UGS BOARD MEETING Department of Natural Resources Utah Geological Survey 1594 West North Temple, Suite 3110, Salt Lake City Wednesday, January 9, 2019

The meeting of the UGS Board was called to order at 8:34 a.m.

ATTENDANCE

Board members: Marc Eckels - Chair, Dave Garbrecht, Ken Fleck, Elissa Richards, Pete Kilbourne

UGS Staff: Mike Hylland, Jodi Patterson, Cheryl Gustin

Apologies: Sam Quigley, Rick Chesnut, and Tom Faddies

Board Member Tenure

Elissa Richards, Ken Fleck, and Sam Quigley have completed required paper work for application to serve another term on the board. Governor approval pending.

Introduction of New Employees

Bill Keach replaced Rick Allis as the new Director/State Geologist, Jen Miller replaced Vicky Clarke as Publications Manager, Jenny Erickson replaced Jen Miller as Graphic Designer, Elliot Jagniecki replaced Craig Morgan as Oil and Gas Senior Geologist, Ryan Gall replaced Mark Gwynn as Geologist, Stephanie Mills replaced Ken Krahulec as Metals Geologist. All were introduced to the Board.

APPROVAL OF MINUTES

Pete Kilbourne motioned to approve the minutes of the August 22, 2018, UGS Board meeting as written. Ken Fleck seconded the motion. The Board voted, and the motion carried.

Director's Report

Summary

The new year marks the 70th anniversary of the Utah Geological Survey (UGS), and is already notable for seeing the retirement of our longest-serving Director/State Geologist, and the hiring of our first female Ph.D. employee.

Marc Eckels questioned if there was any sort of a celebration planned for the anniversary. Mike Hylland responded by saying any formal celebration will likely be deferred until possibly the UGS's 75th anniversary.

Mike Hylland continued with his report. Although our budget remains relatively stable, concerns remain regarding low Mineral Lease revenue and uncertainties associated with external funding sources. Inclusion of a requested FY20 building block in the Governor's budget recommendations is encouraging, but brings a challenge in having to generate 50% of the requested funding internally.

Financial Update

Jodi Patterson continued with the financial update. Low revenues from Mineral Lease royalties continues to be a concern, with the main factor being less production on federal lands (which generate the royalties). Mike Vanden Berg reports that November Mineral Lease revenue to the UGS came in about 10% higher than predicted, making for three relatively strong months in a row. However, there has been significant volatility in the energy markets recently, with oil prices dropping below \$50 in December. On the positive side, crude oil production in the Uinta Basin has recovered faster than expected from the declines seen in the early summer due to the HollyFrontier refinery fire. Production increased in July and August, helping make up for the loss in value from dropping prices. Mike's current forecast of Mineral Lease revenue to the UGS for FY19 is \$1.4 million, up slightly from a revised forecast of \$1.35 million earlier in the fall. For comparison, Mineral Lease revenues to the UGS were \$1,488,862 in FY18 and \$1,603,100 in FY17.

Marc Eckels discussed the possibility of replacing Mineral Lease payments and receiving funding from the General Fund. Once Bill Keach is here Marc would like to further explore this possibility and have a discussion as to how to possibly make that happen.

Financial documents in the Board packet include the FY19 UGS operating budget summary (through November 2018), the FY19 Mineral Lease revenue summary, and the contracts monitoring summary. The UGS is currently forecasting a 2019 fiscal year surplus of approximately \$415k. We started FY19 with a carry-forward from last fiscal year (2018) of \$521,584, so we are currently estimating a net decrease of just over \$100k. It is important to sustain the carry-forward balance in the range of \$500,000 to \$1 million to accommodate large unexpected funding swings.

November represents 42% of the fiscal year completed. Total percentage of outside revenue billed is about 38%; this is in line with expenditures to date at 37.7%. After December's financials, we will conduct a midyear, detailed review of project and operating budgets and make forecast adjustments as necessary. Typically, the outside revenue estimate decreases by about \$100k.

Marc Eckels questioned if there were any concerns over large invoices being overdue. Jodi Patterson stated Account Receivables are current, and she has not had any problems submitting payments with the federal government shut down.

Marc Eckels asked why the FY20 USGS earthquake hazard proposals were not funded. Mike Hylland explained that funding for the annual Earthquake Working Group meetings has recently switched to a competitive basis, and he is unsure why the proposal was not funded. The other proposal, for fault trenching, could probably be resubmitted with a strengthened technical approach.

Mike continued with the Director's Report.

Personnel Changes

In the Geologic Information and Outreach program, Jenny Erickson has been hired as a Graphic Arts Specialist/Web Designer. Jenny fills the vacancy in the Editorial Section that was created when Jen Miller was promoted to Publications Manager following Vicky Clarke's retirement in September.

In the Groundwater program, Lindsey Smith resigned his position in the Wetlands section to take a privatesector job in Texas. The open Wetlands Mapper position is being advertised at the time of this writing.

In the Energy and Minerals program, Ken Krahulec retired after 14 years with the UGS. To retain expertise in the field of metallic mineral resources, an offer was extended to, and accepted by, Stephanie Mills, who will begin employment as the new UGS Metals Geologist on January 14. Stephanie completed her B.S. in geosciences at the University of Texas, Austin, in 2009, and her doctorate in geosciences at Monash University in Melbourne, Australia, in 2013. Her dissertation focused on gold deposits in China. Since 2013 Stephanie has worked as a metals exploration geologist for Fortescue Metals Group, Rio Tinto Exploration, and Barrick Gold Corporation.

UGS Administration saw two retirements at the end of 2018: Pam Perri and Rick Allis. Pam was the UGS Administrative Assistant and had been with the UGS six years. We will defer filling the vacant Administrative Assistant position until after the new director has a chance to evaluate administrative support needs. In the meantime, we have distributed Administrative Assistant duties between our two program secretaries (Cheryl Gustin and Starr Soliz), with our Accounting Technician (Linda Bennett) and Financial Manager (Jodi Patterson) providing back-up as needed.

Rick Allis retired after 18 years of service as UGS Director/State Geologist. In retirement, Rick will transition to a volunteer Emeritus Geoscientist position with the UGS, coordinating formal publication of FORGE Phase II research in a UGS Miscellaneous Publication (14 individual papers by both UGS and outside authors). Working with Beaver County, Rick will also help develop informational signage for the renewable energy corridor near Milford.

Bill Keach has accepted the appointment as the UGS's seventh Director/State Geologist. Bill is a scientist, educator and technology expert with 30+ years' experience in industry, academia and regulatory state government. Following degrees in geology (B.S., BYU) and geophysics (M.S., Cornell), Bill spent 5+ years exploring for hydrocarbons with SOHIO/BP in California and offshore Gulf of Mexico. He then joined Landmark Graphics (now Halliburton) where he spent 17 years in a variety of roles traveling the world developing 3D visualization technology and adoption. He returned to Utah in 2006 taking roles at both the Energy and Geoscience Institute (University of Utah) and BYU doing research and teaching courses on seismic interpretation and reservoir modeling. In 2017 he accepted a role with California's Division of Oil, Gas, and Geothermal Resources to evaluate reservoirs and bring technology into the division. While in California he has continued his adjunct appointments with the University of Utah (Chemical Engineering) and BYU to satisfy his passion for teaching. Bill is anticipating a mid-January start date with the UGS. Until then, Mike Hylland will serve as Acting Director.

Hellmut Doelling was recognized with a Distinguished Service Award at the annual DNR awards ceremony in December. Combining his employment and volunteer time as a draftsman, geologic mapper, and program manager, Hellmut has provided 65 years of service to the UGS. In October, at the age of 88, Hellmut led a two-day field review of what will likely be his last geologic mapping project, covering the west half of the Salina 30' x 60' quadrangle.

Building Block Requests

The UGS FY20 incremental budget (building block) request for \$120k (ongoing) to fund geologic data coordination was included in the Governor's budget recommendations. Our request was for 100% General Funds; however, GOMB changed the funding structure to \$60k General Funds and \$60k Dedicated Credits (i.e., restricted funds and fee collections). We have followed up with our Legislative Fiscal Analyst to express concern about our ability to shift funds internally to cover the Dedicated Credits funding requirement, and will include appropriate discussion in our presentation to the Natural Resources, Agriculture, and Environmental Quality Appropriations Subcommittee during the 2019 legislative session.

We will continue to position ourselves for a future building block request for funding to expand the Utah Core Research Center. As discussed at the last Board meeting, recent donations have filled the facility, and lowerpriority material is being temporarily housed in a Clearfield warehouse. A solution that best meets the needs of users is an expansion of warehouse space by 9000 sq ft, and a 3000 sq ft area for improved core layout and examination. It is recognized that this request may take several years to progress.

Additional Governor's Budget Recommendations FY2020

- \$481,400 One-time, Dedicated Credits, FY19 Supplemental. This is to increase the original FY19 appropriation for increased revenue estimates.
- \$314,700 One-time, Dedicated Credits, FY20. This is to increase the original FY19 appropriation base budget which is the starting point for FY20 for increased revenue estimates.
- Compensation: The Governor has recommended: 2.5% COLA, 4.35% Health Insurance Increase, Targeted Increases (for UGS this includes the Financial Manager II and the Senior GIS Analyst), Unemployment Rate Change, and Workers Compensation Rate Change.

Proposed Fee Change

As required by 63J-1-504 (4)(a), "Each fee agency that is proposing a new fee or proposing to change a fee shall: (a) present each proposed fee at a public hearing, subject to the requirements of Title 52, Chapter 4, Open and Public Meetings Act."

The UGS is proposing the following fee change to be presented at the 2019 General Session of the State Legislature. There were previously two Geologic Hazards, School Site Review fees. We propose consolidating the two fees into one, renaming it, and increasing the amount slightly to reflect increases in compensation costs over the years.

Current:

Review of Geologic Hazards Report for New School Site, \$500 plus travel

Preliminary Screening of a Proposed School Site, \$550 plus travel

Proposed:

School Site Review, \$575 plus travel

There were no members from the public present and no comments on the proposed fee change.

Legislative Update

Currently no bills or issues that could impact the UGS have been identified. We will continue to request approved intent language that allows us to save Mineral Lease revenue in above-average years to cover revenue shortfalls in below-average years. The goal is to build a Mineral Lease carry-forward balance of about \$1 million.

Contract Proposals

Enclosed in the Board meeting materials is the Contract Proposal spreadsheet from 2016 forward. This is a good indicator of how successful the UGS is in obtaining external funding, both through federal funds and dedicated credits, and what's on the horizon. Unfortunately, two of the three USGS National Earthquake Hazards Reduction Program (NEHRP) grant applications were not funded, and the third is on hold. In addition to the contracts listed below for approval, we also received a new contract from SITLA for Oil and Gas Research for \$30,000.

ACTION ITEM

Although contract proposals for external funding are provisionally approved by the Board by email, they are required to be formally approval at the next Board meeting. The following proposals were approved by the Board between their August 22nd, 2018, meeting and the present meeting:

National Groundwater Monitoring Network; funding from USGS; new funding to UGS \$10,549, total project cost \$21,098; estimated start 10/1/2019, estimated project end 9/29/2020.

Utah 2019 STATEMAP Geologic Mapping; funding from USGS; new funding to UGS \$300,000 requested (anticipate about \$165,000 to be awarded), total project cost \$600,000 (anticipate will be reduced to about \$340,000 after award); estimated start 7/1/2019, estimated project end 6/30/2020.

Mid Mesozoic at Northern Capitol Reef National Park; funding from BLM; new funding to UGS \$25,000, total project cost \$50,000; estimated start 4/1/2019, estimated project end 6/30/19.

Utah Mineral Information Development (Phase 2); funding from BLM; new funding to UGS \$50,000, total project cost \$55,000; estimated start 10/1/2018, estimated project end 6/30/2020.

Elissa Richards motioned to approve the above proposals. Dave Garbrecht seconded. Board voted, and motion carried.

Suggested Dates for FY19-20 Board Meetings

Wednesday, May 8, 8:30–11:30 (main topics: (1) review budget implications of 2019 legislative session, (2) select Crawford Award winner)

Wednesday, August 21, 8:30–11:30 (main topic: financial close-out of FY19)

September 13–15 (Board field trip, proposed destination: northwestern Utah/Great Salt Lake Desert)

Wednesday, January 8, 2020, 8:30–11:30 (main topics: (1) prepare for legislative session, (2) review mid-year financials)

Presentations:

Mike Vanden Berg, Elliot Jagniecki, and Andrew Rupke presented Energy and Minerals Program updates. Hugh Hurlow gave a Groundwater and Wetlands Program summary.

ACTION ITEM

Marc Eckels and Pete Kilbourne volunteered to continue their roles as Chair and Vice Chair for another year.

Pete Kilbourne motioned for Marc Eckels to continue as Chair. Ellisa Richards seconded the motion. Board voted and motion carried.

Dave Garbrecht motioned for Pete Kilbourne to continue as Vice Chair. Ken Fleck seconded motion. Board voted and motion carried.

Marc Eckels adjourned at 11:10 am.

Next Meeting: Wednesday, May 8, 2019.

/EMBER FY19	Difference Forecasted & Budgeted	0	0)	0	0	0	0	0	0		38.047	902	9.282	(8.858)	898	C	0	0	40,271	<===FORECAST
THROUGH NOVEMBER FY19	Forecasted Year End	4.365.400	1,400,000	31,100	1,011,033	774,526	0	521,584	8,103,643		6.632.715	65.377	31.917	534.981	353.244	C	0	70,701	7,688,935	414,708
	YTD Revenue & Expenditures	4.365.400	678,930	8,401	251,253	239,802	0	521,584	6,065,370		2,527,469	28,128	9,646	216,469	108,686	0	0	36,253	2,926,652	3,138,718
	Operating Budgets	4,365,400	1,400,000	31,100	1,011,032	774,526	0	521,584	8,103,642		6,670,762	66,279	41,199	526,123	354,142	0	0	70,701	7,729,206	374,437
FY 2019	YTD Revisions	0	(173,800)	10,000	434,132	(674)	0	(228,416)	41,242		(112,438)	16,279	22,899	13,723	6,342	0	0	(279,999)	(333,194)	374,437
NALYSIS FOR S	Current Month Revisions	0	47,000	0	0	2,744	0	0	49,744		0	0	0	1,487	0	0	0	0	1,487	48,257
VEY BUDGET A	Appropriated Budgets (Ties to Approp)	4,365,400	1,573,800	21,100	576,900	775,200	0	750,000	8,062,400		6,783,200	50,000	18,300	512,400	347,800	0	0	350,700	8,062,400	0
UTAH GEOLOGICAL SURVEY BUDGET ANALYSIS FOR SFY 2019	Revenues	General Fund	Mineral Lease	Land Exchange Distribution	Dedicated Credits	Federal Funds	Transfers	Non-Lapse	Total Revenues:	Expenditures	Personnel	In-State Travel	Out-of-State Travel	Current Expense	DP Current Expense	DP Capital Expense	Other Capital Expense	Other/Pass-through	Total Expenses:	Difference:

STATE FUNDED - I	STATE FUNDED - Monthly Expenditures										
UGS- ROLLUP	Authorized Budget	Expenditures Year to Date	Unexpended Budget	% Expended	July 2018 8%	August 2018 17%	September 2018 25%	October 2018 33%		Wov. YTD Payroli represents 38.47% FY (thru ppe 11/16/18) November 2018 December 2018 Total 42% 50% 100%	<i>i ppe 11/16/18)</i> Total 100%
Personal Services	5,276,695	2,084,552	3,192,142	39.50%	217,676	413,215	405,672	424,859	623,131	0	2,084,552
In-State Travel	27,344	9,511	17,833	34.78%	112	8,213	6,947	8,174	(4,857)	(9,078)	9,511
Out-of-State Travel	29,539	6,795	22,744	23.00%	1,809	2,470	292	2,165	948	(888)	6,795
Current Expenses	371,391	165,148	206,243	44.47%	24,366	29,720	63,643	23,477	26,462	(2,520)	165,148
DP Current Expenses	354,142	108,498	245,644	30.64%	26,251	19,343	24,539	18,117	20,249	0	108,498
DP Capital Outlay	0	0	0	0.00%	0	ο	0	0	0	0	0
Contracts/Pass Thru	9,573	0	9,573	0.00%	0	0	0	0	0	0	0
,	Totals: 6,068,684	2,374,505	3,694,179	39.13%	270,214	472,960	501,092	476,792	665,933	(12,486)	2,374,505
GRANT FUNDED -	GRANT FUNDED - Monthly Expenditures	(0)									
	Authorized	Expenditures	Unexpended	%	810C vlul.	Audust 2018	Sentember 2018 Distribus 2018 Noviember 2018 December 2016	October 2018	November 2018	December 2018	Lotal

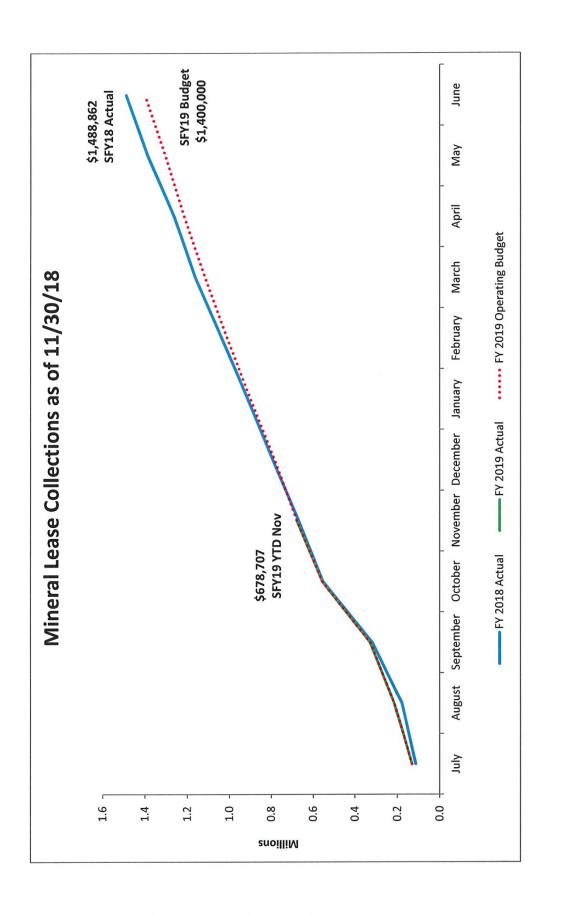
I	Authorized Budget	Expenditures Year to Date	Unexpended Budget	% Expended	July 2018 8%	August 2018 17%	September 2018 25%	October 2018 33%	November 2018 42%	October 2018 November 2018 December 2018 33% 42% 50%	Total 100%
Personal Services	1,394,069	442,917	951,152	31.77%	26,947	80,168	97,588	85,545	152,669	0	442,917
In-State Travel	38,935	9,539	29,396	24.50%	573	769	1,431	3,714	3,053	0	9,539
Out-of-State Travel	11,660	1,963	9,697	16.84%	0	0	0	1,556	407	0	1,963
Current Expenses	145,159	48,801	96,358	33.62%	43,219	(32,040)	10,054	13,381	14,188	0	48,801
DP Current Expenses	0	188	(188)	0.00%	0	188	0	0	0	0	188
DP Capital Outlay	0	0	0	0.00%	0	0	0	0	0	0	0
Contracts/Pass Thru	70,701	36,253	34,448	51.28%	0	36,253	0	0	0	0	36,253
Totals:	1,660,524	539,662	1,120,862	32.50%	70,739	85,338	109,072	104,196	170,317	0	539,662
Combined Total/Check:	7,729,208	2,914,166	4,815,041	37.70%	340,953	558,298	610.164	580,988	836.250	(12.486)	2 914 166



Regular Mineral Lease Funds Received for FY 2019

July	130,617.82
August	83,381.94
September	114,308.55
October *	228,338.34
November	122,060.19
December	
January	
February	
March	
April	
May	
June	
FY 2019	678,706.84

* \$126,169.34 October + \$102,169 last year's sequester return.



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CONTRACT PROPOSALS 2016 FORWARD BY UGS PROGRAMS

AWARDED UWRI - Y; DEQ-N Y λ z z × z × > > × > Υ z × × × > × 7 × > CONTRACT 1/17-12/19 10/16-6/19 10/16-6/19 10/16-9/18 2/16-1/2021 7/16-6/17 10/17-9/18 10/18-6/20 10/18-6/19 10/16-10/17 7/16-6/17 9/16-8/17 1/17-6/18 9/16-6/17 9/17-9/18 9/17-9/19 7/16-6/17 7/16-6/17 7/17-6/18 4/17-5/17 PERIOD 7/16-6/17 5/17-6/18 8/18-7/20 7/16-7/18 7/16-6/17 7/16-6/17 7/16-6/18 7/16-6/20 6-6/18 7/16-6/17 9/16-6/17 7/17-6/18 7/17-6/18 7/17-6/18 7/17-6/18 4/16-4/1 AMOUNT TO 73,760 (50,000 p thru) 158,138 174,567 47,000 34,920 198.173 223,099 16,000 50,000 200,000 29,992 260,997 25,516 160,000 40,000 60,000 40,794 50,000 30,000 50,000 30,000 10,671 73,864 50,050 14,916 4,050 26,457 7,219 3,612 5,000 5,000 50,000 32,071 25,000 50,473 11,132 UGS 7,235 13,997 7,500 AMOUNT OF PROPOSAL 218,209 47,000 69,839 264,231 297,466 32,000 158.138 40,000 66,667 62,500 25,516 33,333 62,500 192,000 250,000 59,983 201,751 332,662 8,100 52,915 7,219 7,224 5,000 56,465 66,465 64,142 62,992 92,200 55,000 30,000 25,000 8,853 14,288 82,071 53,365 19,888 67,298 18,662 14,843 10,000 U.S. OFFICE OF SURFACE MINING DNR-FFSL UT WATERSHED RESTORATION INITIATIVE DNR-DWR & TOWN OF CASTLE VALLEY DIVISION OF WR DEQ-DIV WATER QUALITY USGS EPA UT Office of Energy Development DEQ-DIVISION OF WR DEQ-DIV WATER QUALITY CACHE CO. UDWQ DEQ-DIV WATER QUALITY GRANTOR-FUNDING UWRI & DEQ UDWQ DNR-DWR DNR-DWR USDA FOREST SER DNR-ESMF DNR-WATER RIGHTS WASATCH COUNTY WASATCH COUNTY USDA FOREST SER **EGI/Newfield** GRAND CO. DNR-ESMF DNR-ESMF U.S. BLM UofU/EGI UofU/EGI DNR FFSL DNR-ESMF UofU/EGI DNR FFSL UofU/EGI DNR FFSI UofU/EGI SITLA UofU/EGI BLM BLM EPA EPA WESTERN USA ASSESSMENT OF HIGH VALUE MATERIALS IN GEOTHERMAL AND PRODUCED FLUIDS VERIFYING U.S. FOREST SERVICE WATER RIGHTS IN THE UTAH LAKE DRAINAGE BASIN MONITORING GW RESPONSE TO PINYON & JUNIPER TREATMENTS FOR SAGE GROUSE ECOSYSTEM RESTORATION & FIRE HAZARD REDUCTION NATIONAL WETLANDS CONTRIONS ASSESSMENT NATIONAL METLANDS CONTRIONS NETWORK PHASE 2 DEVELOPING CAPACITY TO BUILD A SUSTAINABLE WETLAND & RIPARIAN MAPPING PROGRAM HYDROLOGIC MONITORING & MAPPING OF CRITICAL SPRING FED WETLAND HABITAT (continuation) HYDROGEOLOGIC STUDY OF ROUND VALLEY (1 YEAR) HYDROGEOLOGIC STUDY OF ROUND VALLEY (2 YEAR) MONITORING GW RESPONSE TO WESTERN JUNIPER TREATMENTS, TINTIC VALLEY-GEOCHEMICAL SAMPLING (YR 2) GEOLOGIC & ENGINEERING INVESTIGATION INTO THE DEVELOPING WASATCH/FLAGSTAFF PLAY CASTLE VALLEY WATER QUALITY MONITORING FY17 EXEMOTE MONITORING OF EVALUATION DUCHESRE RIVER AREAL IMAGER VENULUNDWATER WELLS DUCHESRE RIVER BARLAL IMAGER VENULUNDWATER WELLS VERFFYING U.S. FOREST SERVICE WATER RIGHTS IN 'THE UTAH LAKE DRAINAGE BASIN - PHASE2 IMPROVING ASSESSMENT OF THREATS TO AMPHIBIANS THROUGH COMPLIATION OF HABITAT & RANGE DATA REFINING ASSESSMENT TOOLS TO INCREARE AMOUNT & UTILITY OF WEILAND INFO WATER WEIL CUTTING LOGGING FY 2017 UJANTEYING TRENDS IN WATER QUALITY ROM SELEVTED WELLS IN UTAH INVESTIGATING SURG AKED BASED ACQUIFER STORAGE-MOUTH OF GREEN CANYON, NO. LOGAN GEOLOGIC CHARACTERIZATION & FACIES ANALYSIS OF GSL MICROBIAKITES & ASSOCIATED ASSESSMENT OF HABITAT REQUIREMENTS, HABITAT ABUNDANCE AND THREATS FOR TWO DECLINING AMPHIBIAN SPECIES DEVELOPING A GEO-DATABASE OF UTAH'S PAST COAL MINES & MAPPING OVERBURDEN MONITORING GROUNDWATER RESPONSE TO PINYON & JUNIPER TREATMENTS (YEAR 2) HYDROLOGIC MONITORING & MAPPING OF CRITICAL SPRING-FED WETLAND HABITAT MAPPING GROUNDWATER QUALITY & CHEMISTRY ADJOINING THE GREAT SALT LAKE FORWARD MODELING OF WELL PUMPAGE FROM THE BLOOMINGTON FORMATION MAPPING THE FLOOR OF GREAT SALT LAKE USING BATHYMETRIC LIDAR PROJECT SHORT TITLE/DESCRIPTION NATIONAL GROUNDWATER MONITORING NETWORK PHASE NORTH ARM SALT CRUST MONITORING GREAT SALT LAKE UTAH MINERAL INFORMATION DEVELOPMENT - PHASE II TULAROSA NEW MEXICO GEOTHERMAL EXPIRATION **GEOTHERMAL EASTERN GREAT BASIN - PHASE III** UTAH MINERAL INFORMATION DEVELOPMENT CARBONSAFE ROCKY MOUNTAINS PHASE I DRILL HOLE DATA PRESERVATION, UTAH GEOTHERMAL EASTERN GREAT BASIN, UT CARBONSAFE ROCKY MOUNTAINS PHASE I MONITORING GW RESPONSE TO JUNIPTER DOD COMMUNITY SITING GRANT SITLA OIL AND GAS RESEARCH SEDIMENTS PROJECT UBLM NGNM UGUT UNSC UDMC UDOD UGUT UMID UMI2 USOG UAHR UWUS UHMW UWNA UNG2 UW16 ULOG UTWQ UWR2 UMCV UMSW UDRA UWWR UWQC UAAD UW17 UWPP CODE UCSI UCS2 URVW UTV2 UNG3 UTC2 UWRI JCSF inges STATUS N/A N/A N/A N/A N/A SUBMITTING PROGRAM ENERGY & MINERALS ENERGY & MINERALS ENERGY & MINERALS ENERGY & MINERALS NERGY & MINERALS ENERGY & MINERALS ENERGY & MINERALS ENERGY & MINERALS NERGY & MINERALS ENERGY & MINERALS NERGY & MINERALS ENERGY & MINERALS ENERGY & MINERALS ENERGY & MINERALS NERGY & MINERALS GROUND WATER **BROUND WATER** GROUND WATER **GROUND WATER** GROUND WATER **BROUND WATER** GROUND WATER GROUND WATER GROUND WATER SUBMITTAL DATE 1/16 10/18 5/16 6/16 6/16 6/16 12/16 1/16 8/16 1/16 8/18 7/16 9/16 11/16 1/16 2/16 3/16 4/16 8/16 3/17 L1/L 8/17 2/18 2/16 2/16 2/16 3/16 3/16 3/16 4/16 5/16 5/16 6/16 2/17 2/17 2/17 3/17 5/17 1/17

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8/17-6/18 7/17-6/18

27,441

54,883

CASTLE VALLEY TRACER STUDY WATER WELL CUTTING LOGGING FY 2018

DOTO

N/A

GROUND WATER GROUND WATER

6/17

6/17

As of 12/17/18

CONTRACT PROPOSALS 2016 FORWARD BY UGS PROGRAMS

DNR

CONTRACT AWARDED PERIOD ? 9/2017-9/2022 10/19-09/20 7/16-6/17 10/16-10/18 12/16-11/17 7/18-6/2019 7/18-6/2019 1/19-6/2021 10/16-6/19 1/17-12/18 10/17-6/19 61/6-21/01 10/17-6/18 1/19-6/2021 7/17-6/18 5/17-4/18 8/16-12/16 4/18-3/19 10/17-9/19 7/18-6/20 7/18-6/19 7/17-6/18 9/17-8/20 1/18-6/19 4/18-6/18 7/18-6/19 7/18-12/21 7/18-6/19 7/18-6/19 AMOUNT TO UGS 647,322 (212,459 pass-thru) 190,485 219,670 60,000 142,736 24,989 42,146 57,508 61,825 128,695 25,000 115,825 96,396 16,000 10,549 50,046 20,000 67,490 50,786 17,341 35,526 3,706 4,987 20,595 37,569 14,981 13,688 14,994 4,350 AMOUNT OF PROPOSAL 120,000 257,389 285,472 132,528 253,980 292,893 24,989 84,293 115,017 647,322 107,151 123,650 72,996 154,437 32,000 21,098 71,515 20,000 25,000 71,052 20,595 50,093 19,974 18,250 19,992 34,681 7,412 4,987 8,700 Utah Watershed Restoration Initiative (UWRI) Utah Watershed Restoration Initiative (UWRI) DIVISION OF WATER QUALITY **GRANTOR-FUNDING** DNR-DWRI & NPS CASTLE VALLEY CASTLE VALLEY DIVISION OF WR RICHMOND CITY ARIZONA G.S. DNR-ESMF DNR-ESMF DNR/DWR DWR/BLM DNR/DWR UDEM USGS USGS USGS USGS USGS NASA USGS USGS USGS USGS BLM DEQ EPA EPA EENHANCED ATTRIBUTION OF WETLANDS SPATIAL DATA - MAPPING WETLAND FUNCTION IN CACHE COUNTY REFERNCING NETWORK & BASELINE DATA TO IMPROVE PROTECTION OF UTAHS CENTERAL BASIN WEILANDS HYDROGEOLOGIC STUDY OF BRYCE CANYON CITY AREA & EMERY VALLEY, GARFIELD COUNTY ALLUVIAL FAN INVENTORY ALONG THE WASATCH FRONT & WEST SIDE OF THE OQUIRRH MTNS PALEOSEISMIC TRENCHING INVESTIGATION OF THE LEVAN & FAYETTE SEGMENTS OF THE WFZ CITIZEN PROVIDED OBSERVATION & EARTH HAZARDS DIGITAL CLEARING HOUSE PROTOTYPE MONTTORING THE EFFECTS OF PINYON JUNIPER TREATMENTS ON SPRING FLOW & AQUATIC VEGETATION 2017-2018 UTAH EARTHQUAKE WORKING GROUPS AND UPDATE OF RELATED DATABASES REMOTE MONITORING OF GROUNDWATER WELLS IN SNAKE VALLEY - LELAND HARRIS WATER QUALITY MONITORING OF JUNIPER TREATMENT PROGRAM YEAR 3 AONITORING GW RESPONSE TO PINYON & JUNIPER TREATMENTS (Year 3) AONITORING GW RESPONSE TO PINYON & JUNIPER TREATMENTS (Year 2) HYDROLOGIC MONITORING OF CRITICAL GROUNDWATER FED HABITAT PROJECT SHORT TITLE/DESCRIPTION IDAR MAPPING OF THE EAST & WEST CACHE VALLEY FAULT ZONES QUIFER STORAGE & RECOVERY FEASIBILITY FOR RICHMOND CITY LIDAR MAPPING OF THE WASATCH & WEST VALLEY FAULT ZONES LIDAR MAPPING OF THE EAST AND WEST CACHE FAULT ZONES COMMON DATA FRAMEWORK FOR DISASTER RESILIENCE NATIONAL GROUND WATER MONITORING NETWORK 2018 MONITORING GROUNDWATER WELLS IN TULE VALLEY ATIONAL GROUNDWATER MONITORING NETWORK 2016 UGS GEOLOGIC DATA PRESERVATION PROJECT 2017 UGS GEOLOGIC DATA PRESERVATION PROJECT CASTLE VALLEY GW QUALITY WELL MONITORING CASTLE VALLEY GW QUALITY WELL MONITORING UAB VALLEY WATER BUDGET (3 YEAR PROJECT) EMIGRATION CREEK SEPTIC DISCHARGE STUDY ILING DATA GAPS FOR NATIVE AQUATICS WATER WELL CUTTING LOGGING FY 2019 PROJECT CODE UBCW & UBCN DOLU UWFC UCFM UMCV UWLH UHIMC UMCV UWR3 UWTV UNG4 UDNA UW19 **UW18** UDP8 ULFT UDP9 SUBMITTING PROGRAM STATUS N/A **GROUND WATER GROUND WATER** ROUND WATER GROUND WATER GROUND WATER **GROUND WATER** GROUND WATER GROUND WATER **GROUND WATER** GROUND WATER GROUND WATER **GROUND WATER GROUND WATER GROUND WATER** GROUND WATER GROUND WATER GROUND WATER **GROUND WATER GROUND WATER** HAZARDS SUBMITTAL DATE 11/16 11/17 12/18 5/16 4/17 8/17 8/17 6/17 9/17 3/18 5/18 5/18 5/18 5/18 5/18 6/18 1/16 3/16 5/16 5/16 5/16 6/16 1/17 8/17 8/17 8/17 3/18 3/18 4/18

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USDA FOREST SER

MANTI-LA SAL NATIONAL FOREST LANDSLIDE INVENTORY MAPPING (CANAL CREEK) 2018-2019 UTAH EARTHQUAKE WORKING GROUPS & UPDATE OF WORKING GROUP RELATED DATABASES

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CONTRACT PROPOSALS 2016 FORWARD BY UGS PROGRAMS

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As of 12/17/18