed 5th over all with 2128 points. Kansas was 1st with 2304 points, followed by Iowa State with 2272 points and Missouri with 2242 points. Jennifer Mold took 3rd place in the individual portion with 520 points, while Erin Andrews took 15th with 499 points. Congratulations! (This is a summary of Dr. C's PowerPoint with additions by S. D'Souza.)



Smithsonian Soil Exhibit Update

By Paul Kamps with the SSSA

The following is a summary of the Soils Exhibit at the Smithsonian provided to Suzanne D'Souza in an e-mail.

Due to some state transfers (donors living in Minnesota who gave contributions to other states) that were originally credited to Minnesota, the current state total for Minnesota is 9,149.55. The following is a project update.

The National Academies recently endorsed the exhibit, saying, "Unquestionably, this is the most important opportunity that the field of Soil Science has ever had to educate the general public about soils and their role in food and fiber production, environmental quality at local and global scales, and in human health."

Total project budget is \$4 million (\$2.5 million for the DC exhibit and \$1.5 for the traveling exhibit), of which \$2.2 million has been raised. This includes recent board approval of a \$1 million sponsorship pledge by The Fertilizer Institute (TFI), a trade association based in Washington DC, on behalf of its Nutrients for Life Foundation. Pledges can be paid out over 2-3 years. Fundraising opportunities will continue at least through next year, but it's critical that gifts be made prior to year's end as this is the deadline to evaluate where we're at with respect to the \$300,000 left to be raised for the DC exhibit.

Support for the project encompasses individual givers, associations, government agencies, and both public and private corporations. Current sponsors include Ben Meadows, The Fertilizer Institute, Brunton, SWCSs across the country, Professional Soil Scientist Associations, Consulting Soil Scientists, Decagon Devices, Campbell Scientific, USDA-Forest Service, APHIS, NRCS, ARS, CSREES and BLM and others.

We're continuing to involve major corporate/industry sponsors. Five- and six-figure corporate sponsorship benefits include high-profile branding, messaging and marketing opportunities such as product placement, name/logo/website placement in the exhibit and on printed materials, and hosting special corporate tours and receptions at the Smithsonian.

**MAPSS Winter Meeting
Friday, December 1, 2006
St. Cloud, Minnesota**