



Granite State Geologist

The Newsletter of the Geological Society of New Hampshire,
Fall Edition – September 2014 – Issue No. 86

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MESSAGE FROM THE PRESIDENT

Julie Spencer, AECOM, GSNH 2012-2014 President

Fall is definitely in the air and we're entering my favorite time of the year. This is my final message as President. We are in our biennial election year. I have enjoyed serving as your President for the past four years (three terms), but I am also looking forward to transitioning to the Past President seat on the board. It's always good to bring some new faces and fresh perspectives to the board of directors.

I hope that many of you were able to attend one or both of the field trips offered as part of the summer field trip with the Geological Society of Maine this past summer. Photos of the trip are printed in this issue of the newsletter. I was not able to join the field trip, but I did enjoy a fabulous trip to the Canadian Rockies in July. Some



photos from my trip can also be seen in this issue.

Our biennial election for the Board of Directors will be held on October 16, 2014 during our annual meeting. Your membership must be in good standing in order to vote and you can pay any outstanding dues at the registration table. We have a very interesting program planned for our meeting. Our speaker will be Jean Benoit of UNH and his topic is the causes of the March 2014 Oso, Washington landslide. The week of the meeting (October 12-18, 2014) is Earth Science Week; this year's theme is "Earth's Connected Systems" emphasizing interactions

among the Earth systems of land, water, air and life. Join us on October 16 and “connect” with your fellow geologists!

THE GSNH DINNER MEETING

MAKE YOUR RESERVATION NOW!

OCTOBER 16, 2014

AT RED BLAZER

SOCIAL HOUR START AT 5:30, DINNER AT 6:30

Email reservations to Erin Kirby at EKirby@Geosyntec.com or

Mail to: **Erin Kirby, GSNH Dinner Meeting, PO Box 401, Concord, NH 03302-3483.**

Checks payable to: GSNH.

FROM YOUR GSNH NOMINATING COMMITTEE ...

The following slate of candidates for the GSNH Board of Directors is offered for your consideration (as per the GSNH Constitution and By-laws). Current GSNH members may vote on the slate of nominees at the GSNH Fall 2014 Annual Dinner Meeting, on Thursday October 16, 2014 at the Red Blazer Restaurant in Concord. Write-in candidates are also always welcome.

President - **Wayne Ives** - Wayne was graduated with a geology major at Albion College in Michigan. He worked in groundwater exploration consulting for ten years conducting geophysics, drilling and testing wells, and managing projects in New England, New York, California, Georgia, Virginia and Sudan. He left consulting to work for the Superfund Program at the Department of Environmental Services, where he quickly began managing Superfund Sites while serving as the Program’s hydrogeologist. After seven years in Superfund, Wayne transferred to the Water Division to become the state’s Instream Flow Specialist where he has been working for 14 years protecting stream flow quantities and managing water withdrawal issues.

Society VP - **Thor E. Smith** - Thor has worked as a hydrologist with the U.S. Geological Survey in Vermont and New Hampshire since 1994, and is a licensed Professional Geologist in NH. Before joining the USGS, Thor studied geology (Sc.B., Brown University) and hydrology (M.S., University of New Hampshire) and enjoyed a geographic variety of outdoor work, including acid precipitation research in the Adirondack Mountains, hydrologic monitoring for the Bureau of Reclamation in Colorado, and environmental consulting in California. He is currently completing a term as Member-at-Large on the GSNH Board of Directors. Beyond geology, Thor has served as Mountaineering Committee Co-Chair for the Appalachian Mountain Club-NH Chapter, and remains an active AMC volunteer.

Council VP - **Russell J. Wilder** - Russ is currently Vice president of Environmental Services at URS’ Manchester Office. He graduated from UNH in geology in 1970 and received his masters degree in soil and water science in 1971. He has over 30 years of senior management experience, including positions as manager of very large multi-disciplinary task order contracts for federal environmental services and Fortune 500 Companies. He has extensive experience working with New England regulators including the USEPA, USACE, USF&WS, NMFS, MADEP, CTDEP, VTAEC and NHDES. While at the USEPA Region 1, Russ received an award for his work with the USACE on the 404 Dredge and Fill Program. Also while at the USEPA, he was responsible for the issuance of NPDES permits to industries and municipalities in Massachusetts, New Hampshire, Vermont, and Connecticut. Russ has served on the Windham, NH Conservation Commission and Planning Board for 24 years and is currently a member of the Alton, NH Conservation Commission. He currently serves on the legislative committee for GSNH. Russ is a a Professional Geologist in New Hampshire. He has three grown children, Daniel, Stephanie and Lindsey. He resides with his wife, Penn, in Alton Bay, NH.

Treasurer - Bill Abrahams-Dematte - Bill is a Project Hydrogeologist/Scientist for AECOM Environment in Wakefield, MA, where he has worked for the last 13 years. Prior to AECOM, Bill has worked for Continental Placer, Inc. in Laconia, NH, as a private consultant in Williston, VT, and for the Vermont Association of Conservation Districts, Montpelier, VT. Bill specializes in environmental site investigations, site characterization and remediation, hydrogeological studies, data management, and geotechnical work. He also employs GIS and ACAD to his environmental projects. Bill has been a member of the GSNH for the last 13 years and has held several positions with GSNH: Council VP for a 1-1/2 year term (2010-2011), Webmaster for the GSNH website (2011-2013) and as Treasurer (2013-present). Bill is also a member of GSA, NGWA, and AIPG societies; and a licensed PG (NH #575). Bill lives in Wilton, NH and appreciates the GSNH for providing a means to being more connected with the New Hampshire geological community, for the excuse to go out and hike around on a bunch of rocks, and for the opportunity meet new people.

Secretary - Lea Anne Atwell – Lea Anne is a Project Manager with Sanborn, Head & Associates in Concord, NH, where she works on environmental site assessments, vapor intrusion investigations, and bedrock characterization studies. She previously mapped Paleozoic sedimentary rocks in two USGS quadrangles as part of the New Mexico STATEMAP project. Lea Anne is wrapping up a two-year term as Secretary for the GSNH board since 2010, and previously served as the chair of the Nominating Committee. Lea Anne served as Secretary for the Town of Pembroke Conservation Commission from 2006-2010. She completed her undergraduate work at Wittenberg University in Springfield, Ohio and her graduate work at the University of New Mexico.

Member-at-Large (Three Positions)

Doug Allen - Doug is a Senior Hydrogeologist and Project Manager with Haley & Aldrich, Inc. in Bedford, specializing in environmental site investigations and remediation, application of GIS to environmental projects, engineering geology, and hydrogeological studies. He is a licensed PG in New Hampshire, with a MS in geology from Lehigh University and a BA in Environmental Science from the University of Rochester. Doug has played an active role in GSNH since joining in 2002, volunteering on the membership committee (maintaining the membership database, preparing member directories, and communicating event information to members) since 2004 and previously served on the Board of Directors as Secretary and Society Vice President. Doug and his family live in Warner where he serves on the Town's Conservation Commission. Doug appreciates the professional fellowship that GSNH brings to the geological community of New Hampshire and looks forward to ongoing active participation.

Erin Kirby – Erin is a Senior Geologist for Geosyntec Consultants in Bedford, New Hampshire. Erin is a registered P.G. in New Hampshire and lives in Milford, New Hampshire. She earned her M.S. in Geophysics at Texas A&M University and her B.A. in Geology from Smith College in Northampton, Massachusetts. She has been a member of GSNH since 2004 and is running for a Member-at-Large position because she thinks GSNH is a very congenial society, based on camaraderie and technical expertise. Erin would like an opportunity to contribute to and serve such a great group of people.

Abby Fopiano – Abby is a Water Systems Consultant at Epping Well & Pump Co. Inc. where she is the lead hydrogeologist for projects pertaining to residential, commercial and small community water systems treatment and distribution. She is also an adjunct professor of mathematics at Southern New Hampshire University. Until last February, she was a Senior Hydrogeologist with Geosphere Environmental Management, Inc. Abby is NH Professional Geologist, has a Geology degree from the University of Montana and a masters in Hydrology from the University of New Hampshire. She's been serving as the Society's co-web master for the last year.

EARTH SCIENCE SEASON submitted by Ryan Crosbie

Pike Industries supports educators and special interest groups, such as mineral clubs and scouts, in their quest to satisfy curiosities and explore the record of the past. It also promotes the important role that the mining industry plays in today's society. Pike Industries operates several sand and gravel and crushed stone excavations in New Hampshire, Maine, and Vermont. Most of these are open to groups interested in learning about geology, environmental sciences, mining practices, and careers in the earth sciences. Or, maybe you know a scout trying to earn a merit badge? Please contact Ryan Crosbie –Environmental Manager & Geologist to arrange a guided tour of a quarry or operation near you.

Call (603) 527-5142 or email rcrosbie@pikeindustries.com. You can see locations near you by going to <http://www.pikeindustries.com/locations.html>. Earth Science Week is coming up, but come explore anytime in the Spring, Summer, or Fall!!



Students discussing a complex contact in a NH quarry.



Calcite crystal with purple fluorite from a NH quarry.

GEOLOGICAL SOCIETIES SHARE A FIELD TRIP

Geologists from the Maine and New Hampshire Geological Societies teamed up for a weekend field trip to examine glacial deposits and bedrock exposures in the Bethel, Maine area. Many stayed at a local campground beside the Androscoggin River and attended the barbeque Saturday night.

Woody Thompson (Maine Geological Survey) lead us Saturday to stops that included gravel pits where alluvial fans were exposed and hillsides overlooking the Androscoggin River valley where aeolian sands had been deposited. Dyk Eusden (Bates College) lead us across a confusion of changing lithologies along a Route 2 outcrop. Kitty Breskin (Maine D.O.T.) described the geotechnical engineering required to shore up the rock faces exposed by widening Route 2 using drains, dowels and steel netting, as well as the slope stabilization required to support the road as it squeezed between an outcrop above and an already over steepened bank above a railroad bed below. Woody told of Hark Hill, part of the valley moraine complex, that legend says was named when settlers found refuge on the hill as they listened to the Indians plundering their homes through the night. The Wild River, a side valley of the Androscoggin that is filled with hundreds of feet of glacial lake deposits was a surprising revelation to many.

Dyk Eusden (Bates College) led Sunday's expedition by way of the Sunday River Ski Area's Chondola chair lift up the mountain. A two mile walk along the mountain top allowed us to look at the outcrops of schists, quartzite and granofels, puzzle over the which way was up, and eat berries along the way. Despite the drizzle there were some spectacular views and lunch at the top of one of the ski lifts with views down over Bull Branch into Newry and Riley Township.



Geologists from the Maine and New Hampshire Geological Societies listen to Woody Thompson describe the stops planned for this year's summer field trip to Bethel, Maine. Photo by Wayne Ives



Geological Society of Maine's president Keith Taylor examines pebbles in delta sands in a gravel pit near Route 2.



Dyk

Kitty Breskin, Maine DOT, explains some of the challenges with stabilizing the road cuts on US Route 2, west of Bethel. Photo by Lea Anne Atwell.



Carol Hildreth digs into aeolian sands deposited high on a hilltop south of the Androscoffin



River valley. Photo by Wayne Ives

Sunday River Ski Area outcrops offered views of the valley. Photo by Wayne Ives

THE NH GEOLOGICAL SURVEY GROUND WATER LEVEL NETWORK SUMMARY

Submitted by Lee Wilder of the NHGS

April 2014 NH Groundwater level measurements were collected by the NH Geological Survey from April 23 – April 30, 2014. The statewide April 2014 average groundwater level for **wells in the overburden** (in soils on top of the bedrock) showed an increase of + 1.36 feet from March 2014. When compared with April 2013, the statewide average groundwater level for April 2014, in these wells, increased + 0.70 feet. The April 2014 average groundwater level in the new **bedrock wells** showed an increase of + 0.31 feet when compared with March 2014. When compared with April 2013, the bedrock wells showed an increase of + 0.71 feet for April 2014.

May 2014 NH Groundwater level measurements were collected by the NH Geological Survey from May 27 – May 30, 2014. The statewide May 2014 average groundwater level for **wells in the overburden** (in soils on top of the bedrock) showed a decrease of – 0.42 feet from April 2014. When compared with May 2013, the statewide average groundwater level for May 2014, in these wells, increased + 0.50 feet. The May 2014 average groundwater level in the new **bedrock wells** showed an increase of + 0.59 feet when compared with April 2014. When compared with May 2013, the bedrock wells showed an increase of + 0.09 feet for May 2014.

June 2014 NH Groundwater level measurements were collected by the NH Geological Survey from June 25 – June 30, 2014. The statewide June 2014 average groundwater level for **wells in the overburden** (in soils on top of the bedrock) showed a decrease of – 0.70 feet from May 2014. When compared with June 2013, the statewide average groundwater level for June 2014, in these wells, decreased -0.20 feet. The June 2014 average groundwater level in the new **bedrock wells** showed a decrease of -2.61 feet when compared with May 2014. When compared with June 2013, the bedrock wells showed a decrease of -2.18 feet for June 2014.

July 2014 NH Groundwater level measurements were collected by the NH Geological Survey from July 28 – August 1, 2014. The statewide July 2014 average groundwater level for **wells in the overburden** (in soils on top of the bedrock) showed an increase of +0.05 feet from June 2014. When compared with July 2013, the statewide average groundwater level for July 2014, in these wells, decreased -0.51 feet. The July 2014 average groundwater level in the new **bedrock wells** showed no change when compared with June 2014. When compared with July 2013, the bedrock wells showed a decrease of -1.18 feet for July 2014.

The groundwater level measurements for the deeper of the two Concord bedrock wells (CVWB-1) are **not** presently available in real-time. Past data are on the USGS website at: http://waterdata.usgs.gov/nh/nwis/uv/?site_no=431034071340501&PARAMeter_cd=72019. The data for all of the wells in the NH Groundwater Level Network are shared with and posted on the USGS website at: <http://groundwaterwatch.usgs.gov/StateMaps/NH.html>.

2013 MEDIAN SALARIES FOR GEOSCIENTISTS

The median annual salaries for geoscience-related occupations in the United States generally continued to increase according to the U.S. Bureau of Labor Statistics. The average median annual salary for geoscience-related occupations in 2013 was \$83,311. For more information about median salaries in the geosciences, please check out Currents #91 at <http://www.americangeosciences.org/workforce/currents>.



GRAND CANYON RAFTING TRIP OPPORTUNITY- July 6 to July 12, 2015

Next summer (2015), Fred Beck (Geological Society of Maine) and Alison Jones (GSM and Geological Society of Arizona) will be leading a raft trip through 188 miles of the Grand Canyon - a 7 day trip on 2 motorized 34-foot inflatable rafts. This will be the 7th trip for Alison and 6th for Fred. We will be going "down section" from the late Permian into the Precambrian, and making numerous geologic and just fun stops along the way. We will be camping out each night on sandy beach deltas. As in the past, our trip will be run by Hatch River Expeditions, the oldest raft concessionaire in the Grand Canyon.

Hatch provides everything; two rafts which each comfortably carry 16 people, all camping gear and food, and three licensed experienced guides who run the boats, do the cooking, and assure that everyone will have the experience of a lifetime. In the past we have had about 50% geologists and the rest spouses, teen-aged children, or just people who want to learn about geology in perhaps the grandest classroom in the world. It may be that this trip would qualify for continuing education credits for those who need these credits.

This trip has proved very popular and the available spots usually are all filled by late summer or early Fall. A deposit of \$500 is required to hold a spot. The balance of \$2450 is due in March. In case of cancellation, the deposit will be returned if the spot can be filled. Since we always have had a waiting list, we've never failed to fill vacated spots. For more detailed information, contact Fred Beck at fmbeck@fmbeck.net, or Alison Jones at ajones@clearcreekassociates.com.



Joe and Alice Kelly (UMaine) at the Nankoweap Delta and Anazazi grain storage caves taken on the 2011 trip – Grand Canyon geo-rafting trip



Granite Rapids, 2014 – Grand Canyon geo-rafting trip



Cenozoic volcanic neck in middle of River – Grand Canyon geo-rafting trip



Hike in Cambrian sandstone canyon – Grand Canyon geo-rafting trip

DATES TO REMEMBER

Oct 10-12, 2014 - New England Intercollegiate Geologic Conference (NEIGC), hosted this year by Wellesley College, Wellesley, MA;

<http://w3.salemstate.edu/~lhanson/NEIGC/Conference.html>

October 16, 2014 – GSNH Fall meeting at Red Blazer

Oct 12-18, 2014 - Earth Science Week, Earth's Connected Systems

Wednesday, October 15, 2014 – 2 - 8:00 PM -Joint Geologists Meeting - New York State Museum , Albany, New York; <http://ne-aipg.org/meetinginfo.php?id=3&ts=1409343221>

Oct 17, 2014 - Earth Science Week, Geologic Map Day;
<http://www.earthsciweek.org/geologicmap/>

Oct 19-22, 2014 - Geological Society of America Annual Meeting, Vancouver, BC;
<http://community.geosociety.org/gsa2014/home/>

January 15, 2015 – Spring GSNH meeting - TBA

March 23-25, 2015 - NE-GSA at Bretton Woods, NH (See update in this issue.)

July 6 to July 12, 2015 – Grand Canyon Rafting Trip - contact Fred Beck at fmbeck@fmbeck.net, or Alison Jones at ajones@clearcreekassociates.com.

US PLANS WIDE SEISMIC TESTING OF SEA FLOOR - Friday, July 25, 2014 - Wayne Parry - <http://www.fosters.com/apps/pbcs.dll/article?AID=/20140725/AP02/307259974>

ATLANTIC CITY, N.J. (AP) — The federal government is planning to use sound blasting to conduct research on the ocean floor along most of the East Coast, using technology similar to that which spawned a court battle between environmentalists and researchers in New Jersey this summer.

The U.S. Geological Survey plans this summer and next to map the outer limits of the continental shelf, and also study underwater landslides that would help predict where and when tsunamis might occur. But environmentalists say it could cause the same type of marine life damage they fought unsuccessfully to prevent this month off the coast of New Jersey.

"New Jersey's marine life, fisheries and coastal economy can't get a break," said Cindy Zipf, executive director of Clean Ocean Action, which led a thus-far unsuccessful battle to block a sound blasting research plan off the coast of New Jersey's Long Beach Island.

Although it involves the same basic technology, the new plan is much wider-ranging. It would begin near the U.S.-Canadian offshore border, and extend as far south as Florida.

John Haines, coordinator of the Geological Survey's coastal and marine geology program, said his research will be low-impact. It is designed to more precisely map the far reaches of the continental shelf to better determine where the United States' exclusive rights to undersea resources such as fish and shellfish extend.

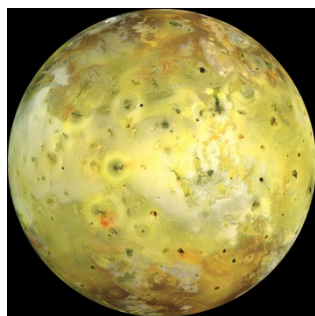
It is not being done to map potential oil, gas or mineral deposits, he said. "As hard as it is to believe, we don't know in the U.S. where on the seabed our right to protect and use resources ends," he said. "We could extend our ability to use and protect resources hundreds of miles offshore." The nation's exclusive economic zone extends for 200 miles, but that could be extended, depending on the results of the research.

Another thing it will examine is sediment that shows past underwater landslides. Data from the study could show which areas of the U.S. and Caribbean coasts could be vulnerable to tsunamis.

The Geological Survey study is due to run for about three weeks sometime between August and September this year, and a similar period next year, Haines said. Zipf said researchers would blast the ocean floor with sound waves measuring from 236 to 265 decibels every 20 to 24 seconds for at least 17 days each year of the survey. Environmentalists say the noise could harm or even kill marine life including whales, dolphins and turtles. Haines said his group is sensitive to those concerns and will take steps to minimize harm to marine animals, including stopping work when animals are seen nearby. He said this year's planned research will stretch from the U.S.-Canadian border to North Carolina; research farther south would be done next summer. The plan still needs to be approved by the National Oceanic and Atmospheric Administration.

GEOLOGY DEGREE – A WEBSITE

Geology Degree is website site dedicated to Geology education and resources. Paige Underwood researched and completed a blog listing 105 of the best sites on Geology. Her list is filled with amazing sites including geology blogs & publications, state geological surveys, research groups & universities, hydrogeology, and volcanoes. If you want to check it go to <http://geologydegree.org/sites-that-rock/>.



SULFUR

[Sulfur](#) is easily recognized by its bright yellow color. In its native form elemental sulfur is usually associated with volcanic activity. Sulfur is one of 13 elements known to ancient people and is the 10th most common element in the Universe. [Jupiter's moon Io](#) (left) is yellowish because volcanoes continuously erupt sulfur – bottom photo [[NASA image](#)].

<http://epod.usra.edu/blog/2014/02/sulfur.html>

MORE THAN A DECADE OF DROUGHT ON COLORADO RIVER SCULPTS IMPENDING SOUTHWEST WATER SHORTAGE

The Colorado River serves as one of the most vital water sources in the United States, providing water to nearly 40 million people in the West. Numerous resources are dependent on the river, which has been under drought conditions since 2000. As drought conditions grip the western part of the country, states are reinforcing preparations they've made years ago in the possibility of a water shortage. Lake Mead, the largest reservoir in the U.S. and supplier of nearly 90 percent of southern Nevada's water supply, is dwindling to near-record low levels. It also holds water for California, Arizona and Mexico. As of the end of June, the lake sat at an elevation of 1,082 feet above sea level. More at

http://www.accuweather.com/en/features/trend/colorado_river_drought_holds_s/30029304



In this April 16, 2013, file photo, a bathtub ring marks the high water mark as a recreational boat approaches Hoover Dam as it makes its way along Black Canyon on Lake Mead near Boulder City, Nev. (AP Photo/Julie Jacobson, File)

SUPER MOON IN AUGUST

The closest Full Moon of 2014 occurred on August 10th at 18:11 Universal Time (UT) or 1:44 PM EDT. On that date, the Moon reached perigee or its closest approach to the Earth at 356,896 kilometers distant at 17:44, less than an hour from Full and shining 30 percent brighter than the traditional full moon. Of course, the Moon reaches perigee nearly as close once *every* [anomalistic month](#) (the time from perigee-to-perigee) of 27.55 days and passes the full phase once every synodic period (the period from like phase to phase) with a long term average of 29.53 days. A more accurate astronomical term for a supermoon is a perigee-syzygy. A comparison shot of the perigee and apogee Moons this year is below.

<http://www.universetoday.com/113004/would-the-real-supermoon-please-stand-up/> and

http://www.accuweather.com/en/features/trend/supermoon_awesome_sky_watchers_wo/31993561

[See image on the next page.]

2014 Perigee and Apogee Moon



10th August
353912Km



16th January
401190 Km

© 2014 Giuseppe Petricca - Nikon P90 Bridge Unfiltered - PS

See story
on the
previous
page.

BEYOND GRANITE: THE GEOLOGY OF ADVENTURE

March 25, 2014 - March 8, 2015

Plymouth State University, Museum of the White Mountains

In its newest exhibition, Plymouth State University's [Museum of the White Mountains](#) explores connections between geological history and recreation in the White Mountains. The



exhibition is curated by Sarah Garlick, a New Hampshire-based writer and science educator.

The exhibition features ultra-high resolution panoramic photographs (Gigapans) of Cannon Cliff, the Franconia Ridge and the east side of Mt. Washington. These panoramas span nearly entire walls of the gallery and are featured in a touch-screen digital exhibit.

The exhibition includes topics like the connection of a geologic event such as a landslide and how that event precipitates activities such as

backcountry skiing and ice climbing. It also explains the impact of the Ice Age on the region, and the science behind the formation and eventual destruction of the Old Man of the Mountain.

The museum, located at 34 Highland Street in Plymouth, is open for regular hours Tuesday, Thursday and Friday, 10 a.m.–5 p.m.; Wednesday 10 a.m.–7 p.m.; Saturday and Sunday noon to 5 p.m. Admission is free and open to the public for self-guided tours. Contact Libby Griffiths at (603) 535-3210 or egriffiths@plymouth.edu to discuss and schedule group visits. Go directly to the Museum's website at <http://www.plymouth.edu/museum-of-the-white-mountains/>.

WHAT IS YOUR BOARD DOING? By Lea Anne Atwell

The Board gathered for its quarterly meeting at AECOM's offices in Chelmsford, MA, hosted by Julie Spencer. Key items discussed included:

- Abby Fopiano and Trent Hayden, our co-webmasters, have been working to re-vamp the GSNH website and hope to transition the site to a new webhost this fall.
- Our Dinner Meetings are growing in popularity, and we have almost outgrown our regular meeting venues. Erin Kirby has been hard at work leading the search for potential new venues and identified two potential options in Manchester – Fratellos and the Puritan Back Room. We are considering having one meeting in 2015 in Manchester, and would like your feedback about meeting in Manchester vs Concord. Please let a board member know what you think!
- Elections for the Board of Directors will take place at the Annual Meeting in October. The candidate slate and bios are published in this newsletter, but write-ins are always welcome!

We are looking for ways to spread the word about our K-12 Classroom Enhancement Grants. Grants are available of up to \$300 to purchase earth-science related teaching materials for use in the classroom; the funds for these grants are raised by our dinner meeting mineral raffles. More information can be found on our website:

<http://www.gsnhonline.org/outreach/grant.shtml>. Note that the website indicates grants are awarded in September, but applications are actually considered as they are received. Please encourage any teachers you know to apply!

Our next meeting will be hosted by Thor Smith on December 4th at the offices of the USGS in Pembroke. All members are welcome to attend our Board meetings.

NY MAY GET PROFESSIONAL LICENSING– forwarded by Tom Fargo

The following is excerpted from a message from John Nadeau, President of the NY Council of Professional Geologists, which was copied from the latest newsletter of the Hudson-Mohawk Profession Geologists Association.

NHSCPG Message

The bill to establish the Profession of Geology in New York State passed both houses of the Legislature in June of this year. This is the first time we have been successful in getting the bill to this point. The questions that have been circulating since the bill passed the Legislature include inquiries into when the bill will arrive at the governor's desk. There is no set timeframe and the bills are sent over in groups....

Every business within New York State owned by geologists and/or offering geologic services will be required to become professional corporations. Details regarding the various professional corporation types can be found at <http://www.op.nysed.gov/corp/>. Section V of the Corporate Entities for Professional Practice highlights the Design Professional Corporation (D.P.C.) designation that was effective January 1, 2012. We will cover this in more depth in future NYSCPG newsletters.

One question has been asked about the degree requirement and will people currently working in the field with geology-related degrees have issues obtaining a license. I have been telling people to refer to the Certified Professional Geologists requirements from AIPG (www.aipg.org) for a rough idea on the potential course requirements for licensure. The ASBOG site (www.asbog.org) also provides suggested course requirements. If you have the requisite educational background provided by either of these entities, then it is probable that you will meet the future New York State requirements....

A second question has related to the grandfathering period. The bill language is written that there will be a one year grandfather period after the regulation writing phase....

Thank you again to everyone for your support and effort to make NYSCPG a success and helping to pass the bill to establish the Profession of Geology in the NYS Legislature. Please feel free to email me (jnadeau@alphageoscience.com) any questions you may have regarding the licensing process.

John M. Nadeau, CPG
2013-2014
NYSPG President

See also <http://marcellusdrilling.com/2014/06/geologists-finally-get-some-professional-respect-in-ny/>

GEOLOGICAL SOCIETY OF AMERICA
NORTHEASTERN SECTION - GOLDEN ANNIVERSARY
MARCH 23 - 25, 2015

★ **INSPIRING GEOLOGY FOR 50 YEARS** ★



**50TH ANNUAL MEETING
NORTHEASTERN SECTION
GEOLOGICAL SOCIETY OF AMERICA**

BRETTON WOODS, NEW HAMPSHIRE

23-25 March 2015

CELEBRATING THE SECTION'S GOLDEN ANNIVERSARY

HOSTED BY

**Mount Washington Observatory
Dartmouth College
Plymouth State University
University of New Hampshire
New Hampshire Geological Survey
Maine Geological Survey
North American Reserve, LLC
OMNI-Mount Washington Resort**

This meeting of the Northeastern Section will celebrate its Golden Anniversary, and will do so by returning to The Omni-Mount Washington Resort “by popular demand”. The resort’s graceful atmosphere, magnificent scenery, and cordial staff will again furnish an extraordinary venue in which to share the relaxed connection, learned exchange, and celebration of this special occasion. As those who attended in 2013 already know, the venue is unlike any before, and with its help, the meeting will be an informative, unusual, not-to-be-missed occasion for professionals and students alike. Check the meeting’s GSA website often for updated information about its:

- **Extensive Technical Program (4 Symposia, 32 Theme Sessions, 9 Workshops, 4 Field Trips, plus Special Plenary Session)**
- **New “Map & Career Networking Blast” for both students and professionals; and,**
- **The Special “50th Anniversary Celebration”.**

Meanwhile and once again, the Resort is making specially-priced accommodation options available. A double-occupancy room is just \$78.00 per person/night, and for students even less at as little as \$33.75 per person/night for quad occupancy. Also, town homes with fully-equipped kitchens are available for groups of professionals, families, and student groups which permit even lower per person/night cost.

**50TH ANNUAL MEETING
NORTHEASTERN SECTION
GEOLOGICAL SOCIETY OF AMERICA**

NEW THIS YEAR

“MAP & CAREER BLAST”

“Connecting Students With Opportunity”

Join representatives from the geologic community seeking people to fill all kinds of geotechnical positions. This new event will bring together students and potential employers in an unstructured environment where both can display and discuss their projects, where employment opportunities can be explored, and where information can be easily exchanged. Poster stands and exhibit space will be available for everyone, along with a free pizza dinner for everyone (cash bars available).

Professional & Sponsorship Opportunity For GSNH Members

Everyone is seeking motivated qualified geotechnical employees, but it is frustrating to find them using usual methods. Here’s a local way to change that. A new **Map & Career Blast** is being introduced at NEGSA, 2015 to provide your firm or organization with unrestricted access to up to 800 qualified students and professionals seeking employment and internship opportunities. This is a great opportunity to meet potential employees “on their feet” and without the uncertain formality of application processes.

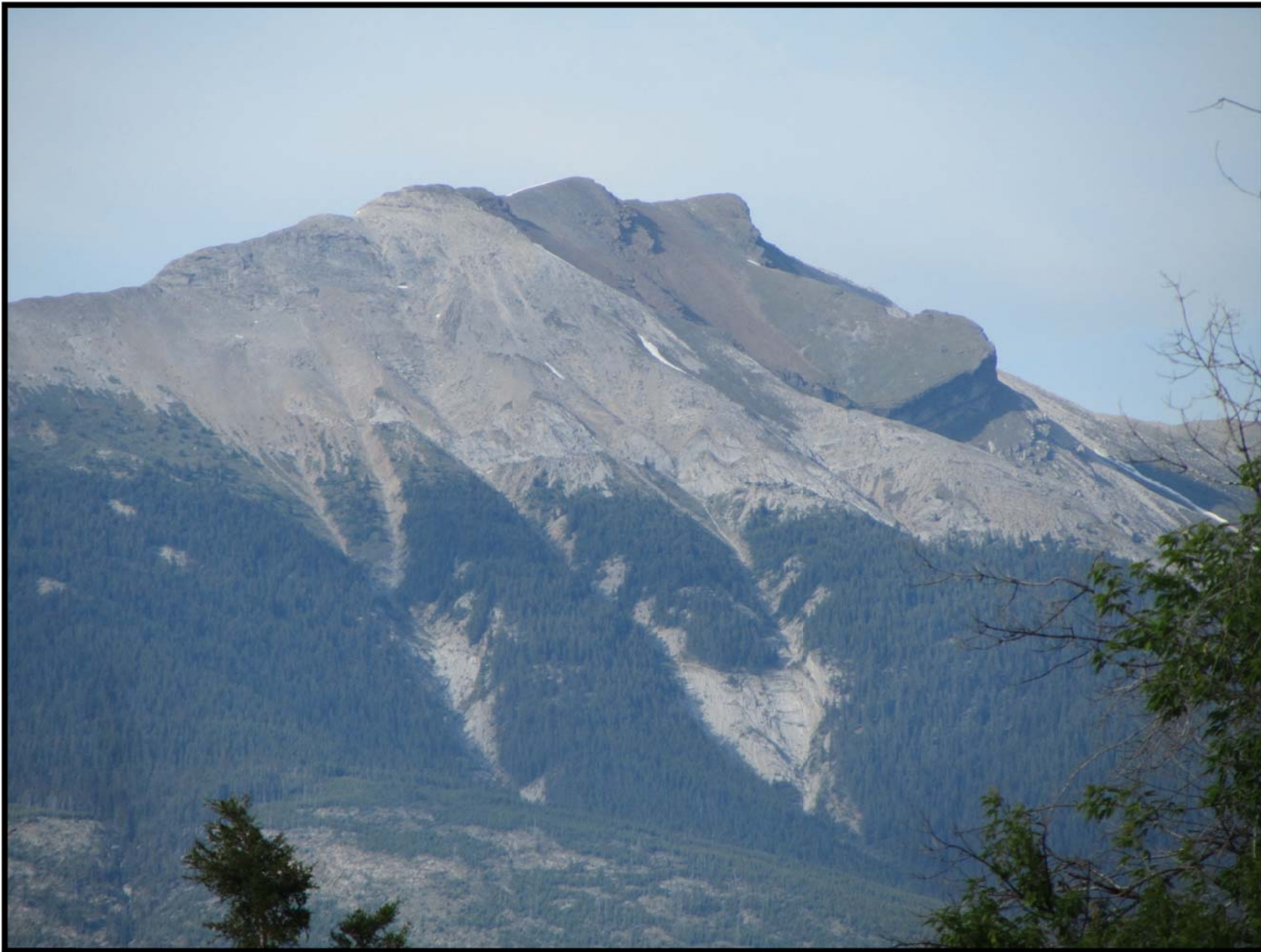
Come to the Blast yourself or with members of your staff, a supply of business cards, a project poster or two, or a more elaborate corporate display if you like (free display tables available upon request). No NEGSA Meeting registration or special event admission fee is required, but we’d love some help with the free pizza dinner. Sponsorships for it in any amount will help, but we suggest \$50 as a start. Sponsorships of \$100 or more will be officially recognized on the Meeting’s website and in its various promotional and program materials. A sponsorship of \$500 or more will get all that, plus the right to bring along a banner or sign that we can hang in the event venue. Meanwhile, a complete list of all the event’s attendees (students and professionals) will be distributed to those requesting shortly after the Meeting is over.

For more information, contact Brian Fowler, Meeting Chair (b2fmr@metrocast.net) and visit the Meeting’s frequently updated website: <http://www.geosociety.org/Sections/ne/2015mtg/>.

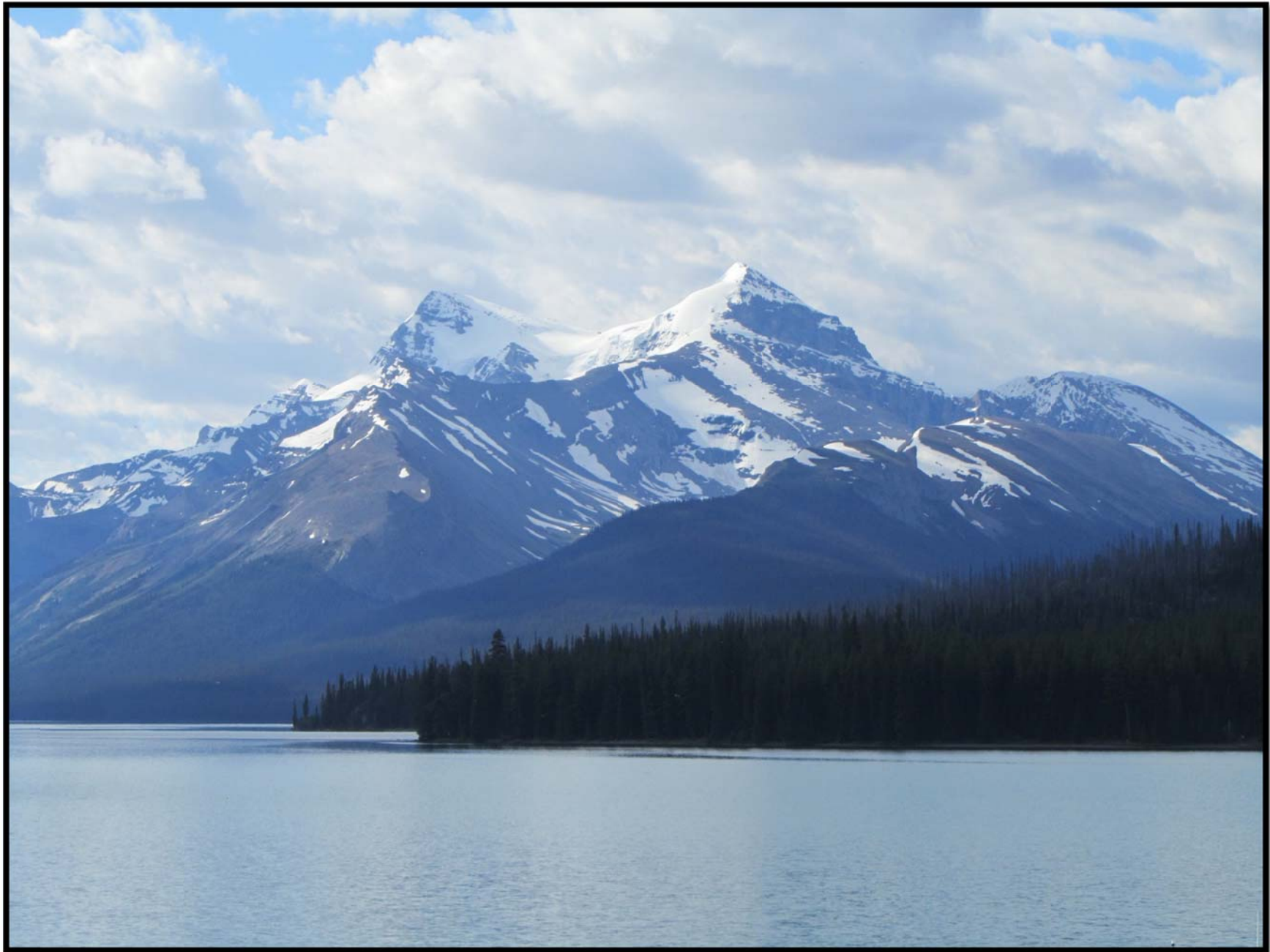
Please note that, for planning purposes, all rooms within the OMNI-Mount Washington Resort are exclusively reserved for registered NEGSA Meeting attendees. So those who’d like to attend the Blast and spend that night in the local area without registering for the Meeting can make convenient room reservations at the Attitash Grand Summit Hotel in Bartlett, NH, located about 20 minutes south of the Mt. Washington Resort.



Peyto Lake in Banff National Park in the Canadian Rockies. Glacial rock flour in the water is the cause of the beautiful turquoise color. Photo submitted by Julie Spencer.



This is Roche Bonhomme, Jasper, Alberta's Good Man, also known as Old Man Mountain. He resembles a First Nations Chief laying on his back and looking up at the sky and you can even see "feathers" from his headdress coming down the mountain. Submitted by Julie Spencer



Maligne Lake, the largest lake in Jasper National Park, Alberta, Canada. This valley was carved by glaciers and the lake was created when an end moraine was deposited by the last

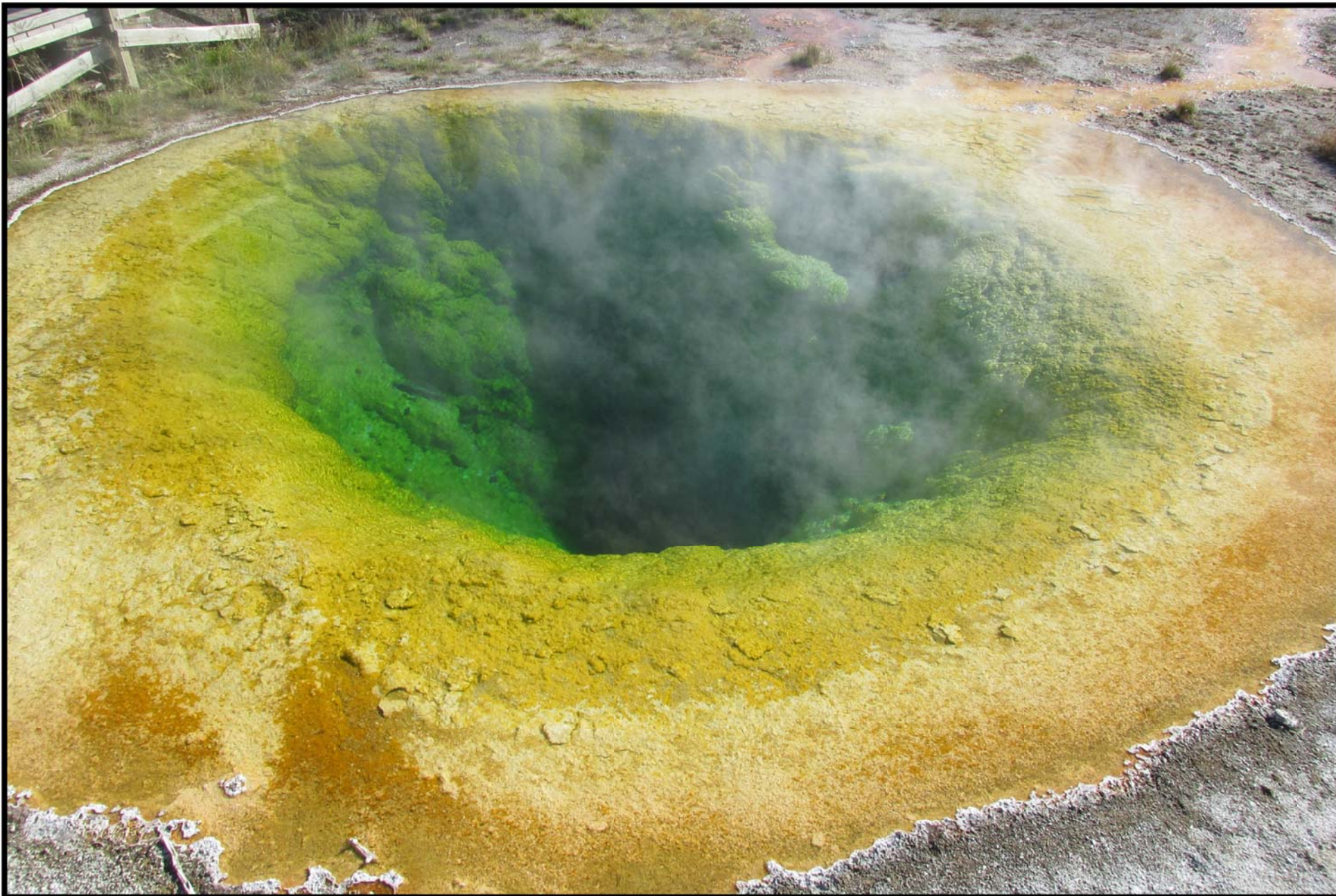
glacier at the northern end. There are three glaciers which can be seen in the mountains surrounding the lake. Photo submitted by Julie Spencer.



The famous (from your Geo 101 class) Gros Ventre landslide of June 23, 1925 formed this lake behind the slide debris that dammed the river . The slide scar, partially revegetated, is still visible in the background. Photo by Wayne Ives



Sun on the hydrothermally altered Canyon Rhyolite exposed in the Grand Canyon of Yellowstone from the South Rim. Photo by Wayne Ives.



One of hundreds of hot springs in the Yellowstone geyser basin. Yellowstone has the most thermal features of anywhere in the world. Photo by Wayne Ives



Oso, Washington landslide – March 2014. Photo provided by Dr. Jean Benoit.



Geological Society of New Hampshire

GSNH 2014 Fall Dinner Meeting

Field Reconnaissance of the 22 March 2014 Oso Landslide

Speaker : Dr. Jean Benoit
Professor of Geotechnical Engineering
UNH

Thursday, October 16, 2014

Red Blazer Restaurant
72 Manchester Street, Concord, NH 03301

5:30 pm Social Hour; 6:30 pm Buffet Dinner; 7:15 pm Speaker

New time - RSVP by 4 pm Friday, October 10, 2014 to get the reservation price

Advance Reservations: _____ Member (Dues Paid) \$22.00
_____ Non-member \$25.00

_____ **Please indicate the number of vegetarian meals – leave blank for none.**

- Member at the Door (\$25.00)
- Non-Member at the Door (\$28.00)
- Students \$10.00 with valid student ID card (Reservation Requested)

GSNH will also accept dinner reservations by e-mail, which will then allow you to pay at the door. **Please note that e-mail reservations constitute an agreement with the Society for which you will be responsible to pay, whether you are able to attend or not, unless you cancel your reservation by noon the Tuesday before the Dinner.** Reply via e-mail to: EKirby@Geosyntec.com. Mail to: **Erin Kirby, GSNH Dinner Meeting, PO Box 401, Concord, NH 03302-3483. Checks payable to: GSNH.**

Name(s) _____

Address: _____

Your phone or e-mail: _____

Half the cost of the dinner may be tax-deductible as a business expense. **The lecture part of the program counts as 1.5 hours of CEU contact hour credit.**



MEMBERSHIP APPLICATION/RENEWAL

Geological Society of New Hampshire

PO Box 401, Concord, NH 03302-3483

- New member
Renewing member
Check here if you have no updates to your information.

Check here if you do NOT want your information published in the directory.

Name & Home Address:

Business Name & Address:

Blank lines for Name & Home Address

Blank lines for Business Name & Address

Home Telephone

Office Telephone

Home Fax:

Office Fax:

E-mail:

E-mail:

Preferred address to receive GSNH communication: Home or Business
Quarterly newsletters are distributed electronically. Check here if you prefer a paper copy:
New Hampshire PG # (if applicable):

Education: Degrees received or in progress:

Table with columns: Year, Degree, Major, College or University

I volunteer to help with one of the following committees or tasks:

- Membership Committee, Regulations Committee, Communications Committee, Legislative Committee, Education Committee, Giving a talk at a meeting, Events Committee, Other

Membership Category:

- Regular Member (Annual Dues \$20.00)
Student Member (Annual Dues \$10.00)...Please complete Education section above.

Make checks payable to "Geological Society of New Hampshire." Note that GSNH dues are not deductible as a charitable contribution, but may be deductible as a business expense.

The Society's Membership year runs from January 1 to December 31.

Signature: Date: