



# MASE Newsletter

MAINE ASSOCIATION OF SITE EVALUATORS

February, 2014

## MASE Annual Meeting & Technical Seminar

February 25, 2014

Ramada Conference Center, Lewiston

If site evaluators can agree on anything, it should be that this winter has been brutally cold and unrelenting. As we all know, however, site evaluators never agree on anything, which is one of the reasons that the MASE Annual Meeting and Technical Seminar is always one of the most breathlessly anticipated social events of the year. Whatever draws you to the annual gathering: heartwarming reunions, mesmerizing presentations, intriguing door prizes, wacky opinions, opportunities to beat up on public officials, or a meal that some describe as “not that bad;” at the end of the day everyone will take something home with them: a signed training certificate and renewed hope for the upcoming field season.

Please join us for this year’s annual meeting, held once again at the Ramada Conference Center in Lewiston starting at 8:30 AM on Thursday, February 25, 2014. An agenda and registration is contained within; please let us know by Feb 21 to reserve a meal. We hope to see you there!



### Important Announcement!!

A public hearing has been scheduled to hear comments of proposed legislation LD 1755, **“An Act To Amend the Mandatory Shoreland Zoning Laws To Exclude Subsurface Waste Water Disposal Systems from the Definition of “Structure.”** The hearing will take place on Thursday, February 20, 2014 at 1:00 in Room 216 of the Cross Office Building. Since the Shoreland Zoning Law and this change will potentially impact the Site Evaluator Profession, we encourage you to attend the hearing if possible and express your opinion. More information can be found on page 14.

# Message From MASE President Dale Knapp



Fellow MASE members:

Another year in the books and I want to thank you all for your continued support. A great deal of work goes into keeping this organization running, from newsletters to workshops and the annual meeting to legislation. Your board continues to work on multiple fronts in the interest of licensed site evaluators in Maine.

While I have a moment I would like to recognize the people who really make this organization run, Richard Green, Bill O'Connor, Jim Logan, Dave Braley, Dave Studer, Steve Marcotte, Earle Rafuse, Amy Jones, Ken Gardner, Glenn Angell, and Tim Wade. These dedicated individuals give their time to make MASE what it is today. I am humbled by their commitment and appreciative of their support as we take on new initiatives. The newsletter could not have come together without membership support as well. Thanks to all that contributed.

We are currently in the process of moving forward a bill in the legislature to address something that we missed during the last session. You can see a more detailed write up later in the newsletter. We have worked to add more to the annual workshops by including more vendors that can complete installation demonstrations and provide more hands on training. We hope to provide more of this in the future. We participated in an excellent workshop at Mount Blue State Park that was pulled together by Dave Rocque. I hope many of you were able to attend this great event last year. In the coming year we look to put together a solid agenda of workshops and training for our membership.

We also expect to see some new members joining the board. I am encouraged to have members step up to fill these roles and bring new ideas and energy to keep MASE moving forward. I appreciate the feedback and comments I have received this year. If anyone has an idea to share, please do not hesitate to call or email me directly. Ultimately we volunteer to support you as members and if you feel there is an issue or potential action that merits our attention, please bring it to the table.

I look forward to serving you all for one more year as president and I hope to finish my term on a high note in 2014. I again appreciate the opportunity to support you all and help to lead this great organization. Best wishes to you all in the coming year.



*"The Board is very disappointed in your performance as CEO...  
The employees aren't even sending you hate mail anymore."*



# MAINE ASSOCIATION OF SITE EVALUATORS

## ANNUAL TREASURER'S REPORT 2013

Cash on Hand as of 12/31/12	\$ 6212.70
Mutual Fund as of 12/31/12	\$ 11,742.72
<b>Total Assets as of 12/31/12</b>	<b>\$ 17,955.42</b>
<b><u>Income</u></b>	
Annual Meeting Registration	\$ 3,165.00
Annual Meeting Vendor Fees	\$ 2,750.00
Annual Dues	\$ 3,420.00
Eljen/Construction Consultants Donation for training	\$ 3,000.00
Golf Tournament	\$ 360.00
Fall Field Day	\$ 410.00
T-shirts	\$ 65.00
<b><u>Expenses</u></b>	
Annual Meeting	\$ 4,661.17
Gift	\$ 0.00
Envirothon Donation	\$ 1,000.00
Engineers Without Borders Donation	\$ 1,000.00
Soil Judging	\$ 2,000.00
Golf Tournament	\$ 486.60
Fall Field Day	\$ 691.53
Insurance	\$ 606.00
Corporation Filing	\$ 35.00
Website	\$ 121.98
Miscellaneous (copies, postage)	\$ 121.35
Bank Fees	\$ 2.40
<b>Period of 01/01/13-12/31/13</b> <b>Total Income:</b>	<b>\$ 13,170.00</b>
	<b>\$ 10,726.03</b>
<b>-Total Expenses:</b>	<b>\$ +2,443.97</b>
<b>Cash on Hand as of 12/31/13</b>	<b>\$ 8,656.67</b>
Mutual Fund Balance as of 12/31/13	\$ 13,537.76
(+ \$1,795.04 from 12/31/12)	
<b>Total Assets as of 12/31/13</b>	<b>\$ 22,194.43</b>



# **A SUMMARY OF MASE 2013 INCOME AND EXPENSES**

by Amy Jones, MASE Treasurer

Happy 2014. As the new year begins it is always useful to look back and reflect on the year past. With the annual meeting just around the corner, I have assembled the MASE 2013 Annual Treasurers Report and thus find myself reflecting on the income and expenses of the year and how they compare to previous years.

Speaking of the annual meeting, MASE brought in \$5915 in meeting and vendor fees, a gain of \$435 from last year and slightly better than 2011 income. As a bonus, total expenses for the annual meeting were less than last year: \$4661.17 for 2013 versus \$5930.00 in 2012. There are two reasons for the reduced cost: We did a better job of estimating the total number of attendees, thus paying less to the Ramada, and we also didn't have to pay any of our speakers in 2013. So, doing the math, net income from the 2013 annual meeting was \$1253.83 (is was a net loss of \$450 in 2012 and a net loss of \$217.00 in 2011). A good turnout for the meeting from members and non-members, as well as an increase in vendors, and a \$5 per head increase in cost, truly helped the profit margin.

Annual dues for 2013 provided income to MASE of \$2750.00, down by only \$75 (or three full members) from the previous year, but still significantly lower than 2011 when we pulled in about \$4700.

Our only field workshop this past year was the annual Fall Field Day which MASE plans in conjunction with Glenn Angell and the Site Evaluator Field Exam. Income was significantly less (due to lower attendance) compared to 2012-- only \$410 in 2013 versus \$1150-- but so were the expenses-- \$691 versus \$1606. Expenses were for partial backhoe cost (split with the State) and lunch.

In 2013, as in past years MASE received a very generous donation of \$3000 from Eljen/Construction Consultants. That money is supposed to be used specifically for training purposes. We were able to use part of that money for the fall field day. The MASE board had intended to provide an additional summer workshop (similar to those done at MRWA in past years). A workshop had been in the initial planning stages, but regretfully, we could not muster enough time from enough people (due to many of us having very busy schedules) to pull it off. The board would love to plan a workshop and use up the remaining donation this summer, so please give us your ideas and more importantly your time in planning and execution. The board could most certainly use additional help.

The Annual Golf Tournament had a low turnout this year, though, I heard it was great fun. We spent only a little bit more than we earned with a net loss of \$126.60 -- a small amount, in my opinion, as it's a great way for folks to socialize with peers without having to talk about work (and you don't even have to know how to play golf). A big thanks goes out to Infiltrator for providing lunch to all the participants.

The only other income for the year was from \$65.00 in t-shirt sales (we only sold one t-shirt in 2012). The price was right—only \$5. The last dozen or so shirts will be available in 2014 for the same cost.

MASE in 2013, supported the Envirothon and Engineers Without Borders by donating \$1000 to each. Additionally we gave \$2000 to the Maine Soil Judging Team. Don't forget that this \$2000 was supposed to have gone to the team in 2012, but they didn't cash the check until 2013, since the team was unable to go to the regional contest. I haven't heard anything about the 2013 Soil Judging Team, but hopefully they were able to use the money that we donated.

Other expenses for 2012 included insurance, a cost which has virtually stayed the same for many years, corporation filing (always the same \$35), a couple of dollars in bank fees, and website maintenance/hosting. Less was spent on website related expenses in 2013 than in 2012; in 2012 a purchase was made for some software for creating and updating the MASE website; 2013 expenses were only for hosting and domain name registration.

Our mutual fund had an increase of \$1795 over the course of the year (a larger increase than in 2012 which was about \$430). MASE now has a fund of \$13,537.76.

So, the big overall news for the 2013 treasury, is that MASE came out with a net income of \$2443.97. It's very unusually that we come out so far ahead. Overall expenses were down this year by about \$3900 from 2012 and \$4200 in 2011. We made a fair bit from the annual meeting this year, but I think the primary reason for the big yield was that we were unable to put on a summer workshop, which is always a big expense, but also, always of great overall value. So be thinking of what and how, MASE can provide for the membership in 2014. I hope you all profit in 2014, as well as MASE has in 2013.

## **FOREST HEALTH ALERT! Emerald Ash Borer and Regulated Ash**

December 2013

Emerald ash borer is a destructive insect from Asia that has the potential to eliminate ash as a functioning part of our forests and landscapes. It was probably introduced to North America in the early 1990's, and in the time since, human-aided spread has brought it rapidly from the U.S. heartland to New England.

Although this insect has not yet been confirmed in Maine, detections of emerald ash borer are getting closer and closer to our borders. Last spring, the insect was found along the Merrimack River in Concord, NH. This has resulted in regulation of Merrimack County in New Hampshire. In November, it was found in North Andover, Essex County, Massachusetts. It is unclear at this time what impact that detection—within 10 miles of the New Hampshire border—will have on the regulated area, except that more ash from close to our borders has serious risk of carrying the pest, and will be regulated. You can find more information about where emerald ash borer infestations have been confirmed under Quarantine Information here: [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/emerald\\_ash\\_b/](http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/)

There is increasing risk that material regulated for emerald ash borer may enter supply chains for Maine mills. Our counterparts in New Hampshire have alerted us that there have been some inquiries from suppliers about moving ash products from the new emerald ash borer quarantine area to receivers in Maine.

Beyond Maine Forest Service concerns about the possibility of such shipments introducing emerald ash borer into Maine before it might otherwise become established, movement of ash from such areas is federally regulated. Receipt of regulated ash requires a special federal compliance agreement.

Such a compliance agreement can provide opportunity for limited, seasonally constrained, receipt of ash from quarantined areas. You can find more information about compliance agreement requirements here: [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/emerald\\_ash\\_b/regulatory.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/regulatory.shtml).

If you have questions about the agreements, contact our State Plant Health Director's office (USDA APHIS, PPQ) at: (207) 848-0001. Also, please do not hesitate to contact the Maine Forest Service with questions: [allison.m.kanoti@maine.gov](mailto:allison.m.kanoti@maine.gov) or (207) 287-3147.

Thank you for your help in delaying the impact of this pest on our ash resource.

*The CEO/LPI's and LSE's are in one of the best positions to identify this invasive pest.  
Thanx, Ra' (Earle Rafuse)*



## MAINE ASSOCIATION OF SITE EVALUATORS

### 2014 Membership Form & Annual Meeting

#### MASE NEEDS YOU!

Your membership is important and our budget depends on your dues! All MASE memberships expire in February. You can join now and be assured of another year of representation of your interests by MASE. We are working to keep license fees down, regulations reasonable, host quality field seminars, an interesting annual meeting & informative newsletters.

*(Please complete a separate form for each individual)*

☐**Regular Membership****\$25**

(Maine Licensed Site Evaluator)

or

☐**Associate Membership****\$15**

(Unlicensed individuals with an interest in the goals and purpose of the Association)

☐**Annual Meeting – February 25, 2014**

Member: \$25 (in advance)  
or Non-member: \$30

(includes lunch)

*\* Please Register by February 21st to reserve a meal. No refunds are available after February 21<sup>st</sup>. Registration at the door will be \$30 for Members/\$35 for Non-members.*

**Make Checks Payable to: MASE**

**Mail To:** Amy Jones, Treasurer  
3330 Bennoch Road  
Alton, ME 04468

[jonesamyn@yahoo.com](mailto:jonesamyn@yahoo.com) [dale.knapp@stantec.com](mailto:dale.knapp@stantec.com)

**Total Enclosed:** \_\_\_\_\_

Name: \_\_\_\_\_ License Number: \_\_\_\_\_

Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ E-mail: \_\_\_\_\_

**www.maineese.com**

**info@mainese.com**

**MASE Annual Meeting  
Subsurface Design in the  
Shoreland Zone  
February 25,  
2014  
Ramada Inn  
490 Pleasant Street, Lewiston, ME**



- |               |   |
|---------------|---|
| 7:45 – 8:30   | Registration, vendor and display set up, coffee   |
| 8:30 – 8:45   | Opening remarks – Dale Knapp  |
| 8:45 – 9:30   | Business meeting and election of officers   |
| 9:30 – 10:45  | Albert Frick – Land Use Controls and the Subsurface Code  |
| 10:45 – 11:00 | Break / vendor displays   |
| 11:00 – 12:15 | Concurrent sessions <ul style="list-style-type: none"><li>1. HHE – 200 Exercises – Bill O'Connor/Glenn Angell</li><li>2. Scott Pierz – Shoreland Zoning Map for China</li></ul> |
| 12:15 – 1:30  | Lunch with the keynote speaker – DEH - Dave Braley/Glenn Angell   |
| 1:30 – 2:30   | Concurrent sessions <ul style="list-style-type: none"><li>1. Peter Garrett – Hydro-geo relationship/water</li><li>2. Development of MASE task force</li></ul>                   |
| 2:30 – 3:00   | Break / vendor displays   |
| 3:00 – 3:45   | Dave Potts - GeoMatrix  |

## **Isn't it way past due time to remove the "Land Use Controls" from the State of Maine *Subsurface Wastewater Disposal Rules* and revisit the current restrictions based on the improved technology available to septic designers? (One Site Evaluator's Perspective)**

**By Albert Frick, LSE 163**

Since the creation of the State of Maine *Subsurface Wastewater Disposal Rules* (SWD Rules) in July 1974, this set of regulations, whether rightly or wrongly, has always been used as a tool for **land use control**. The statute that gives the Department of Health and Human Services the ability to regulate septic systems and to promulgate regulations is to "protect Public health and sanitation". However, the SWD Rules have, since 1974, included land use controls as a significant portion of the regulations. These "land use controls" are evidenced in the restrictions regarding 'expansion of use', curtailing 'pressurizing of water sources', 'upgrading' alternative toilets and soil drainage limitations which limit where development that are to rely on septic systems can be sited.

At the time that the SWD Rules were created in 1974, there were very limited land use regulations and/or Zoning laws in place in the State of Maine. As such, the SWD Rules did serve a purpose at that time to help to guide development (in a somewhat 'crude' way) to areas of better drained soils (moderately well to well drained) and to limit change or expansion in uses strictly by septic regulations. (*Note: Donald Hoxie, Director of Health Engineering worked /consulted with Kenneth Stratton, State Soil Scientist, Dr. Roland Struemeyer University of Maine Soils Department Chairman and did much of the technical and legislative work to establish the SWD Rules in 1974 which were viewed to be very progressive and innovative at that time. Maine was one of the first States in the Nation to move to a Site Evaluation Method of designing septic systems and away from the commonly used but imperfect method of relying upon the percolation testing*). Since that time, land use and zoning regulations by Federal, State, and Municipal government has become commonplace. Regulations governing Wetland Protection, Shoreland Zoning, Stream protection, Vernal Pool Protection, Aquifer Protection, Habitat Protection, and extensive Local Zoning and Land use Ordinances were as yet unheard of in 1974.

If you were to examine and compare the State of Maine SWD Rules to other States' Septic Rules, you will find that most all other State codes simply regulate septic system designs. For the most part, other States' septic rules are much more straightforward and easy to understand since the regulations are designed and written simply to establish parameters on only how to design septic systems. Maine's SWD Rules, by comparison are much more complex because the document is trying to not only establish parameters for designing septic systems, but also spends a great portion of the language couching land use regulation restrictions within the parameters of septic system design.

Many Local Plumbing Inspectors and part-time Site Evaluators become routinely confused when reading and interpreting the SWD Rules because, in my opinion, much of the Rules and Tables are indirectly trying to do two things at once: regulate septic system design and implement land use controls. For example: there are restrictions placed upon the following land uses that are perceived by the Division of Environmental Health to be in need of restriction based on land use control but in the areas of protecting Public health and safety such as:

1. Restricting a home owner from replacing an outhouse with a flush toilet. (Note this is not encouraged by the Rules but clearly discouraged in that higher setback standards are requires to perform this activity because it is simply viewed as a change in land use.



2. Restricting a homeowner from replacing a cistern or hand-carried water from a dug well with a pressurized drilled well. Again, the SWD Rules restrict a home owner from trying to replace a cistern or a dug well with non-pressurized conditions to say a drilled well with a pressurized water line not to promote a healthier living situation, but to control how the land is being used the restriction on the original depth to ground water table. The SWD Rules, since its acceptance in 1974, has contained 2 different standards for depth to limiting factors (i.e., water table, restrictive layer, and bedrock) based on whether the design is to **replace** an existing system or establish a **new** system.

The SWD Rules have lower soil/drainage standards for replacing a septic system and more demanding requirement for original soil depth for 'new' septic systems. Note, Don Hoxie, Director of Health Engineering was concerned with the disparity of the 2 standards and in 1985 did an evaluation on septic system failure rates between systems designed with the higher standards for new construction and systems designed for replacement with the reduced original soil depth requirements. The study found was that there was *no significant difference* between the failure rates of systems designed utilizing the requirements for new systems versus replacement. (*Subsurface Wastewater Disposal Systems Designed in Maine by the Site Evaluation Method System (System Design, Land Use Trends, and Failure Rates, Hoxie and Frick, 1985)*)

What the research found, is common knowledge by practicing Site Evaluators of today, and it is not necessary in order to design and construct properly function septic systems to have to rely on limitations of the original soil conditions. The SWD Rules are based on a 'land use control' standard; and that in order to have properly functioning septic systems for new construction, one must rely on the original soil that the last glacier deposited approximately 12,500 years ago. If there isn't a prescribed original depth (i.e. 15" or 9" {depending on where the land is located} to ground water table, bedrock or restricted layer (i.e. basal till, firm marine substratum etc.) than the ground cannot be modified by man to be utilized for septic. However, responsible qualified Site Evaluators who are trained to recognize and identify soil permabilities, parent material types, soil texture, depth to limiting factor (i.e. ground water table, bedrock, restrictive layer) have routinely demonstrated that they can design properly functioning septic systems by essentially 'engineering' suitable conditions that the last glacier did not leave behind. (The methodology, engineering calculations, and design parameters, from purely a septic system performance standpoint, are the same if the effluent is coming from a toilet and sink in a new home or from an existing home. The design parameters of having two different standards for new and replacement systems are nothing more than **land use control**. Furthermore, the existing SWD Rules go further and establishes 2 additional iterations of new versus replacement system standards with regards to whether the property is located in the Shoreland Zone (i.e. 250' from a water body) or not. Again, the effluent treatment and septic system design is identical and this variation in standards is nothing more than a land use control measure.

The education and skills of Site Evaluators, Local Plumbing Inspectors and Septic System Installers have come a long way since the mid 1970's. The entire Maine subsurface wastewater disposal industry has improved to the point where systems are being designed better, installed better, better inspected with an eye toward quality control, and maintained better in general. The end result of these measures are septic systems are performing significantly better. The Division of Health Engineering (DHE), lead by Don Hoxie, recognized the facts mentioned above. Consequently, DHE revisited the limiting factor standard in 1995, and 2009.

DHE had proposed that if all the pertinent zoning/land use regulations were in alignment (i.e. Shoreland, wetlands, DEP *NRPA*, etc.) then the Site Evaluator could make a soil evaluation, record the conditions and engineer a septic plan in order to address any and all deficiencies with regards to suitable soil. DHE was

confident that suitable septic sand could be brought to the site and properly placed with prescribed compaction techniques and would create a situation that is superior to the natural conditions created by the glacier in a haphazard non purposeful manner. This proposal, although sound in science and engineering, was met with opposition by Conservationist Organizations at that time. The conflict was not so much with the actual elements of the septic system principles but in the associated increase in developmental potential. As a result, a 'backroom negotiation' took place at the 11<sup>th</sup> hour and the Rules were modified to 9" outside the Shoreland Zone but kept the 15" in Shoreland Zone based on opposition from the State Planning Office at that time. *(Note: Don Hoxie retired as Director just before the last 'push' was being made with the regulatory changes and Clough Toppan became Director and actually oversaw the final actions to accomplish the changes. At that time, DHE made it clear to the State Planning Office and other conservation groups opposing the septic rule changes that DHE was not in the 'land use control business' pursuant to the statute granting them authority to regulate septic systems. The State Planning Department and Others were then put on notice that they should be responsible to make an effort, if they were so inclined, to make appropriate changes with regard to Zoning and Land use and not rely on the septic system regulations to do the 'heavy lifting' for them in this regard. DHE, now called the Division of Environmental Health, stated they were going to revisit the limiting factors again in the future and make necessary changes as the science and environmental health requirements dictated.)*

It is possible to have both development and environmental sanitation. Consultants commonly hear the DEH staff speaking at MASE meetings that "their hands are tied" with regard to approving a rational engineered proposal since the regulations will not allow them to make that decision. Rule changes are routinely made by DEH but unfortunately, in my opinion, are done in a non-comprehensive and superficial manner (making minor changes and/or constantly modifying the organizational layout of the Sections but not really making any substantive changes).

Eighteen years has passed since the changes were last made with success. 2014 is the time to:

1. Reexamine the relevance of some of the land use control issues that limit a property owner's use of the property such as being able to install a flush toilet or upgrade their water system to a pressurized well. (Note: In these situations the land is already developed and the impervious area and infrastructure supporting the development already exists so there is not going to be any major 'fallout' in land use changes).
2. Revisit the soil limiting factor restriction(s) in a scientific manner. Science should always be a major driving force to Rule making, in my opinion.
3. It has been almost 40 years since the SWD Rules have been conceived and many of the original setback limitations and rule restrictions that still remain in the SWD Rules are based on what is now outdated technology. Great advancements have been made in the subsurface waste disposal industry with regard to wastewater pretreatment. Today, the industry is capable of disposing cleaner water into the soil environment and the potential effluent quality is becoming cleaner and cleaner all the time (Currently there is technology available that can take wastewater to rainwater quality.) It is my opinion that all parameters and restrictions posed by the Rules be reexamined in light of current technology.

**Is it not time to have a meaningful scientific discussion about what we are really doing in Maine with the SWD Rules and where we should be going?**

# 23ND Annual MASE Golf Tournament Results

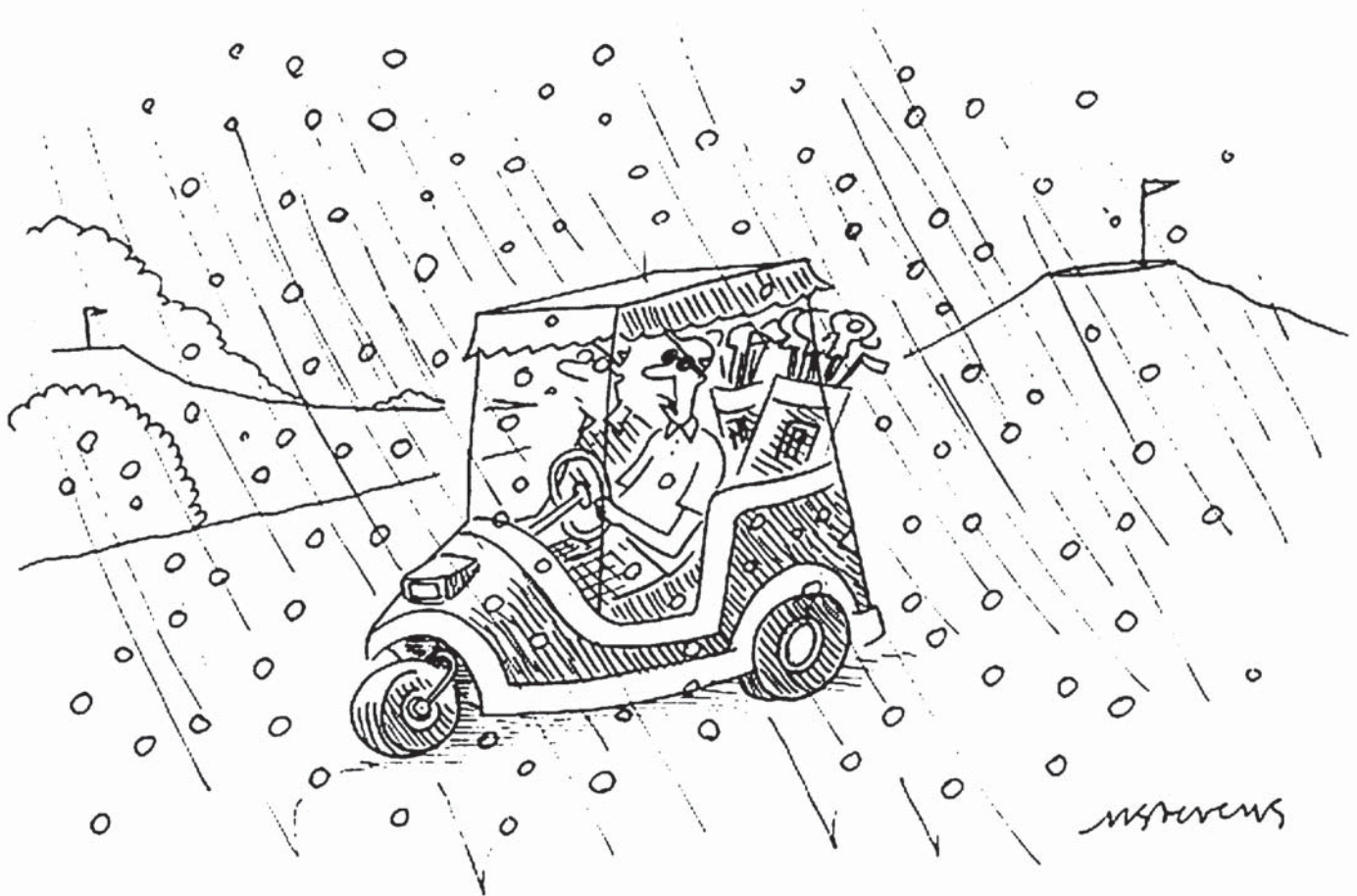
By Dave Kamila

MASE held our 23rd Annual Golf Tournament on June 21st at the Meadows Golf Course in Litchfield. Ron Bernard and his crew had the course in terrific shape as always. Everyone enjoyed a great round of golf and lunch compliments of Ron Davenport of Infiltrator Systems.

Bruce "2 hole-in-one" Johnson teamed up with Dick Sweet, Dick Babine and Tim Hodgins to post a score of 2 over to take top honors. Close behind at 3 over were Gary Fullerton, Dave Moyse and Charlie Heinonen. Also worth noting was our President Dale Knapp made his first appearance in the tournament and, although it was his first time ever playing, he surprised himself by being the only one to land one on the green at No. 7.

Longest Drive honors went to Rod Kelshaw who crushed it on No. 9. Tim Hodgins was closest to the pin on both No. 3 and No. 15. Somehow no one was able to hit the green on No. 17, so I'm ordering everyone to the driving range prior to this year's tournament, which is tentatively scheduled for Friday June 20th.

Unfortunately no ladies were in the field this year and we hope to remedy that this coming season. So please consider joining us this year and remember, if Dale can do it anyone can.



*"Oh, no! Golf-ball-sized hail!"*

From "Golf Digest"

# What's New at the Maine Subsurface Wastewater Unit

by Glenn Angell, State Site Evaluator



## Web site re-design:

We have begun a project to revise the SWW team's website with a goal of making it a bit easier for people to find things on it. We are looking at creating "tracks" to follow breaking out information of relevance to Regulators (LPI's and other government entities) designers (that's you guys), Contractors (most likely to include inspectors) and Homeowners (really anyone who uses a subsurface wastewater disposal system whether at home, camp, work or whatever). While I don't expect there will be a lot of new content, there may be more links to other sites' information and changing of link references within our website. We wanted you to be aware of this before it starts showing up so you won't think you are at the wrong place and so that you will be prepared if some of your more in-depth bookmarked pages suddenly stop working. Jim has the lead on this so if you have any questions or concerns as it happens, let him know.

## Forms Revision:

After many, many, many, many (is that enough or has it been even longer) years, we are embarking on a major revision of the HHE 200 form (and others). We realize that despite all the things that are asked for on the form, there are still others that need to be added. There also might be a few that could be removed. Finally, we are concerned that, in trying to squeeze so much on the forms, we are violating Accessibility standards for "readable" font size. While we know we could come up with a new form that would be simply fantastic without asking for help, we have decided to exhibit some hubris and invite two or three of you, plus three or four LPI's to work with us on this effort. Now, before you get all worked up thinking that we are giving LPI's more representation in this effort, we already know that Bill Noble, the perennial form tinkerer, will want to be involved with this effort so we've already included him on our list of "members". I'm taking the lead on this effort so if you want to be involved, please let me know. If many of you want to be involved, I'll have to probably work out some multi-layered effort of involvement as I don't want to have a primary workgroup that is bigger than 9 people. I can herd only so many cats at any one time.

## Policies updates/deletions/revisions:

Policies are technically opinions rendered by a regulatory agency that are issued to clarify existing rules. Their life is tied to the particular version of rules for which they were developed. When rules are revised, policies should be reviewed and incorporated into the new revision (that's the ideal) or updated to the new version of the rules. For whatever reason this hasn't happened over the past three revisions. We've decided (actually, Dave decided) that we really should do this so that everyone can be on the same page.

Our effort is being directed at the policies that are currently found on the SWW Team's website at <http://www.maine.gov/dhhs/mecdc/environmental-health/plumb/policies.htm> . We will, at a point in the near future, indicate on that page whether a policy should be rescinded, stay the same or be modified. If modified, we will



put up a revised version for review. We'll most likely have that out there for about 90 days to give people a chance to comment. Thus, I'd encourage you to bookmark that page and check it weekly.

I recognize that there are some of you out there who have been collecting various policy documents issued by the unit since near the dawn of time and would contend that there are many of those that are still relevant today. For any of those that you might have, feel free to make an electronic copy and it to us with your explanation of why it still is needed.

While Dave is spearheading this effort, as head of the Team, he has stuck, I mean assigned Jim to be the one to gather in all the comments and issues that any of you come up with. (Hey, being head has to have some perk or two with it. And while I would contend that having to put up with Jim, Brent and I is enough of a perk Dave still feels there should be a couple of others). Send Jim your thoughts on the policies on the website.

**Contact info:**

David.brale@maine.gov	441-5324
James.jacobsen@maine.gov	287-5695
Brent.lawson@maine.gov	592-7376
Glenn.b.angell@maine.gov	592-2084

## The Bagpiper's Story (A Deep Subject)

As a bagpiper, I play many gigs. Recently I was asked by a funeral director to play at a graveside service for a homeless man. He had no family or friends, so the service was to be at a pauper's cemetery in the Maine North Woods.

As I was not familiar with the backwoods, I got lost and, being a typical man, I didn't stop for directions.

I finally arrived an hour late and saw the funeral guy had evidently gone and the hearse was nowhere in sight. There were only the diggers and crew left and they were eating lunch. I felt badly and apologized to the men for being late.

I went to the side of the grave and looked down and the vault lid was already in place. I didn't know what else to do, so I started to play.

The workers put down their lunches and began to gather around. I played out my heart and soul for this man with no family and friends. I played like I've never played before for this homeless man.

And as I played "Amazing Grace", the workers began to weep. They wept, I wept, we all wept together. When I finished, I packed up my bagpipes and started for my car. Though my head was hung low, my heart was full.

As I opened the door to my car, I heard one of the workers say, "I never seen nothing like that before and I've been putting in septic tanks for twenty years."

(Apparently, I was still lost).

*Submitted by Bill Noble and Gary Fullerton*

## **LD 1755: An Act to Amend the Mandatory Shoreland Zoning Law**

Among the many bills introduced during this year's legislative session, lawmakers are considering an amendment to the Mandatory Shoreland Zoning Laws known as LD 1755, "An Act To Amend the Mandatory Shoreland Zoning Laws To Exclude Subsurface Waste Water Disposal Systems from the Definition of 'Structure'." Mandatory Shoreland Zoning is one of several overlapping land development laws that site evaluators must be familiar with in order to determine the suitability and setback requirements of properties in the vicinity of major waterbodies. In essence, there are two distinct set of standards controlling the suitability requirements and design standards to be used for a site depending upon its shoreland zoning status.

LD 1755 was jointly introduced by the bipartisan team of Democratic Senator James Boyle and Republican Senator Tom Saviello at the request of the Maine Association of Site Evaluators (MASE) Board of Directors and Darryl Brown, a site evaluator and MASE member. The proposed amendment targets a small portion of the law which establishes the definition of structures. Under the old law, structures are defined to include anything built on, above, or below the ground, except for fences. Because septic systems were not specifically exempted from this definition, they would also be considered structures.

Treating septic systems within the definition of a structure was of concern for two reasons:

1. The Shoreland Zoning Law contain specific provisions to allow limited expansion capability of non-conforming structures. The provisions are based on the footprint of the existing structures. Including the size of a replacement septic system might utilize a significant portion of the expansion allotment of an existing structure, and would encourage the use of smaller and less proven septic system technologies within the shoreland zone.
2. The setback requirements for structures may be different than for subsurface disposal systems, creating a conflict with the Maine Subsurface Wastewater Disposal Rules.

The proposed legislation will specifically exclude septic system components from the definition of structures under the law. A copy of the proposed bill is attached.

A Public hearing for LD 1755 is scheduled for Thursday February 20th, at 1:00, room 216 in the Cross Office Building. We encourage all MASE members who are available to attend the hearing a make your opinion known.



Figure 1

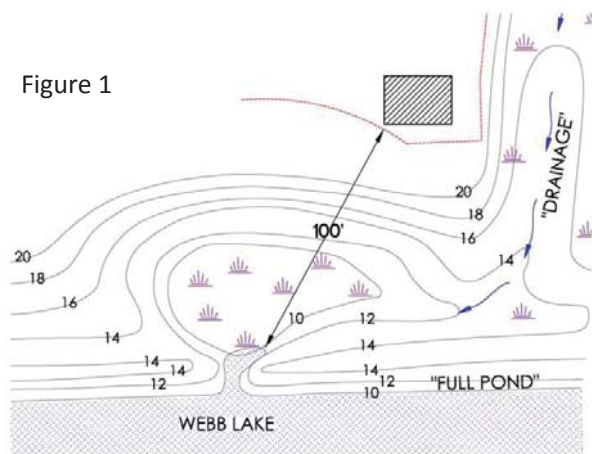


Figure 2

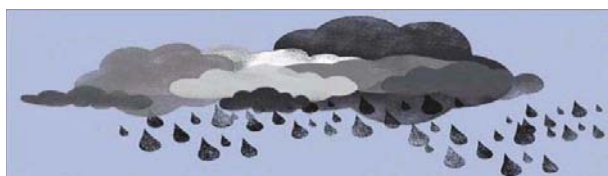
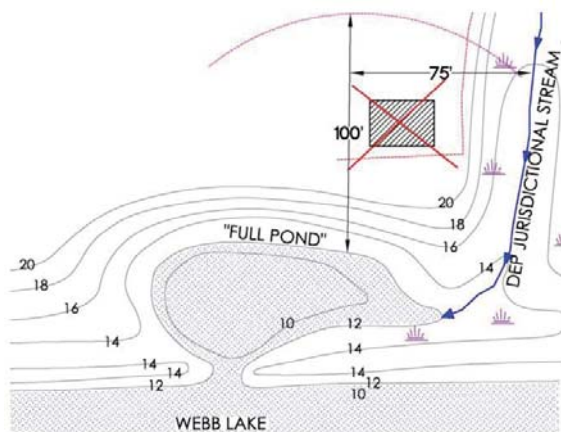


Figure 3



With all due respect Officer!  
It didn't  
look  
anything  
like  
this  
3  
weeks  
ago



## MT. BLUE TRAINING EXERCISE

### CONSULTANTS & REGULATORS 'CALIBRATING'

Most of the environmental consulting group (*Soil Scientists, Site Evaluators, Wetland Scientists, etc.*) know by now that *David Rocque*, when selecting sites for training workshops, does not necessarily gravitate toward straightforward (central concept) sites or soil pits, but rather tends to seek out locations that offer challenges or out of the ordinary situations.

The *Mt. Blue* training workshop on September 4, 2013, set up by *Dave Rocque*, was no exception; however, in this case, he had unexpected help from *Mother Nature* that perhaps nobody saw coming.

The situation occurred on Field Site #1 (figure 1) (manned by *Dave Rocque* and *Dale Knapp* for those who were in attendance) along the shoreline of Webb Lake. The site exhibited an 'ice ridge' (a.k.a. ice berm or ice push) (approximately 2' to 4' high) along Webb Lake that was formed by ice plates pushing/bulldozing against the shoreline from the ice sheets expanding when warmed and exerting tremendous thrusts and/or blowing against the shore to heave the soil into a berm over geologic time. The normal high water level (shoreline) for setback purposes was characterized by the Regulators to be along the outside edge of the ice ridge, and the 'regulatory' shoreline seemed very apparent and straightforward at that time.

Also during the Regulators preview of the site, the adjacent forested wetland in the Shoreland Zone apparently exhibited a drainage swale to the regulators, but it was not categorized as a jurisdictional stream, due to lack of channelization, stream bank, exposed mineral bottom, etc.) (See Figure 1 for a graphic representation of the site features at that time).

Between the Regulators classification and the training date of the workshop, there was significant rain, and the natural resource characteristics changed significantly.



The consensus of most of the professional consultants participating in the work shop found the site to look like that depicted in Figure 3. The lake level rose (perhaps to 'full pond') and ponded water was evident well into the inlet. The 'drainage swale' categorized by the Regulators had been scoured out, and exhibited a 'channel with banks, mineral bottom", and met the characteristics of jurisdictional DEP stream per the applicable standards. Hence, the first scenario, illustrated in Figure 1, seen by the Regulators looked much different to the consultants later, as represented in Figure 3.

It was a real 'eye opener' to all, and since it was a training exercise, everyone could walk away simply shaking their heads and having lively discussions. However, imagine if a building was under construction, based on site analysis consistent with Figure 1, and a neighbor challenged the permit. State or local regulators go to the site and now see it like that shown in Figure 3. The building is ordered to be razed and the septic system ordered to be removed! (A training exercise with lively discussions turns into a nightmare from hell for a Consultant or Property Owner).

This training exercise that took place at Site #1 was 'food for thought' for both consultants and regulators.

*Mike Mullen, DEP, being the very thoughtful and objective Regulator that he is, said "you know, the next time I hear a consultant say 'it didn't look like that when I saw it', I will stop, listen and definitely give it more thought".*

#### Natural Resources can Change Appearances

This training exercise clearly showed that natural resources can change appearances, and/or morph over time, and that responsible professionals can make differing classifications based on objective observations.

#### Lakes and Great Ponds Published Full Pond Elevations

If all lakes and Great Ponds were given a full pond elevation, it would take some of the variability out of the problem, and help to define what is a 'normal full pond' elevation, and not a 'flooded elevation'.

#### Streams (Jurisdictional)

The streams difficult to categorize by the consulting and regulating community are usually small streams. It is not uncommon for a small stream to take on stream regulatory characteristics when it becomes slightly steeper sloping (4-8%) where the stream flow gains velocity and washed out to expose a mineral bottom and developed defined channels, however that same stream, when entering a flatter terrace, will lose its velocity and scouring ability and it is not uncommon to lose a stream thread where it morphs into a drainage swale, with organic vegetative bottom or becomes braided into several drainages. In many cases in a small stream setting with variable slope gradient along its drainage, the drainage exhibits 'jurisdictional stream' characteristics for a segment, then the stream characteristics disappear for a segment, making it a drainage swale and then the 'stream' can reform later down slope again. (And as we learned during the training sessions, the various segments also can change based on the amount of runoff and velocity to which the stream was recently exposed, and/or the amount of time of organic deposit during dry spells.

So, what does an Environmental Consultant do about this?

- a. *Quit and become an ex-patriot in Iceland*
- b. *Stop going to these training sessions, they are too 'scary'*
- c. *Drink hard and often and try to forget about this type of stuff*
- d. *ALL of the above.*

# Rare Powassan virus, spread by ticks, claims life of Rockland-area artist

By Jackie Farwell, BDN Staff

Marilyn Ruth Snow visited her local hospital on Nov. 9 with a tiny, stubborn tick embedded in her shoulder blade.

Two days later, the active and healthy 73-year-old, a Rockland area watercolor artist better known as Lyn, would speak her last coherent words with her family.

“After that she became delirious and she was in and out of consciousness,” said her daughter Susie Whittington. “Then she was gone.”

Snow, of South Thomaston, died last Wednesday at Maine Medical Center in Portland. The next day, test results confirmed the rare Powassan virus in her body, making Snow Maine’s first documented case of the often deadly tick-borne disease in nearly a decade.

Nationally, just 50 cases of the Powassan virus have been reported over the past 10 years.

Snow’s family wants others to be aware of the disease, a viral infection first recognized in the town of Powassan, Ontario, in 1958. The virus can cause fever, headache, vomiting, weakness, confusion and seizures and may also lead to brain swelling, a devastating complication that kills 10 percent of those who develop it, according to the U.S. Centers for Disease Control and Prevention. Snow was among the 10 percent.

About half of those who survive the infection suffer permanent neurological symptoms such as memory problems, facial tics and blurred vision. There is no vaccine or treatment other than keeping patients comfortable and hydrated during hospitalization.

Snow, who walked 3 miles a day and never smoked nor drank caffeine, rapidly slipped away, her daughter said. She was put on a ventilator within 12 hours of arriving at Maine Medical Center and remained at the hospital for five weeks, enduring septic shock and other complications, Whittington said.

“It was horrific,” Whittington said. “I watched her get sick before my eyes as we had these specialists watching her like hawks. She had amazing care but there was nothing that could be done.”

Snow also received antibiotics for Lyme disease, a bacterial infection similarly spread through the bite of an infected tick. Lyme disease’s telltale bull’s-eye rash had appeared on her shoulder blade and she had been bitten another time in late October, but Snow’s health providers soon suspected a virus, Whittington said.

Because the antibiotic treatment can interfere with Lyme test results, Snow’s family doesn’t know if she contracted both Lyme and Powassan.

“It is much more deadly than Lyme, and people need to be aware of that,” Whittington said. “We want people to protect themselves.”

Powassan is distinct from the much more common Lyme disease in several ways. In addition to being caused by a virus rather than a bacterium, Powassan spreads in two strains, through the bite of both the deer tick, Lyme’s preferred host; and the woodchuck tick.

Both strains cause the same symptoms in humans.

So named because they’re often found on woodchucks, woodchuck ticks appear across Maine, also inhabiting skunks, weasels and rodents, according to Charles Lubelczyk, a field biologist with Maine Medical Center Research Institute’s Vector-borne Disease Laboratory.

The eight-legged ticks — which look nearly identical to deer ticks to the naked eye — don't "quest" for hosts like deer ticks, so people are less likely to come across them while enjoying the outdoors, he said.

"When people encounter them, they tend to bump into them near the burrows of animals," he said.

Maine last recorded Powassan in humans between 1999 and 2004, when the state documented four cases of the virus, Lubelczyk said. Powassan also has been detected in Maine deer and moose, though the virus doesn't appear to sicken the animals, he said.

In tick-dense areas of Maine along the midcoast to York County, an estimated 50 percent to 70 percent of adult deer ticks are infected with Lyme. But researchers lack data on how many ticks carry Powassan, he said. "We know that it's around," Lubelczyk said. "Now why it would suddenly decide to pop up this year as opposed to last year or the year before, we don't really know."

He expects Maine hasn't seen the last of the virus.

"I suspect, although I don't know, that we'll probably see more of it as the years go by, especially since it's now appearing in deer ticks," Lubelczyk said. "In potential areas, it's really kind of a game-changer, as far as tick-borne diseases go."

Public health officials believe Powassan is more common in Maine than the documented cases suggest. Some patients never get diagnosed or tested, preventing the Maine CDC from ever learning of the illness, said Director Sheila Pinette.

Unlike Lyme, Powassan isn't "reportable," meaning health providers aren't required to notify the CDC of Powassan cases, she said. Maine CDC is working to change that, she said.

"We really believe that the numbers are low," she said. "We feel there's a lot of underreporting."

Some people infected with the virus don't experience symptoms, according to the U.S. CDC. The incubation period, or time from the tick bite to the beginning of illness, ranges from about a week to a month.

"It's not commonly part of the battery of tests that [doctors] would order, but we're encouraging physicians, for patients complaining of fatigue, fever, and meningitislike symptoms, that they order this test," Pinette said. While ticks need 24 hours to transmit Lyme, "with Powassan we're not certain how long the tick needs to be attached to transmit the disease," she said.

Whittington, who lives in the Kennebec County town of Mount Vernon on 12 acres of designated deer yard, urged Mainers to check themselves for ticks after time in the outdoors. Every time.

"Living in Maine is such a gift ... We don't have poisonous snakes, we don't have poisonous bugs, but we do have ticks," she said.

#### Avoiding ticks: Tips from the CDC

1. Choose light-colored clothing so it's easier to spot ticks; wear long sleeves and tuck your pants into your socks.
2. Use an EPA-approved insect repellent .
3. Check your skin and clothing for ticks and remove them promptly. Don't miss warm, moist areas such as the ears, armpits and neck, and have someone else check your back.
4. Wash possible tick bites with soap and water and apply an antiseptic.
5. Keep your lawn mowed and tidy to remove tick habitat.
6. If you spot an embedded tick, use tweezers to grasp its mouth and pull it out with steady pressure. Don't use petroleum jelly, hot matches or nail polish remover, which can increase the risk of infection.
7. If a tick isn't engorged with blood, it's less likely it has transmitted disease.

*Earle Rafuse submitted this article from the Bangor Daily News*

# MASE Newsletter

February 2012



## MAINE ASSOCIATION OF SITE EVALUATORS

Newsletter Editor Richard Green

### 2013 MASE Board Officers

#### Contributors

Amy Jones  
Dave Kamila  
Dale Knapp  
Richard Green  
Earle Rafuse  
Albert Frick  
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James Logan..... Director  
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Ken Gardner..... Director  
Tim Wade ..... Director At Large

Send articles, photos, news, and other publication items to:

**Richard Green, [richard.a.green@roadrunner.com](mailto:richard.a.green@roadrunner.com)**

**(207)685-8141 MASE website: [www.maineese.com](http://www.maineese.com)**

## Directions to the Ramada Conference Center 490 Pleasant Street, Lewiston, Maine

### From North:

Take Interstate 95 South to Exit 80. Continue straight ahead. Follow signs for Industrial Park. At traffic light, go straight. Hotel and conference center is on the left.

### From South:

Take Interstate 95 North to Exit 80. At stop sign, turn left. Follow signs for Industrial Park. At traffic light, go straight. Hotel and conference center is on the left.

