

UGS BOARD MEETING
Department of Natural Resources
Utah Geological Survey
1594 West North Temple, Suite 3110, Salt Lake City
Wednesday, April 15, 2020

The meeting of the UGS Board was called to order at 8:42 a.m.

ATTENDANCE

Board members: Marc Eckels – Chair, Elissa Richards, Sam Quigley, Ken Fleck, Dave Garbrecht, Rick Chesnut, and Pete Kilbourne

UGS Staff: Bill Keach, Mike Hylland, Jodi Patterson, Grant Willis, Steve Bowman, Mark Milligan, Cheryl Gustin, Emily Kleber, and Jay Hill

APPROVAL OF MINUTES

Dave Garbrecht motioned to approve the minutes of the January 8, 2020, UGS Board meeting. Elissa Richards seconded the motion. The Board voted, and the motion carried.

ACTION ITEM

Although contract proposals for external funding are provisionally approved by the Board by email, they require formal approval at the next Board meeting. The proposals are:

Geothermal Characterization: Gravity Surveys of McGregor Range, New Mexico; funding from EGI; new funding to the UGS \$20,000; total project funding \$20,000; estimated start date 3/15/2020; estimated end date 4/15/2020.

Geothermal Characterization: Gravity Surveys of Thermo, Utah; funding from Cyrq Energy, Inc.; new funding to the UGS \$67,700; total project funding \$67,700; estimated start date 6/2020; estimated end date 9/2020.

Geologic & Mineral Resource Data Development – Utah Recreation & Visitors Services; funding from the BLM; new funding to the UGS \$99,793; total project funding \$124,741; estimated start date 7/2020; estimated end date 6/2023.

National Groundwater Monitoring Network 2020; funding from the USGS; new funding to the UGS \$60,720; total project funding \$60,720; estimated start date 7/2020; estimated end date 6/2022.

Monitoring Groundwater Response to Pinyon & Juniper Treatments (Year 5); funding from the Utah Watershed Restoration Initiative; new funding to the UGS \$176,359; total project funding \$235,145; estimated start date 7/1/2020; estimated end date 6/30/2021.

Hydrologic Monitoring of Critical Groundwater-fed Habitat (Year 11); funding from DNR/Endangered Species Mitigation Fund; new funding to the UGS \$10,535; total project funding \$14,046; estimated start date 7/2020; estimated end date 6/2021.

Hydrologic Monitoring of Critical Groundwater-fed Habitat – Tule & Snake Valley; funding from the BLM via the Watershed Restoration Initiative; new funding to the UGS \$11,036; total project funding \$11,036; estimated start date 7/1/2020; estimated end date 6/30/2021.

UGS Survey Mollusk Rapid Survey Supplement to Statewide Monitoring; funding from the DNR/Endangered Species Mitigation Fund; new funding to the UGS \$3,260; total project funding \$4,347; estimated start date 7/1/2020; estimated end date 6/30/2021.

Great Basin Geothermal Play; funding from Nevada Bureau of Mines; new funding to the UGS \$384,289; total project funding \$384,289; estimated start date 10/2020; estimated end date 9/2021.

STATEMAP 20-21 Supplemental Phase 3; funding from the USGS; new funding to the UGS \$300,000; total project funding \$600,000; estimated start date 7/1/2020; estimated end date 6/30/2021.

Utah 2020 National Geologic Map Database (NGMDB) Phase 3 Initiative; funding from the USGS; new funding to the UGS \$92,683; total project funding \$92,683; estimated start date 7/1/2020; estimated end date 6/30/2021.

Kayenta-Dome Plateau-Canyon Country Paleontological Surveys; funding from the BLM; new funding to the UGS \$28,262; total project funding \$56,524; estimated start date 8/25/2020; estimated end date 12/31/2020.

BLM UTSO Utah Paleontological Resource Data Management; funding from the BLM; new funding to the UGS \$29,816; total project funding \$59,633; estimated start date 7/1/2020; estimated end date 6/30/2021.

Paleontological Resource Inventory of Triassic Paleontology of the Island in the Sky District, Canyonlands National Park; funding from the National Park Service; new funding to the UGS \$30,000; total project funding \$60,000; estimated start date 8/25/2020; estimated end date 6/30/2021.

Project Effectiveness Monitoring – Water Quality Benefits of Large-Scale Pinyon-Juniper Treatments, Montezuma Creek, Utah; funding from the Utah Division of Water Quality; new

funding to the UGS \$72,575; total project funding \$120,958; estimated start date 7/1/2020; estimated end date 6/30/2023.

Geologic mapping of Clifton 7.5' Quad and digitization of the Gold Hill 7.5' Quad, Tooele County; funding from the U.S.G.S.; new funding to the UGS \$99,971; total project funding \$124,964; estimated start date 7/1/2020; estimated end date 6/30/2022.

Elissa Richards motioned to formally approve the above proposals. Pete Kilbourne seconded the motion. The Board voted, and the motion carried.

Personnel Changes

Interns:

Matthew Morriss – University of Oregon PhD student. An NSF funded position to work on remote sensing landslide detection techniques; 6-month position. Finished and now with the USGS

Rebecca Lee – working with Groundwater

New hires:

None. Have posted an opening for a Sr. GIS Analyst for the Geologic Mapping Program.

Retirement:

None known at this time. We are hearing that several are considering retirement in the next year or two.

Director's Report:

March – COVID-19 and an earthquake

In March the UGS experienced rapid and impactful changes, as did the rest of the world, with the emergence of the COVID-19 virus. On Monday March 16 we issued a directive that all employees that could should work from home. Fortunately, we began preparing for this move the previous week. The transition went fairly smooth. By Tuesday afternoon we only had a few staff in the office. The next day, on Wednesday morning, we were awakened by a M 5.7 earthquake in the Magna area. Without skipping a beat, the Hazards and GIO teams responded quickly and professionally. By 9 AM the management team was holding a virtual meeting. I am truly proud to work with and lead such a talented team of professionals. They have adapted quickly. In spite of the enormous challenge they have responded. In the few weeks we have been working remotely, the teams have written grants and reports, completed field work, and most importantly, supported each other. We anticipate the current situation will continue through at least May.

Recent activities – Looking forward

We are 10 months into FY20. We continue to see good work from and recognition for contributions by the UGS staff.

Recognition –

Tom Chidsey was profiled in GeoExPRO, a worldwide petroleum magazine published in Great Britain every other month. The column, GEO Profile, talked about him “Going the Extra Mile”.

Utahraptor Megablock update:

The *Utahraptor* megablock was successfully moved from the Thanksgiving Point Museum of Ancient Life on February 27, 2020 to the Utah Core Research Center. The move went without a single hitch. Thanks to all the groups and individuals that made this happen.

Hazards –

As mentioned earlier, responded to the Magna M 5.7 earthquake. This included staffing the State’s Emergency Operations Center. Staff were involved in multiple tasks ranging from field investigations, press releases, about both the earthquake itself and to dispel rumors circulating on social media about an impending M 9.0. Dr. Bowman spoke at the Governor’s press conference later that morning.

A week later, the UGS was asked by the Division of Emergency Management (DEM) to build a new website for the State. In 8 days, they wrote, built and released a new website that will now be the State’s clearing house for all things earthquakes. www.earthquakes.utah.gov This was truly a great accomplishment led by GIO staff with input from Hazards and the DEM.

Energy and Minerals –

Received a grant in the amount of \$69,701.34 from the USGS for a data preservation project. *Critical Minerals of Utah* report for May release. Uinta Basin Oil and Gas Working Group formed by Mike Vanden Berg with Rob Simmons, Director Governor’s Office of Energy Development. The Paradox Basin DOE project with EGI/UofU is moving forward. Plans to drill have been delayed, in part to leverage anticipated lower drilling costs. The FORGE project continues to provide additional work as that project moves into its third year. The Utah Energy Landscape publication – goal is mid-May

Groundwater/Wetlands projects –

The Groundwater/Wetlands program is working from home. Currently evaluating how to resume field work. Currently field observations are done in teams of two. We have put on hold the hiring of two interns for at least a month. Several project proposals are still out.

Mapping –

In the past week received notification of two large grants from the USGS totaling \$458,577. \$158,658 for STATEMAP, and \$299,919 in supplemental funds for additional projects. Now the challenge will be finding the staffing to do the work. Another cooperative agreement for \$92,000 with the USGS is still pending.

GIO

The bookstore is closed during the current shutdown. The group is performing amazing work with social media posts, particularly with respect to the recent earthquake activity. They built a new website and are promoting the Great Utah ShakeOut. They continue to work on the preparation and delivery of all UGS publications. Shelved a planned Arch Madness activity at the request of the Governor's office. Website visits skyrocketed after the earthquake on March 18th: 151,589 visits in March vs 54,360 in Feb. Downloads of maps and other publications also tripled from 5,181 to 15, 539.

Funding and budget

FY21 Building Blocks Approved by Legislature

\$400,000 one-time for maintenance catch-up

\$400,000 ongoing to replace decreasing Federal Mineral Lease Royalties

With the impending loss in revenue to the State, our top priority continues to be to secure stable funding for the UGS. The budget for FY20 will be tight but is manageable.

FY21 will present significant challenges if we do not find a way to replace the potential loss of even more Mineral Lease funds.

The UGS has determined that Mineral Lease funds are not a sustainable, reliable funding source for core operating expenses. To that end the UGS sought the stability of state General Funds to maintain core services and seeks to use Mineral Lease funds as a mechanism to balance fluctuations in outside funding, while still maintaining the mineral-related objectives tied to Mineral Lease funds. Currently, we anticipate another significant drop, from our pre-COVID-19 forecast of \$1.1 million to possibly \$600 thousand. The funding from the legislature for maintenance catch-up will be needed to cover this shortfall. We also worry about the State asking us to reduce our budgets by as yet unknown percentage. With the loss of Mineral Lease funds, we will need to work hard to maintain our current funding levels.

Financial Update – Jodi Patterson

Financial documents in the Board packet include the FY20 UGS operating budget summary (now updated through March), the FY20 Mineral Lease revenue summary, and the contracts tracking summary. The UGS is currently forecasting a 2020 fiscal year surplus of \$249k. I anticipate that amount to come down a little depending on how much grant funded field work staff is able to do and the bookstore being closed to walk-in traffic given COVID-19. There is also a draft bill for the Special Session that would cut \$150k from our FY20 non-lapse but return it to us in FY21. Bottomline, I believe we will make it through FY20.

Next fiscal year (FY21) will be interesting. The new estimate for Mineral Lease revenue is \$600k, which is down from the original budget and appropriation of \$1.1 mil. We will need as

much of the FY20 carry forward as possible (we have authority up to \$200k) and the newly appropriated \$400k one-time and \$400k ongoing to get through. There are several pending grant proposals that we are hopeful will increase our outside revenue for FY21.

Legislative Update - Mike Hylland

The 2020 legislative session ended with several actions favorable to the UGS. House Bill (HB) 2, which establishes FY21 appropriations, included \$400k one-time and \$400k ongoing General Fund appropriations to the UGS. Senate Bill (SB) 19, which amends provisions of the Land Exchange Distribution Account (LEDA), extended the repeal date for Snake Valley hydrogeologic monitoring to July 1, 2030. SB3, which addresses FY20 supplemental appropriations, reduces the \$5 million appropriated in the 2019 legislative session for Bonneville Salt Flats restoration work by \$4 million, but provides intent language for the remaining \$1 million to be non-lapsing at the close of FY20.

Other bills signed by the Governor that are of interest to the UGS, but do not directly affect UGS operations, include (1) HB10, which replaces two Utah Seismic Safety Commission members from the House and Senate with two members appointed by the director of the Division of Emergency Management, and (2) SB60, which requires Senate advice in addition to Senate consent for gubernatorial nominees (e.g., UGS Board membership vacancies). Two bills of interest to the UGS that stalled in committee include HB322, which would have created Utahraptor State Park, and SB61, which would have transferred the College of Mines and Earth Sciences from the University of Utah to Utah State University Eastern.

Finally, Senate Concurrent Resolution 2 recognized Mike Styler for his service as DNR Executive Director.

Presentations:

Emily Kleber presented on the March 18th M 5.7 Magna earthquake and its aftershocks. She summarized the field reconnaissance work conducted by UGS Hazards Program staff, as well as development of the online information clearinghouse. She also summarized ongoing work by Adam McKean and several other UGS staff to try to determine which fault or faults might be responsible for the earthquakes. Emily noted that the UGS team and staff from the University of Utah Seismograph Stations have a meeting planned for April 16 to share their geological and seismological data and interpretations to date.

Earthquake Response Discussion

Board and UGS staff discussed the best way to educate the public and media correspondents with getting correct information out. A website has been created, earthquakes.utah.gov, which provides information, links to published materials, and FAQs. Holding a training session for

media and giving out phone numbers of pertinent staff was suggested. Mark Milligan joined this conversation addressing the struggles of quick turn-around for media. Reaching out to meteorologists was suggested as a possible resolution as the majority of them are typically longer term media staff. Members of the board indicated they would be willing to do educational outreach and presentations to the public. The board asked the UGS staff to create a presentation with key talking points about earthquakes and preparedness.

Board Positions

Marc Eckels and Pete Kilbourne, Board Chair and Vice Chair, respectively, have terms that end in a year. They propose stepping down and selecting a new Chair and Vice Chair. Marc would like to be able to help with the transition of the next Board Chair.

Elissa Richards was nominated to become the new Board Chair and Ken Fleck was nominated to be the new Vice Chair. Both accepted the nominations. Pete Kilbourne motioned to vote for the new positions. Rick Chesnut seconded the motion. The Board voted, and the motion carried with Elissa Richards as the Board Chair and Ken Fleck as the Vice Chair to take effect immediately.

Crawford Award

Solicitations will be sent out to UGS staff for nominations. Once nominations are in and narrowed down by management the board will vote remotely for the winner.

Board Meeting adjourned 11:10 am.