

Preliminary Minutes

Board Meeting of the Geological Society of Minnesota, 06-FEB-2020

- I. **Opening and Welcome:** The meeting held at 7:00 P.M. at the Minnesota Geological Survey (MGS) building: **2609 Territorial Road, St. Paul, just west of Hwy 280** (Phone: 612-627-4780).
 - A. Notes:

Minutes for the November 2019 Board meeting were previously approved by e-mail and posted on the GSM website. FYI: Board members have 10 days to review the preliminary minutes after the Secretary sends them out. Please be sure to do so by the date set by the Secretary.
 - B. Review and agree on the agenda for 06-FEB – All
 1. No changes made
 - C. Future Board Meetings (check your calendars):
 1. 21-MAY-2020 (one week late)
 2. 13-AUG-2020
 - D. Board Status – Dave W
 1. Current Board membership.

| | |
|-----------------------|--------------|
| a) Patrick Pfundstein | 2020 to 2023 |
| b) John Westgaard | 2020 to 2023 |
| c) Wolf Bielefeld | 2019 to 2022 |
| d) Roxy Knuttila | 2019 to 2022 |
| e) Frank Janezich | 2019 to 2022 |
| f) Joe Newberg | 2018 to 2021 |
| g) Dave Kelso | 2018 to 2021 |
| h) Deborah Naffziger | 2017 to 2020 |
| i) Dave Wilhelm | 2017 to 2020 |
 2. Current Officers.
 - a) President – Dave Wilhelm
 - b) Vice President – Deborah Naffziger
 - c) Treasurer – Dave Kelso
 - d) Secretary – Dave Kelso
 - E. Board Members' present: Patrick Pfundstein, Wolf Bielefeld, Frank Janezich, Joe Newberg, Dave Kelso, Deborah Naffziger, Dave Wilhelm.
 - F. Non-Board Members' present: Alan Smith
- II. **Agenda items for consideration by the Board.**
 - A. Treasurer's report – Dave K/Deborah
 1. Financial Report (Dave K supplied written reports)
 - a) Dave K will send out a separate response to a few questions regarding the financial reports.
 - b) See "Treasurer Report" attached to these minutes.
 2. Board member review of finances – Deborah

- a) Deborah reported that the financial reports have been reviewed and found to be in order.
 3. Dave K supplied statement detailing investment of \$5,000 with RBC Wealth Management, as directed by the Board at the August 2019 meeting.
 4. Dave K to discuss retention and disposal of old financial records.
 - a) Please see "Treasurer Report", attached to these minutes, for additional information.
- B. GSM website – Alan
 1. Joanie Furlong is backup webmaster for when Alan is unavailable.
 2. Updated public version of new website was made available for comment to Board members and committee chairs on 23-JAN-2020.
 3. Alan to supply written report on switchover to new website.
 - a) Alan reported that due to some malware issues with the old website, the new website is now up and running.
 - b) If you have additional comments and suggestions, please email Alan directly.
- C. Financial reports & other non-public info on the GSM website – Alan
 1. Alan has developed a prototype of a password-protected area on the GSM website in which non-public documents (not including background checks) could be stored and to which Board members would have access. Alan has updated it based on feedback from Dave W, Dave K, and Joanie.
 - a) This is still a work in progress.
 2. Status of storing financial reports on web site. – Dave K
 - a) No action taken pending website updates to the password protected area.
- D. Long range plan for utilizing GSM funds - Theresa
 1. Since there is no long-range plan for utilizing existing GSM funds (besides investment options) the Board recommended that the GSM membership should be queried regarding recommendations, ideas etc. for the future. Theresa supplied written report.
 - a) No updates on this topic. Wolf suggested that we send out another request solicitating ideas and/or suggestions. Dave W will follow up.
- E. Membership– Joanie
 1. Joanie to supply written report (including numbers total, new, renewing since November report).
 - a) No written report was submitted.
 2. Joanie has produced a printed Member Directory and has begun distributing these. Cost?
 - a) Joanie has begun distribution of the Member Directory. Dave K reported that the cost of the Directory was \$122.74 for printing and \$72.20 for mailing.
- F. State Fair

1. Dan resigned in October 2019 as State Fair Committee chair; we need a new person to fill that role. **Anyone, preferably someone currently on the committee, ready to step up?** This person need not be a member of the GSM Board. Dan will continue with the committee to advise the new chair. We also need a location to store the State Fair equipment, not necessarily the home of the State Fair chair.
 - a) Dan is working on putting a meeting together to move this along.

G. Other Conferences

1. Upcoming GSA - North Central Regional Conference – John
 - 54th Annual Meeting of the North-Central Section of the Geological Society of America is 18-19 May 2020 in Duluth, Minnesota at the Duluth Entertainment Convention Center. Link: https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/nc/2020mtg/home.aspx . This may be another opportunity to reach possible new members. This will definitely be a geology oriented audience, and we may reach be able to reach more people from greater MN. John to supply written proposal for GSM's involvement.
2. MESTA Conference, 07-FEB-2020 – Theresa
 - a) Theresa will be attending.
3. Ed has requested to print more brochures. As of 05-FEB, Dave W has ~80, plus ~120 blue marker brochures.

H. GSM Marker Survey project – Becky

1. Becky to supply written report, including status of Portsmouth Mine marker.
 - a) See “2020 Feb Board report Markers” attached to these minutes.

I. Minnehaha marker replacement status – Kate/Patrick/Dick

1. Kate & Patrick supplied written report.
 - a) See “Marker Project pat kate” and “Minnehaha Marker Draft” attached to these minutes.
2. Pat will put together a time-line but wants things operational by June.
3. Pat will set up access, drop box, so Board members will be able to look at all the files.
4. Doug will be kept in the loop.

J. GSM scholarships and grants – Dave W

1. Dave W supplied written report on Rosemount High School mock dinosaur dig site. The project is completed, and photos are available. Dave has written short article for Feb 2020 Newsletter.
 - a) See “Rosemount High Dinosaur Dig” attached to these minutes.

K. GSM Rock Hammer awards – Dave W

1. At the May 2019 meeting, the Board agreed on who should receive these.
2. Award to Katy Paul was made during the Holiday Party 07-DEC-2019 and will be reported in February 2020 Newsletter.
3. One other award will be made publicly in the next few months as the opportunity arises and will be reported in subsequent Newsletters.

4. Next rock hammer awards will be considered during 2021.
 5. Approximate cost of the Hammers is \$26 each.
- L. GSM baseball caps and t-shirts for members – Joe N
1. These were ordered and are being delivered.
 2. There are four left for distribution. Joe will consider another order if the Board so desires.
- M. Banquets – Dave W
1. Dave W has booked with U Garden for 27-APR-2020 Spring Banquet.
- N. Lectures and labs – Steve/Dave W
1. Lectures for winter/spring 2020 in Keller Hall Room 3-210.
 2. Steve – no report this quarter. Will soon start planning for 2020-21.
 3. Dave W supplied written report on lecture attendance. Summary 2019-20 to date: 8 lectures, 701 total attendance, 88 avg. attendance, 58 new.
 - a) See “GSM Lecture Attendance” attached to these minutes.
- O. Status of lecture video recording and distribution – Joe W
1. Video team consists of Joe W (chair), Dick, & Deborah. Deborah received instruction during 11-Nov-2019 lecture.
 2. Status (Joe W to supply written report on which lectures (dates & titles) have been recorded, and which of those have completed editing).
 - a) See “Joe W Board Report” attached to these minutes.
 - b) Dave K offered to obtain one of the recorded lectures from Joe and explore various options for copying, editing and distribution. Dave W will contact Joe on the best way to do this.
 3. Availability & process for member access to recordings. (Dave W has received many requests for these; we need to make this resource available.)
 - a) This is still under discussion.
 4. Equipment purchases and/or needs.
 - a) There are none at this time.
 5. Discuss if we should provide complementary recording to each presenter.
- P. Newsletter –Kate/Mark
1. Kate has started as a Newsletter editor, replacing Theresa. Mark Ryan, Harvey Thorleifson (MGS), and Rich Lively (MGS) continue as Newsletter editors.
 2. February 2020 Newsletter is in progress; all articles have been sent to Harvey & Rich.
- Q. “Ask GSM” activity – Theresa
1. Theresa supplied written report.
 - a) See “GSM Questions Update” attached to these minutes.
- R. GSM Student Outreach – Joel Renner
1. Joel supplied written report.
 - a) See “GSM Student Outreach Feb 6, 2020” attached to these minutes.

2. Possible Minnehaha Falls field trip – Patrick (Patrick considered setting this up in the fall after doing a trial run with Board members.).
 - a) FYI – Joe N is a co-coordinator for the Field Trip Team.
 3. Earmarked contribution: GSM member Tom Schoenecker plans to do the following: a) arrange yearly school student outreach visits to a school in Excelsior, and b) make an earmarked contribution to GSM to pay for such for as long as the funds last; Joel supplied report.
- S. PO Box Status
1. President, Treasurer, and Membership Chair have keys. Box has been checked semi-regularly, typically before lectures, 1-2 items per week, after the rush of membership renewals in September and October.
 2. Outside of lecture season, each keyholder should inform the others when they check the box, so we know if it has been a long time since it was checked.
- T. GSM Operations Guide update and review – Deborah
1. Deborah supplied written report. Spoiler: It is done!
 - a) A big THANK YOU to Deborah for completing the GSM Guide.
 - b) The Guide is not included in these minutes due to the length.
- U. Field Trip plans and feedback – Dave W
1. Dave W supplied written report.
 - a) See “GSM Board Field Trip Report Feb 2020” attached to these minutes.
- V. Video Library – Dave W
1. Dave W supplied written report.
 - a) See “Video Library Board report Feb 2020” attached to these minutes.
- W. In-memoriam contributions, if any – Theresa/Dave K
1. None reported.
 - a) Dave K reported that we did receive a \$300 donation from Dan J.
- X. Receiving, acknowledging, appraising, and disposing of material contributions (rocks, tools, etc.) – Dave W
1. Dick B received materials from Doug Z that he has delivered to Dave W that need to be inventoried. – no progress
 2. Materials (field trip itineraries, notebooks, photos) were donated by the family of Judy Hamilton. I’d not expect more material, as my contact has also passed away.
 - a) Dave W has made initial inventory; no further progress since November 2018.
 - b) Many newsletters, some of which we might be missing; need to compare with what is on the website.
 3. Possible donation of rock collection and/or chemistry glassware by family of deceased member Dave Bottenberg in early 2020.
 - a) The family would like to go through these items before any donations are to be considered.
- Y. New topics

1. ISLG is coming up and the Board should consider donating to their student travel fund. We have done this in the past.
2. **M/S/P (Deborah/Joe N) to contribute \$300 to the ISLG student travel fund.**
 - a) Dave W will contact Mark J to make arrangements for the contribution.

Z. Goals – Dave W

1. Install new big-picture marker at Minnehaha Falls during 2020.
2. Develop a plan and prioritize marker installation/repair for Minnesota's geological markers based on the recent marker survey.
3. Continue developing a GSM marker database and survey the markers in 2020.
4. Develop video recording crew and optimize the equipment and processes; have first video recording of a lecture available to members in 2020.
5. Complete update of GSM Operations Guide during 2020 – ACCOMPLISHED!
 - a) This goal can be removed.
6. Complete switchover to upgraded web site.
7. Others goals we should add.

AA. Adjournment

1. **M/S/P (Wolf/Joe) to adjourn.**

III. Attachments:

- A. Treasurer Report
- B. 2020 Feb Board report Markers
- C. Marker Project pat Kate
- D. Minnehaha Marker Draft
- E. Rosemount High Dinosaur Dig
- F. Joe W Board Report
- G. GSM Questions Update
- H. GSM Student Outreach Feb 6, 2020
- I. GSM Board Field Trip Report
- J. Video Library Board report Feb 2020
- K. GSM Lecture Attendance

Attachment A
Treasurer Report
Submitted by Dave K

GSM Financial Report
Feb 6, 2020

1. All bank statements have been reconciled and balanced through January 31, 2020.

2. Federal tax form 990N has been filed with the IRS and accepted. Form 990N is an e-postcard that non-profits, with assets of less than \$100,000, are required to validate annually.
3. The annual Minnesota tax-exempt certification has been filed with the Minnesota Secretary of State and has been accepted. The certification is required annually and simply states that we are still an existing non-profit. If this certification is not submitted the GSM's tax-exempt status may be rescinded.
4. Status of document retention and/or discard.
 - a. All treasurer's documents (primarily old bank statements and cancelled checks) earmarked for shredding have been shredded.
 - b. All treasurer's documents (primarily paid bills and financial statements) to be retained, generally for 7 years, are in the process of being scanned for retention.
 - c. An external hard drive has been purchased for retaining all pertinent treasurer's documents etc.

Attachment B

2020 Feb Board report Markers

Submitted by Becky

Geological Society of Minnesota Board meeting

6 February 2020

Report from the Marker Committee

Portsmouth Mine Lake marker

In November of 2018, a DOT engineer contacted GSM to talk about the location of the Portsmouth Mine Lake marker. Becky Galkiewicz talked with Brett Stark, the DOT engineer. The marker was located on the shore of the lake, adjacent to the Cuyuna Lakes State Trail, used by thousands of cyclists throughout the year. DOT wanted to conduct a safety improvement project that would move the marker farther south along the shore line so a tunnel could be placed under State Highway 6 just north of Crosby. Cyclists would use the tunnel to safely travel from the east to the west side of Highway 6 (and vice versa). Cars travel at 50 to 60 mph on this part of Highway 6. DOT routinely contacts groups affected by proposed DOT projects to get their input.

After looking at maps, Galkiewicz noticed that the marker was located at the end of narrow path through a wooded area and was difficult for people to find. The DOT proposal would not only improve cyclists' safety, it would also improve visibility of the marker to walkers, skaters, and cyclists. Galkiewicz provided blue prints to Stark showing the design of a variety of GSM markers, to help DOT prepare to dig up and move the marker. The project took place during the summer of 2019. The road was closed while construction occurred. Galkiewicz visited the site in August and noticed the marker still in its old location. A week later, Stark informed Galkiewicz that the marker had been moved. The tunnel and road work were not complete until the fall. The next GSM member who visits the marker can take GPS readings and photos and report back on the final location.

This was a “win-win-win” situation - GSM was able to have its marker moved intact to a better location, DOT could finish its project, and the cyclists are now traveling more safely underneath the Highway.

GSM Marker Project

Most of the markers have been located by committee members. Photos and GPS coordinates have been taken and comments about the condition of the markers have been recorded. Currently, there are about 53 markers installed. 16 more markers have sites selected and text written but funding has not been sought. Some are Historical Society markers that pertain to geology .

The committee needs to consider what kind of marker to choose, comparing installation costs and methods. The next step should be to install the 16 missing markers and to publicize the markers more broadly. Publicize through: Minnesota science teachers, State Fair booth, rock collectors, Science Museum, Natural History museum, Minnesota tourism, Minnesota Historical Society, and Minnesota Department of Natural Resources.

Submitted by Rebecca Galkiewicz
2020-Feb-Board-report

Attachment C
Marker Project
Submitted by Pat/Kate

Report:

Kate and I have made quite a bit of progress on marker content; I'll bring what we currently have in B/W prints to the meeting, and can share the Dropbox folder site where current color copies are kept of our small working image (small as in 5 MB). (It is easy to sign up for free Dropbox accounts, and if you use the email I have for you, then access will be easy.

Main content changes since last update:

- After multiple edits, we did some unifying of language since we had the same ideas presented in different places.
- We changed the recession of Minnehaha Falls from 500 feet to ‘over 600 feet’ to represent some cool work that Doug sent us.
- We added an “Overview” section as a clear starting point, and a call-out to the different sections of the panel. Sort of a combined capsulation, teaser, and call to action.
- We are meeting this week with Chris Burda, to hand-render my fairly crude “rivers” drawing so make it look better and more in the style of the other drawings. This will mean an extra expense, but Kate and I consider it worthwhile, and it fits in with the mission of GSM (and since we seem to have plenty of money...)

-We are leaning toward a more simple line-art map of the Park for the “Walk the Gorge” section. The park has one at high resolution with clearer trail markings, stairwell markers, and trail grading that a photo can’t supply. Plus, I strongly suspect a line drawing will age better under years of outdoor weather than will a photograph (which need lose only a bit of crispness to descend into a muddy mess. The current version has a bit of an oddly cropped version of the Park map; I’d like to see if MaryLynn can rework something to fit the slot since they have the basic file (and can figure out how to rebrand the map within the larger already-branded panel). We’d add the same items that were on the Walk The Gorge photo version to a cleaned up simplified map (You Are Here, Bridge #2, M’haha Falls, Island/Wabun Park/Ford Lock&Dam Overlook, Dry Waterfall, Mouth of M’haha Creek).

-I’ve made contact with MaryLynn via email; she’ll be back in the office this week, and promised to get back to me Tuesday (I will update this section as we go).

-I’m going to build a Project timeline to track progress since hopefully we can put this on home stretch basis soon. Items on timeline...

-Review by GSM (including Dick, Kate, Doug, Board)

-Review by MGS (Harvey and Carrie)

-Redrawn graphic from Chris Burda

-Final approved text typed into separate files for use by Park Graphic Designer

-Final graphic files finished as needed (Park Board already has most of this from the first versions)

-Files transmitted to Park Board for graphic design of panel

-Park proofs approved by GSM (hopefully with minimal edits needed since we are trying to stick to previous spaces and word limits)

-Files sent to vendor (Pannier probably; maybe Gopher Sign if Park Board wants that)

-Proofs from printer to be approved (GSM and Park Board)

-Manufacture of panels and mounts

-Shipment

-Installation

-GSM party at Sea Salt!

I should be able to attach time estimates to most of these fairly soon, and hoping it works as a spur to all concerned (including the Park Board) to show how checking off each section moves us closer to planning an installation date for this 4+ year project!

I’d also love to get access to the Board section of our new website whenever that is ready to put the timeline on there. That would let the board follow progress between meetings. And again; anyone who’d like to see the versions as we update them can look at the files on Dropbox as soon as you give me the okay to put your emails on the shared list.

Patrick

Attached is a small version of our current working small version (full sized would be approximately 16X the attached size).

Attachment D
Minnehaha Marker Draft
Submitted by Pat



Minnehaha Regional Park

Waterfall Geology

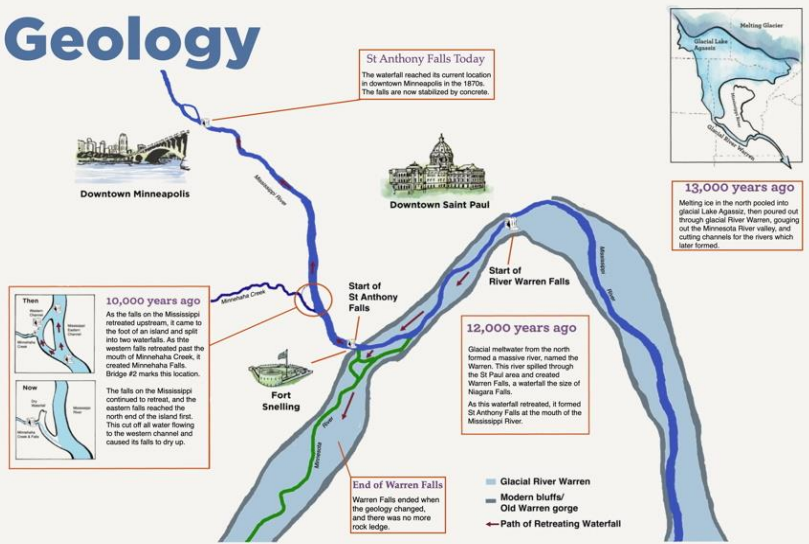
Overview

Nearby, Minnehaha Falls plunges 53 feet into a gorge on the creek's final mile-long journey to the Mississippi River. The falls appear permanent, but they are just part of the ever-changing landscape.

Waterfalls form when streams tumble over a rocky ledge and erode the underlying rock. This causes the waterfall to retreat or move backwards and to carve a gorge.

Waterfalls can end their existence too. This happens if the water supply gets cut; or if the geology changes, and there is no more rock ledge for the falls to cascade over.

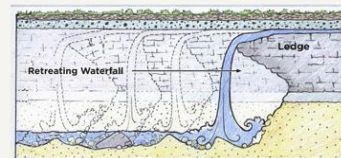
All of these stages of a waterfall's "life" have happened in the Twin Cities area, and most can be observed here in Minnehaha Park.



Why do waterfalls move?

Waterfalls form where a stream flows over a hard rock ledge and erodes the weaker rock below. The process undercuts the ledge and leaves it unsupported to eventually collapse. Repeated undercutting and collapsing causes the falls to move upstream. The process carves steep-sided gorges.

Here at Minnehaha Falls, the falls have retreated over 600 feet. Because Minnehaha Falls has not been stabilized with concrete to prevent erosion, the rock ledge will eventually collapse again.



Rock layers in the Park
Glacial Sediments
 Clay, sand, gravel and boulders cover the limestone.
Platteville Formation
 Hard limestone resists erosion and forms a ledge.
Glenwood Formation
 Flinty shale erodes easily.
St. Peter Sandstone
 Loosely cemented quartz sandstone erodes the fastest.

Rock layers erode, or wear away — some faster than others

This sign made possible through the generous support of the Geological Society of Minnesota

Attachment E

Rosemount High Dinosaur Dig
Submitted by Dave W

Rosemount High Dinosaur Dig
Submitted by Dave Wilhelm with Joe Christman

In April, 2019, we received an "Ask GSM" request through our web site from Joe Christman, a science teacher at Rosemount High School. Joe wrote: "I created a new science elective class which revolves around dinosaur paleontology. An important part of paleontology is doing research in the field and I felt this was an important aspect of the science students should experience. Understanding field research can give students skills in organization, attention to detail, spatial reasoning, and interpretation of data."

To give students this experience, I am building a mock dig site on campus. This includes a 20x20 foot area filled in with sand and gravel. Replicas of dinosaur fossils will be placed in a matrix of sand and wax. Students will use geologic rock hammers, chisels and other field equipment to record, analyze and excavate the fossils. Science is about curiosity, evaluation, and putting pieces of evidence together. This is a unique experience for students; however, it is a necessary one. It is an experience that will illuminate and inspire students to consider a career path in science.”

Joe wondered if GSM might be able to help fund the project. Since outreach, especially to students, is one of our prime objectives, the Board thought that helping fund such a project was a great idea, and voted to do so in May. During the summer of 2019, Joe supervised construction of the mock dig site, so it was ready for students when the fall semester began. I’ll let Joe tell the rest of his story:

“Each week we had a lab in the dig site. Each lab focused on various aspects of field research. The first week I placed various fossils in the dig site, gave students the necessary tools to accurately record their observations, and just told them to record what they noticed. I wanted to give them the opportunity to first think about what a paleontologist would need to observe and then create a plan to record that information. The next week I repeated the lab, however, we discussed successes and failures of the previous week and why certain steps need to be taken before specimens are removed from the matrix. From there, each week we worked on isolated skills paleontologists need to first find a fossil and eventually bring that fossil to a place of study for research or display. These skills varied from reading maps, to gridding out a field site, to carefully removing the matrix without breaking their fossil. We ended the lab portion of the class with a lab final which brought all of those isolated skills together.

“The class also visited the Science Museum of Minnesota so the students could see parts of the recovery process they were practicing in the lab in real life. They were able to go behind the scenes and look at the entire collection of fossils; it was really eye opening for them to see that many fossils. Alex Hastings brought them into the museum’s preparation lab and they saw some of the same tools they were using in class were used at the museum. It was fun to watch them point out the similarities and say “Hey, we use those tools too!” Some students also used this trip to ask important career questions regarding how to prepare for a career in geology or paleontology.

“Students loved the class. They enjoyed how different it was compared to the rest of their science classes. They appreciated the opportunity to be outside and the realness (to them) of the dig site. By far, their favorite part of the class was lab day. They loved the opportunity to work together “in the field” or in “prep lab” to solve a problem and make sense of the data they gathered. What is really cool about the location of the dig site is that it can be seen from most rooms in the school. So there are a lot of positive conversations around the building from students about how cool that class is and what it is about.”

To see more photos of this project, visit <https://tinyurl.com/RosemountDinoDig>.

Attachment F
Joe W Board Report
Submitted by Joe W

Sorry Dave, I worked until 9PM last night so was unable to attend.

The taping of sessions continues though this year we have had problems with Dick becoming a constant world traveller and Joe having an unusually large number of work trips this past year. Dick and I did talk this week before Monday's presentation and I found out that Dick will be in Iowa and New Zealand in the near future and may not attend another meeting until April. I will have some business travel this spring, though not being retired, have none that appear to currently impact meeting Monday's. I will try to look at least two weeks out in the future and if I cannot make it I will inform you if I cannot make it.

As for transforming the videos to usable video for members Dick and I agreed that this summer when Dick is home and I have more time we will sit-down to pound out videos. We do need a decision on whether we drop down the quality of the tapes to DVD or if we use a service like You Tube.

Joe

Attachment G
GSM Questions Update
Submitted by Theresa

GSM Questions Update 2/21/2019 – 2/6/2020
Questions do not include multiple replies:

<http://gsmmn.mngeology.net/contact>.

We have also been receiving our copy of the "Minnesota Mineral Club's April Newsletter" through this site.

1. Basic geology/rock exhibit in SE MN: 1/20/2020: L.H. is looking for a location with a good geology exhibit for her children. (Theresa T. suggested the Science Museum of Minnesota).
2. Rock identification: 1/15/2020: M.B. (Theresa T. provided the GSM lecture schedule and a listing of rock shops from the GSM Website).
3. Rock and mineral samples for purchase / Membership: 12/19/2019: C.M. (Theresa T. collected money for both rock box and membership, and left the rock box at C.M. house – they were a Christmas gift).
4. Donation of a box of rocks: 11/28/2019: K.D., Mother, Dr. Mary T. Dooley of Mankato State University, passed away last year and left a box of about 50 rocks, all different and all labelled with small round numbers. K.D. asked if we would want them. (Theresa T. responded to K.D. telling her "Yes", but has heard nothing back)

5. Rock and Mineral Identification / Fergus Falls: M. 11/18/2019: Was interested in Rock and Mineral Identification located near Fergus Falls (Theresa T. provided the GSM lecture schedule and a listing of rock shops from the GSM Website).
6. Fossil Identification: 11/17/2019: R.W., (Dave W. responded to this message, and passed it on to Roger B. Roger said that he should be able to identify most of the fossils, and if not, there might be one or two others available that could do the job).
7. N.J. had questions about the different membership levels and the benefits that they provide. 10/11/2019: N.J.: (Dave W. handled this one, and welcomed N.J. to the GSM organization).
8. Finding information about property geology: 10/10/2019: P.B. Person was looking for geological information about the property that they live at. (Dave W. directed them to contact the Minnesota Geological Survey).
9. MinnPost geography question: 9/5/2019, Reporter Greta Kaul at MinnPost working on a story about how flat Minnesota is relative to other states. I'm wondering if someone at the Geological Society of Minnesota might be available to chat with me before about 10 a.m. tomorrow about why Minnesota is flat — basically looking to learn about the glacial history as well as why we see elevation in some places, like Buffalo Ridge, the Duluth Complex and the Driftless area. (Theresa T. wrote back explaining that we were not given enough time to find an expert in the field to talk to her.) She finished her article, but also apologized, saying that next time she would ask sooner.
10. Classroom Donation for Rosemount High mock dig site: 9/1/2019: A thank you to Dave Wilhelm and the GSM from J.C. for a donation made to their Mock Dig site.
11. Student Opportunities: 8/8/2019: T.C. (Theresa T. responded with information about rock shops, those attending lectures, and the Minnesota Mineral Club Annual meeting).
12. Rock Identification: 8/21/2019: K.S. (Theresa T. responded with information about rock shops, those attending lectures, and the Minnesota Mineral Club Annual meeting).
13. Rock Identification: 8/6/2019, H.L., (Theresa T. responded with information about rock shops, those attending lectures, and the Minnesota Mineral Club Annual meeting).
14. Lake Superior Geology Presentation: 7/30/2019: S.A., Sent to Joel.
15. Types of rocks in Ottertail County: 7/28/2019: M.N., (Theresa T. responded with information about rock shops, and asking those attending lectures).
16. Geology learning opportunities for a 9 year old: 7/18/2019: S.H. (Theresa T. sent S. several links to geology options here in the twin-cities including the link to our GSM site as well as our Marker site, the Science museum of Minnesota, the Minnesota Mineral Annual show site).

17. Presenter at college: 7/18/2019: B. S.: Teacher teaches at a tribal and community college in Mahnomon. The message was turned over to Harvey Thorleifson, who sent it on to Barb Lusardi, who was able to turn it over to Jennifer McDonald of the Minnesota Geological Survey for a presentation on 11/5/2019, while the MGS is doing some atlas mapping in that region – a wonderful piece of community outreach!
18. Questions on the “Sand and Sandstone” trip in September: 7/5/2019: S.K. (Dave Wilhelm welcomed this new member and informed her that a general mailing for the next SAFL tour will be sent to all members probably in October).
19. Donation: 6/20/2019: H.H. (Dave Wilhelm, a group of teachers wanting to make a donation in memory of a coworker who has passed (Rita Childs). A donation was received in the form of a check for \$80.00 – Dave Kelso handled this portion of the request).
20. Follow-up from the May Presentation: 5/29/2019: From John Westgaard, a thank you note, Donor Form, and 2018 Season report.
21. GSM News - 649 MB digital archive – GSM News back to 1943: 5/2/2019: Received from Harvey, and used in recent Newsletter.
22. GSM Monday 8 April - UTube thoughts: 3/27/2019: K. W.: (David Wilhelm forwarded this to Steve Erickson, Steve Erickson responded well, “We would like to record your talk, but we are not planning to post this on UTube. We are studying this for the future. If you would like to adjust your talk for UTube, please do so. That way we might be able to post your talk at some future time. We are still learning about this and discussing this possibility. Our Society is to reach out to the general public with Earth Science information. UTube would be a natural. For now, we are not doing this. We would not post your talk without written permission from you before posting.”)
23. North Dakota Petroleum Foundation Teacher Education Seminar - June 17-20, 2019
 - a. Inbox: Forwarded from Randy Strobel: Randy.Strobel@metrostate.edu (From B. G. - MESTA)
24. Presentation at Farmington Elementary School: 4/5/2019: J. S. (Theresa T. responded to this question, 16 presentations were wanted. However none were given because they were requested during finals week at Macalester, and classes had already ended).
25. Change of membership name from husband to wife: 4/5/2019: P. W. M. – (Dave Wilhelm replied that he contacted our Membership Chair, and that she could not find a membership under either name. Wrong organization?)
26. Poplar Bridge Elementary School SEAM fundraiser: 3/1/2019: A. J. - (The school wanted GSM presenters and we were not given much time to pull people together. Theresa T. responded, maybe next year?)

27. Agate identification: 2/22/2019: D. G. (T. Tweet, replied on March 6th with our “GSM” Rock ID info. Dave Wilhelm. Followed up with a specific meeting date.)
28. Information on Superior Agates: - 2/25/2019: C. G. What are the officially recognized types of Lake Superior agates? C.G. wanted information on starting an agate collection so I sent him a few online links. (Theresa T.)
29. Student Opportunities - 2/22/2019: T. C. T. wanted some information about available positions (volunteer or paid) with the GSM. (Theresa T.) Nothing available through us, but maybe the Hill Annex?

Attachment H

GSM Student Outreach Feb 6, 2020

Submitted by Joel

GSM Student Outreach -- Board Meeting Feb 6, 2020

Submitted by Joel Renner

Three Macalester students have agreed to present talks. However they do not have personal vehicles. They are trying to get permission to use a Macalester vehicle but have not responded to me. I will contact Jeff Thole directly.

I have sent information to two schools who have expressed an interest in presentations later this year.

I have not received any request from Excelsior School re Tom Schoenecker's gift. I will contact Tom and ask him if he knows anything.

Attachment I

GSM Board Field Trip Report

Submitted by Dave W

Field Trip Report

GSM Board Meeting Feb 6, 2020

Joe Newberg has agreed to become Co-Field Trip Chair. Thanks, Joe; I look forward to working with him.

GSM had a tour of St. Anthony Falls Lab on Dec 11, 2019; 7 persons participated.

Despite much effort by Deborah Naffziger, it looks like a GSM trip to SE Ohio will not happen, due to lack of responses by people in Ohio who could be technical leaders.

Randy Strobel is looking to organize a trip to the Grand Rapids area during summer, 2020.

From Randy:

A possible summer field trip might be to camp (free) at Boulder Lake and do all of these tours in the link below. We could also tour the Blandin paper mill and the Forest History Center in Grand Rapids, get a tour of the peat mine we visited with MMEW, and revisit the old iron mine north of Grand Rapids where we collected nice iron ore samples. Even though some of the sites have tour limits of 12, we could split the group up and tour separately. We might even be able to convince Polymet to give us a tour.

<https://www.mnpower.com/Community/Tours>

Minnesota Power is an ALLETE Company - Tours

Thomson Hydro Station. The Thomson Hydro Station, built in 1907, is located on the St. Louis River in Jay Cooke State Park in Carlton County, Minn. It has six generators capable of producing 72 megawatts of renewable hydroelectricity. The facility underwent a massive refurbishment and upgrade following the 2012 floods and is ready to provide clean electricity for another century.

www.mnpower.com

Attachment J

Video Library Board Report

Submitted by Dave W

Video Library Activity 22-NOV-2019 through 06-FEB-2020

New VL members: none

Rentals: 6 (3 lectures)

Purchases: 0

Donations: 0

Total Titles: 335

New reviews: 2

Finances:

\$20 deposited to GSM checking 03-FEB-2020

\$10 cash on hand

Attachment K
GSM Lecture Attendance
Submitted by Dave W

GSM Lecture Attendance

2019-2020

Summary 2019-2020 to date: 8 lectures, 701 total attendance, 88 average attendance, 58 new

2020-02-03 86 Geological Mapping of Our World, How it Works in the Current Era (*6 new persons – state fair, internet, friend*)

Summary for Fall 2019: 7 lectures, 615 total attendance, 88 average attendance, 52 new

2019-12-09 38 1) History of the USGS - From John Wesley Powell to Streamgaging; 2) USGS Flood Inundation Mapping Program (*bad weather; 1 new person – state fair, neighbor*)

2019-11-25 131 The Midcontinent Rift System - Almost an Ocean (*6 new persons – state fair, neighbor, web site*)

2019-11-11 76 Natural Archives from Shallow Lakes, Wetlands, and Springs of the Great Basin Show Evidence of Extended Periods of Drought over the Past 6000 Years (*parking issues caused a few not to attend; 15 new persons – all St. Thomas students suggested to attend by their professors*)

2019-10-28 101 Reptilian Giants of South America after the End Cretaceous Mass Extinction (*11 new persons – state fair, neighbor, web site; Science Museum*)

2019-10-14 98 Color in Minerals and Why it is Important (*12 new persons – state fair, friend, web site; related to the presenter; one long-ago member returning*)

2019-09-30 82 Introduction to Alberta Oil Sands Mine Tailings: Management, Regulation, and Research (*2 new persons – state fair, friend*)

2019-09-16 89 The Geology of the Bakken Formation, North Dakota (*fall banquet & annual meeting; 5 new persons – state fair, friend*)