The meeting of the UGS Board was called to order at 8:32 a.m.

ATTENDANCE
Board members: Elissa Richards – Chair, Ken Fleck – Vice-Chair, Marc Eckels, Pete Kilbourne, Sam Quigley, David Garbrecht, and Tom Faddies. Rick Chesnut was not in attendance.

UGS Staff: Bill Keach, Mike Hylland, Cheryl Gustin, Jay Hill, Claire Spanenberg, Andrew Rupke and Jodi Patterson. Hugh Hurlow, Janae Wallace, and Stephanie Mills joined mid-meeting.

APPROVAL OF MINUTES
Pete Kilbourne motioned to approve the minutes of the January 20, 2021, UGS Board meeting. Mark Eckels 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:

Water Budget for Emery Valley, southern Johns Valley, and Bryce Canyon City, Garfield County, UT.; funding from the Utah Division of Water Rights; new funding to the UGS $117,500; total project funding $235,000; estimated start date 2/1/2021; estimated end date 12/31/2022.

Hydrologic and Vegetation Monitoring of the Matheson Wetlands Preserve; funding from the Nature Conservancy; new funding to the UGS $13,000; total project funding $26,000; estimated start date 2/1/2021; estimated end date 06/30/2021.

Next Steps for Snake Valley’s Hydrologic Monitoring Network and Year 12 Data Collection; funding from the Endangered Species Mitigation Fund; new funding to the UGS $11,582; total project funding $15,433; estimated start date 7/1/2021; estimated end date 06/30/2022.

Septic-Tank Density Analysis for the Communities of Summit and New Castle, Iron County, UT.; funding from Iron County; new funding to the UGS $42,158; total project funding $84,315; estimated start date 7/1/2021; estimated end date 06/30/2022.

Identifying Plants for NWCA; funding from the Utah Division of Water Quality; new funding to the UGS $6,651; total project funding $6,651; estimated start date 7/1/2021; estimated end date 5/31/2022.
Improving Utah Wetland Quality through Effective Monitoring, Assessment, and Water Quality Standards; funding from the Utah Division of Water Quality; new funding to the UGS $236,332; total project funding $315,183; estimated start date 10/1/2021; estimated end date 12/31/2023.

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 $15,000; total project funding $25,000; estimated start date 7/1/2021; estimated end date 6/30/2022.

The Board voted to approve the proposals and the motion carried.

Director’s Report:

COVID-19 update
COVID-19 continues to impact UGS staff, the majority of whom continue to work from home. For the most part, fieldwork has also resumed with an increased focus on personal safety. Partnering agencies have also implemented their own safety protocols which require additional coordination efforts. The State of Utah has set forth several guidelines which are closely followed by management and staff. Although HB294 (2021 General Legislative Session) terminates the statewide mask mandate on April 10, 2021, the Governor’s Office has issued a policy requiring all state employees to continue to wear a mask when doing state business, inside or outside of state facilities. This policy will remain in effect through May 31, 2021.

Back to the office plans are still a work in progress. Once back, we anticipate a blend of work, occurring both in the office and remotely.

Personnel Changes
New hires:
Claire Spanenberg – Hydrogeologist, Groundwater and Wetlands

Retirements:
None known at this time. Potential for 2 to 3 next year.

Recognition –
Tom Chidsey, now retired, was given the 2021 Robert J. Weimer Lifetime Contributions Award for his work on Rocky Mountain geology, by the Rocky Mountain Section of the AAPG.
Michael Vanden Berg, Energy and Minerals Program Manager, was notified that he will receive the AAPG’s 2021 Distinguished Service Award.
Rick Allis, now retired, was recognized by the Office of Energy Development last fall for his contribution to energy development in the State of Utah.
Crawford Award – We will start the nomination process in mid-April and plan to complete by the end of May.
Recent activities – Looking forward

Energy and Minerals –
The UGS is seeing increased interest in projects relating to geothermal, critical minerals and carbon capture, utilization, and sequestration (CCUS). Inquiries for information and possible projects have come from both the private and public sectors.

The minerals group continues to work on several critical mineral related projects such as mapping at Gold Hill. Work is nearing completion on vanadium exploration in southeastern Utah and uranium data preservation activities.

Geologic Hazards –
The legislature, in House Bill 45, tasked the DNR-UGS with generating a report that recommends ways to increase public awareness about risks of radon and ways to mitigate resident’s exposure to radon. Final report is to be provided during or before the first interim meeting of 2022.

The final technical report of surface fault trace mapping and delineation of special study areas for faults in Cache Valley, the Bear Lake area, Tooele Valley, and Rush Valley, was delivered to the USGS March 31, 2021. Similar work is ongoing for the Hurricane, Sevier, and Washington fault zones. Mapping is performed at a scale of 1:10,000, using available high-resolution lidar elevation data, aerial photography, and other data, along with field reconnaissance. Mapping is added to the Utah Geologic Hazards Portal (https://geology.utah.gov/apps/hazards/) as it becomes approved.

Groundwater & Wetlands–
Water quality studies in the Bryce Canyon area are nearly complete. We have been notified there may be a GRAMA request coming for all data related to the projects in this area. This work will provide scientific data to those making decisions on how to best manage water needs for development in the area.

The eddy covariance tower was installed in Carbon County. Paul Inkenbrandt spoke about this work in the January UGS Board meeting.

The Wetlands section is scoping a project to study the Matheson Wetlands and Great Salt Lake Shorelands Preserves.

Mapping & Paleontology –
Mapping
Work is in full swing on the biggest STATEMAP related grants we have ever had, a total workload of $1,009,835. Because of the size of these awards we necessarily had to bring in workers from other UGS programs. We are now struggling to complete all these projects and spend out the funds (too many non-grant-funded demands on people’s time). We will be hiring some temporary GIS staff to help complete the project.
We are still waiting to hear about our next proposal for STATEMAP funding for work to be completed in FY22. The proposal requested $765,873 for $1,531,746 in projects. Although full funding would present significant challenges to timely completion of the work, our history of STATEMAP funding leads us to anticipate receiving 60-70% of the requested amount.”. Once we learn the results, we will revise projects and deliverables.

**Paleontology**
The Paleontology section continues to be busy. During the legislative session, Jim Kirkland – State Paleontologist, testified on behalf on the new Utahraptor State Park.

We are still working to find donors to match a $50,000 offer on the table, which is contingent on 1 to 1 matching donations. The Utah STEM Foundation, which can receive non-profit donations to help us fund our non-UGS preparator (the UGS does not have funds to pay their salary), has agreed to accept donations on our behalf. Fund-raising has been successful, but slow, and we need to find more donors. (If anyone has any ideas, we would love to hear about them.)

**Geologic Information & Outreach** –
In late March we held the Arch Challenge, encouraging the public to vote for their favorite arches in Utah. Two arches, Delicate Arch and Double Arch, both in Arches National Park were the finalists. There was significant media coverage of the event. The UGS received additional coverage when we had to change the name slightly to avoid copyright infringement issues.

The *Geologic Map Portal* has been updated to provide improved performance, features, and data layers.

The bookstore continues to be open for walk-in business from 10-5. Masks are required and social distancing is prioritized. We will continue the COVID-19 protocols for the foreseeable future. There are a few copies of the 2021 *Calendar of Utah Geology* still for sale in our bookstore.

The UGS library has been and continues to be open by appointment only due to COVID-19. We have continued to serve patrons, mostly with digital versions of our publications. Similar to our main website traffic, earthquake and fault related publications were accessed often, as were geologic maps. However, library patrons use more technical publications as compared to our main website traffic.

**Funding and budget** –
The State of Utah weathered well the economic challenges related to the COVID-19 pandemic. The economic challenges of the past year underscore the need for the UGS to obtain stable resources to ensure the UGS can continue providing critical services to the State of Utah.

The budget for FY21, though tight, is manageable. Mineral Lease royalties, after a precipitous drop in mid-2020, have recovered faster than anticipated. Significant increases in outside funding, mostly from federal agencies, will help us this year. STATEMAP, from the USGS, has
provided an influx of new money. The Mapping Program, along with help from other programs, is working hard to utilize the full grant of $551,258.

UGS leadership continues to believe that Mineral Lease funds are not a sustainable, reliable funding source for core operating expenses. To that end the UGS has 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 drop, from our pre-COVID-19 forecast of $1.1 million to possibly $900,000. It should be noted that Mineral Lease has rebounded faster than originally forecast.

At the UGS we are actively pursuing other funding options to maintain services to the State at current levels.

Senator Hinkins introduced Senate Bill 133 to create new restricted accounts, one of which is for the UGS. The bill was passed by the 2021 legislature. The bill sets aside a certain percentage of oil, gas and mining severance taxes to be deposited into a restricted account for the UGS. The amount set aside is as follows:

(i) 2.5% of the first $50,000,000 of the average aggregate annual revenue;
(ii) 1% of the next $50,000,000 of the average aggregate annual revenue; and
(iii) .5% of the average aggregate annual revenue that exceeds $100,000,000.

Though enacted with good intention, language in the bill states that the severance tax revenues “appropriated from the restricted accounts offset and supplant General Fund appropriations used to pay the costs of programs or projects administered by the state agencies that are primarily related to oil, gas, and mining.”

In the final funding bill, General Funds have already been replaced with the anticipated Severance Tax funds.

SB 133 does not replace the loss of Mineral Lease revenues.

UGS leadership will continue to support and pursue options that will require longer term efforts.

*Equipment purchases and facility upgrades* –

For FY21 we anticipate spending $204,000 of one-time funds to be used for maintenance catch-up and replacement of aging or non-functional equipment. Additionally, we requested the Board’s approval to expend approximately $23,000 from the Sample Library account for shelves and lighting. Installation of new shelving for the UCRC has been completed. The new shelving spans the center aisles. The Wattsmart program from Rocky Mountain Power may reduce some of our costs for improvements to lighting.

*Financial Update* –

The forecast for FY21 as of the February accounting period is a surplus of $488,052; we have non-lapse authority for up to $506,000. Our outside funding, due to grants and contracts, is higher than usual this year ($2.4 million) and staff continue to work hard to meet deliverables. We have increased our estimate of Mineral Lease funds to $900,000. Finally, we continue to
chip away at our equipment needs list and estimate spending at least $204,000 of one-time funding this year.

In the Governor’s budget release, he recommended our building block of $250,000 General Funds be funded as follows: $125,000 one-time and $125,000 ongoing. In the end, this was not funded by the legislature.

Please see the *UGS FY22 Budget Bill Summary* document in the packet for a detailed list of bill impacts on the UGS.

**Legislative Update** –
Summary of the 2021 legislative session.

<table>
<thead>
<tr>
<th>Bill No.</th>
<th>Title</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>HB3</td>
<td>Current Fiscal Year Supplemental Appropriations</td>
<td>Supplements or reduces FY21 appropriations; includes $750k (one-time, non-lapsing) to UGS for GSL groundwater studies</td>
<td>Governor signed</td>
</tr>
<tr>
<td>HB8 (S01)</td>
<td>State Agency and Higher Education Compensation Appropriations</td>
<td>Provides for a 3% labor market increase for state employees</td>
<td>Governor signed</td>
</tr>
<tr>
<td>HB45 (S03)</td>
<td>Radon Study</td>
<td>3rd substitute requires DNR to recommend ways to increase public awareness about risks of radon and ways to mitigate resident’s exposure to radon</td>
<td>Governor signed</td>
</tr>
<tr>
<td>HB79</td>
<td>Mineral and Rock Amendments</td>
<td>Modifies definitions, esp. related to extraction of basalt (amends HB294 [2020])</td>
<td>Governor signed</td>
</tr>
<tr>
<td>HB96 (S02)</td>
<td>Emergency Management Amendments</td>
<td>Includes provisions for coordination between DEM and other state agencies prior to constructing a state building in a floodplain; modifies membership on the USSC</td>
<td>Governor signed</td>
</tr>
<tr>
<td>HB139 (S02)</td>
<td>Government Employee Amendments</td>
<td>Precludes DHRM from requiring a minimum educational requirement for employment, except where educational qualifications are legally required to perform the duties of the position</td>
<td>Governor signed</td>
</tr>
<tr>
<td>HB188</td>
<td>State Stone Designation</td>
<td>Designates honeycomb calcite as the state stone (only known from Duchesne Co.)</td>
<td>Governor signed</td>
</tr>
<tr>
<td>HB214</td>
<td>Disclosure of Unreinforced Masonry Buildings Act</td>
<td>Addresses earthquake risk by requiring disclosure of the existence of an unreinforced masonry building in real estate transactions (SEAU effort)</td>
<td>House/filed</td>
</tr>
<tr>
<td>HB257 (S02)</td>
<td>Utah State Park Amendments</td>
<td>Provides that Utahraptor State Park and Lost Creek State Park shall be considered part of the state parks system; appropriates $36.5M to Division of Parks</td>
<td>Governor signed</td>
</tr>
<tr>
<td>HB346 (S02)</td>
<td>Natural Resources Entities Amendments</td>
<td>Moves Office of Energy Development to within DNR; divides Division of Parks &amp; Recreation into two divisions</td>
<td>Governor signed</td>
</tr>
<tr>
<td>HB366</td>
<td>Emergency Preparedness Amendments</td>
<td>Requires Utah Seismic Safety Commission to develop educational materials related to URM earthquake risks</td>
<td>House/filed</td>
</tr>
<tr>
<td>HB368 (S02)</td>
<td>State Planning Agencies Amendments</td>
<td>Modifies provisions relating to the Governor's Office of Management and Budget, the Public Lands Policy Coordinating Office, the state planning coordinator, and the Resource Development Coordinating Committee; moves PLPCO to be within DNR</td>
<td>Governor signed</td>
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## SENATE BILLS

<table>
<thead>
<tr>
<th>Bill</th>
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<tbody>
<tr>
<td>SB2</td>
<td>New Fiscal Year Supplemental Appropriations Act</td>
<td>Supplements or reduces FY22 appropriations; appropriates $100k (one-time) to UGS for economic impact study of Utah’s natural resources and energy sectors</td>
</tr>
<tr>
<td>SB5</td>
<td>Natural Resources, Agriculture, and Environmental Quality Base Budget</td>
<td>Adjusts FY21 budget and appropriates FY22 base budget; extends $1M non-lapsing Bonneville Salt Flats Restoration appropriation</td>
</tr>
<tr>
<td>SB8</td>
<td>State Agency Fees and Internal Service Fund Rate Authorization and Appropriations</td>
<td>Supplements or reduces FY22 appropriations</td>
</tr>
<tr>
<td>SB133 (S01)</td>
<td>Severance Tax Revenue Amendments</td>
<td>Creates four new Oil, Gas, and Mining Restricted Accounts (including one designated for UGS); establishes deposits of certain portions of severance tax revenue to the restricted accounts (industry support from Utah Mining Association and Utah Petroleum Association)</td>
</tr>
<tr>
<td>SB176 (S01)</td>
<td>Mineral Lease Funds Amendments</td>
<td>Legislative intent for Community Impact Fund; allows board to make a grant or loan regardless of whether the project results in more than one impact or outcome</td>
</tr>
<tr>
<td>SB204 (S01)</td>
<td>Permitting Amendments</td>
<td>Requires a state agency to include certain information in a permit application; requires a state agency to make a final determination on a permit application within a specified time</td>
</tr>
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## RESOLUTIONS

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>SCR8</td>
<td>Concurrent Resolution Supporting Utah’s Natural Resources and Energy Industries</td>
<td>Addresses natural resources and energy in the state</td>
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</tbody>
</table>

## MISC

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<tr>
<td>RFA</td>
<td>Great Salt Lake Groundwater Studies</td>
<td>Included in HB3; appropriates $750k (one-time FY21, non-lapsing) to UGS for GSL groundwater studies</td>
</tr>
<tr>
<td>RFA</td>
<td>Economic Impact Study of Natural Resources and Energy Sectors</td>
<td>Included in SB2; appropriates $100k (one-time FY22) to UGS for economic impact study of Utah’s natural resources and energy sectors</td>
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</tbody>
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**Staff Presentations** –
Janae Wallace presented on Hydrogeologic Study for the Bryce Canyon area, Southern Utah.

Stephanie Mills and Andrew Rupke presented on Utah’s Critical and Industrial Minerals.

**Board Field Trip** –
Board field trip to Southern Utah is tentatively scheduled for October 13-15, 2021.

Board meeting was adjourned at 11:45 a.m.