State of Utah
School and Institutional
Trust Lands Administration

Board of Trustees Meeting Agenda
August 13, 2020

Notice regarding special restrictions for this electronic meeting

In light of federal, state and local COVID-19 guidelines, and consistent with the Board chairperson's written determination dated August 3, 2020, this Board of Trustees meeting will be held via electronic means only. No anchor location will be used, and members of the public will not be allowed to attend this meeting in person. The Board chairperson's August 3, 2020 written determination concerning the conduct of the August 13, 2020 meeting included the following:

Facts upon which the written determination is based:

- On March 6, 2020, Governor Gary R. Herbert issued an Executive Order declaring a state of emergency due to the novel coronavirus disease 2019 (COVID-19).
- One March 11, 2020, the World Health Organization characterized the COVID-19 outbreak as a pandemic.
- On March 13, 2020, President Donald J. Trump declared a national state of emergency based on the continuing spread of COVID-19.
- Federal, State and local authorities have recommended that individuals limit public gatherings and that individuals experiencing symptoms of COVID-19 self-isolate to prevent and control the continuing spread of COVID-19.
- The public monitoring and participation requirements in the Open and Public Meetings Act, Utah Code Section 52-4-101 et seq. will gather interested persons, members of the public, and members of a public body in a single, confined location where the risks of further spreading COVID-19 are far greater.
- The anchor location requirements applicable to electronic meetings will likewise cause individuals to gather in a single, confined location, increasing the risk of spreading COVID-19.

Determination concerning conduct of August 13, 2020 Board meeting:

- In light of the facts referenced above, conducting the August 13, 2020 meeting with an anchor location presents a substantial risk to the health and safety of those who may be present at the anchor location;
- The Board, consistent with its recent practice under Utah Executive Order 2020-5, will therefore hold an electronic meeting without an anchor location, and will provide an electronic means by which the public may hear the open portions of the meeting, as well as an electronic means by which members of the public may provide comment to the Board;
- The above findings will be included within the public notice of the August 13, 2020 meeting, and will be read into the record at the beginning of that meeting.

This meeting will be conducted via Zoom. Interested parties, including members of the public or representatives of county governments or Utah Tribes, may attend the meeting through the following registration link: https://zoom.us/webinar/register/WN_25QWY9pKQmGXYCJpVjKswQ. We recommend registering by 9:50 a.m. to avoid missing the beginning of the meeting. Those wishing to provide public comment will be asked at the beginning of the period designated for such comment to use the "raise hand" feature at the bottom of the screen within the Zoom meeting so you may be called upon to provide comment. Please call Lisa Jones at 801-538-5110 or email lsjones@utah.gov any time before 9:00 a.m. on August 13, 2020 with any questions.

1. **Welcome**

2. **Approval of Minutes**

    - June 11, 2020

3. **Confirmation of Upcoming Meeting Dates**
    - September 10th Regular Meeting
    - October 8th Regular Meeting
    - November 12th Regular Meeting
    - *December 10th Protection & Advocacy Office Annual Trust Meeting*

4. **SITLA Funds in the Schools**
    - Deena Loyola, Public Relations Officer

5. **Public Comments**

    SITLA welcomes comments *from the public. The Board sets aside 15 minutes at each Board meeting to hear from anyone wishing to speak. Each presenter is allowed one opportunity and has up to three (3) minutes for remarks. Any member of the public who desires to make a comment shall use the "raise hand" feature during the Zoom meeting. The public comment segment of the Board meeting is not the time for a question and answer discussion. SITLA staff are available for dialogue outside of Board meetings.*

6. **Chair's Report**
    - Reorganization of the Board when new Board member is confirmed
    - Confirmation of New Committee Assignments

7. **Advocate Report**
    - Justin Atwater, Director, Land Trusts Protection & Advocacy Office

8. **College of Mines Report – Regarding Use of Trust Funds**
    - Darryl Butt, Dean, College of Mines, University of Utah

9. **Notification & Discussion Items**

    Notification items do not require Board action and are only informational. Staff is prepared to discuss any of the items if a member of the Board requests it.

    a. Notice of Minor Development Transaction: Green Springs

    ∞ Aaron Langston, Project Manager, Planning & Development

    b. Notice of Minor Development Transaction: Warner Valley Shooting Range (Update)

    ∞ Aaron Langston, Project Manager, Planning & Development

c. Notice of Minor Surface Transaction: Sevier County Negotiated Sale
- ∞ Michelle McConkie, Assistant Director, Surface
- ∞ Ron Torgerson, Deputy Assistant Director, Surface – Richfield

d. Notice of Oil & Gas Transaction – Asphalt Ridge OBA – 5th Amendment
- ∞ Wes Adams, Assistant Director, Oil & Gas

e. Notice of Correction – Paradox 2.0 OBA
- ∞ Wes Adams, Assistant Director, Oil & Gas

10. Director's Report

a. Discussion of Statewide Water Infrastructure Plan

11. Board Action Items

a. Temple Springs OBA
- ∞ Wes Adams, Assistant Director, Oil & Gas

b. Hingeline OBA
- ∞ Wes Adams, Assistant Director, Oil & Gas

c. Bowknot OBA
- ∞ Wes Adams, Assistant Director, Oil & Gas

d. Sienna Hills Auto Mall
- ∞ Aaron Langston, Project Manager, Planning & Development

12. Closed Session

Pursuant to Utah Code §52-4-205(1)(d), the Board will hold a Strategy session to discuss the purchase, exchange, or lease of real property, including any form of a water right or water shares. Specifically, the Board will hold a strategy session to discuss purchasing water rights in San Juan County.

13. Vote to Approve Water Rights Purchase in San Juan County

14. Adjourn

Items may be heard in any order, at any time, at the Board's discretion.

Please be aware that the public portions of this meeting may be broadcast live over the Internet. Also, be aware that an audio recording of the public portions of this meeting, along with any materials presented or distributed in the public portions of this meeting, will be posted on Utah's public notice website. Witnesses with questions, concerns, or handouts should contact staff.

In accordance with the Americans with Disabilities Act, persons needing auxiliary communicative aids and services for this meeting should contact Lisa Jones at 801-538-5110, or by email at lsjones@utah.gov, at least three (3) days in advance.

I, Lisa Jones, SITLA Board of Trustees' Executive Assistant, hereby certify the foregoing agenda was emailed to the Salt Lake Tribune, was posted on the Utah State Public Notice website, http://pmn.utah.gov, SITLA's website at https://trustlands.utah.gov/, and was posted at SITLA's Offices, 675 East 500 South, Suite 500, SLC, Utah 84102. *Posted and dated on the 3rd day of August, 2020.*

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New Committee Assignments

Board Committees

Committees	Board Members	Management Team	Beneficiary Rep.
Oil, Gas, & Mining	Don Foot Dave Donegan	*Tom Faddies *Wes Adams	Justin Atwater
Development	Roger Barrus Bryan Harris Rick Woodbury	*Kyle Pasley	Justin Atwater
Surface & Water	Bryan Harris Don Foot Warren Peterson	*Michelle McConkie	Justin Atwater
Governmental Affairs	Roger Barrus Mike Mower	*Michelle McConkie David Ure	Justin Atwater
Audit	Roger Barrus Dave Donegan	*Merritt Dunn Deborah Memmott David Ure	Justin Atwater
Legal	Mike Mower Rick Woodbury Warren Peterson	David Ure *Mike Johnson	Justin Atwater
Renewables	Bryan Harris Dave Donegan Warren Peterson	*Tim Donaldson	Justin Atwater
Exchange	Rick Woodbury Don Foot Mike Mower	*Chris Fausett	Justin Atwater

Revised 7/20/2020

8

College of Mines Report – Regarding Use of Trust Funds

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CMES Update to SITLA Board

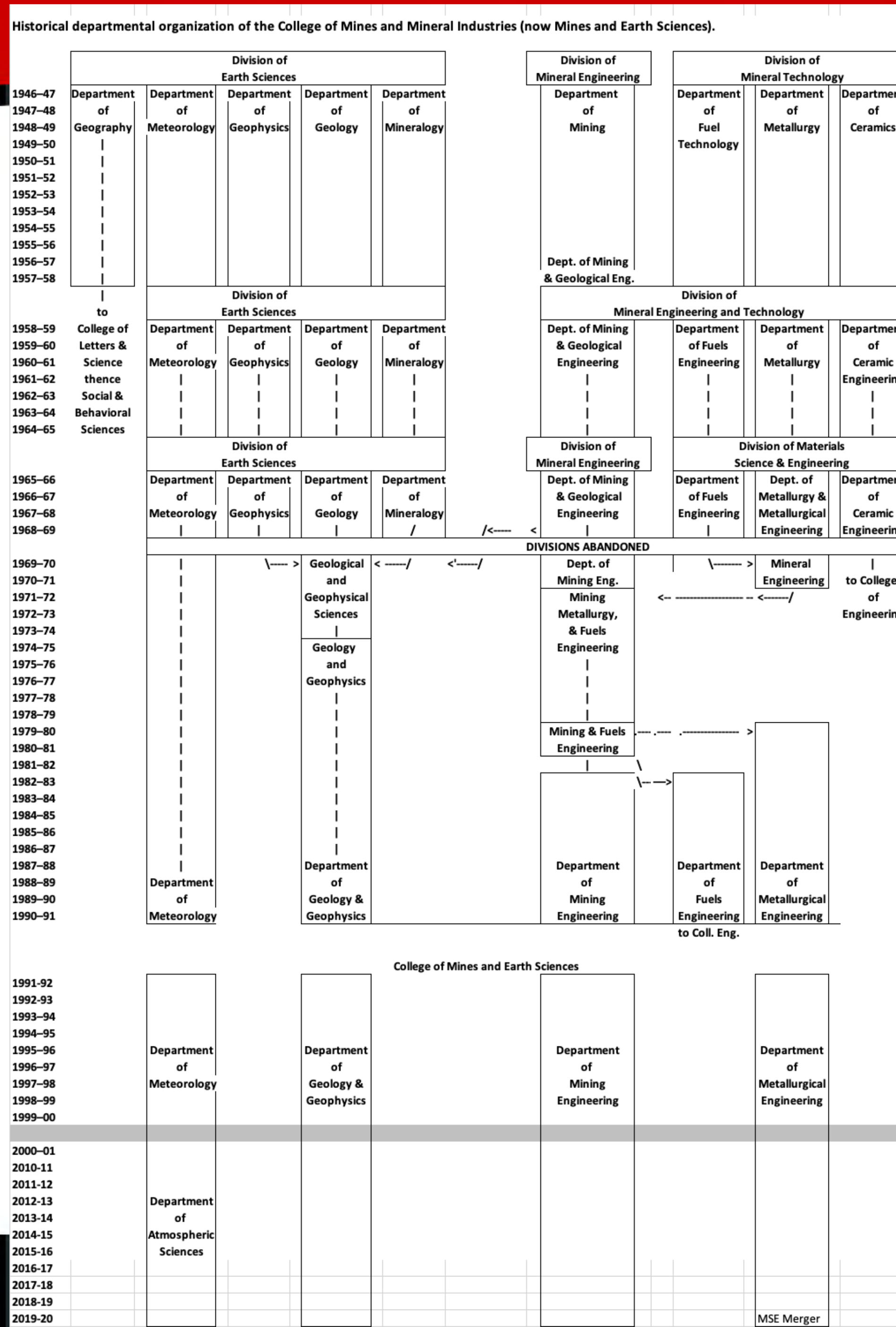
August 2020

Dr. Darryl P. Butt
Dean and Professor, College of Mines and Earth Sciences
Director, MUSE, DOE BES, Energy Frontiers Research Center

Outline:

College History and Structure
Strategic Priorities and Stakeholder Commitment
Financials, Revenue Generation, and Student Success
Mining Engineering New Certificate Programs, New-Hires and Highlights

Departments and College History



1946

1956

1966

1976

1986

1991

University of Utah
College of Mines and Earth Sciences
Staffing Plan for July 1, 2020

CMES Dean
Darryl Butt, PhD

CMES Staff Support
Executive Assistant to Dean (Anita Tromp)
Executive Secretary (Lorie Burningham)

Accounting & Administrative Support
Assoc Dir, Accounting & Finance (Terrie Parker)
Grants Development Specialist - (Jess Pugh)
Accountant – Post Award (LeAnna Mower)

Building Maintenance & Security
Research Device Specialist (Robert Byrnes)
Safety Officer (Wil Mace)

CMES Outreach/Development
Interim Director of Student Activities – (Michelle Tuitupou)
Bridge Advisors (Brenda Wicks)
Marketing Communications Coord- (TBD)
Development Director (Travis McMullin)

CMES IT Support
Stacey Wood - *Supervisor*
Sr. System Engineer (Gordon Kafton)
System Engineer (Cooper Cazedessus)

Chief of Staff
(TBD)

Assoc Dean - Academics
Sivaraman Guruswamy, PhD

Assoc Dean - Research
Cari Johnson, PhD

Assoc Dean – External Relations
Marjorie Chan, PhD

SEISMOGRAPH STATION
Director - Keith Koper
Assoc Director - Kristine Pankow

Administrative Support Staff
Administrative Officer
(Cynthia Meier)
Marketing Communications Spec
(Rebecca Sumsion)

Other Centers
Director – Darryl Butt
MUSE Energy Frontier Research Center

Director—Brenda Bowen
Global Change and Sustainability Center

Director—John Lin
Wasatch Earth Observatory

Director—Kip Solomon
Earth Core Isotope Laboratory

GEOLOGY & GEOPHYSICS
Department Chair – Thure Cerling
Assoc Chair – Brenda Bowmen

Faculty
23 Academic 14 Research

Administrative Support Staff
Administrative Prog Coord
(Shanna Futral)
Administrative Officer
(Thea Hatfield)
Academic Advisor
(Michelle Tuitupou)
Accountant (Steven Rondina)

ATMOSPHERIC SCIENCES
Department Chair – John Horel

Faculty
12 Academic 10 Research

Administrative Support Staff
Administrative Manager
(Nola Lucke)
Program Coord
(Holly Moreno)

MINING ENGINEERING
Department Chair – Michael Free

Faculty
5 Academic 2 Research

Administrative Support Staff
Administrative Manager
(Pam Hofmann)
Program Coord
(Kitzia Casasola)

METALLURGICAL ENGINEERING*
Department Chair – Michael Simpson
Assoc Chair – Taylor Sparks (MSE)

Faculty
12 Academic 5 Research

Administrative Support Staff
Administrative Manager
(Sara Wilson)
Executive Secretary
(Kay Argyle)
Academic Advisor
(Brenda Wicks)

MATERIALS SCIENCE & ENGINEERING
Department Chair – Michael Simpson
Associate Chair – Taylor Sparks
10 Academic Faculty - 1 Research Faculty

Administrative Support Staff
Administrative Officer (Angela Nelson)
Clerk – Joshua Hansen

“Materials Merger”

Via a unanimous vote of the faculty of the two respective departments, and a memorandum of understanding signed by the cognizant Deans of the College of Engineering and the College of Mines & Earth Sciences, the Departments of Materials Science & Engineering (*mse*) and Metallurgical Engineering (*mete*) began to implement the steps and processes toward functioning as a coherent, interdisciplinary department, reporting to and residing between and within the two colleges. The purpose of the merger was to combine the horizontal Materials Science & Engineering and the vertical Metallurgical Engineering program in order to elevate both degree programs, as well as both colleges. Each department has unique strengths which, when combined, will provide synergy, enhance efficiencies, and improve the quality of education, thereby leading to greater national prominence, and a greater ability to compete for high quality students and research support. It is implicit in spirit of this collaboration that this merger will only be successful and sustainable if each department and each college truly benefits. Aligned with this underlying principle is mutual respect for the history and processes of each college in an effort support each college’s identity and administrative systems

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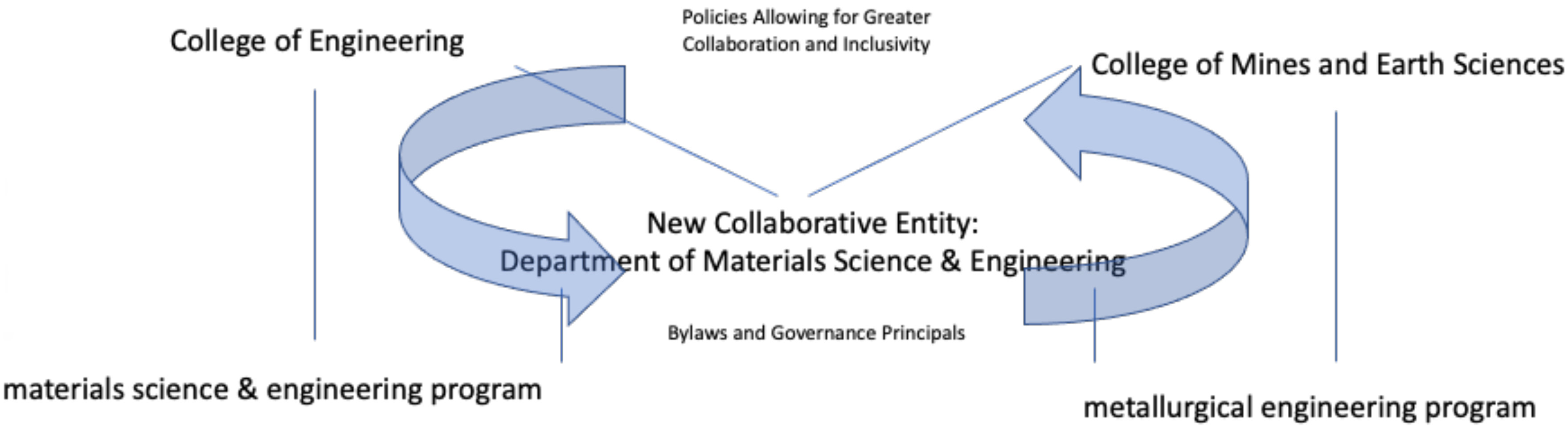
"Materials Merger"-Language from Bylaws…

The collaborative entity is heretofore described as the Department of Materials Science & Engineering (MSE). The collaborating departments (programs) that comprise MSE are heretofore referred to as the department of materials science and engineering (mse) or the mse program, and the department of metallurgical engineering (mete) or mete program. This terminology is used to minimize confusion. Uppercase letters define the collaborative entity MSE, which is not a program (as recognized by ABET), but is an umbrella administrative and collaborative entity that facilitates the collaboration. Lower case letters are used to describe the legal departments (or programs) and their respective charge centers, as recognized by the university, and will continue to reside in the two colleges until such time that both colleges choose to change this long-standing financial and administrative structure. An illustration of the two-college collaboration and how the MSE program bridges the colleges is shown in the figure below.

Materials Merger



Strategic Priorities (Established 2017)

The college has three strategic priorities that are aligned with the university values and strategies and are supported in part through the foundational and crosscutting priorities as outlined below. These strategic priorities are:

1. Environment and Infrastructure for Student Success
2. Environment and Infrastructure for Faculty and Staff Success
3. Long-Term Impact and Centrality to the University Mission

Foundational and Crosscutting Priorities

The college has four foundational and crosscutting priorities that are aligned with the university values and strategies as well as the strategic priorities of the college outlined above. These are:

1. Culture and Infrastructure that Ensures Safety and Security
2. Self-Assessment and Continuous Improvement
3. An Environment that Embraces and Encourages Diversity and Inclusion
4. Sound Financial Stewardship and Transparency

Review of Mission, Vision, Stakeholder Commitment

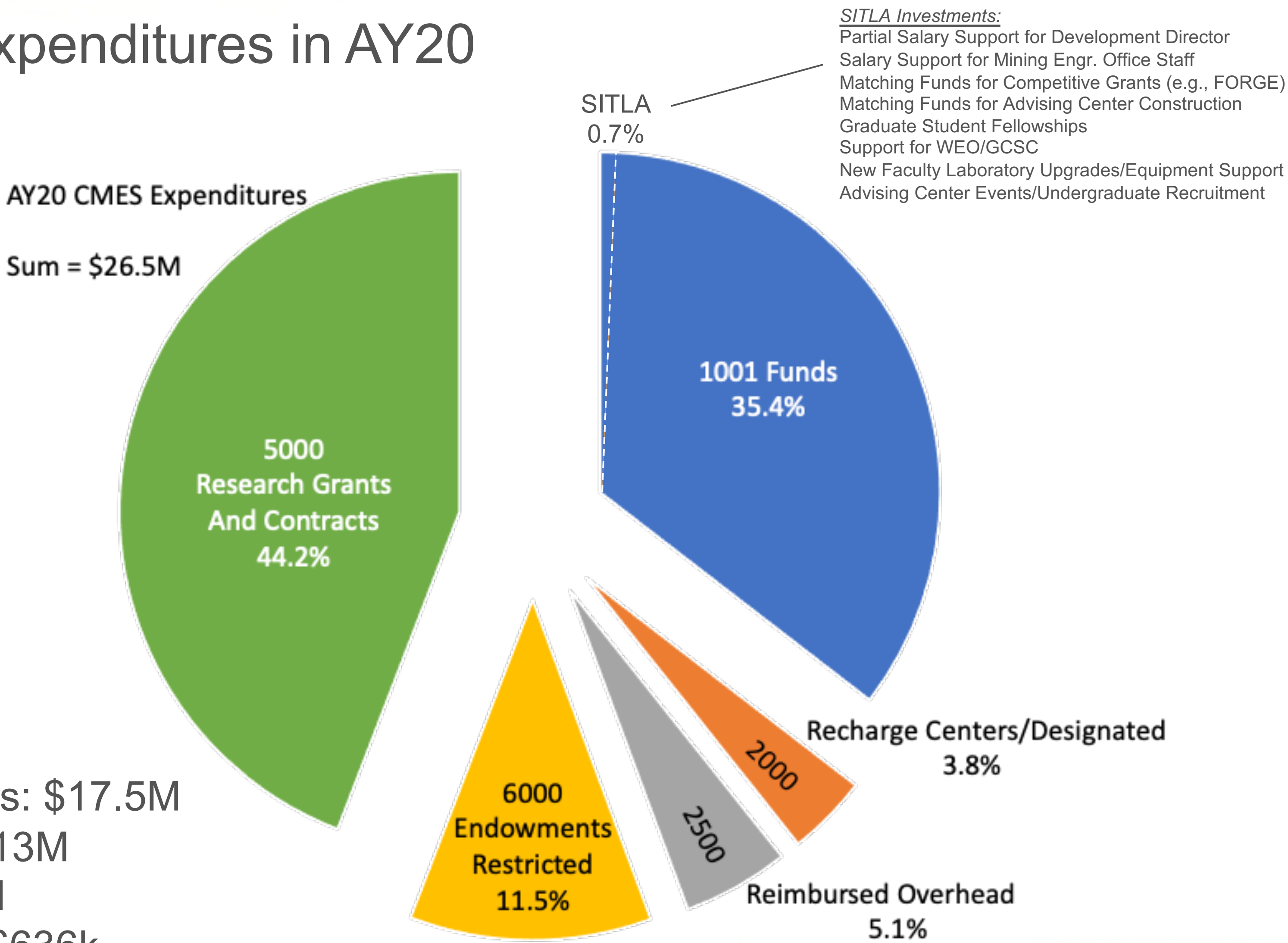
Stakeholders Commitment (Approved 2017)

- The College educates and prepares professional earth scientists, atmospheric scientists, geologists, geological engineers, mining engineers, metallurgical engineers, mineral separation experts, physical and extractive metallurgists, and earth science educators. We engage in scholarly research activities in geology, geophysics, geological engineering, hydrology, atmospheric sciences, oceanic processes, physical and extractive metallurgy, mineral separation, mining engineering, geo-resource management and safety.

- We disseminate newly acquired knowledge through timely publication of original research by faculty and students in all of the above fields. We seek to educate the University community and the public about the composition and structure of Earth, processes that shape it, and its history and future.

- We deliver professional service by providing knowledge about natural resources, methods of natural resource extraction, safety in industrial activities, metals extraction and modification, geologic hazards, and environmental processes.

CMES Expenditures in AY20



<u>FY20 Revenue</u>
External Awards: $17.5M
Donations: $4.13M
Tuition: $3.06M
Cost Centers: $636k

SITLA Review and Investments Summary

REVENUE	FY 2017	FY 2018	FY 2019	FY 2020
SITLA State Appropriations	370083	128811	140161	115363
Benefit Base Funding (University Match)	7334	36741	47774	54384
Subtotal Revenue	377418	165553	187936	169747
INVESTMENTS SUMMARY				
Salary & Wages	21592	81845	117358	130537
Benefits	7334	36741	47774	54384
Non-Personnel	55945	144062	130701	13244
Subtotal of Investments	84873	262650	295835	198166
Ending Cash Balance (*Excludes Encumbrances)	450027	352930	245031	216612*

SITLA Investments (FY17-20):
Partial Salary Support for Development Director, $78k
Salary Support Staff, $75k
Matching Funds for Competitive Grants, $17k
Matching Funds for Advising Center Construction, $25k
Graduate Student Fellowships, $51k
Support for WEO/GCSC, $15k
New Faculty Laboratory Upgrades/Equipment Support, $200k
Advising Center Events/Undergraduate Recruitment, $38k

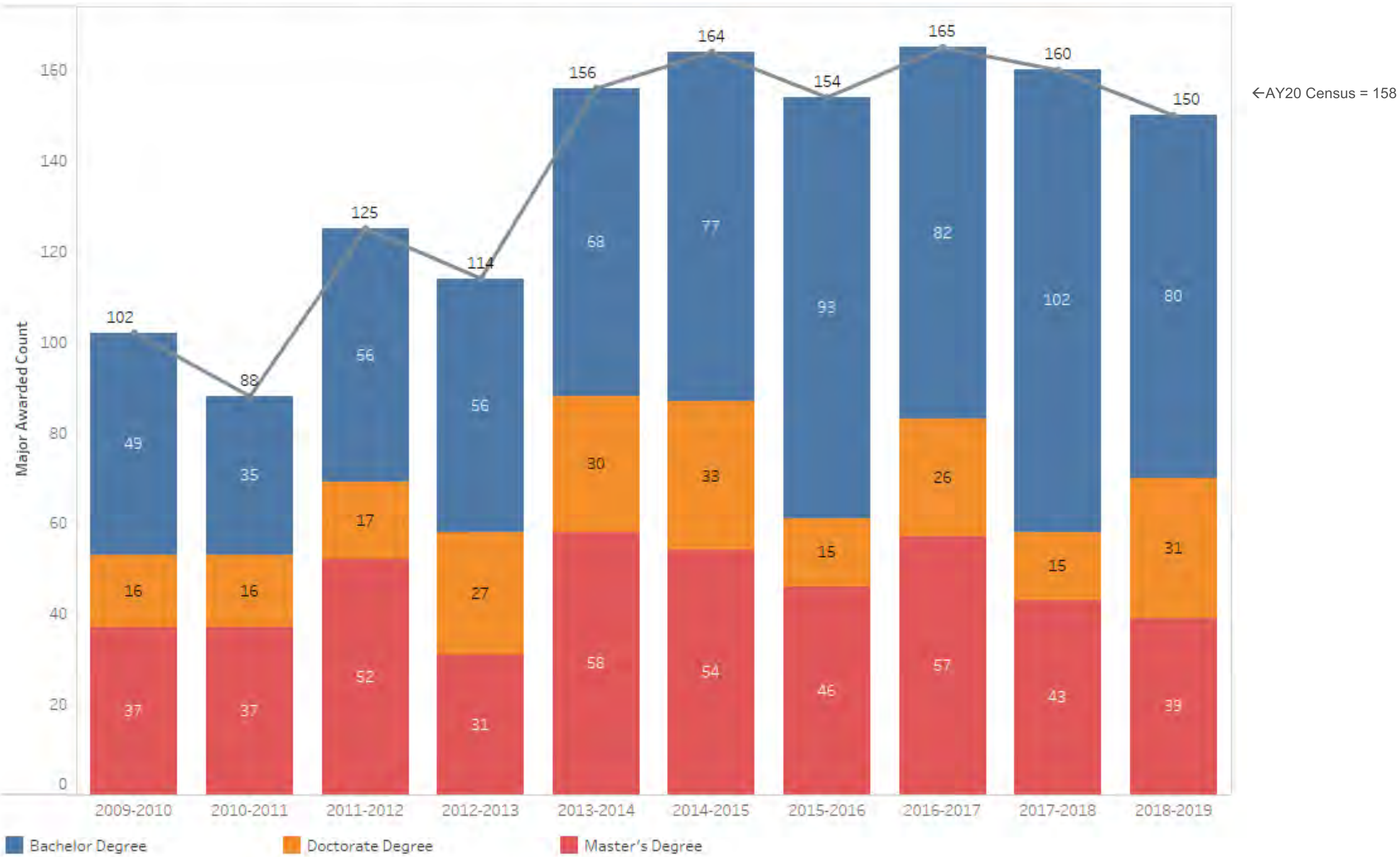
CMES Research Productivity

CMES Proposals Submitted												July - June 30	
	2014	2015	2016	#	2017	#	2018	#	2019	#	FY19> FY18	2020	#
Atmos	$3,425,928	$8,601,420	$8,062,512	30	$7,590,030	34	$9,328,130	33	$33,112,677	40	*255%*	$12,382,255	43
Deans Office							$16,799,808	2					
GG	$5,208,139	$8,589,831	$4,991,588	20	$7,926,632	38	$10,872,955	31	$3,918,627	20	*-64%*	$11,181,541	31
Metal	$24,286,095	$5,510,664	$6,340,921	22	$13,199,840	31	$16,947,867	49	$10,683,858	32	*-37%*	$20,902,916	37
Mining	$1,845,547	$387,001	$1,671,392	2	$499,456	1	$860,918	4	$2,231,076	8	*159%*	$2,143,847	11
Siesmo	$2,037,602	$4,712,236	$914,205	1	$904,346	3	$1,938,811	7	$1,298,009	2	*-33%*	$5,833,463	6
Total Depts Proposals	$36,803,311	$27,801,152	$21,980,618	75	$30,120,304	107	**$56,748,489**	126	**$51,244,247**	102		**$52,444,022**	128
Percent of $'s Proposed		*-24%*	*-21%*		*37%*		*88%*		*-10%*			*2.3%*	
CMES Funds Awarded													
	2014	2015	2016	#	2017	#	2018	#	2019	#		2020	#
Atmos	$4,526,446	$5,510,525	$4,359,457	4	$3,119,507	32	$5,958,346	48	$5,360,249	35	*-10%*	$5,756,489	58
Deans Office									$2,162,500	1		$2,375,000	1
GG	$1,689,903	$3,837,717	$1,607,466	28	$3,524,363	21	$1,805,554	26	$3,736,195	23	*107%*	$3,033,941	35
Metal	$6,282,507	$3,247,606	$3,804,249	30	$4,827,969	18	$1,977,518	19	$2,978,166	24	*51%*	$3,354,325	22
Mining	$367,614	$355,844	$531,436	8	$248,490	1	$160,882	3	$599,053	5	***272%***	**$1,255,274**	**10**
Siesmo	$1,032,013	$1,356,923	$1,114,672	4	$1,105,833	3	$1,354,002	10	$1,549,950	10	*14%*	$1,681,103	9
Total Depts Awards	$13,898,483	$14,308,615	$11,417,280	74	$12,826,162	75	$11,256,302	106	**$16,386,113**	98		**$17,456,132**	135
Percent of $'s awarded		*3%*	*-20%*		*12%*		*-12%*		*46%*			*6.5%*	

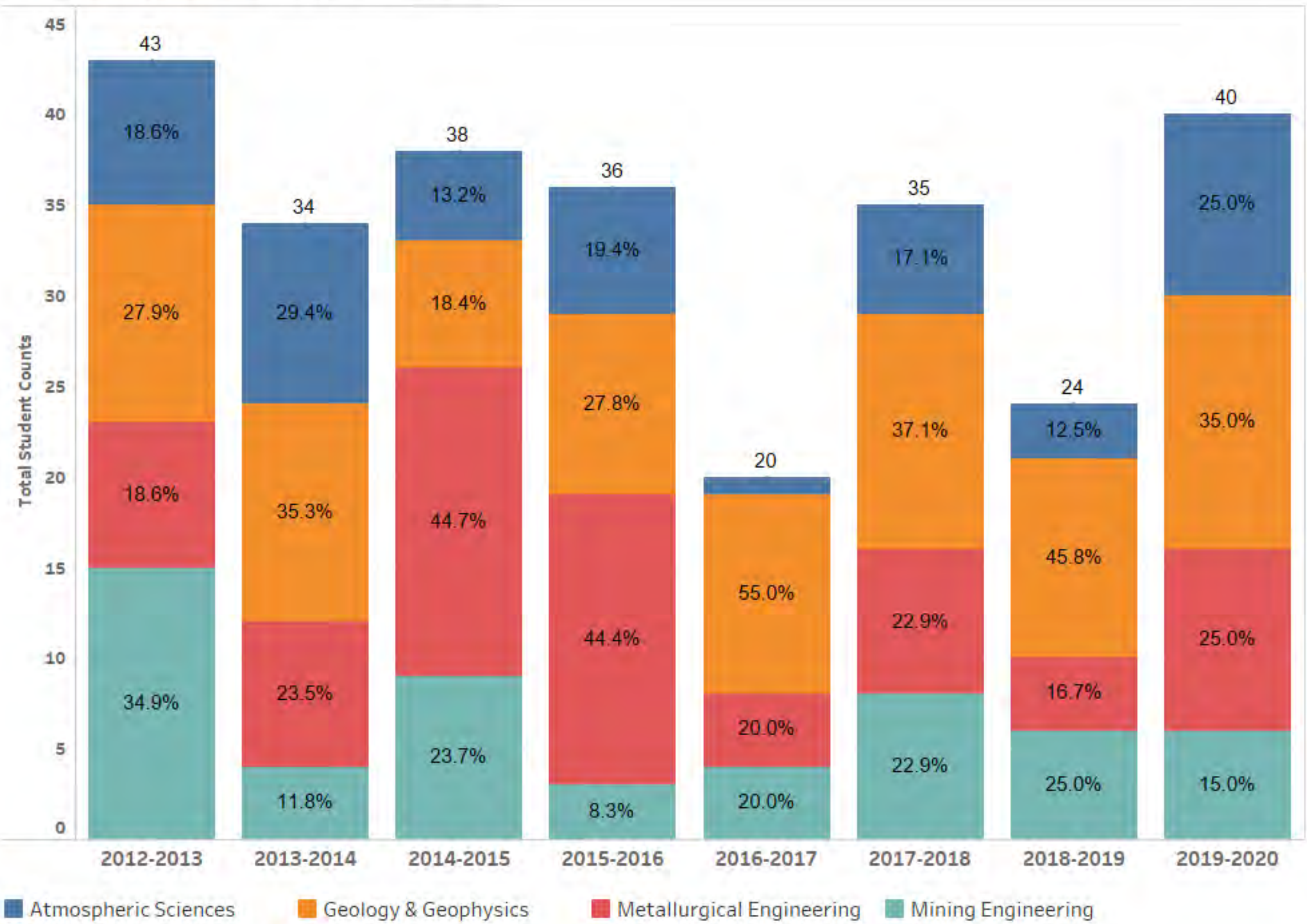
Proposals Pending on July 1		
Atmos	2,580,363	5
GG	422,314	4
Met E	1,025,132	4
Mining	25,000	1
Seismo	53,107	1
Total Pending	4,105,916	15

Invested in
Grants Development Specialist

Major Awarded Trends by Fiscal Year



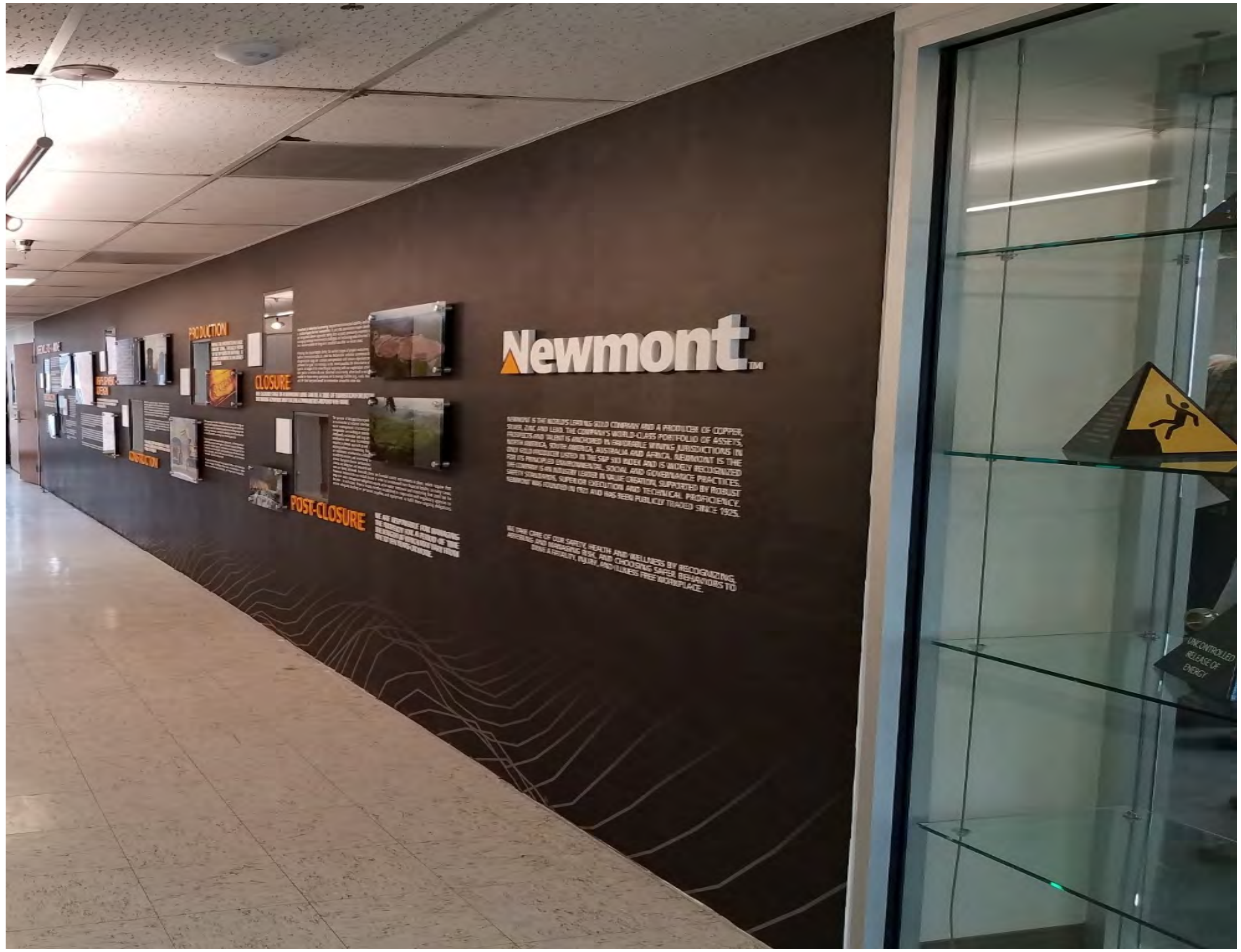
CMES: New Freshmen by Department



Note: Counts reflect census snapshot. Primary majors only. Fall term Freshmen only.

New Newmont Safety Classroom and Center for Mining Safety and Health Excellence

New Newmont Safety Classroom and Center for Mining Safety and Health Excellence



New Newmont Safety Classroom and Center for Mining Safety and Health Excellence

Our Mine Rescue Team won the National Team Competition at the SME Annual Meeting and two other First Place Awards.

From left to right: Travis Brammer, Stephen Hall, Rebecca Ray, Paige Estep, Jack Petersen. Thanks to Stephen Hall for leading the team, Victor Harrell from Cementation, who really made it possible for the team to prepare so well so quickly, and for Dr. Michael Nelson and Amy Richins for advising and supporting the team.

Kitzia Casasola was hired as a new staff member in mining engineering. She is advising graduate students, performing marketing and web site development, and supporting mining office administration.

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Dr. Rajive Ganguli joined us from the University of Alaska, Fairbanks as the Malcolm McKinnon Chair.

A second distinguished professor will join us in January.

A search is in process for a third junior faculty member.

New Department Chair

Dr. Michael Free has been awarded a $1,000,000 grant to improve extraction and recovery of Rare Earth Elements using biooxidation. He is also the recipient of the 2020 TMS Extraction and Processing Division Distinguished Service Award.

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Mining Engineering Industrial Advisory Board Membership

Name	Term	Affiliation
Amanda Smith	2020-2022	Manager-Data, Technology & Automation
Andrew Carey	2020-2022	Kennecott Utah Copper (Rio Tinto)
Bart Hyita	2019-2021	HyitaTech Consulting LLC
Bill Hall	2020-2022	VP Technical Services Peabody
Denee Hayes	2020-2022	Consultant
Frank McAllister	2019-2021	Retired (formerly with Stillwater Mining)
George Karpakis	2019-2021	Retired (formerly with BHP Billiton Marketing)
John Byars	2018-2020	Bowie Resources SUFCO Mine
Matt Tobey	2018-2020	Kennecott Utah Copper (Rio Tinto)
Monica Dodd	2018-2020	Newmont
Rex Plaizier	2019-2021	President, WesTech Engineering, Inc.
Rick Hoggan	2019-2021	Millcreek Engineering
Waldemar Rasmussen	2019-2021	Retired (formerly with EXXON Mobil)

New Mining Engineering Certificate Programs

Aggregates and Mineral Processing
Geomechanics and Spatial Analytics
Mine Operations Management
Mine Safety and Health
Sustainable Resource Development
General Mining
Pre-Mining Engineering

Thank You For Your Support

Darryl P. Butt
darryl.butt@utah.edu
801-581-7009

9a Notification: Green Springs

Memorandum

TO: Board of Trustees, School and Institutional Trust Lands Administration

FROM: Aaron Langston, Project Manager, P&DG Utah South

DATE: July 22, 2020

RE: ***Notice of Minor Development Transaction - Greens Springs MHD5 (22.55 acres) and CEM1 (8.61 acres) blocks, totaling 31.16 acres.***

BENEFICIARY: Schools

Background

Early in 2019, Staff released an RFP for the MHD5 parcel within the Green Springs master plan that ran until May 20th. Five offers were received. After a thorough vetting, Staff felt the number one offer was from Troy Belliston and his group (Mighty Five Development, LLC), where they offered $3.9 million cash to purchase the entire parcel, plus a 50/50 split with the Trust on a commercial venture in the northwest corner of the parcel (which would require a zone change and City approval). The commercial component would be necessary to bring them above appraised value (312 units at $15,000 per door, or $4.68 million), so the Board wanted the Trust to retain the commercial portion until the zone change was complete. Their offer was approved by the full Board of Trustees during the August 14, 2019 Board meeting.

Mighty Five, upon learning about the fault lines running through the parcel and the probability of not being able to develop portions of the subject lands, backed out of the deal. Staff moved forward with a full-blown fault study on the MHD5 parcel in order to quantify the potential threats of the fault lines. These same fault lines run through the adjacent Brio parcel (which were determined at that time to be a non-threat), and through, presumably, hundreds of existing homes in Washington City. While this new study was being undertaken, Staff simultaneously began discussions with the group that was in second place behind Mighty Five – High Desert Homes.

High Desert Homes' Offer

High Desert Homes, in response to the original RFP, had proposed paying $500 above appraised value for each lot, plus an additional $200 per year for each unacquired lot. Assuming no irregularities in the market and a very quick absorption rate, the financial analysis showed that total revenue to the trust from this group would surpass that of Mighty Five by year three if they had full build-out by year three, by year four if they had full build-out by year five, or by year six if they took the full seven years (notwithstanding, the NPV analysis showed the cash offer was a better deal to the Trust).

Disappointingly, the completed fault study shows that a significant portion of the MHD5 parcel cannot be developed with conventional construction. However, High Desert Homes is willing to move forward with their original offer, but with a revised site plan that would keep family homes out of the fault zone. The parcel has an approved density of 312 units, but the revised site layout calls for 162 units (a loss of about 150 units).

Addition of lands

The LDS church rescinded its offer on the neighboring CEM1 property that was also marred by the fault zone and the corresponding fault study (incidentally this property did not receive any competing bids during its RFP advertising period). The LDS church submitted a new offer on the LD13 property, which left the CEM1 property without a potential buyer. As such, Staff met with High Desert Homes to see if they could bring the neighboring CEM1 parcel into their MHD5 development. They were excited to have that opportunity but recognized that a zone change from AP to PUD would be necessary to develop those lands. They are willing to go through the zone change process and if successful, will add those lands to their development (pending Board of Trustees approval).

If successful in rezoning the CEM1 parcel from AP to PUD, only a portion of the 150 dwellings lost from the MHD5 parcel could be made up. With roughly 1/3 of the CEM1 property deemed unbuildable because of the fault, it is estimated another 60 lots could be created. At $15,500 per door, plus an annual $200 for each unacquired lot, this would probably generate another $942,000 to the Trust, or an average of $109,400 per acre on property burdened with non-buildable areas.

Recommendation

Staff recommends moving forward with High Desert Homes on both the CEM1 and MHD5 parcels for $500 above appraised value for each lot, plus $200 annually for each unacquired lot. The appraisal came in at $15,000 per door.

This item was discussed and vetted by the Real Estate Committee on June 22, 2020.

Exhibit A

Green Springs master plan (boundary of MHD5 and CEM1 parcels outlined in red)

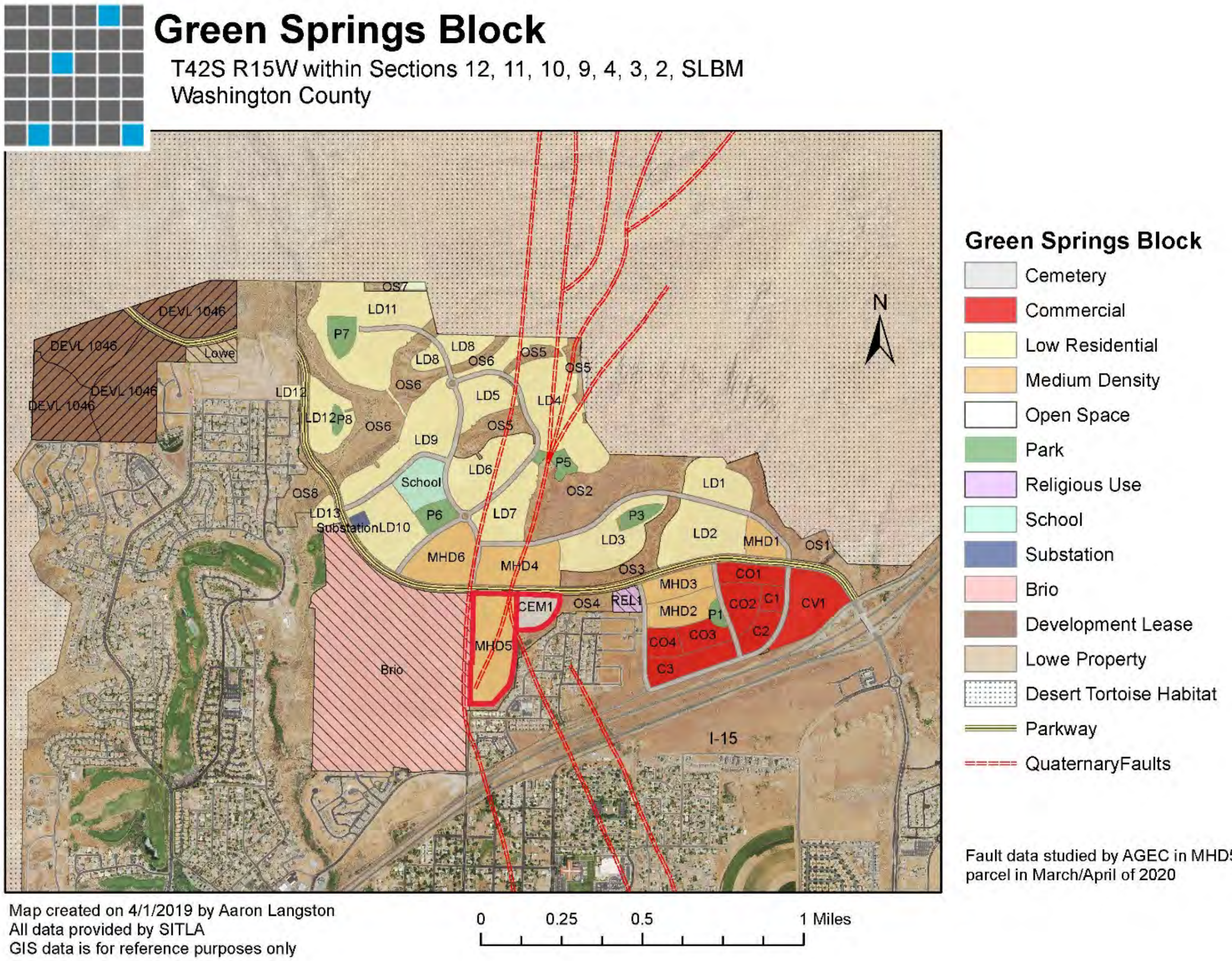


Exhibit B

Zoning map of the MHD5 and CEM1 parcels

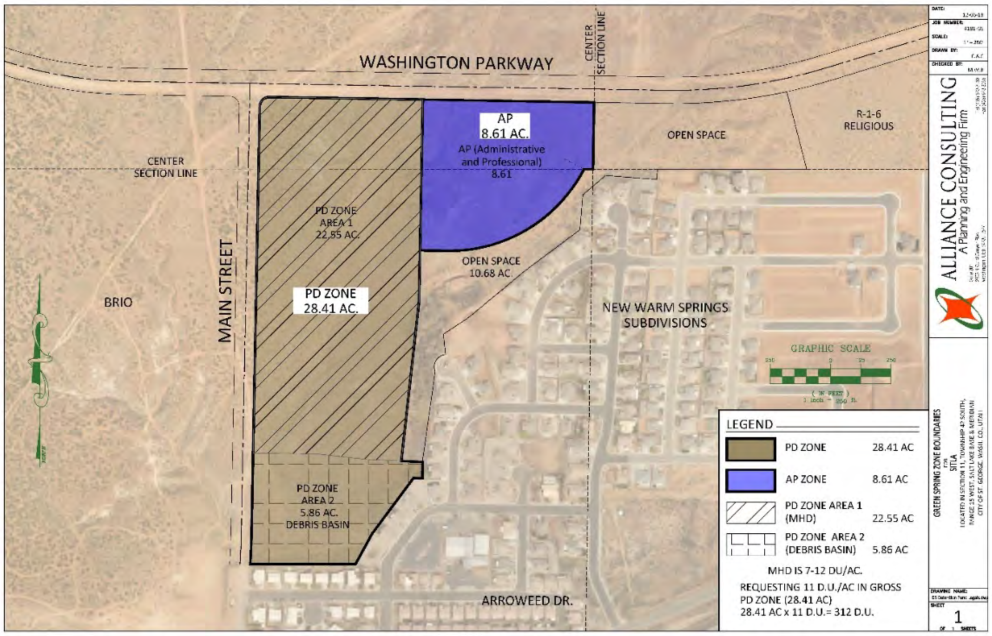


Exhibit C

Fault Study Results showing non-buildable areas

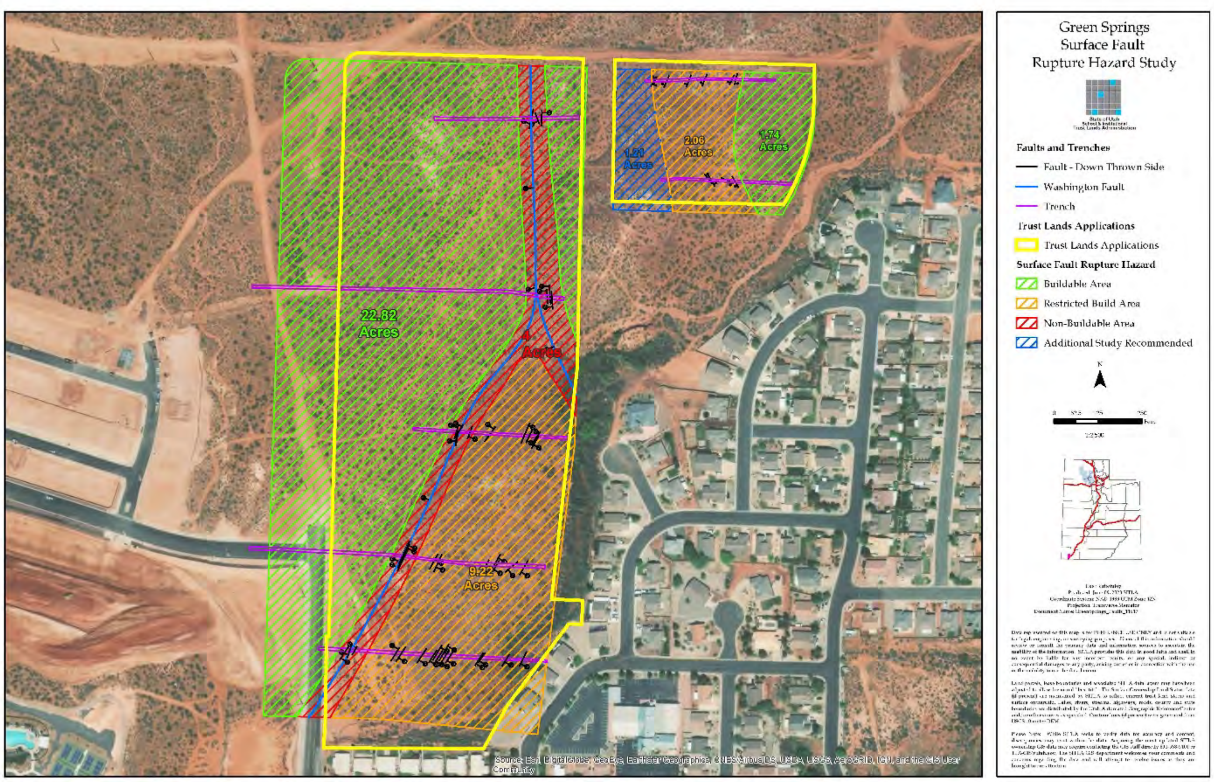
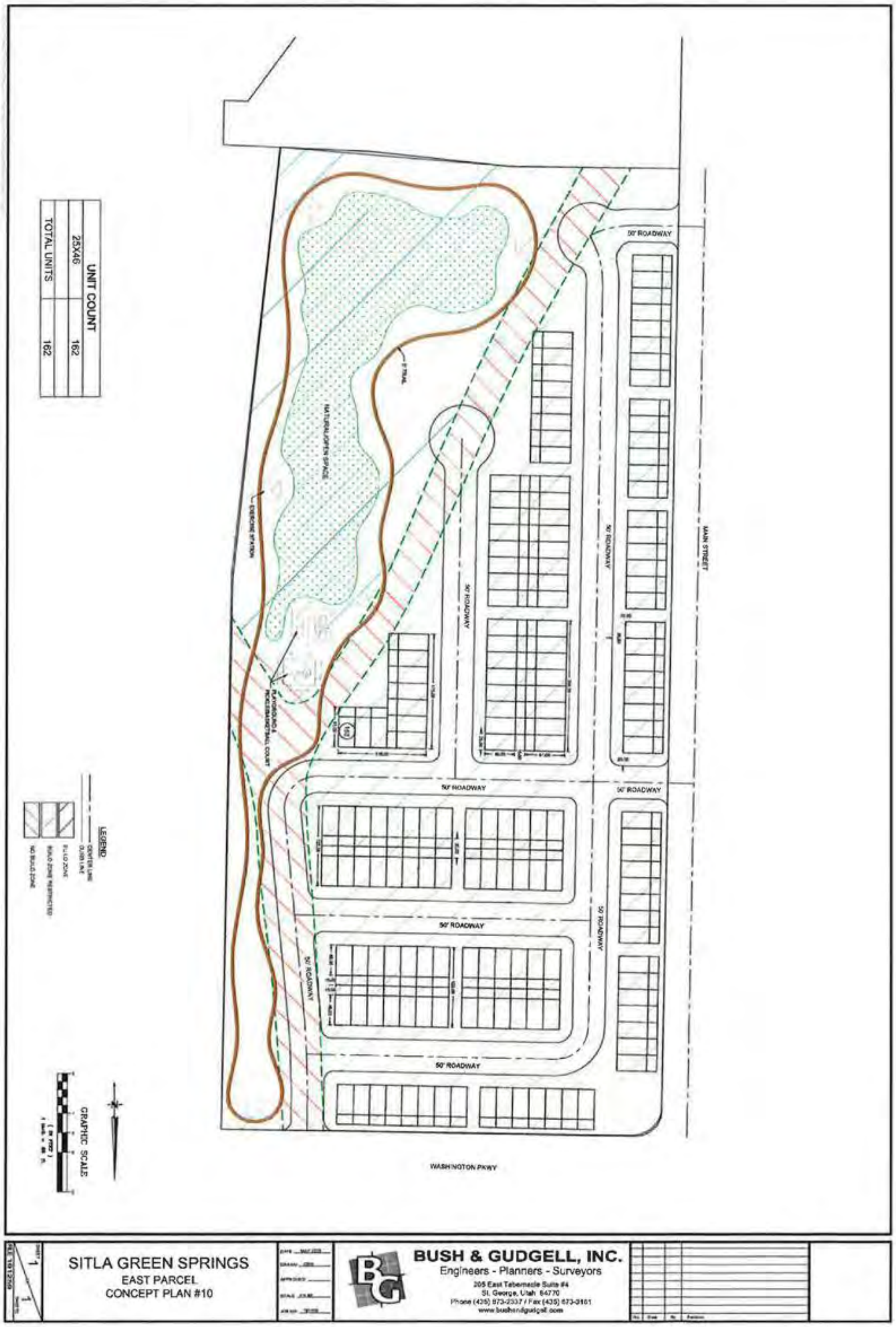


Exhibit D

Revised site layout for High Desert Homes



9b

Notification: Warner Valley Shooting Range

Memorandum

TO: Board of Trustees, School and Institutional Trust Lands Administration

FROM: Aaron Langston, Deputy Assistant Director, P&DG Utah South

DATE: July 20, 2020

RE: ***Notice of Minor Development Transaction – Warner Valley shooting range update***

BENEFICIARY: Schools

Site History

In September of 2019, the Board approved a proposed transaction for the disposal of approximately 466.85 acres south of the Warner Valley block along the Utah/Arizona border for a "world-class" shooting range. The site has limited access and no utilities. An appraisal valued the property at $2.1 million.

Although most of the dirt road leading to the subject parcel carries an RS2477 designation, a portion of the road deviates from the RS2477 alignment, leaving a small portion of the existing access road void of legal access. The buyers (BQ Defense, LLC) have been working with the BLM and the County to secure legal access on that small portion of the road before closing on the subject parcel. Although the legal access has not yet been secured, the buyers desire to move forward with the proposed purchase with a slight modification.

The Proposed Purchase

The buyers desire to enter into an Option Agreement on the property, taking down the first 75-100 acres on or before September. They would develop the first takedown, which would allow them to prepare for the opening of the shooting range within the next 6 months to a year, and to provide additional time to secure the needed legal access. The buyers would then take down an additional 40-50 acres each quarter. The buyers will have a maximum of 3 years to take down all the property and an annual escalator of 3% would be applied to the current appraised value.

Return to the Trust

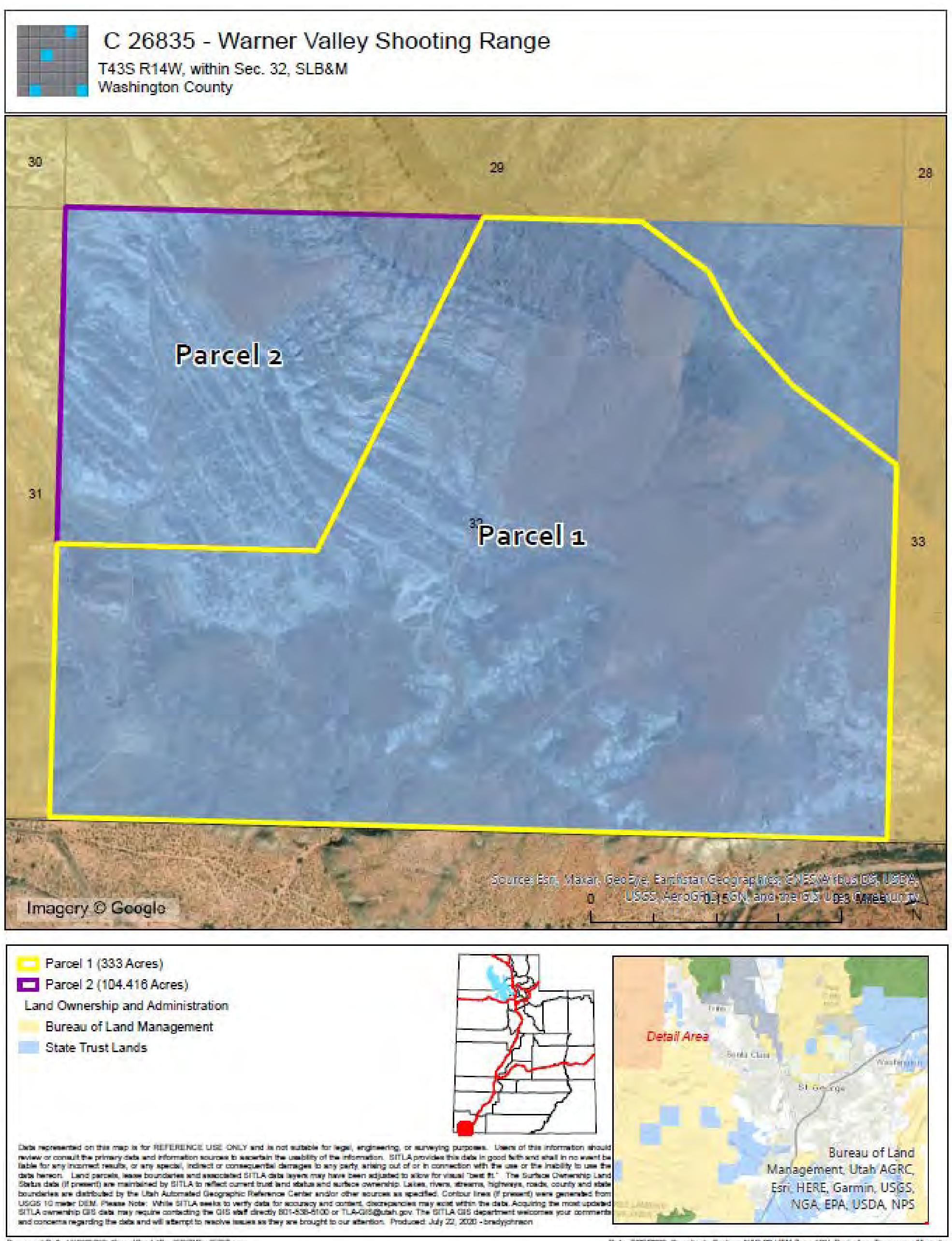
The Trust will receive market value for land without infrastructure that is surrounded by BLM property and is decades away from the path of development. In addition, the School Trust Lands Administration will be strengthening its ties with the County, which is supportive of the project. It is also expected that unapproved shooting throughout the County, and particularly on other School Trust Lands, will be reduced dramatically once this facility is open to the public. The Real Estate Committee discussed and vetted this item on the July 20th Real Estate Committee meeting.

Recommendation

Staff recommends proceeding as outlined.

Exhibit A

SUBJECT PROPERTY



9c

Sevier County Negotiated Sale

MEMORANDUM

TO: Surface Committee, School and Institutional Trust Lands Administration

FROM: Michelle E. McConkie, Assistant Director Surface
Ron Torgerson, Deputy Assistant Director Surface

DATE: July 22, 2020

SUBJECT: Proposed Sale of Land in Sevier County, Utah

BENEFICIARY: University of Utah

Pursuant to Utah Admin. Rule 850-80-620(2), notice of a negotiated sale of a parcel of Surface Group lands is to be provided to the Board of Trustees of the School and Institutional Trust Lands Administration (the "**Board**") at least 30 days prior to the sale. This sale was presented and discussed with the Surface Committee on June 22, 2020. Formal board approval is not required as this sale parcel is smaller than 320 acres and value is less than $250,000.00.

<u>Background Information:</u>

The proposed sale parcel is a 40-acre parcel of land located in Sevier County, southwest of Salina (the "**Subject Parcel**"). The legal description of the Subject Parcel is as follows:

Township 21 South, Range 1 West, Section 34: SE¼SE¼ (see attached map)

Photographs of the Subject Parcel are attached to this Memorandum. Nearly half the Subject Parcel is a steep knoll (volcanic rock) and the remainder is a sloping bench with clay-based soils. The Subject Parcel is bordered by BLM and private land and is not contiguous to other trust lands.

Access to the parcel is available by two county roads that intersect the parcel. A small portion of the Subject Parcel fronts the Sevier River; however, the Trust does not have any water rights associated with this parcel. Due to the slope and soil type, this property contains no irrigable land.

The Subject Parcel is currently not bringing any revenue to the Trust. The only revenue-producing activity on the Subject Parcel since 1992 is a grazing permit that terminated in 2002. There was also an oil and gas lease that terminated in 2004 without producing at the end of its primary term. Pursuant to statute, the mineral rights, including rock, sand, and gravel, underlying the Subject Parcel will be reserved.

<u>Notice/Advertising:</u>

Pursuant to Utah Admin. Rule 850-80-615, the Trust advertised this sale for competing interests in the local newspaper on March 2, 2020. Written notice was also given to adjoining landowners. If there had been lessees or permittees on the lands, they would have also received notice. The adjacent landowner initially showed some interest, but declined to submit an offer since they have several hundred acres of this type of property in the area and do not want to acquire any more.

Proposal:

It is proposed that the Subject Parcel be sold for the purchase price of $40,000. Payment will be an up-front cash payment. The applicant has prepaid closing costs of $2,300 for the appraisal and $1,700 for the cultural resource survey. These payments are in addition to the $40,000 purchase price.

An appraisal conducted by Matt Limpert of Van Drimmelen & Associates, Inc. effective March 31, 2020 placed the value of the Subject Parcel at $36,000. The proposed sale price is 111% of appraised value. The Trust believes the appraisal accurately reflects market value, based on the comparable sales in the appraisal as well as staff knowledge of the area.

The proposed purchaser has no interest in leasing the lands, but is willing to purchase them for the amount described herein.

Analysis:

The Subject Parcel is in a remote location, with contiguous lands that are primarily used as range lands. Sevier County has a 1.3 percent annual growth rate and there is no shortage of private land in the surrounding area. Demand on land for residential purposes is very low in the area, and the Subject Parcel is not in the path of any current or anticipated development. The property is zoned as Grazing/Recreation/Forestry/Residential, which requires 20 acres to build a residence. Sevier County zoning is reducing the number of acres required to build near existing communities (within 0.5 miles), but is retaining the 20-acre requirement in the county to discourage growth that requires services spread to outlying areas and impacts to farming and ranching areas.

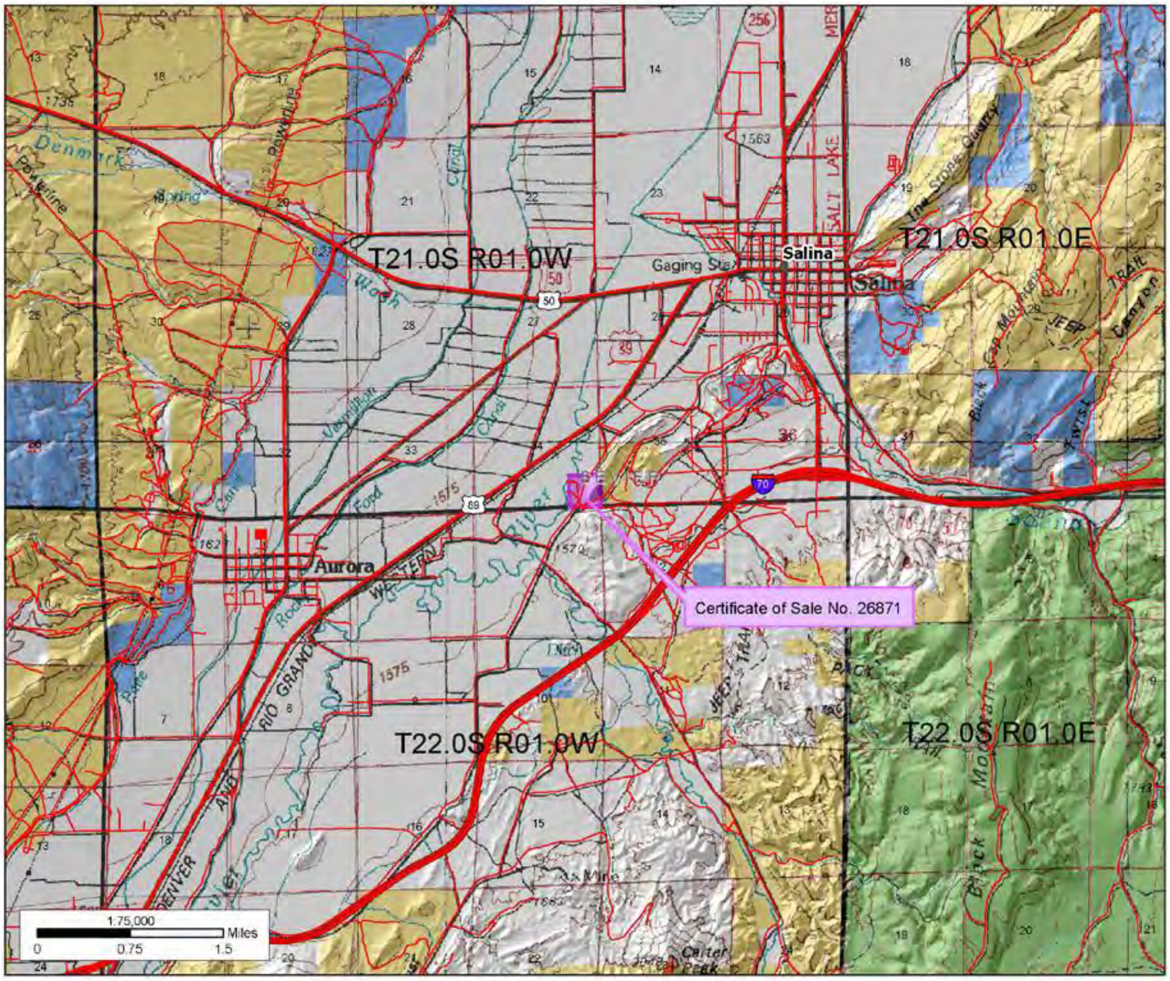
This parcel was reviewed by all agency revenue groups regarding potential for producing future revenue for the beneficiaries. The only potential was the idea of the knoll being used for a telecommunication site. After further analysis, it was determined that there are multiple existing telecommunication sites in the area, including several on trust lands to the north of the Subject Parcel, and no need for additional sites at this time. If such a need were to arise in the future, the knoll on the Subject Parcel has some challenging characteristics (including access issues, distance to power, rocky ground and a narrow footprint), that would make it less desirable than several other potential sites located on private lands in the area. For this same reason, it is unlikely that the knoll would compete with existing telecommunication sites on trust lands in the future. If an existing lessee of the Trust decided it wanted to relocate to private ground in the area when their telecommunications lease expired, there are multiple locations that would be more desirable than the knoll on the Subject Parcel.

This parcel was vetted through the Sevier County Commission resource management committees' monthly meetings, including the Sevier County Economic Development Director. Selling this trust land parcel to allow a local business to expand was considered favorable. The economic drivers in Sevier County of concern is the SUFCO coal mine longevity, trucking, and other associated businesses that support the coal mine (the IPP coal powered generation facility is closing coal generation in 2025). Beside that concern, Sevier County has a diverse economy with slow but steady growth.

The attached spreadsheets show net present value if the Subject Parcel was: (1) held and sold at a later date at an appreciated value; (2) leased for 20 to 50 years; (3) leased for 20 to 50 years, then sold at an appreciated value; (4) used for grazing purposes under a permit for 20 to 50 years; or (5) sold under the proposed terms and the money was invested by SITFO. Please note that the spreadsheets assume the Subject Parcel could be leased or used under a grazing permit, even though the history of these lands shows those uses to be unlikely. Even with this assumption, the proposed sale is projected to give the best return to the beneficiaries.

Recommendation:

The Trust recommends the sale of the Subject Parcel for $40,000, under the terms discussed in this Memorandum.



Certificate of Sale No. 26871

Township 21 South, Range 1 West, SLB&M,
SE4SE4, Section 34;
Sevier County

State of Utah
School & Institutional
Trust Lands Administration

February 25, 2020 SITLA

Land Ownership and Administration

- Bureau of Land Management
- Bureau of Reclamation
- Bankhead-Jones Land Use Lands
- National Recreation Area
- National Parks & Historic Sites
- National Monument
- National Forest
- National Wilderness Area
- National Wildlife Refuge
- Other Federal
- Military Reservations and Corps of Engineers
- Private
- State Trust Lands
- State Sovereign Land
- State Parks and Recreation
- State Wildlife Reserve/Management Area
- Other State
- Tribal Lands

C 26871

N

User: ketestaley
Coordinate System: NAD 1983 UTM Zone 12N
Projection: Transverse Mercator

Data represented on this map is for REFERENCE USE ONLY and is not suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. SITLA provides this data in good faith and shall in no event be liable for any incorrect results, or any special, indirect or consequential damages to any party, arising out of or in connection with the use or the inability to use the data hereon.

Land parcels, lease boundaries and associated SITLA data layers may have been adjusted to allow for visual "best fit." The Surface Ownership Land Status data (if present) are maintained by SITLA to reflect current trust land status and surface ownership. Lakes, rivers, streams, highways, roads, county and state boundaries are distributed by the Utah Automated Geographic Reference Center and/or other sources as specified. Contour lines (if present) were generated from USGS 10 meter DEM.

Please Note: While SITLA seeks to verify data for accuracy and content, discrepancies may exist within the data. Acquiring the most updated SITLA ownership GIS data may require contacting the GIS staff directly 801-538-5100 or TLA-GIS@utah.gov. The SITLA GIS department welcomes your comments and concerns regarding the data and will attempt to resolve issues as they are brought to our attention.

9d

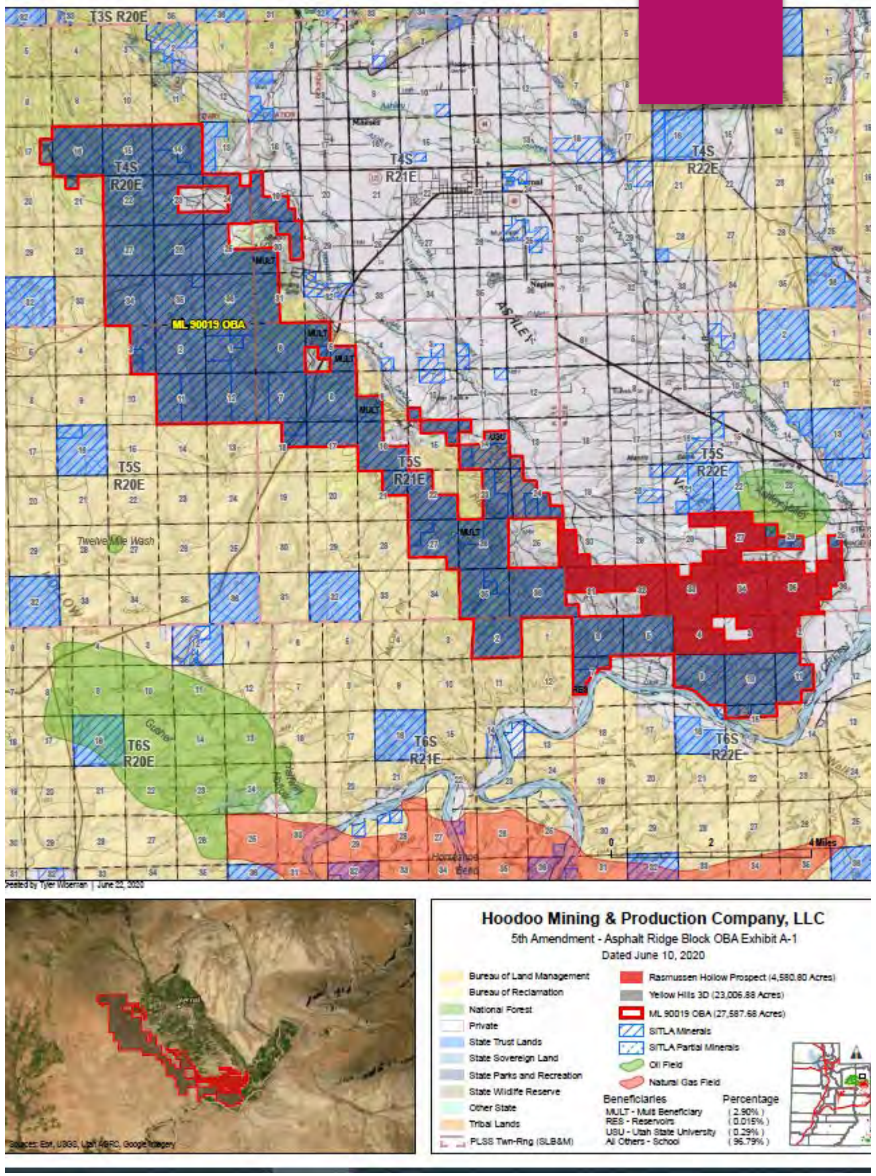
Oil & Gas Notification: Asphalt Ridge OBA – 5th Amendment

5th Amendment Asphalt Ridge OBA: Notification

WESLEY ADAMS – ASSISTANT DIRECTOR/ OIL & GAS

Review and Summary: RH Prospect

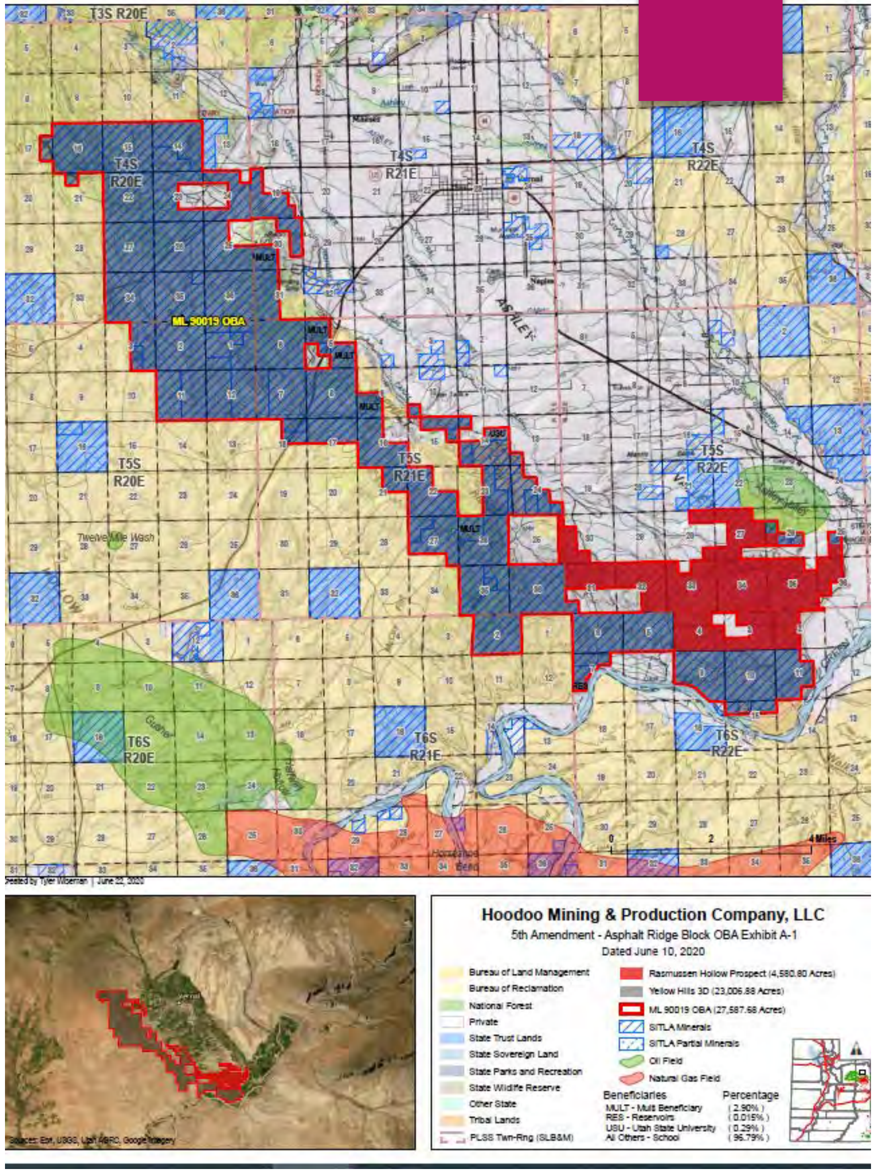
- Extending all lands to 11/1/2021 with consideration of $30,000.00. Due 9/1/2020
- Red Lands (RH Prospect) = 4,600 acres approx.,
  - Requires drilling an initial test well by 11/1/2021 – 13,000' Weber formation
  - EP Operates 85%, must drill by 12/31/2020 (Hoodoo has divorce clause)
- Option to extend earned with ITW - 5 years at $10/ acre bonus, $5/ acre rental and 17% royalty (2.5x increase on rentals)



Review and Summary: YH Prospect

- Extending all lands to 11/1/2021 with consideration of $30,000.00. Due 9/1/2020
- Blue Lands (YH Prospect) = 23,000 acres approx.,
  - Requires drilling an initial test well by 11/1/2021 – 13,000' Weber formation to extend leases until 11/1/2024
  - Must shoot seismic on 1/ 3 of lands by 11/1/2024 to earn five-year extension option at $10/ acre bonus payment, $5/ acre rentals and 17% royalty

  If Seismic is not shot, $30,000.00 penalty is due and option to extend terminates



Where are we now:

EP has vetted a location with geological potential on SITLA lands

EP has approved SITLA Easement

EP has approved DOGM APD and SITLA buy-in with onsite

EP has completed archeological and paleontological surveys

EP CEO committed to drill ITW, post creditor resolution

SITLA has comprehensive agreement to review geologic and seismic data

Closing:

- Important to not underscore the capital, time and efforts applied by Hoodoo/ EP on this OBA. Both parties have remined committed and diligent
- This project has required extreme tenacity, vision and business development. It has evolved from big picture to very near execution
- SITLA has generated $500k to date, by being a strong supporter of our hard-working partners.

Questions:

THANK YOU

BOARD MEMORANDUM

DATE: August 2, 2020

TO: Board of Trustees, Utah School & Institutional Trust Lands Administration (SITLA)

FROM: Wesley Adams, Assistant Director – Oil & Gas

RE: Asphalt Ridge OBA – 5th Amendment

LANDS PROPOSED:

See Attached Map

FUND: School 100%

APPLICANT:
Hoodoo Mining & Production Company, LLC
55 Waugh Drive, Suite 550
Houston, TX 77007

REQUIREMENT
As provided for under Utah Code Annotated 53C-2-401(1)(d)(ii), which permits the SITLA Board of Trustees to approve "Other Business Arrangements" (OBA), Hoodoo submitted a proposal to extend SITLA Oil, Gas and Associated Hydrocarbons leases pursuant of an initial test well obligation delay under an OBA on May 28, 2020.

This proposed extension was reviewed by the SITLA Board Mineral Committee on July 16, 2020 as a notification item. The committee was not opposed to the requested extension, which will be further presented to the full Board of Trustees for review.

PROPOSAL
Hoodoo has been reacting to market volatility since the 3rd Amendment of the Asphalt Ridge OBA, wherein EP Energy was brought into the OBA as drilling partner. However due to Bankruptcy filing by EP in conjunction with COVID-19 impacts to the financial markets, additional time is warranted to achieve drilling the initial test well based on a new timeline for EP to emerge from Bankruptcy. The unforeseen circumstances are being countered with a one-year extension to the current terms of the OBA, in the 5th Amendment in exchange for a bonus payment of $30,000.00

RECOMMENDATION
SITLA Oil & Gas team reviewed the Hoodoo proposal and will notify the SITLA Board of Trustees regarding the updated OBA as outlined below, and as further agreed to in writing by Hoodoo and EP via ratification:

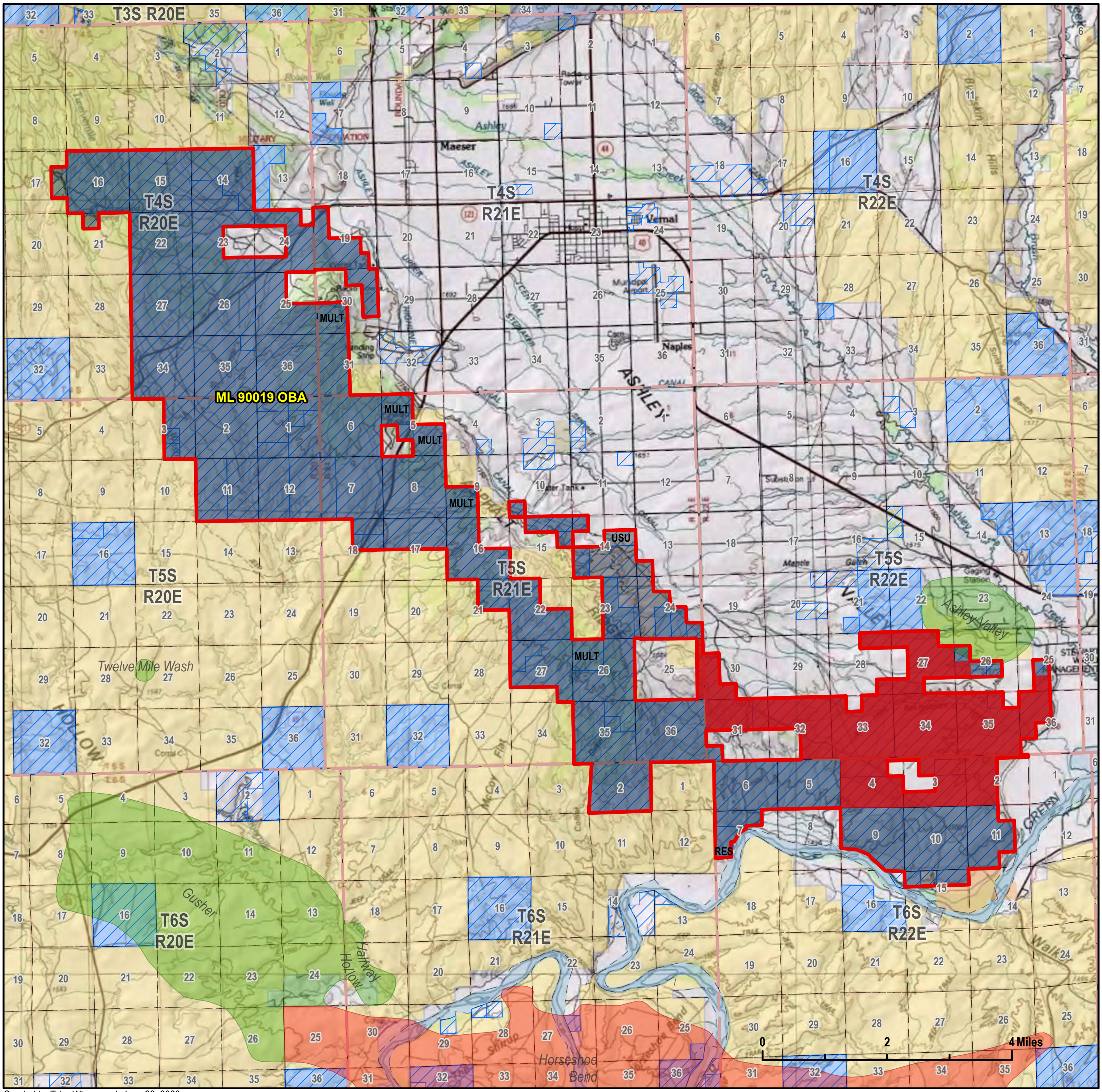
1. SITLA oil and gas leases covering RH and YH Prospects will be extended until November 1, 2021 with a $30,000.00 as consideration.

2. RH leases require a test well to be drilled by November 1, 2021 to execute a 5 year- extension option in whole or in part, covering approximately 4,600acres.

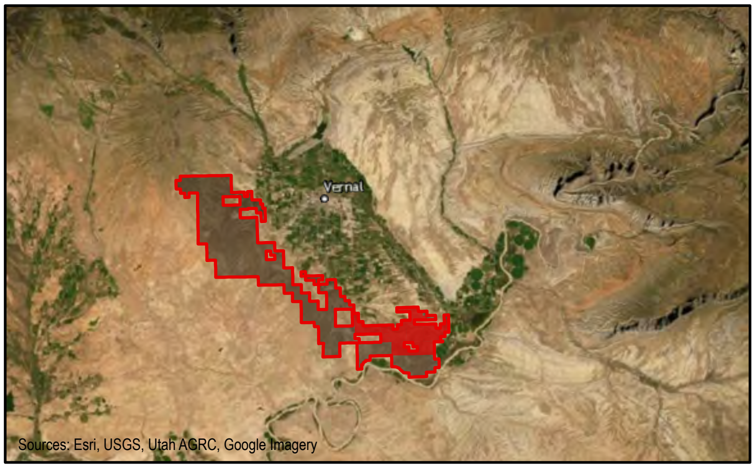
3. YH leases require the test well be drilled to earn a 3-year extension until November 1, 2024 for a seismic shoot on at least 1/3 of the leases, covering approximately 23,000 acres. If seismic is shot, as prescribed, a five year extension may be executed in whole or in part on the leases. If seismic is not shot, a penalty of $30,000.00 will be due and the five-year option will terminate.

Respectfully submitted,

Wes Adams
Assistant Director – Oil & Gas



Created by Tyler Wiseman | June 22, 2020



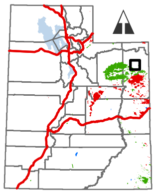
Hoodoo Mining & Production Company, LLC

5th Amendment - Asphalt Ridge Block OBA Exhibit A-1

Dated June 10, 2020

- Bureau of Land Management
- Bureau of Reclamation
- National Forest
- Private
- State Trust Lands
- State Sovereign Land
- State Parks and Recreation
- State Wildlife Reserve
- Other State
- Tribal Lands
- PLSS Twn-Rng (SLB&M)
- Rasmussen Hollow Prospect (4,580.80 Acres)
- Yellow Hills 3D (23,006.88 Acres)
- ML 90019 OBA (27,587.68 Acres)
- SITLA Minerals
- SITLA Partial Minerals
- Oil Field
- Natural Gas Field

Beneficiaries	Percentage
MULT - Multi Beneficiary	(2.90%)
RES - Reservoirs	(0.015%)
USU - Utah State University	(0.29%)
All Others - School	(96.79%)



9e

Notice of Correction:

Paradox 2.0

OBA

BOARD MEMORANDUM

DATE: August 2, 2020

TO: Board of Trustees, Utah School & Institutional Trust Lands Administration (SITLA)

FROM: Wesley Adams, Assistant Director – Oil & Gas

RE: Corrected Paradox 2.0 OBA

LANDS PROPOSED:

<u>T22S, R17E, SLB&M, Grand County, UT</u>
Sec. 16: All
Sec. 36: All

<u>T22S, R18E, SLB&M, Grand County, UT</u>
Sec. 32: All

FUND: School 100%

APPLICANT:
Rose Petroleum (Utah) LLC
10940 S Parker Rd. Suite 884
Parker, CO 80134

REQUIREMENT
As provided for under Utah Code Annotated 53C-2-401(1)(d)(ii), which permits the SITLA Board of Trustees to approve "Other Business Arrangements" (OBA), Rose submitted a proposal to extend SITLA Oil, Gas and Associated Hydrocarbons leases obligations on May 4, 2020.

This proposed extension was reviewed by the SITLA Board Mineral Committee on July 16, 2020 as a notification item. The committee was not opposed to the requested extension, which will be further presented to the full Board of Trustees for review.

PROPOSAL
Rose has been reacting to market volatility due to COVID-19 and seeks a slight modification to the Paradox 2.0 OBA by extending the bonus payment due date from May 31, 2020 until July 31, 2020 along with the effective date of the leases to August 1, 2020. No additional payment or amendment of terms is requested

RECOMMENDATION
SITLA Oil & Gas team reviewed the Rose proposal and will notify the SITLA Board of Trustees regarding the updated OBA as outlined below, and as further agreed to in writing by Rose and Rockies Standard Oil Company

1. SITLA oil and gas leases covering the captioned Paradox 2.0 OBA lands will be issued, effective September 1, 2020 with payment due August 31, 2020 ($19,200).

Respectfully submitted,

Wes Adams
Assistant Director – Oil & Gas

PREPARE 60

SECURING UTAH'S ECONOMIC FUTURE

STATEWIDE WATER INFRASTRUCTURE PLAN

2nd Edition

STATEWIDE WATER INFRASTRUCTURE PLAN

2nd Edition

PREPARE 60

SECURING UTAH'S ECONOMIC FUTURE

PREPARED BY:
Bear River Water Conservancy District
Cache Water District
Central Iron County Water Conservancy District
Central Utah Water Conservancy District
Jordan Valley Water Conservancy District
Utah Division of Water Resources
Washington County Water Conservancy District
Weber Basin Water Conservancy District

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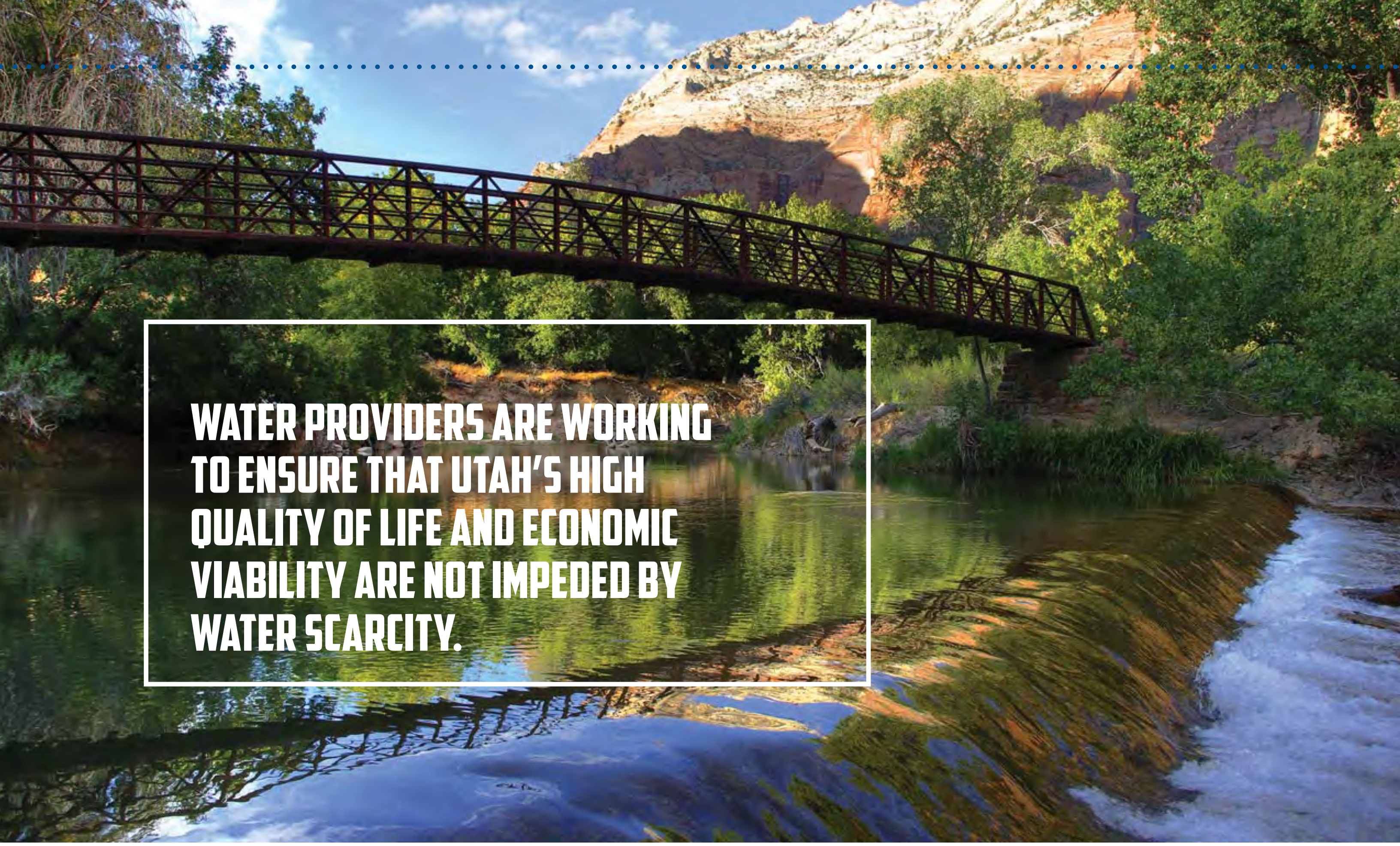


OVERVIEW

The Statewide Water Infrastructure Plan (SWIP) is an overview of the projected water supply needs, conservation efforts, and infrastructure investments necessary to serve Utah's rapidly growing population and economy. The SWIP considers the needs of cities, counties, districts and state for municipal and industrial water exclusively.

The SWIP is organized geographically by Utah's major river basins. Projected population growth, water demand, conservation and infrastructure costs are reported for each basin based on current estimates.

The contributing agencies intend for this to be a dynamic document that is updated periodically as new data is available. The 2020 version is the 2nd printed iteration.

HISTORY

In early 2013, state executive leadership met with the water managers from the four large water conservancy districts[1] to discuss planning for the six million people projected to live in Utah by 2060. Leadership wanted to make sure that Utah's high quality of life and economic viability were not impeded by water scarcity. Hundreds of hours of research were dedicated to preparing the first plan, which was presented to Governor Gary Herbert in October 2013. The SWIP has become a resource for all those tasked with planning and budgeting resources to meet anticipated water demands.

1) Utah's four large water conservancy districts deliver water to approximately 90 percent of Utah's population. The districts include Central Utah, Jordan Valley, Washington County, and Weber Basin.

ORIGIN OF DATA

A technical work group was created to prepare cost estimates for anticipated projects and conservation efforts. This group consisted of representatives from regional water supply agencies and Utah Division of Water Resources (DWRe). The American Council of Engineering Companies (ACEC) provided an independent review of the methods used by the technical group to develop the cost estimates. ACEC concurred with the methods used. Unless otherwise footnoted, data was compiled using the following methods:

- Repair and replacement costs were calculated using the extensive master plans of the contributing water conservancy districts and, when available, master plan documents of other water providers. If master plans weren't available, an annual repair or replacement cost was calculated using the book value of water system infrastructure reported in an agency's financial statements published on the Utah State Auditor's website.
- New supply and infrastructure project costs are shown as a range and were developed using master plans, impact fee reports, and engineering estimates. Costs for projects beyond an agency's current planning horizon were calculated on a cost-per-acre-foot (AF) basis using a low and high range estimate.
- "Water Conserved" is the projected volume of water saved annually by reductions in per capita water use through conservation efforts. Anticipated efforts and associated costs are summarized in each basin's water plan available on pages 6-16 of this report.
- Conservation expenses are split into two categories: costs paid by water suppliers and other agencies, and costs paid by the community, including businesses and homeowners.
- Population projections were extrapolated to river basin level, using the University of Utah's Kem C. Gardner Policy Institute 2017 estimates.
- Historic water use data was provided by individual water suppliers in annual reports submitted to Utah Division of Water Rights.
- Projected municipal and industrial water demand is based on minimum requirements to meet anticipated needs based on population projections, water use, and conservation goals, and does not include non-revenue water[1] or planning reserves.

1) Non-revenue water includes supply used for maintenance, fire flows, system loss, etc.

THE FOLLOWING ORGANIZATIONS TOOK THE LEAD ON COLLECTING THIS DATA FOR EACH RIVER BASIN:

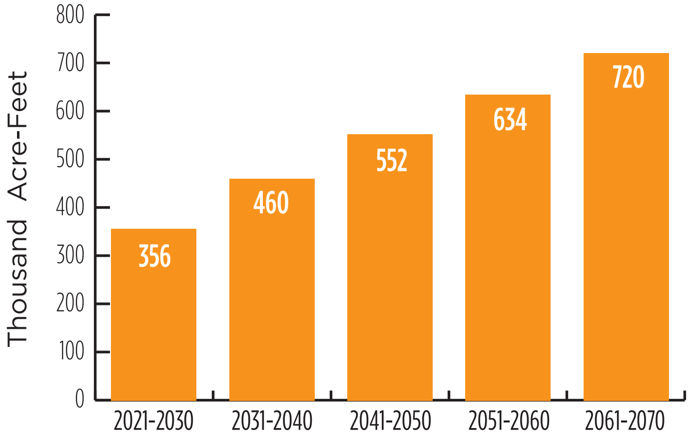
Bear River Basin	Bear River Water Conservancy District and Cache Water District
Cedar/Beaver Basin	Central Iron County Water Conservancy District
Jordan River Basin	Jordan Valley Water Conservancy District
Kanab Creek/Virgin River Basin	Washington County Water Conservancy District
Sevier River Basin	Central Utah Water Conservancy District
Southeast Colorado River Basin	Utah Division of Water Resources (DWRe)
Uinta Basin	Duchesne County Water Conservancy District, Uintah Water Conservancy District, and Central Utah Water Conservancy District
Utah Lake Basin	Central Utah Water Conservancy District
Weber River Basin	Weber Basin Water Conservancy District
West Colorado River Basin	DWRe
West Desert Basin	DWRe

WATER CONSERVATION

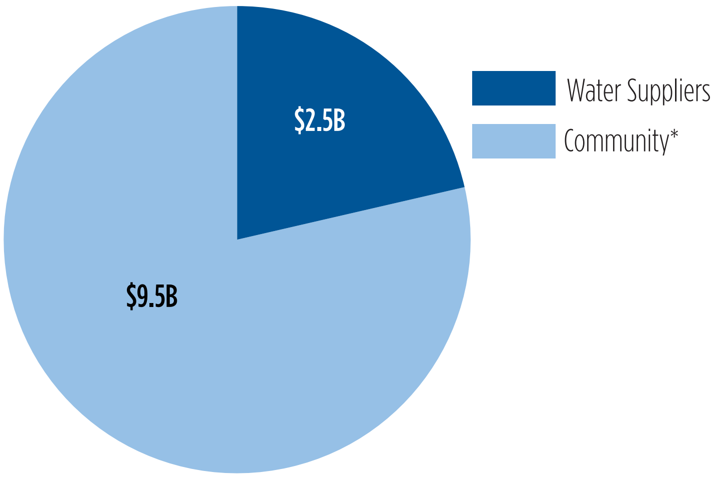
The state's four large water conservancy districts are the leaders in water conservation efforts. Collectively, they have invested hundreds of millions of dollars in recent water saving programs and projects. The result? **A nearly 20% reduction in the state's per capita water use between 2000 and 2018 despite an almost 50% increase in population.**

District leaders assert conservation efforts are as important as any major water supply project.

PROJECTED WATER CONSERVED BY DECADE (CUMULATIVE)



ESTIMATED WATER CONSERVATION COSTS THROUGH 2070



*Community investment includes costs to home and business owners for water conservation efforts, such as landscape/irrigation alterations or indoor plumbing changes.

WATER CONSERVATION is needed in Utah to ensure the resilience of water supplies against future drought, climate change, and population growth. Implementing effective conservation initiatives can be costly and often require the public to change habits and accept alternate styles of landscaping and construction.

STATEWIDE WATER INFRASTRUCTURE PLAN

To prepare for substantial population and economic growth, Utah and its municipal water providers will need to spend an estimated $38 billion on repair & replacement, conservation, and new supply projects.

ACTIONS NEEDED

Looking to the future requires more than just projections. Each river basin in Utah will need to take action in the following areas:

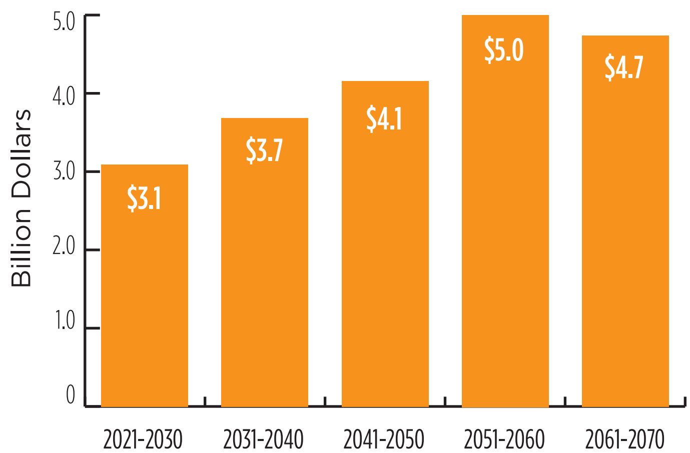
- Water conservation
- Repair and replacement of aging infrastructure
- Watershed protection
- Conversion of agricultural water as land is developed
- Water reuse projects
- Development of new infrastructure and water supplies, both local and regional

ESTIMATED STATEWIDE INFRASTRUCTURE COSTS

Below is a summary of anticipated costs. Detailed cost breakdowns for each basin are available on pages 6-16 of this report.

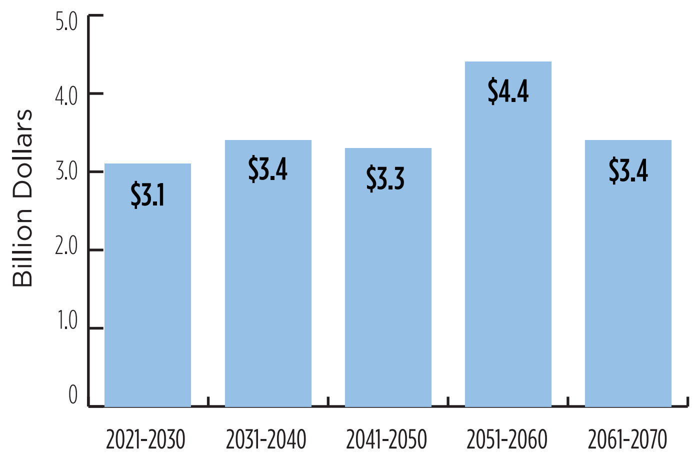
REPAIR & REPLACEMENT OF AGING INFRASTRUCTURE

$20.6 BILLION



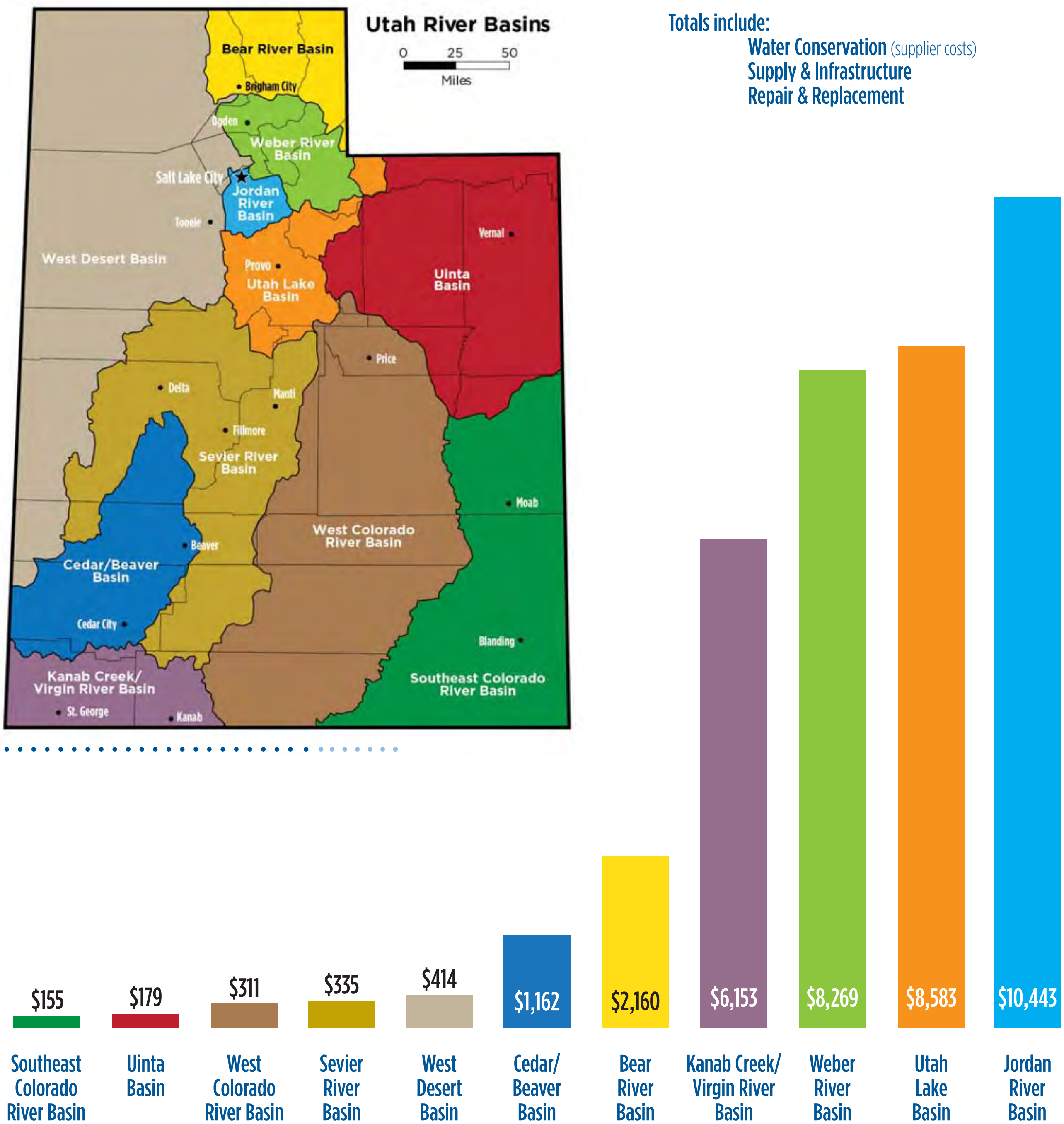
NEW INFRASTRUCTURE, WATER SUPPLIES, and WATER SUPPLIER CONSERVATION COSTS

$17.6 BILLION



Statewide cost projections by decade in billions of dollars, not including **$9.5 billion** in conservation costs paid by businesses and homeowners.

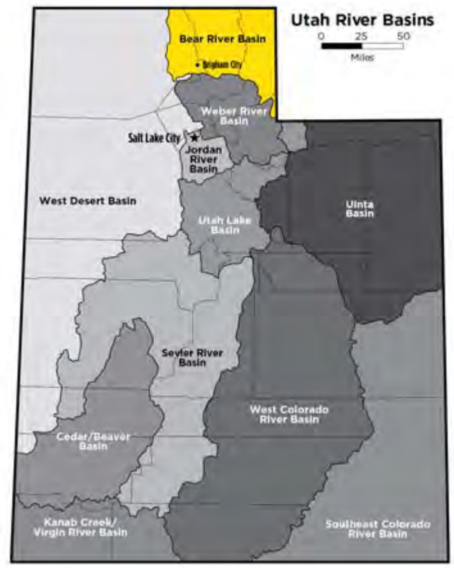
TOTAL INVESTMENT NEEDED in Millions of Dollars



Securing current and future generations' water supply =

$38 BILLION

(not including an additional $9.5B in community conservation costs)

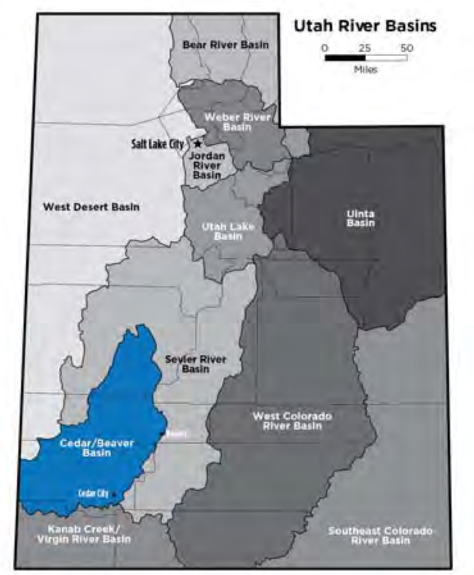


BEAR RIVER BASIN WATER PLAN

Decade	Population (ending)	M&I Water Demand[1] (AF/yr)	Water Conserved (AF/yr)	Project Costs (millions)		Water Conservation Costs[3] (millions)
				New Supply & Infrastructure[2]	Repair & Replacement	
2000	126,420	34,694	-			
2015	164,690	33,206	11,991			
2018	174,279	41,386	6,442			
2021-2030	222,437	49,583	11,461	$83.4 - $95.9	$124.1	$133.0
2031-2040	255,191	54,312	15,722	$105.1 - $122.4	$152.5	$133.0
2041-2050	281,627	57,414	19,874	$121.3 - $140.5	$162.1	$133.0
2051-2060	306,751	59,787	24,396	$112.5 - $482.3	$171.6	$133.0
2061-2070	324,342	61,036	27,975	$102.5 - $460.1	$146.9	$133.0
			TOTAL	$524.8 - $1,301.2	$757.2	$665.0

Basin Summary	
Minimum additional water development needed[4]: 19,650 AF	50-year population increase: 86%
Total investment needed: $1.9 billion to $2.7 billion	50-year water demand increase: 47%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.
1) Calculated using Utah Division of Water Rights Water Use Data Reports and assuming a further 20% reduction in per capita water usage from 2020.
2) Determined using CCWD and BRWCD master plans. High end of range includes development of the Bear River Project.
3) Calculated using costs from Utah's Regional M&I Water Conservation Goals (DWRe, 2019). Assumes that 15% of total conservation programs and 40% landscape conversion costs will be paid by the state, district, municipalities, and other water suppliers.
4) Derived by difference between 2018 and 2070.



CEDAR/BEAVER BASIN WATER PLAN

Decade	Population (ending)	M&I Water Demand[1] (AF/yr)	Water Conserved (AF/yr)	Project Costs (millions)		Water Conservation Costs[3] (millions)
				New Supply & Infrastructure[2]	Repair & Replacement	
2000	44,832	20,288	-			
2015	54,050	15,862	8,597			
2018	56,881	17,713	8,028			
2021-2030	77,732	20,113	15,063	$18.1 - $25.1	$32.3	$61.9
2031-2040	86,336	20,889	18,181	$226.1 - $337.6	$39.3	$72.7
2041-2050	93,776	22,269	20,168	$18.3 - $26.1	$75.7	$84.8
2051-2060	102,115	23,906	22,305	$171.2 - $210.4	$86.2	$99.1
2061-2070	111,736	25,658	24,907	$25.0 - $35.8	$99.0	$113.0
			TOTAL	$458.7 - $635.0	$332.5	$431.5

Basin Summary	
Minimum additional water development needed[4]: 7,945 AF	50-year population increase: 96%
Total investment needed: $1.2 billion - $1.4 billion	50-year water demand increase: 45%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.
1) Based on estimates from Utah's Regional M&I Water Conservation Goals (November 2019).
2) Master-planned large capital projects with Level 4 cost estimates.
3) Calculated using costs from Utah's Regional M&I Water Conservation Goals (DWRe, 2019). Assumes that 15% of total conservation programs and 40% landscape conversion costs will be paid by the state, district, municipalities, and other water suppliers.
4) Derived by difference between 2018 and 2070.

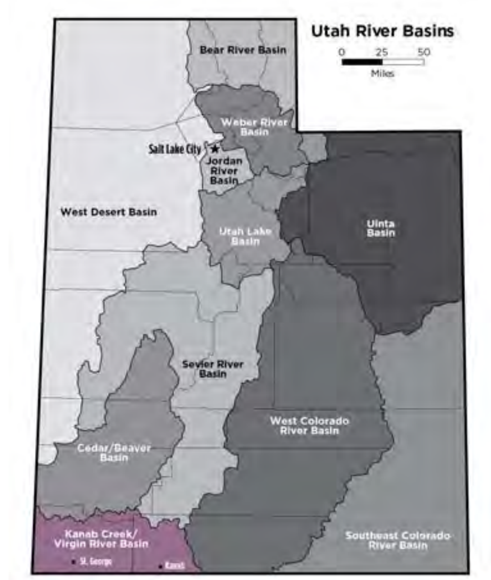
JORDAN RIVER BASIN WATER PLAN

Decade	Population (ending)	M&I Water Demand[1] (AF/yr)	Water Conserved (AF/yr)	Project Costs (millions)		Water Conservation Costs[3] (millions)
				New Supply & Infrastructure[2]	Repair & Replacement	
2000	879,850	260,000	-			
2015	1,116,060	257,271	72,509			
2018	1,244,913	274,020	85,059			
2021-2030	1,306,414	273,650	99,693	$515.3 - $772.9	$707.9	$468.2
2031-2040	1,414,842	282,099	113,956	$442.4 - $663.6	$1,023.6	$456.5
2041-2050	1,531,282	298,455	120,817	$575.5 - $863.2	$1,216.1	$219.6
2051-2060	1,648,280	315,719	126,356	$752.6 - $1,128.9	$1,778.3	$177.3
2061-2070	1,727,383	327,001	130,226	$475.8 - $713.7	$1,273.9	$123.8
			TOTAL	$2,761.6 - $4,142.3	$5,999.8	$1,445.4

Basin Summary	
Minimum additional water development needed[4]: 52,981 AF	50-year population increase: 39%
Total investment needed: $10.2 billion - $11.6 billion	50-year water demand increase: 19%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.
1) Future M&I Water Demand projections informed by the GPCD goals and projections published in the DWRe "Utah's Regional M&I Water Conservation Goals" (Nov. 2019).
2) If community level master plans were unavailable, assume costs are proportional to population growth for communities which do have master planning documents.
3) Total conservation cost estimate based on data in Table 5-1 in Utah's Regional M&I Water Conservation Goals report (DWRe, 2019). Assume 60% of the reduction in GPCD results from water efficiency improvements in new construction ($30,000/AF). Assume 15% of the reduction results from retrofit of existing landscapes @ $76,000/AF, 10% reduction results from installing meters on secondary connections @ 5,000/AF, and 10% reduction results from replacement of old indoor plumbing fixtures, etc. @ $10,000/AF and 5% reduction results from public outreach, education to water existing landscapes more efficiently without changing landscape. The weighted average total cost of conservation is $32,000/AF.
4) Derived by difference between 2018 and 2070.

KANAB CREEK/VIRGIN RIVER BASIN WATER PLAN



Decade	Population[1] (ending)	M&I Water Demand[2] (AF/yr)	Water Conserved (AF/yr)	Project Costs (millions)		Water Conservation Costs[3] (millions)
				New Supply & Infrastructure	Repair & Replacement	
2000	85,540	43,022	-			
2015	158,537	53,453	26,282			
2018	177,674	60,104	29,256			
2021-2030	256,273	81,184	47,707	\$480.0 - \$720.0	\$138.6	\$136.4
2031-2040	325,474	97,616	66,079	\$511.3 - \$766.9	\$263.5	\$136.1
2041-2050	395,673	112,352	86,649	\$519.7 - \$779.5	\$391.1	\$180.9
2051-2060	472,780	127,100	110,683	\$570.5 - \$855.8	\$527.8	\$216.4
2061-2070	554,130	141,038	137,659	\$601.9 - \$902.8	\$674.9	\$261.7
			TOTAL	\$2,683.4 - \$4,025.0	\$1,995.9	\$931.5

Basin Summary	
Minimum additional water development needed[4]: 80,934 AF	50-year population increase: 212%
Total investment needed: \$5.6 billion - \$7.0 billion	50-year water demand increase: 135%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.
1) Utah's Long-term Demographic and Economic Projections (Kem C. Gardner Policy Institute, 2017) & American Factfinder (United States Census, 2018).
2) Utah Department of Water Resources Open Water Data; 25% conservation projected by 2070.
3) Conservation cost estimate based on data in Utah's Regional Water M&I Water Conservation Goals report (DWRe, 2019) & Conservation Technical Analysis Memorandum (Maddaus Water Management, 2015). Nearly 2/3rd projected conservation is anticipated to result from implementation of robust conservation plan and 1/3rd from decreased utilization of turf in new residential development. The estimated weighted average cost for all conservation efforts is approximately \$23,800 per AF.
4) Derived by difference between 2018 and 2070.

SEVIER RIVER BASIN WATER PLAN

Decade	Population (ending)	M&I Water Demand (AF/yr)	Water Conserved (AF/yr)	Project Costs (millions)		Water Conservation Costs[2] (millions)
				New Supply & Infrastructure[1]	Repair & Replacement	
2000	47,820	20,998	-			
2015	66,928	29,838	-			
2018	69,911	32,264	-			
2021-2030	81,610	34,098	1,737	$4.9 - $8.1	$39.0	$230.1
2031-2040	89,775	34,794	4,626	$4.1 - $6.9	$39.0	$200.6
2041-2050	95,475	36,041	5,882	$7.8 - $12.9	$39.0	$87.8
2051-2060	103,385	38,679	6,717	$15.6 - $26.0	$39.0	$63.4
2061-2070	112,024	41,409	7,780	$16.9 - $28.1	$39.0	$70.2
			TOTAL	$49.3 - $82.0	$195.0	$652.1

Basin Summary	
Minimum additional water development needed[3]: 11,378 AF	50-year population increase: 60%
Total investment needed: $896 million - $929 million	50-year water demand increase: 28%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.

1) Low-range costs assume that development primarily occurs on currently irrigated land and that the water is converted from agriculture to M&I use at the same location. High-range costs assume more development on historically unirrigated land. This would necessitate greater costs to acquire and import a water supply.

2) Conservation cost estimated using an annualized conversion rate and cost data from Utah's Regional M&I Water Conservation Goals, pg. 44 for outdoor waterwise landscaping (DWRe, 2019). Total conservation of 17% assumed through 2070. Total conservation volumes were calculated based on GPCD estimates and then split between retrofit of existing landscapes and the initial landscaping for new development. Retrofit/Initial Landscaping split was based on ratio of population increase within a time period with a baseline population.

3) Derived by difference between 2018 and 2070.

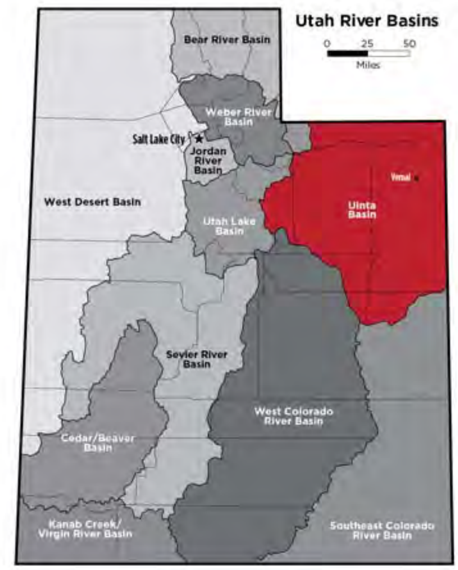
SOUTHEAST COLORADO RIVER BASIN WATER PLAN

Decade	Population (ending)	M&I Water Demand (AF/yr)	Water Conserved (AF/yr)	Project Costs (millions)		Water Conservation Costs [2] (millions)
				New Supply & Infrastructure [1]	Repair & Replacement	
2000	16,470	5,996	-			
2015	16,855	5,424	712			
2018	18,299	6,395	266			
2021-2030	21,274	6,127	1,618	$3.0 - $3.5	$20.5	$18.4
2031-2040	23,828	6,614	2,060	$0.7 - $6.8	$19.7	$20.0
2041-2050	26,024	7,201	2,273	$0.1 - $0.8	$19.3	$21.5
2051-2060	28,350	7,821	2,500	$0.2 - $6.3	$19.2	$23.0
2061-2070	30,652	8,430	2,729	$0.0 - $0.6	$19.1	$24.5
			TOTAL	$4.0 - $18.0	$97.8	$107.4

Basin Summary	
Minimum additional water development needed [3]: 2,035 AF	50-year population increase: 68%
Total investment needed: $209 million - $223 million	50-year water demand increase: 32%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.
1) Cost ranges are based on M&I projects that have been funded by the Board of Water Resources.
2) Cost data from Utah's Regional M&I Water Conservation Goals (DWRe, 2019). 30% of total existing homes in 2015 will upgrade fixtures through 2070; 100% of new homes will include waterwise fixtures. 20% of homes will upgrade sprinkler controllers. 1% of existing homes will convert to waterwise landscaping. Annualized cost used with an assumed 1/4-acre lot size.
3) Derived by difference between 2018 and 2070.

UINTA BASIN WATER PLAN



Decade	Population (ending)	M&I Water Demand (AF/yr)	Water Conserved (AF/yr)	Project Costs (millions)		Water Conservation Costs[2] (millions)
				New Supply & Infrastructure[1]	Repair & Replacement	
2000	35,780	12,986	-			
2015	59,329	17,943	3,589			
2018	61,190	22,276	-			
2021-2030	70,707	23,285	2,376	$0.9 - $1.4	$22.5	$134.7
2031-2040	77,615	23,735	4,434	$2.5 - $4.2	$22.5	$111.7
2041-2050	84,505	23,948	6,721	$1.4 - $2.3	$22.5	$124.0
2051-2060	89,982	24,190	8,467	$1.8 - $3.1	$22.5	$93.0
2061-2070	95,318	25,411	9,182	$7.1 - $11.8	$22.5	$29.8
			TOTAL	$13.7 - $22.8	$112.5	$493.2

Basin Summary	
Minimum additional water development needed[3]: 3,135 AF	50-year population increase: 56%
Total investment needed: $620 million - $629 million	50-year water demand increase: 14%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.

1) Low-range costs assume that development primarily occurs on currently irrigated land and that the water is converted from agriculture to M&I use at the same location. High-range costs assume more development on historically unirrigated land. This would necessitate greater costs to acquire and import a water supply.

2) Conservation cost estimated using an annualized conversion rate and cost data from Utah's Regional M&I Water Conservation Goals, pg. 44 for outdoor waterwise landscaping (DWRe, 2019). Total conservation of 17% assumed through 2070. Total conservation volumes were calculated based on GPCD estimates and then split between retrofit of existing landscapes and the initial landscaping for new development. Retrofit/Initial Landscaping split was based on ratio of population increase within a time period with a baseline population.

3) Derived by difference between 2018 and 2070.

UTAH LAKE BASIN WATER PLAN

Decade	Population (ending)	M&I Water Demand (AF/yr)	Water Conserved (AF/yr)	Project Costs (millions)		Water Conservation Costs[2] (millions)
				New Supply & Infrastructure[1]	Repair & Replacement	
2000	354,000	109,046	-			
2015	625,378	158,316	34,325			
2018	688,541	165,822	46,276			
2021-2030	927,931	201,647	84,193	\$213.5 - \$346.9	\$1,084.2	\$1,194.6
2031-2040	1,161,437	240,681	117,088	\$307.9 - \$500.4	\$1,084.2	\$944.0
2041-2050	1,391,312	274,291	154,288	\$268.2 - \$435.9	\$1,084.2	\$1,140.5
2051-2060	1,609,993	313,796	182,146	\$319.4 - \$519.1	\$1,084.2	\$735.8
2061-2070	1,843,549	355,187	212,699	\$335.8 - \$545.7	\$1,084.2	\$784.8
			TOTAL	\$1,444.8 - \$2,348.0	\$5,421.0	\$4,799.7

Basin Summary	
Minimum additional water development needed[3]: 189,365 AF	50-year population increase: 168%
Total investment needed: \$11.7 billion - \$12.6 billion	50-year water demand increase: 114%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.

1) Low-range costs assume that development primarily occurs on currently irrigated land and that the water is converted from agriculture to M&I use at the same location. High-range costs assume more development on historically unirrigated land. This would necessitate greater costs to acquire and import a water supply.

2) Conservation cost estimated using an annualized conversion rate and cost data from Utah's Regional M&I Water Conservation Goals, pg. 44 for outdoor waterwise landscaping (DWRe, 2019). Total conservation of 17% assumed through 2070. Total conservation volumes were calculated based on GPCD estimates and then split between retrofit of existing landscapes and the initial landscaping for new development. Retrofit/Initial Landscaping split was based on ratio of population increase within a time period with a baseline population.

3) Derived by difference between 2018 and 2070.

WEBER RIVER BASIN WATER PLAN

Decade	Population (ending)	M&I Water Demand[1] (AF/yr)	Water Conserved (AF/yr)	Project Costs (millions)		Water Conservation Costs[3] (millions)
				New Supply & Infrastructure[2]	Repair & Replacement	
2000	387,100	131,383	-			
2015	623,960	174,731	37,043			
2018	663,268	187,225	37,891			
2021-2030	766,607	182,047	78,143	$358.4 - $585.0	$840.8	$370.7
2031-2040	848,616	189,164	98,859	$245.6 - $394.0	$966.0	$403.3
2041-2050	920,575	197,986	114,461	$311.4 - $452.8	$1,072.0	$414.7
2051-2060	981,761	205,646	127,567	$440.6 - $638.8	$1,201.3	$276.5
2061-2070	1,042,280	212,486	141,268	$103.9 - $215.8	$1,309.6	$276.5
			TOTAL	$1,459.9 - $2,286.4	$5,389.7	$1,741.7

Basin Summary	
Minimum additional water development needed[4]: 25,261 AF	50-year population increase: 57%
Total investment needed: $8.6 billion to $9.4 billion	50-year water demand increase: 13%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.

1) Weber Basin Water Conservancy District's Supply and Demand Study (2017). 2018 water demand data estimated using DWRe potable water data and estimated secondary usage data calculated by WBWCD.

2) Where city master plan data was unavailable, new supply costs were calculated using current costs, either of areas with higher levels of urban density or areas with undeveloped land, and Kem C. Gardner projections for population, household, and household size, to create a range of possible supply and infrastructure costs.

3) Calculated using costs from Utah's Regional M&I Water Conservation Goals (DWRe, 2019). Assumes that, without legislation, all secondary connections will be metered by 2050. Landscape conversion costs will be borne 40% by programs administered by the State, District, municipalities, and other water suppliers.

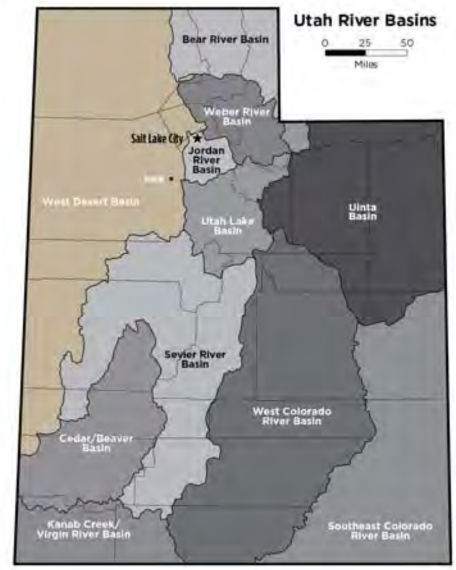
4) Derived by difference between 2018 and 2070.

WEST COLORADO RIVER BASIN WATER PLAN

Decade	Population (ending)	M&I Water Demand (AF/yr)	Water Conserved (AF/yr)	Water Project Costs (millions)		Water Conservation Costs[2] (millions)
				New Supply & Infrastructure[1]	Repair & Replacement	
2000	36,520	15,995	-			
2015	34,889	14,968	-			
2018	34,966	14,100	1,214			
2021-2030	41,355	14,464	3,649	$20.2	$34.9	$36.1
2031-2040	45,054	14,850	4,883	$25.2 - $31.2	$32.1	$38.5
2041-2050	48,328	15,923	5,244	$2.5 - $8.5	$31.6	$40.6
2051-2060	51,842	17,074	5,631	$0.4 - $6.8	$31.6	$42.9
2061-2070	55,271	18,197	6,011	$0.2 - $6.7	$31.4	$45.2
			TOTAL	$48.5 - $73.4	$161.6	$203.3

Basin Summary	
Minimum additional water development needed[3]: 4,096 AF	50-year population increase: 58%
Total investment needed: $413 million - $438 million	50-year water demand increase: 29%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.
1) Cost ranges are based on M&I projects that have been funded by the Board of Water Resources.
2) Cost data from Utah's Regional M&I Water Conservation Goals (DWRe, 2019). 30% of total existing homes in 2015 will upgrade fixtures through 2070; 100% of new homes will include waterwise fixtures. 20% of homes will upgrade sprinkler controllers. 1% of existing homes will convert to waterwise landscaping. Annualized cost used with an assumed 1/4-acre lot size.
3) Derived by difference between 2018 and 2070.



WEST DESERT BASIN WATER PLAN

Decade	Population (ending)	M&I Water Demand (AF/yr)	Water Conserved (AF/yr)	Water Project Costs (millions)		Water Conservation Costs[2] (millions)
				New Supply & Infrastructure[1]	Repair & Replacement	
2000	29,440	9,992				
2015	60,753	15,295	5,324			
2018	62,384	17,190	3,983			
2021-2030	89,344	19,633	10,691	$2.7 - $21.0	$43.4	$74.9
2031-2040	105,665	21,872	13,991	$1.6 - $21.5	$35.8	$85.4
2041-2050	116,729	23,761	15,857	$0.7 - $16.3	$33.4	$92.4
2051-2060	126,079	25,230	17,561	$0.3 - $7.9	$32.7	$98.5
2061-2070	134,872	26,526	19,250	$0.4 - $13.0	$32.4	$104.2
			TOTAL	$5.7 - $79.7	$177.7	$455.4

Basin Summary	
Minimum additional water development needed[3]: 9,336 AF	50-year population increase: 116%
Total investment needed: $638 million - $713 million	50-year water demand increase: 54%

All data in these tables are projected. See "Origin of Data" section for how data was calculated in sections not specifically footnoted. All costs are 2020 dollars.

1) Cost ranges are based on M&I projects that have been funded by the Board of Water Resources.

2) Cost data from Utah's Regional M&I Water Conservation Goals (DWRe, 2019). 30% of total existing homes in 2015 will upgrade fixtures through 2070; 100% of new homes will include waterwise fixtures. 20% of homes will upgrade sprinkler controllers. 1% of existing homes will convert to waterwise landscaping. Annualized cost used with an assumed 1/4-acre lot size.

3) Derived by difference between 2018 and 2070.

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USE IT WISELY, AND
PROVIDE FOR THE FUTURE.

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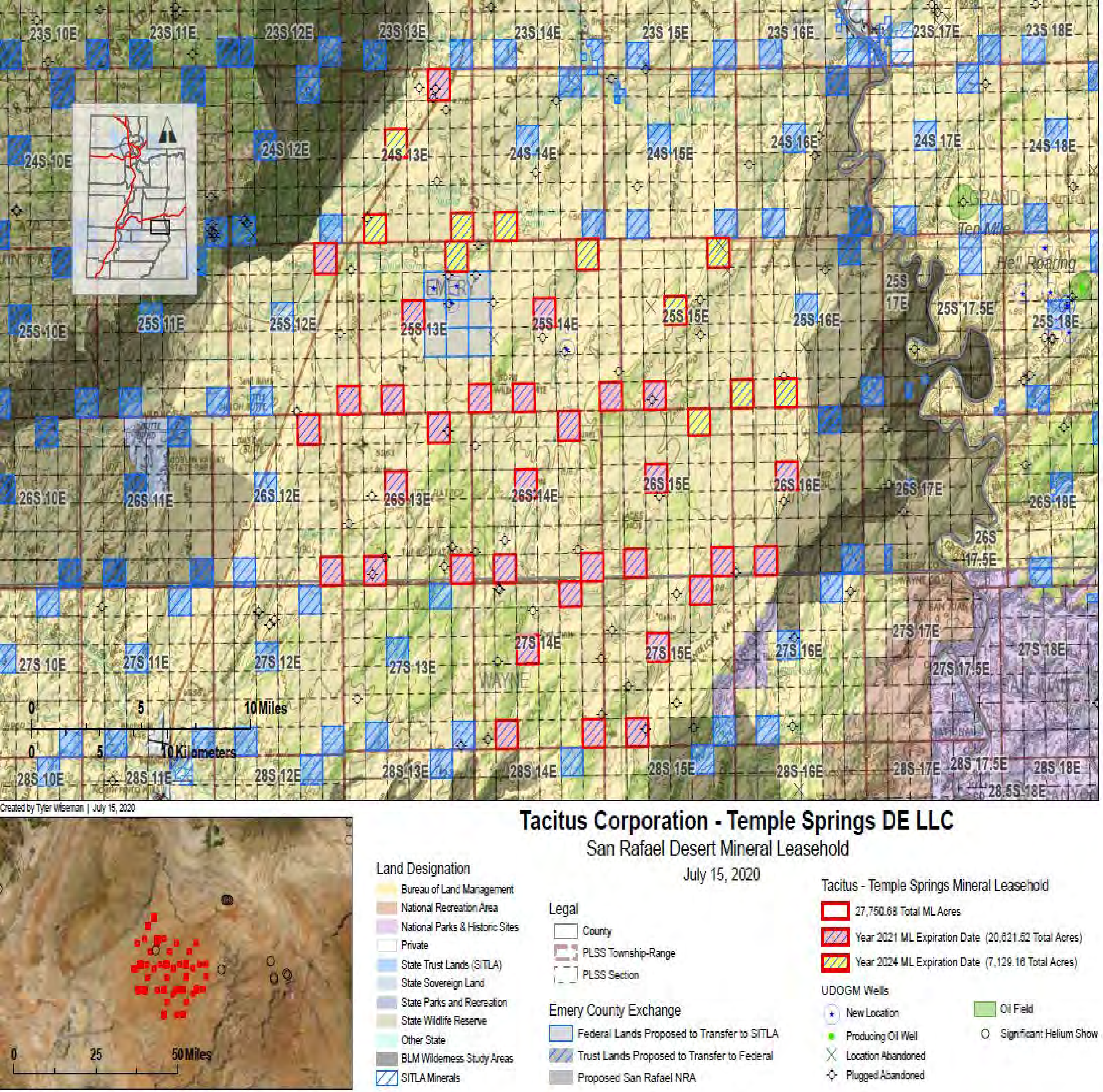
Temple Springs

Temple Springs OBA: Approval

Wesley Adams – Assistant Director/ Oil & Gas



Proposal for Helium Exploration:

- Amend Tacitus' existing SITLA leases shown below, approximately 20,600 acres under the following terms:
  1. 2-year extension, with bonus payment of $1.25/ acre plus rental of $2/ acre. Due July 1, 2021, effective August 1, 2021.
  2. Helium royalty of 14.5% on gaseous & 12 % on liquified, effective August 1, 2021.
  3. 3-year preferential extension option on 1/3 of acres at Tacitus' choosing (approx. 6,600 acres), if test well is drilled on SITLA lands within the 2-year extension ($10/ acre renewed bonus required)

- Post-Production Deductions:
  - Not allowed in any case, includes the marketing costs to third party off-taker. Must be the highest price received whether arms length or non-arms length sale to third party.
  - Natural gas volumes below the normal DOGM flare limit do not require royalty, nor does injected gas or gas used for lease operations.

- <u>BACKGROUND</u>
  - Temple Springs prospect is several years in the works, focused on a general helium trend that covers a large geologic concept. Federal lease suspensions under GHG review have caused unforeseen delays with drilling and unit formation, putting capital at risk with SITLA lease expirations.

Closing:

- Helium has been defined by the United States government as a critical mineral because of its use in hospitals (MRI), space industries and various other high-tech applications.
- Helium has a high value, selling in a private market north of $200/ mcf. There is no futures contract for helium. Scarcity issues may arise without renewed exploration. Liquified helium is worth more because of the condensing affect.
- SITLA beneficiaries have a rare opportunity to capitalize on this inert gas that is no longer managed as national reserve by the federal government.
- SITLA stands to benefit from any new science in this field that help delineate helium migration.

Questions:

Thank you

BOARD MEMORANDUM

DATE: August 2, 2020

TO: Board of Trustees, Utah School & Institutional Trust Lands Administration (SITLA)

FROM: Wesley Adams, Assistant Director – Oil & Gas

RE: Temple Springs OBA

LANDS PROPOSED:

See Attached Schedule & Map

20,621.52 Acres

FUND: School 100%

APPLICANT:
Tacitus, LLC
700 6th Ave SW. Suite 1770
Calgary Alberta, Canada T2P OT8

REQUIREMENT
As provided for under Utah Code Annotated 53C-2-401(1)(d)(ii), which permits the SITLA Board of Trustees to approve "Other Business Arrangements" (OBA), Tacitus submitted a proposal to extend SITLA Oil, Gas and Associated Hydrocarbons leases, covering Helium as well, on June 8, 2020.

This proposed Temple Springs OBA was reviewed by the SITLA Board Mineral Committee on July 16, 2020. The committee has provided a recommendation for approval before the full Board of Trustees after incorporating some more stringent hurdles aimed at reducing a land lock strategy.

PROPOSAL
Tacitus has been investing the Temple Springs Helium Prospect for several years, which includes a large federal lease position (approx. 74k acres) in addition to the SITLA lease position (approx. 28k acres). Tacitus has been proactive with United States Congress, advocating and helping with the Helium Extraction Act of 2017 approval, which allows for federal oil and gas leases to be held by helium production. Because of federal suspensions on leases being challenged with greenhouse gas emission impact under National Environmental Policy Act review, Tacitus has encountered an unforeseen delay. The delay has put capital investment at risk, along with SITLA leases (approx. 21k acres), set to expire on August 1 of 2021. Tacitus seeks a 2-year extension on the leases to provide justification for continued investment, pursuant of the delay.

RECOMMENDATION
SITLA Oil & Gas team reviewed Tacitus' proposal and recommend that the SITLA Board of Trustees grant approval to issue an OBA as outlined below and as further agreed to in writing:

1. Extend the leases shown on the attached schedule and map, for an additional two (2) years or until August 1, 2023 with a bonus payment of $1.25/ acre ($25,777.5) in addition to annual rentals of $2/ acre for the two (2) year period, due on or before July 31, 2021. All leases extended require royalty free from post-production costs on helium (14.5% gaseous or 12% liquid), whereas royalty for any natural gas sales is allowed post-production costs (16.67%). No royalty is due on flared gas under DOGM regulation limits, lease use or reinjection.

    a. ORRI is limited to the difference between 20% and existing burdens.

2. Performance Extension Option:

    a. If Tacitus chooses to drill a test well prior to expiration on any SITLA lease extended until August 1, 2023, it will earn a preferential right to renew 1/3 of the associated leases (6,654 acres approx., at its choosing) for an additional three (3) years with a bonus payment of $10/ acre and rentals of $2/ acre.

3. Unitization Clause:

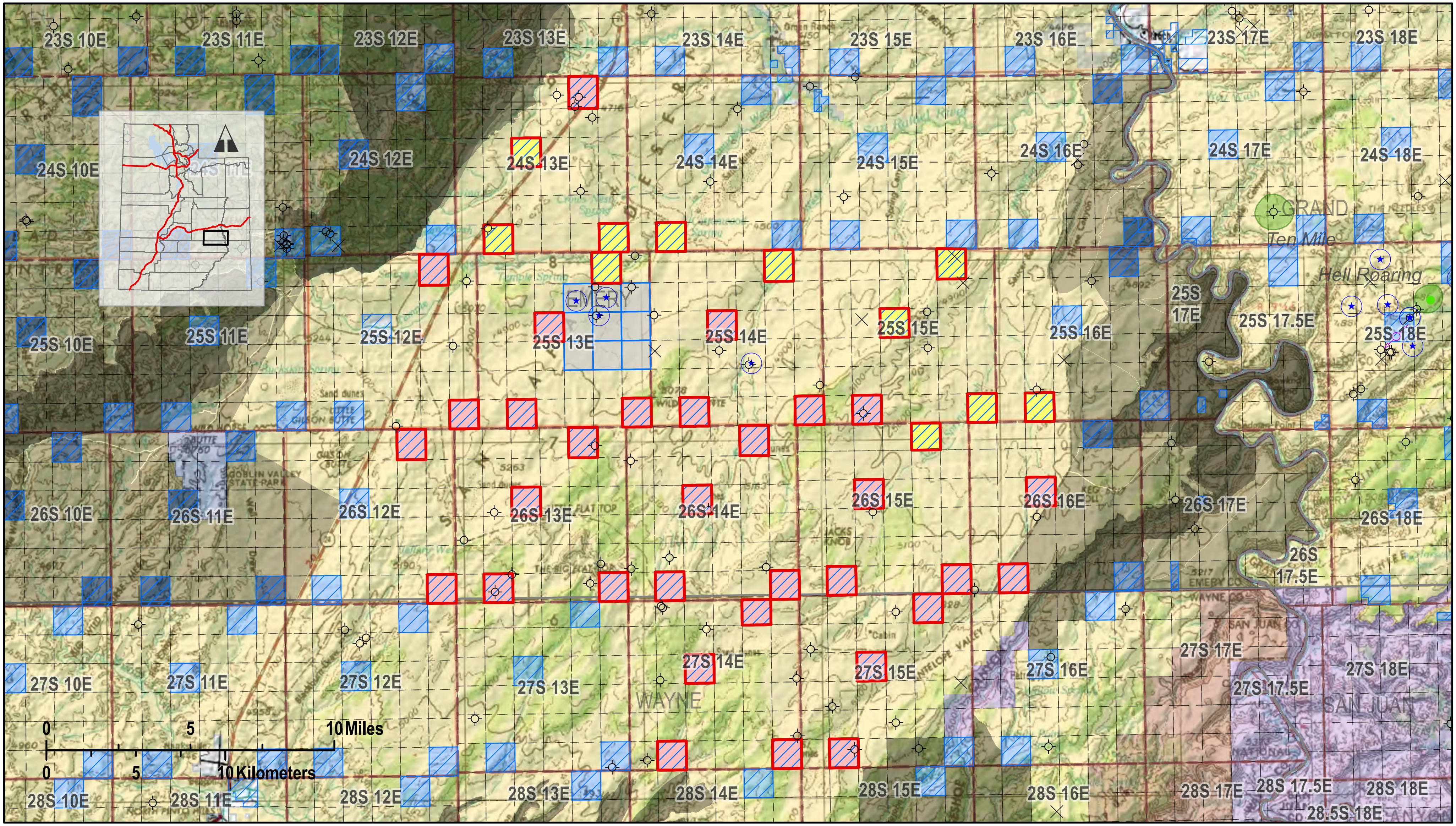
    a. Extended leases come with unitization provision providing for the ability to join a Federal Exploratory Unit.

4. Assignment Fee:

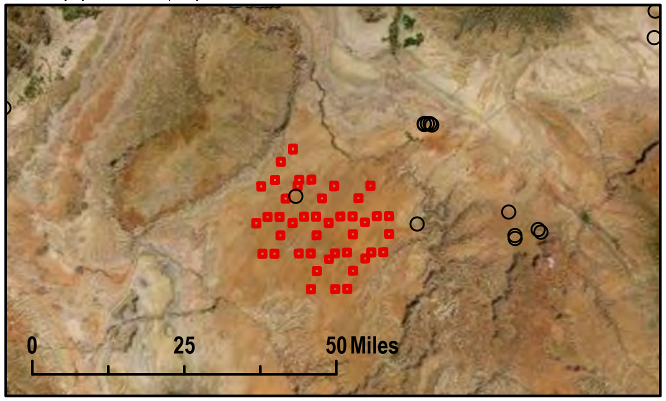
    a. Extended leases require an assignment fee equal to the annual rental for total acres being assigned or 10% of difference between $/ acre bonus paid to SITLA and $/ acre bonus paid by assignee under a purchase agreement, whichever is greater.

Respectfully submitted,

Wes Adams
Assistant Director – Oil & Gas



Created by Tyler Wiseman | July 15, 2020



Tacitus Corporation - Temple Springs DE LLC

San Rafael Desert Mineral Leasehold

July 15, 2020

Land Designation

- Bureau of Land Management
- National Recreation Area
- National Parks & Historic Sites
- Private
- State Trust Lands (SITLA)
- State Sovereign Land
- State Parks and Recreation
- State Wildlife Reserve
- Other State
- BLM Wilderness Study Areas
- SITLA Minerals

Legal

- County
- PLSS Township-Range
- PLSS Section

Emery County Exchange

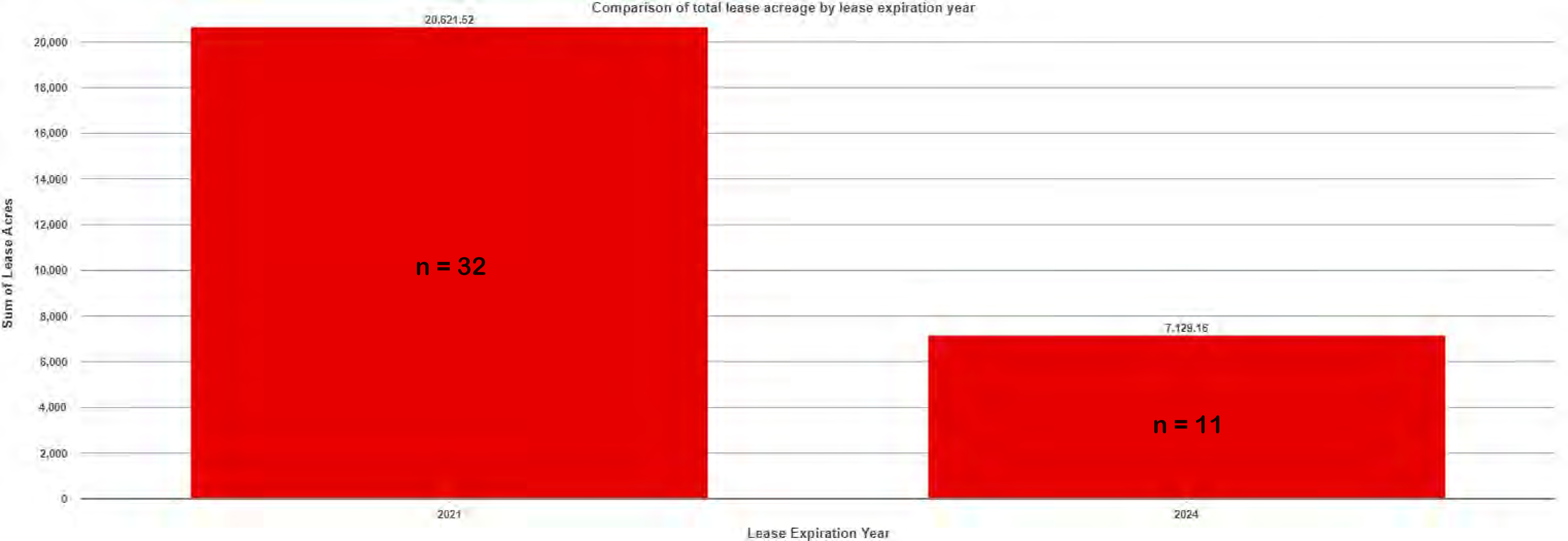
- Federal Lands Proposed to Transfer to SITLA
- Trust Lands Proposed to Transfer to Federal
- Proposed San Rafael NRA

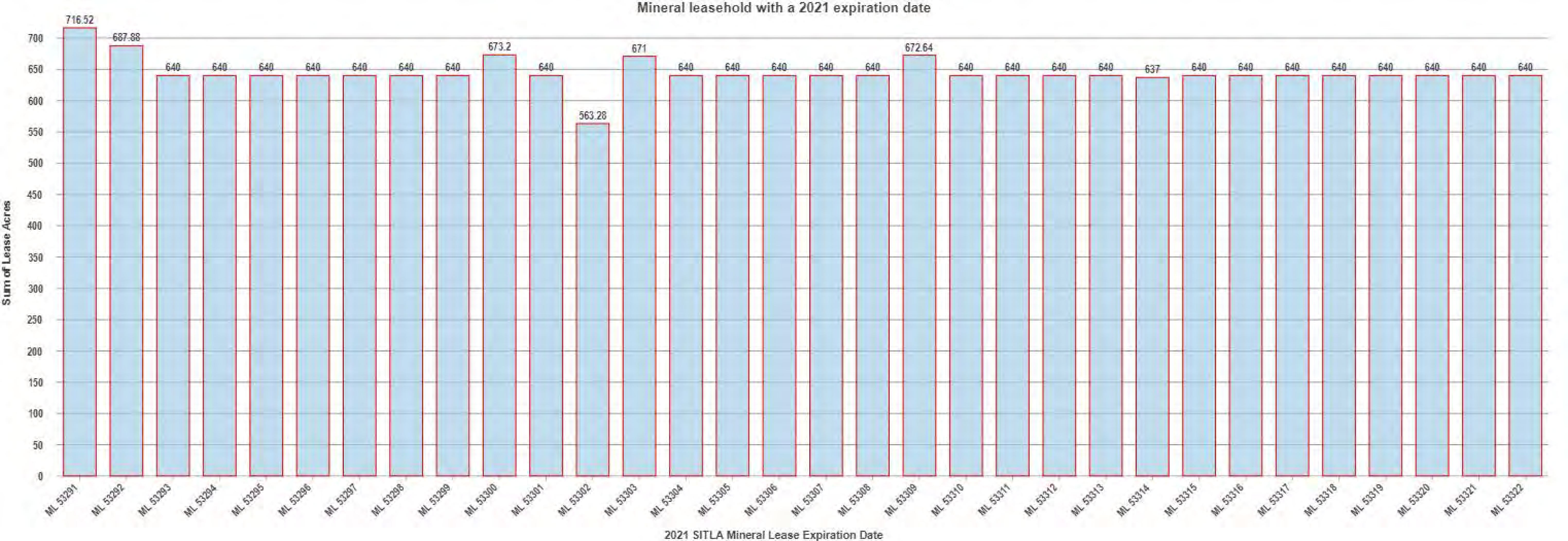
Tacitus - Temple Springs Mineral Leasehold

- 27,750.68 Total ML Acres
- Year 2021 ML Expiration Date (20,621.52 Total Acres)
- Year 2024 ML Expiration Date (7,129.16 Total Acres)

UDOGM Wells

- New Location
- Producing Oil Well
- Location Abandoned
- Plugged Abandoned
- Oil Field
- Significant Helium Show


Comparison of total lease acreage by lease expiration year
20,621.52
7,129.16
n = 32
n = 11
Sum of Lease Acres
0
2,000
4,000
6,000
8,000
10,000
12,000
14,000
16,000
18,000
20,000
2021
2024
Lease Expiration Year



Mineral leasehold with a 2021 expiration date
Sum of Lease Acres
2021 SITLA Mineral Lease Expiration Date
716.52
687.88
640
673.2
563.28
671
672.64
637
ML 53291
ML 53292
ML 53293
ML 53294
ML 53295
ML 53296
ML 53297
ML 53298
ML 53299
ML 53300
ML 53301
ML 53302
ML 53303
ML 53304
ML 53305
ML 53306
ML 53307
ML 53308
ML 53309
ML 53310
ML 53311
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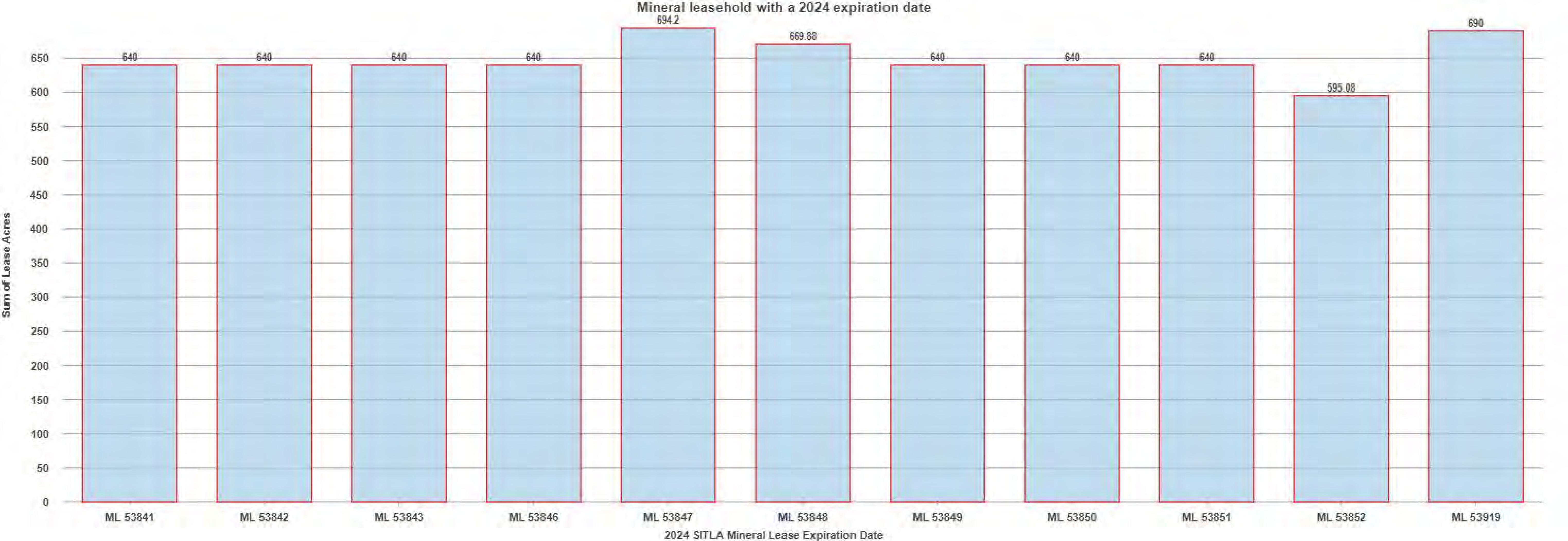
ML 53318
ML 53319
ML 53320
ML 53321
ML 53322


Mineral leasehold with a 2024 expiration date
Sum of Lease Acres
0
50
100
150
200
250
300
350
400
450
500
550
600
650
640
640
640
640
694.2
669.88
640
640
640
595.08
690
ML 53841
ML 53842
ML 53843
ML 53846
ML 53847
ML 53848
ML 53849
ML 53850
ML 53851
ML 53852
ML 53919
2024 SITLA Mineral Lease Expiration Date

11b

Hingeline OBA

Hingeline OBA: Approval

Wesley Adams – Assistant Director/ Oil & Gas

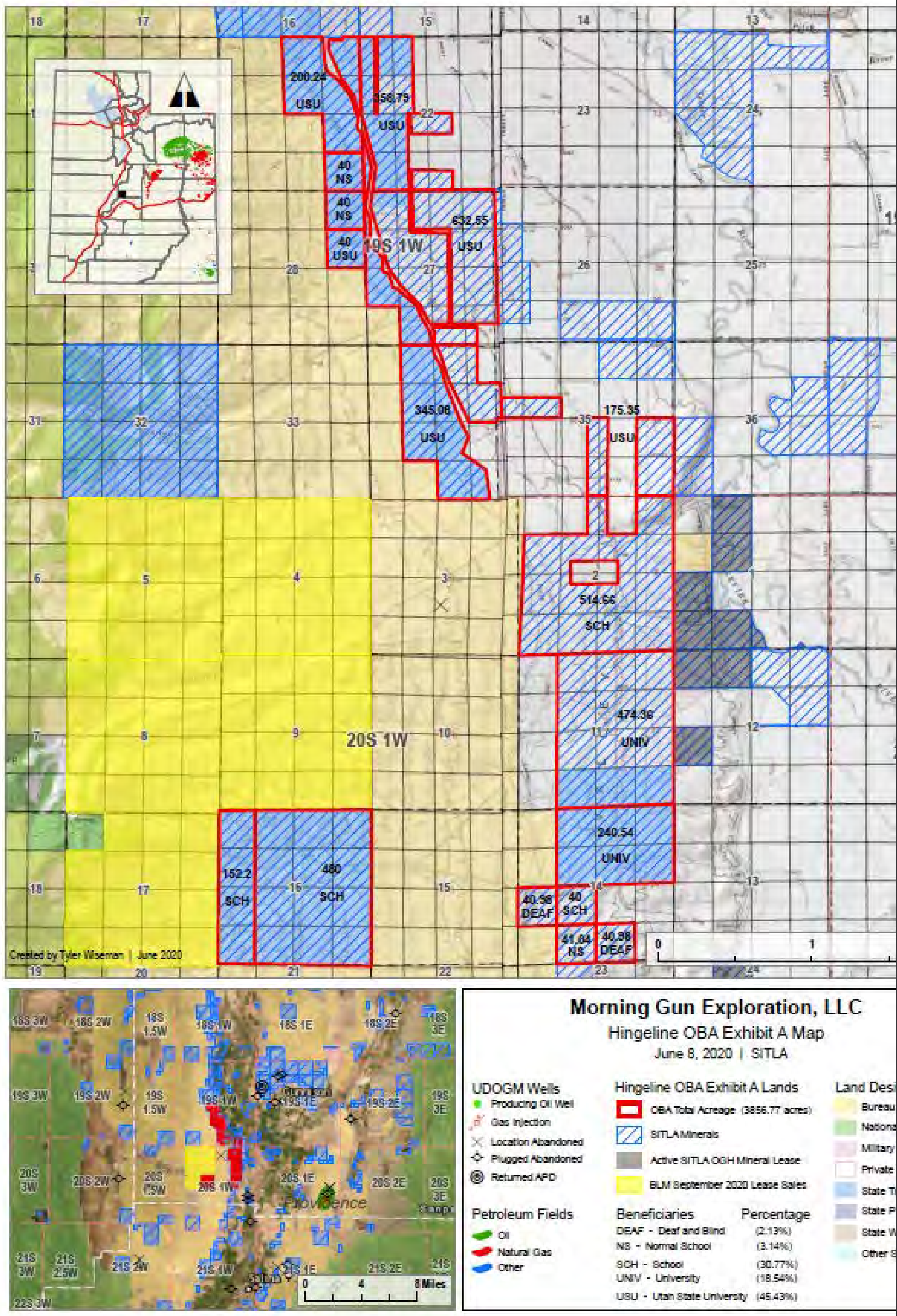
Proposal:

- Morning Gun Exploration is asking for approximately 3,900 acres for exploration of oil
  - Trustbelt concept relates to the a very radical geologic event that caused a quick shifting of formations and a sheering effect that created some traps for oil.

- $5/ acre paid up bonus, royalty of 12.5%, primary term of five-years. (no rentals during five years).

- Option to extend additional five-years with bonus payment of $15/ acre, rentals of $2/ acre IF test well is drilled during the first five years.
  - Provides the ability to unitize the lands.
  - Requires a test well on extended leases by year 3 or pay a $20,000 non-performance penalty.

- Assignment fee will be imposed on any transactions involving the OBA leases,
  - $2 per acre being assigned or 10% of the difference between price per acre paid and price per acre sold, whichever is higher.



Closing:

- SITLA is looking for ways to explore the fringe acres that Wolverine capitalized on
- 12.5% royalty attracts investment to extremene wildcat
- Scientific data will be shared with SITLA
- Vertical/ Directional wells have lower costs and lower steering risk
- High risk/ high reward

Questions:

Thank you

BOARD MEMORANDUM

DATE: August 3, 2020

TO: Board of Trustees, Utah School & Institutional Trust Lands Administration (SITLA)

FROM: Wesley Adams, Assistant Director – Oil & Gas

RE: Hingeline OBA

LANDS PROPOSED:

See Attached Map

3,856.77 Acres

FUND: School 100%

APPLICANT:
Morning Gun Exploration, LLC
1601 Arapahoe Street Box 1
Denver, CO 80202

REQUIREMENT
As provided for under Utah Code Annotated 53C-2-401(1)(d)(ii), which permits the SITLA Board of Trustees to approve "Other Business Arrangements" (OBA), Morning Gun submitted a proposal for SITLA Oil, Gas and Associated Hydrocarbons leases on April 8, 2020.

This proposed Hingeline OBA was reviewed by the SITLA Board Mineral Committee on July 16, 2020. The committee has provided a recommendation for approval before the full Board of Trustees.

PROPOSAL
Morning Gun has submitted a proposal to explore for oil on SITLA leases, predicated by the thrustbelt or hingeline concept, which has previously proved to be a very difficult sweet spot field to predict. Due to the high risk and wildcat nature of the play, Morning Gun has offered to pay $5/ acre up front for bonus consideration, royalty of 12.5% (commensurate with BLM contiguous acreage) and a primary term of 5-years, with the option to extend an additional 5- years at $15/ acre bonus payment, if a test well is drilled on SITLA lands on or before September 1, 2025. If a test well is drilled and the option period is executed, Morning Gun would like to have the option to commit lands to a SITLA Unit or Federal Unit.

RECOMMENDATION
SITLA Oil & Gas team reviewed Morning Guns' proposal and recommend that the SITLA Board of Trustees grant approval to issue an OBA as outlined below and as further agreed to in writing:

1. Issue new leases, effective September 1, 2020, with a paid-up (no rentals during primary term) bonus of $5/ acre, covering a primary term of five (5) years and royalty of 12.5%. Bonus payment is due by August 31, 2020.

2. Subject to a test will being drilled on or before September 1, 2025 (9/1/2024 notification requirement), Morning Gun will earn an option to extend the leases an additional five (5) years with a bonus payment of $15/ acre with annual rentals of $2/ acre.

    a. A test well is required in year three (3) of the extension or a $20,000.00 liquidated damages payment will be due. The lease terms will be allowed to continue if the $20,000.00 payment is made.

3. Unitization:

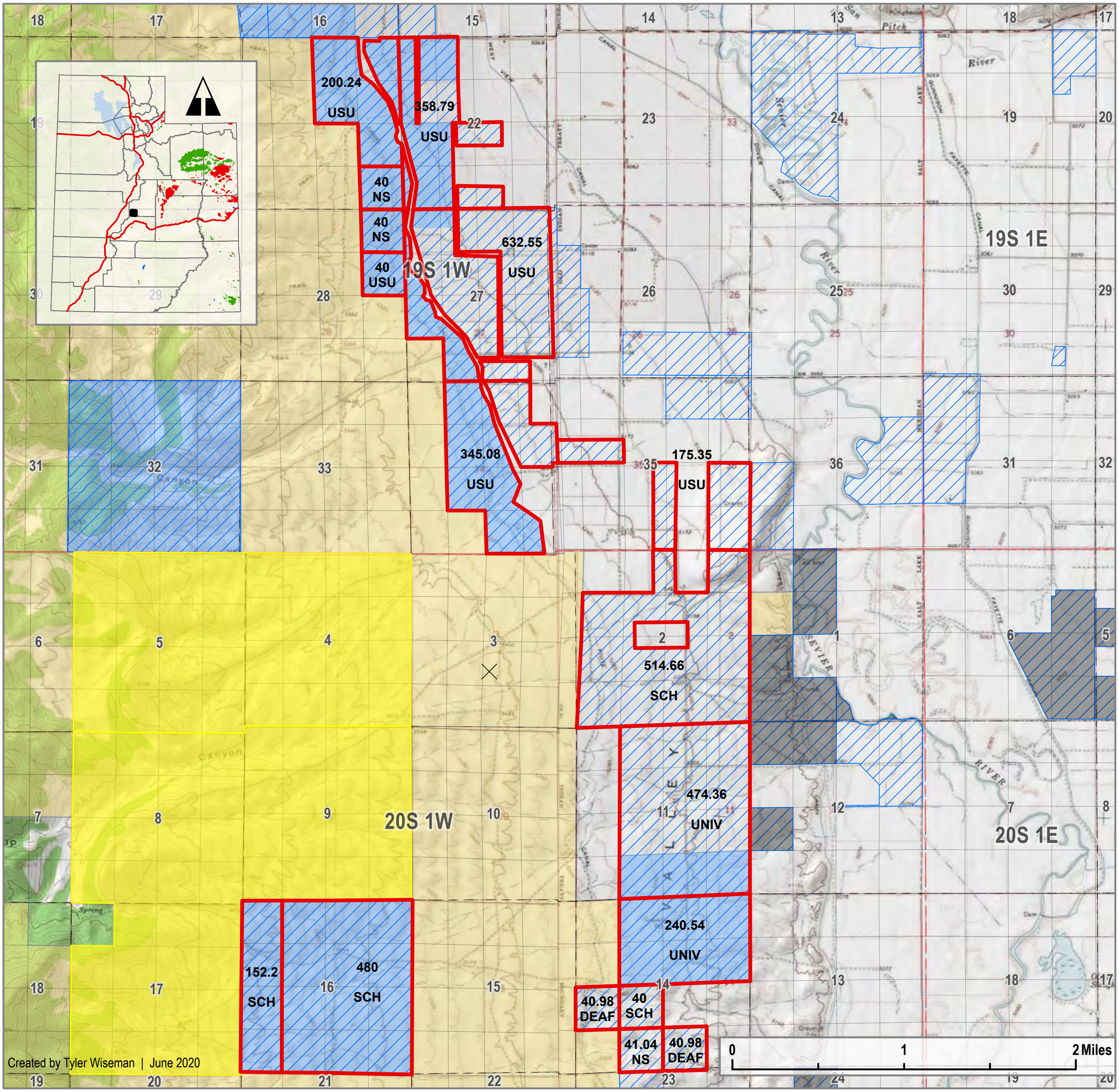
    a. The leases come with unitization provision providing for the ability to join a Federal Exploratory Unit, effective upon execution of the five (5) year option.

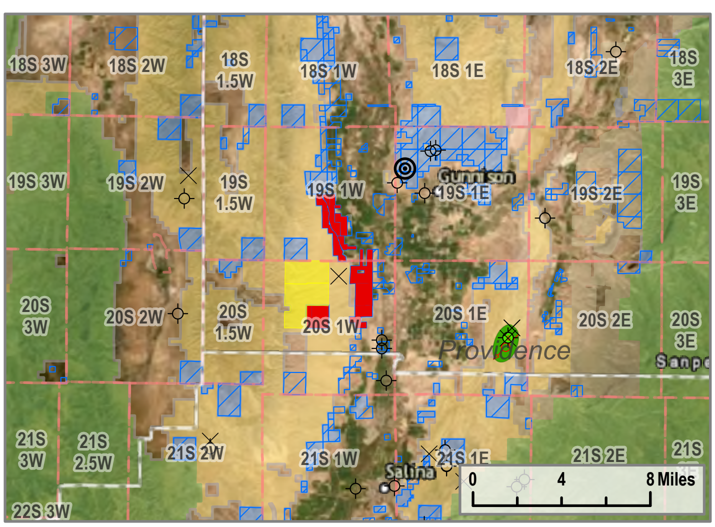
4. Assignment Fee:

    a. Extended leases require an assignment fee equal to the annual rental for total acres being assigned or 10% of difference between $/ acre bonus paid to SITLA and $/ acre bonus paid by assignee under a purchase agreement, whichever is greater.

Respectfully submitted,

Wes Adams
Assistant Director – Oil & Gas





Morning Gun Exploration, LLC

Hingeline OBA Exhibit A Map

June 8, 2020 | SITLA

UDOGM Wells

- Producing Oil Well
- Gas Injection
- Location Abandoned
- Plugged Abandoned
- Returned APD

Petroleum Fields

- Oil
- Natural Gas
- Other

Hingeline OBA Exhibit A Lands

- OBA Total Acreage (3856.77 acres)
- SITLA Minerals
- Active SITLA OGH Mineral Lease
- BLM September 2020 Lease Sales

Beneficiaries	Percentage
DEAF - Deaf and Blind	(2.13%)
NS - Normal School	(3.14%)
SCH - School	(30.77%)
UNIV - University	(18.54%)
USU - Utah State University	(45.43%)

Land Designation

- Bureau of Land Management
- National Forest
- Military Reservations
- Private
- State Trust Lands
- State Parks and Recreation
- State Wildlife Reserve
- Other State

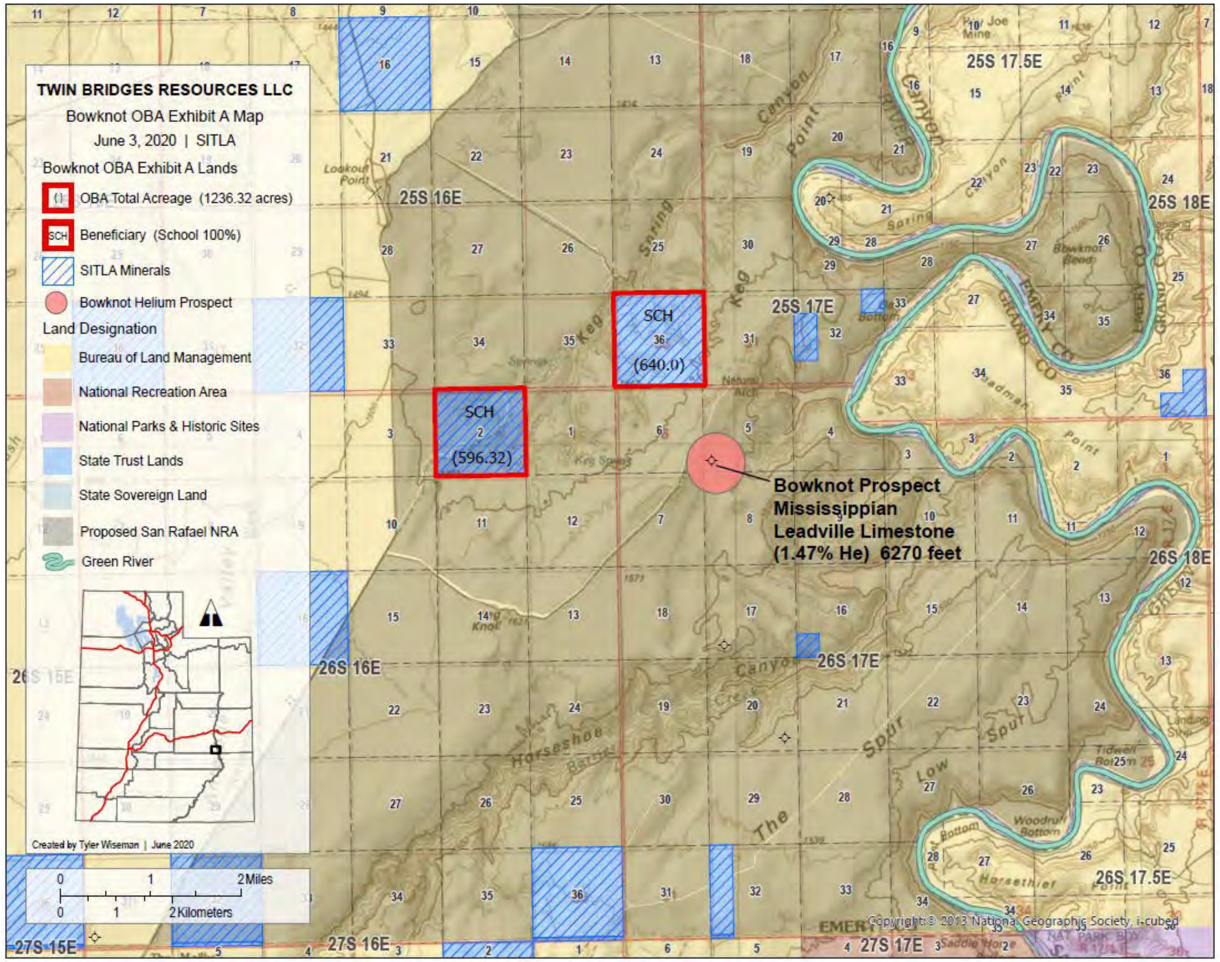
11c

Bowknot OBA

Bowknot OBA: Approval

Wesley Adams – Assistant Director/ Oil & Gas

Proposal for Helium Exploration:



- Amend Twin Bridges' existing SITLA leases in Section 36 and Section 2 under the following terms:
  1. 2-year extension, with bonus payment of $10/ acre
  2. Helium royalty of 12.5% on gaseous & 10% on liquified
  3. 3-year extension option, if test well is drilled on SITLA lands within the 2-year extension ($10/ acre renewed bonus)

- Post-Production Deductions:
  - Not allowed in any case, includes the marketing costs to third party off-taker. Must be the highest price received whether arms length or non-arms length sale to third party.
  - Natural gas volumes below the normal DOGM flare limit do not require royalty, nor does injected gas or gas used for lease operations.

- <u>BACKGROUND</u>
  - Twin Bridges controls a federal lease in Section 7, that was issued prior to recent Wilderness Area designation, which they plan to develop from a single well pad within existing access road surface disturbance, while also minimizing the visual impact with extended laterals.
  - SITLA lease inholdings predate Wilderness Area that has pending federal exchange potential.
  - Twin Bridges has informed SITLA that it is working diligently with SUWA, BLM and investment stakeholders to get this deal completed in an amicable fashion.

Closing:

- Helium has been defined by the United States government as a critical mineral because of its use in hospitals (MRI), space industries and various other high-tech applications.
- Helium has a high value, selling in a private market north of $200/ mcf. There is no futures contract for helium. Scarcity issues may arise without renewed exploration. Liquified helium is worth more because of the condensing affect.
- SITLA beneficiaries have a rare opportunity to capitalize on this inert gas that is no longer managed as national reserve by the federal government.

Questions:

Thank you

BOARD MEMORANDUM

DATE: July 22, 2020

TO: Board of Trustees, Utah School & Institutional Trust Lands Administration (SITLA)

FROM: Wesley Adams, Assistant Director – Oil & Gas

RE: Bowknot OBA

LANDS PROPOSED:

T25S, R16E, SLB&M, Grand County, UT
Sec. 36: All

T26S, R16E, SLB&M, Grand County, UT
Sec. 2: All

1,236.32 Acres

FUND: School 100%

APPLICANT:
Twin Bridges, LLC
475 17th Street, Suite 900
Denver, CO 80202

REQUIREMENT
As provided for under Utah Code Annotated 53C-2-401(1)(d)(ii), which permits the SITLA Board of Trustees to approve "Other Business Arrangements" (OBA), Twin Bridges submitted a proposal to extend SITLA Oil, Gas and Associated Hydrocarbons leases, covering Helium as well, on February 17, 2020.

This proposed Bowknot OBA was reviewed by the SITLA Board Mineral Committee on April 23, 2020 and July 16, 2020 (Section 32 was relinquished by the applicant after 4/23 meeting - 120 acres). The committee has provided a recommendation for approval before the full Board of Trustees.

PROPOSAL
Twin Bridges is proposing to drill helium wells, starting in fall of 2020, predicated by a test well drilled in 1962 which had helium shows of 1.47% and provide encouraging economic potential, rarely found worldwide. The gas stream is anticipated to be largely Nitrogen, followed by Methane, C3, CO_2, Helium and H_2S. Twin Bridges has extensive experience in producing Helium and brings execution value to this exploration project and is looking to prove up the 1.47% helium show with a test well, followed by installing necessary processing equipment to refine Grade 5 Helium. As capital outlays required over the life of the project are estimated at $149,000,000 (excluding liquefaction). Twin Bridges is looking for a competitive royalty structure commensurate with risk and reward investment hurdles that will provide

funding for the project. Twin Bridges seeks royalty rate of 12.5% to meet the terms of BLM Helium lease royalty.

RECOMMENDATION
SITLA Oil & Gas team reviewed Twin Bridges proposal and recommend that the SITLA Board of Trustees grant approval to issue an OBA as outlined below and as further agreed to in writing by Rose/ Rockies:

1. Amend and replace (ML-53420) in Section 36 of T25S-R16E, (ML-53189) in Section 2 of T26S-R16E. Two (2) new Oil, Gas and Associated Hydrocarbon Leases, effective August 1, 2020, covering 1,236.32 acres, under the current SITLA lease form, amending the terms to reflect the following royalty escalation for helium only:

    - 12.5% for gaseous helium for years 1-5
    - 10.0% for liquefied helium for years 1-5
    - 13.5% for gaseous helium after year 5
    - 11.0% for liquefied helium after year 5

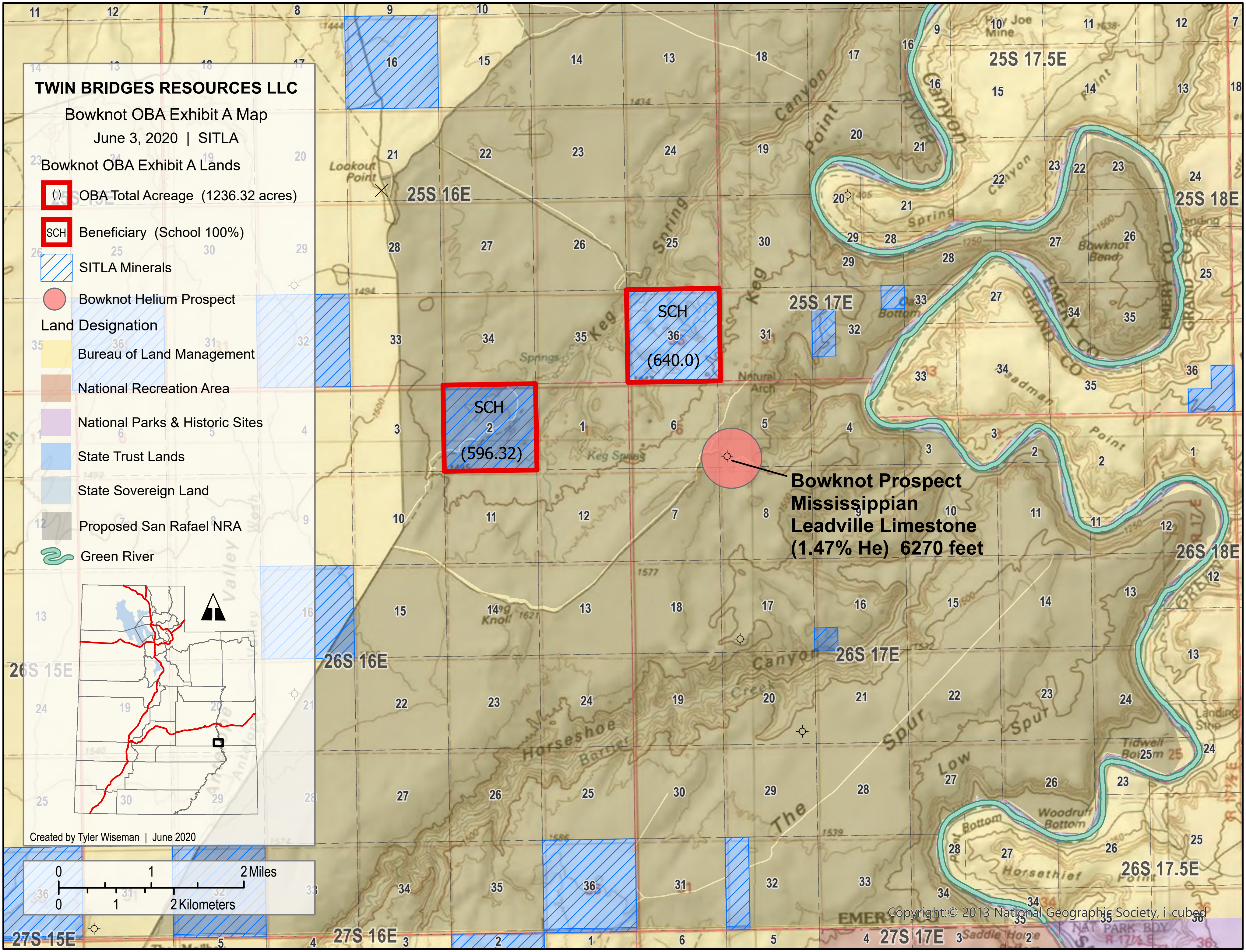
        a. No post-production costs allowed
        b. Royalty free flaring on gas if below DOGM limits, lease use or reinjected. Otherwise 16.67% on gas sales, with post-production costs allowed.

2. Overriding Royalty Interest is limited to the maximum of the difference between royalty burden and 20%.

3. As consideration for this offer, a bonus payment of $10/ acre is due by August 31, 2020. Leases will be effective August 1, 2020 and carry primary terms of two (2) years with a three year (3) option which may be exercised if a test well is drilled on one of the leases before June 1, 2022, requiring additional bonus payment of $10/ acre for the option.

Respectfully submitted,

Wes Adams
Assistant Director – Oil & Gas



TWIN BRIDGES RESOURCES LLC
Bowknot OBA Exhibit A Map
June 3, 2020 | SITLA
Bowknot OBA Exhibit A Lands
() OBA Total Acreage (1236.32 acres)
SCH Beneficiary (School 100%)
SITLA Minerals
Bowknot Helium Prospect
Land Designation
Bureau of Land Management
National Recreation Area
National Parks & Historic Sites
State Trust Lands
State Sovereign Land
Proposed San Rafael NRA
Green River
Created by Tyler Wiseman | June 2020
0 1 2 Miles
0 1 2 Kilometers
SCH
36
(640.0)
SCH
2
(596.32)
Bowknot Prospect
Mississippian
Leadville Limestone
(1.47% He) 6270 feet
25S 16E
25S 17E
25S 17.5E
25S 18E
26S 15E
26S 16E
26S 17E
26S 17.5E
26S 18E
27S 15E
27S 16E
27S 17E
Copyright:© 2013 National Geographic Society, i-cubed

11d Notification: Sienna Hills Auto Mall

Memorandum

TO: Board of Trustees, School and Institutional Trust Lands Administration

FROM: Aaron Langston, Project Manager, P&DG Utah South

DATE: July 20, 2020

RE: ***Request to move forward with 40-acre development lease for an auto mall in Sienna Hills***

BENEFICIARY: Schools

Site History

The Board approved an offer by Tri-State Funding, LLC to enter into an Agreement for a 40-acre auto-mall on the south side of I-15 at milepost 13 in May of 2020. Based on the LOI from Tri-State Funding, LLC, and the direction given by the Board of Trustees at the May 2020 Board meeting, the draft Option Agreement has the following deal points:

- The term of the Agreement is 8 years.
- Grantee is to pay an annual $5,000 lease payment.
- Take down price is $12.55 per sf for lots E, D, and I (already platted lots in parcel 9A of the Sienna Hills Shopping Center plat) and $8.50 per sf for everything else. An annual 2% escalator will be applied to all land sales. Minimum take down parcels shall be four acres.
- Grantee shall have up to 18 months to get first luxury brand manufacturer "point" awarded and to purchase the first option parcel. The second luxury brand manufacturer dealership point (and subsequent transaction) must occur within 4 years from the contract start date.
- Grantee must provide a written request to take down each parcel, showing the luxury brand manufacturer. If a subject parcel is going to be sold to a third party, Grantee must provide all infrastructure before selling it to the third party.

Intended Action

Execute the draft Option Agreement with Tri-State Funding, LLC., allowing them to move forward with the luxury brand auto-mall.

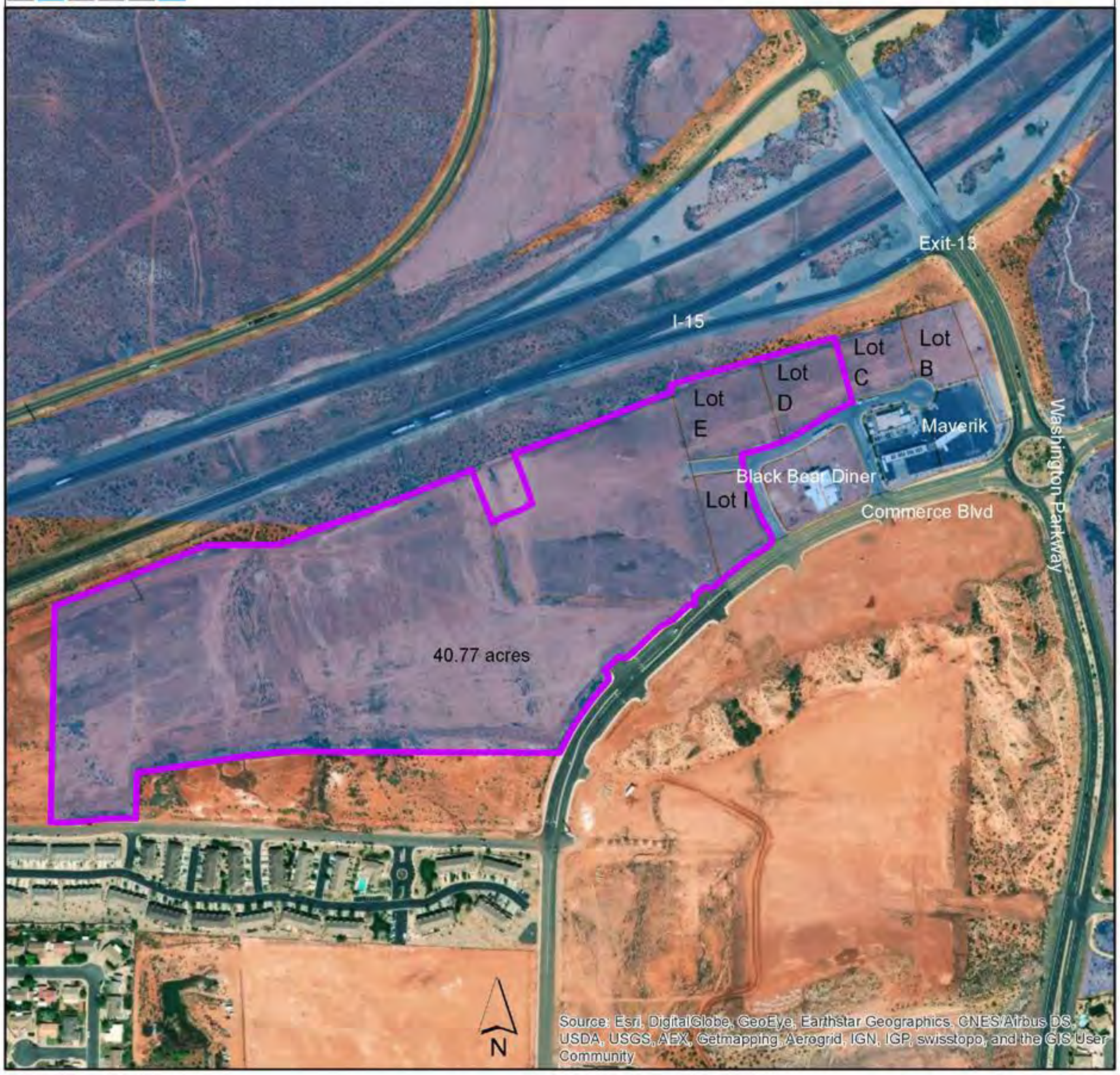
This item was discussed and vetted by the Real Estate Committee on April 27, 2020.

Exhibit A

Sienna Hills Auto Mall Site

Township 42 South Range 15 West, within Sections 12 and 11, SLB&M

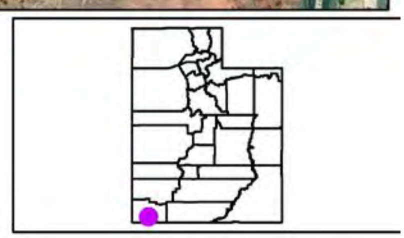
Exit-13 In Washington City, Utah



AutoMall

State Trust Lands

All Data provided by SITLA and is for references purposes only.
Map created on 10/16/2019 by Aaron Langston



MEMORANDUM

TO: **Board of Trustees; School and Institutional Trust Lands Administration**

FROM: **Troy Herold, Project Manager**

RE: **Revised Notification of Development Lease DEVL 1139 – Horseshoe Solar, LLC Skull Valley Industrial Block, Tooele County**

Date: **August 13, 2020**

Fund: **Schools**

The Real Estate Committee reviewed this Lease Revision on June 22, 2020 and recommended proceeding with the modifications.

This transaction was originally noticed to the Board at the March 15, 2018 meeting. The project includes a 75MW solar facility on approximately 600 acres of the Skull Valley Block in Tooele County. Since the original lease approval, the developer has been working diligently to see the project to fruition. Environmental studies, archaeological clearance, geotechnical, and other engineering work have been completed. The project secured a power purchase agreement (PPA) with RMP and is expected to be operational no later than October 2022.

<u>Summary</u>

Over the last several years, the solar market has seen a significant drop in power pricing for solar-generated power. In addition, the project incurred an unexpectedly large expense to tie into the nearest sub-station (north of I-80). The combination of these two factors resulted in a significant change to the project's pro-forma and revenue that was originally negotiated by staff and noticed to the Board.

Staff and the developer have worked over the last nine months to come to an equitable compromise that will allow the project to move forward based on the developer's additional capital costs while updating the existing lease to SITLA's most current lease format, which has additional guarantees to protect the Trust's assets (remediation guarantees, financing ability, etc.).

Although there is a reduction in the total projected revenue, the lease modification will allow for a revenue-generating 'best use' of the property until projected development pressures would support other alternatives.

The revised terms of the lease follow (highlighted in red):

- Lease signing bonus of $25/Acre ($42,650): Paid
- 7yr Development Phase: No change
    - $24/Acre ($40,944) for years 1-3: Years 1-2 paid, year 3 due Jan 2021; project construction starts in summer 2021.
    - $30/Acre ($51,180) for years 4~~-5:~~ Year 4 due Jan 2022; year 5 unlikely as project should be operational by Oct 2022.
    - ~~$38/Acre ($64,828) for yrs 6-7.:~~ NA –most likely not needed
- Operation Lease Years 1-25 (and extension years 26-45)
    - The greater of a) minimum annual lease payment of $270/acre for the 600 acres ($162,000) or b) $3,300/MW Capacity Fee ($247,500).
    - Both minimum annual rent and capacity fee escalate at 0.75% per year for the base term (years 1-25) and *then at 1.5% for any extensions*.

Project Financials

The original Board notification (2018) listed the Total Revenue ($19.5M) and NPV ($2.95M) based on the project proforma and assumptions, including the full 7-year Development Phase. Updating the project's proforma to today's known issues (ie: secured PPA, confirmed construction schedule, etc.) results in revised $13.9M Total Revenue and $2.81M NPV. The reduced Total Revenue reflects the reality of current solar-power pricing. Slightly offsetting that is the NPV, which is only slightly less than the original projection as the project will be operational approximately 3 years sooner.

Conclusion

Staff supports these modified lease terms, which will secure the construction and operation of the project as it has been awarded a PPA. Staff does not believe the Skull Valley Block will be impacted by other development pressures for at least 25-35 years. This project will also bring power infrastructure to the site (which adds value). It is an excellent low-impact use of this property that will have long term returns to the Trust.

Notification

As this is a Board Notification, no action is required by the Board.

Figure #1 – Area Map

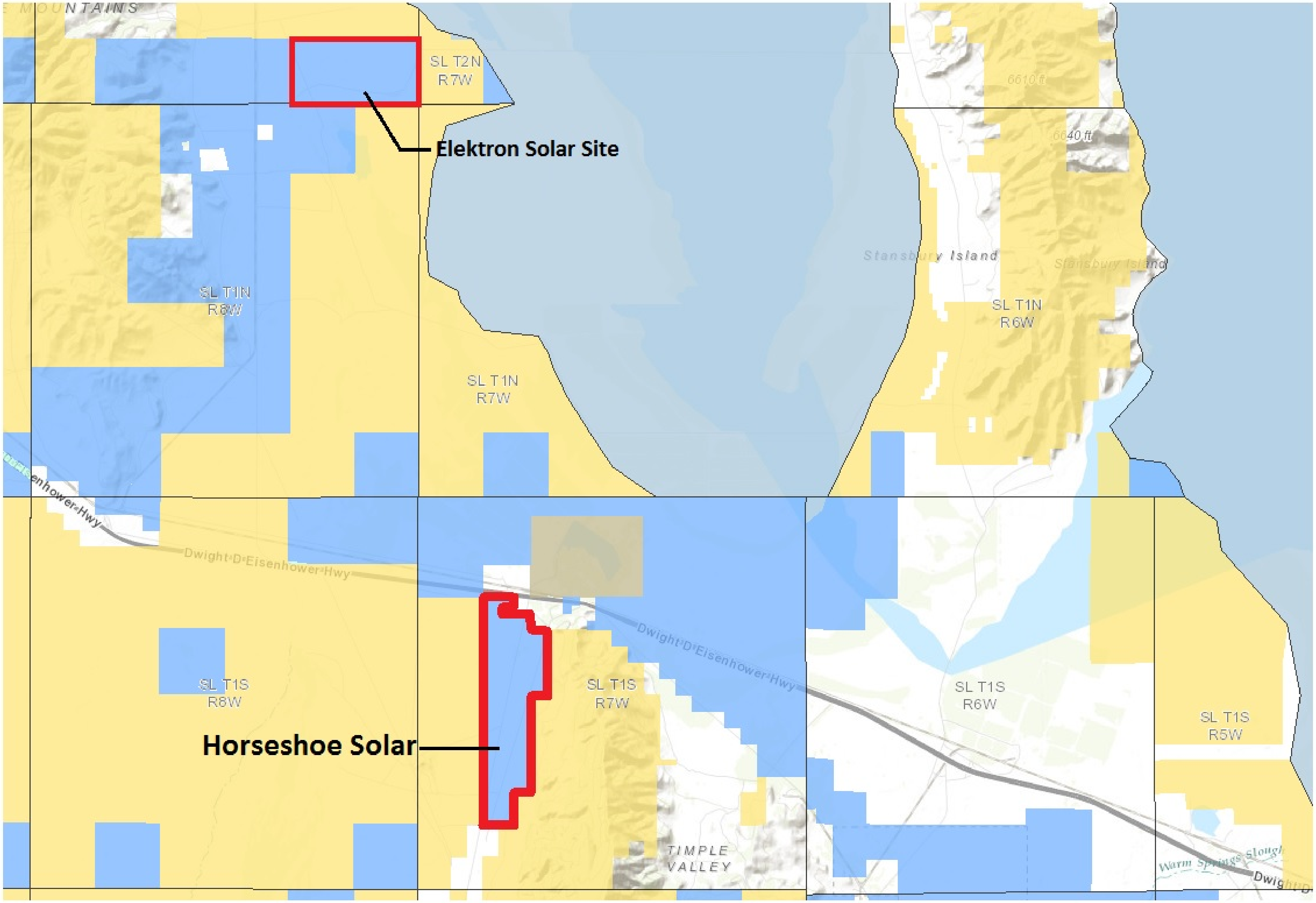
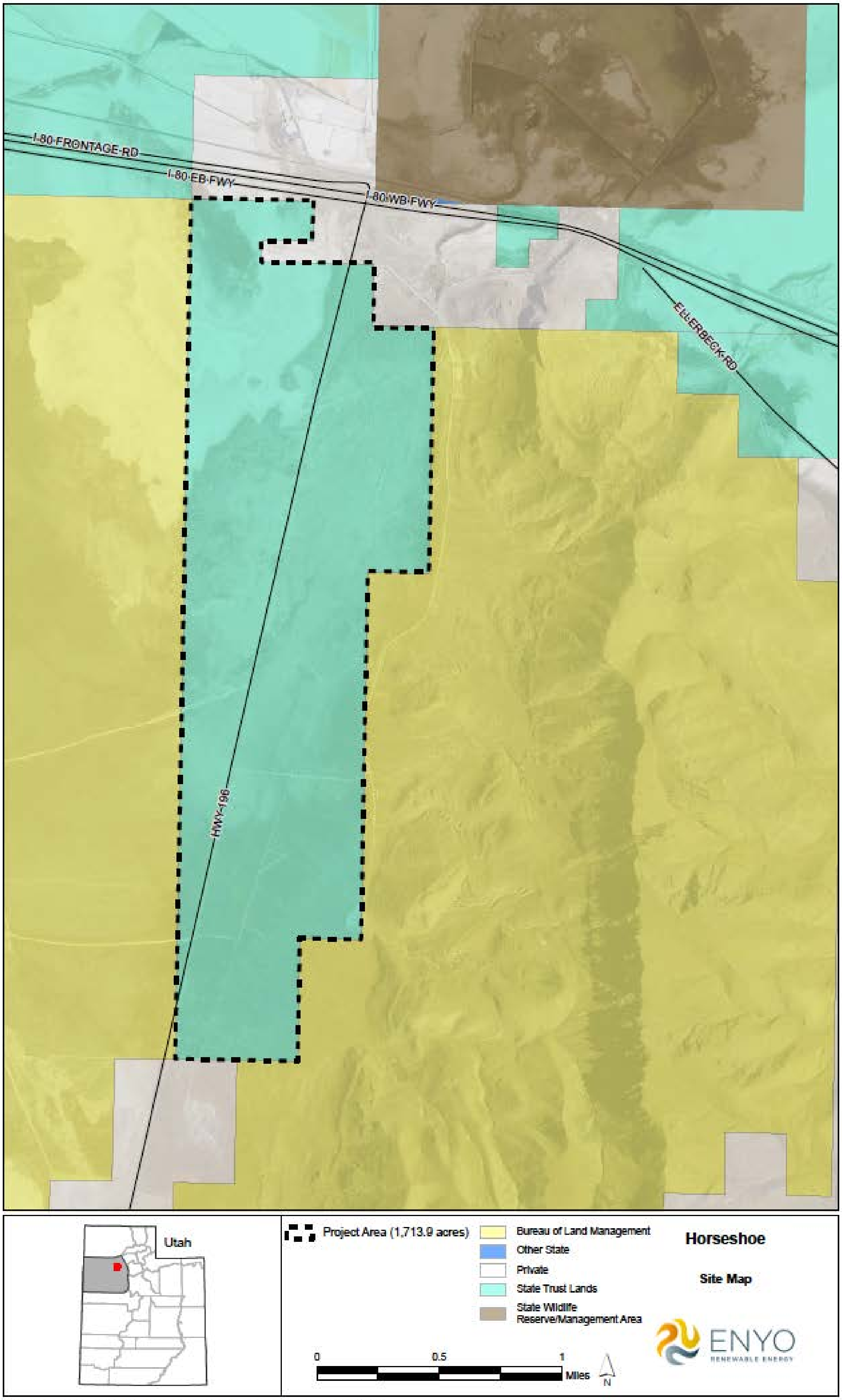
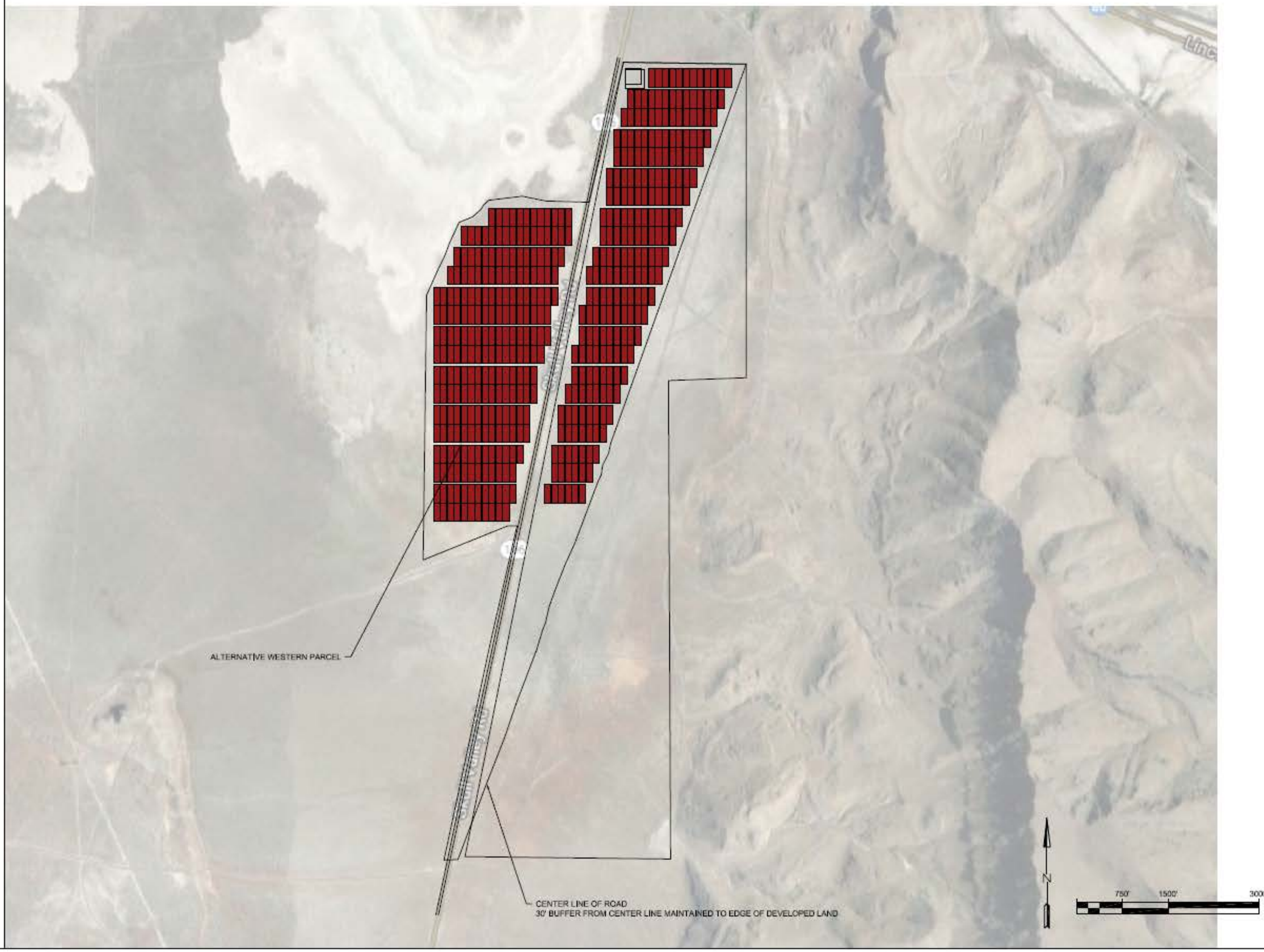


Figure #2 – 10-year Leasehold



10/6/2017 Path: C:\GIS_Projects\WW_SS_Solar_Eval\Horseshoe_Site_Map.mxd

Figure #3 – Development Leasehold



HORSESHOE SOLAR
SKULL VALLEY, UT

HORSESHOE SOLAR

40,73 N 112,64 W

Revision	Date	Description	By
A	7/24/2017	FOR REVIEW	AM
B	8/31/2017	FOR REVIEW	AM

PROJECT INFORMATION

SYSTEM SIZE (DC)	110,215 kW
SYSTEM SIZE (AC) - MAX INVERTER OUTPUT	83,970 kW
INTERCONNECTION LIMITATION	75,000 kW
SYSTEM TYPE	NEXTRACKER SPT W/ 45% GCR
AZIMUTH	0°
MODULES	(319,464) TRINA 345DD14A 345W MODULES OR EQUIV.
INVERTERS	(27) POWERELECTRONICS FREESUN FS2600CU15_600V
TOTAL SITE AREA	~550 AC

5575 DTC Parkway, Suite 200
Greenwood Village, CO 80111
Phone: 720.873.5700
Fax: 720.873.5701
Web: www.ulteig.com

Bismarck · Denver · Detroit Lakes · Fargo · Sioux Falls · St. Paul

Drawn By:	AM	Project Number:	17.01341
Checked By:	SM	Date:	07/24/2017
Approved By:	XXX	Sheets:	1 of 1

ELECTRICAL SITE PLAN

DWG # REV #

E-101