GEOMANCER

May 18, 2020

Sen. Lincoln Fillmore
Co-Chair,
Federalism Commission
320 E Capitol St
Salt Lake City, UT 84114

Rep. Keven Stratton
Co-Chair,
Federalism Commission
350 N State St #350
Salt Lake City, UT 84114

Re: Federal Land Valuation Model Agreement, Amended August 20, 2019
RFP No. COF-2018-03, November 14, 2018

Chairs Fillmore and Stratton:

From the beginning of our involvement with this Commission in 2018, this engaging project has been so much more than just a service contract. As we reach the completion of this phase of our agreement, we wanted to thank you and the Commission for the incredible opportunity to play a role in this highly important work for the State of Utah.

U.S. Senator Mike Lee has described your unanimously bipartisan initiative as “a generational opportunity” and we share in his enthusiasm and excitement for the future of our great state, in this regard.

As a local, Utah company, it has been an honor to invest our time and energies in a work that will have such a substantial, positive impact for our state. We have thoroughly enjoyed working with you and your dedicated staff and look forward to our continued association with you and this Commission.

One important item to note: While this contract is with Geomancer, AEON AI has now acquired all of Geomancer’s software and technology. As such, all of the future data and software maintenance specified in the contract, as well as any additional services that this Commission may require, will be performed by AEON AI.

In fulfillment of our agreement, we are prepared to provide login credentials, training for the users identified by the Commission, and maintenance to fulfill the contract support provision.

Having now completed the fully operational Federal Land Valuation Model (FEDERAL LAND VALUATION MODEL) for all counties within the state of Utah, please find our analysis below.

Executive Summary

In 1976, Congress committed to hold states, counties, and communities harmless from the lost property tax revenue due to the presence of non-taxable federally controlled public lands. This property tax replacement program is known as PILT, or Payment In Lieu of Taxes. Numerous federal reports indicate PILT was supposed to be paid on a "tax equivalent" basis, meaning the "[property] taxes that would have been received by these jurisdictions if the federal lands were privately owned." (Land Management Agencies Revenue Sharing Payments to States and Counties, U.S. Government Accountability Office, September 1998, page 1).

For nearly five decades however, this has not been the case. In 2019, Utah received slightly more than $40 million in PILT for more than 32 million acres of federally controlled public land in the state. As you will see in our report, the **PILT received equates to a miniscule fraction of the tax equivalent amount, despite any number of varying assumptions or scenarios**.

Until now, neither the federal government, nor the state had the technological capabilities of valuing the millions of acres of land in a timely manner. This necessitated a PILT formula that surprisingly, doesn't even take into account the value of the lands.

However, recent advances in information technology have enabled Geomancer's (now Aeon AI's www.AeonAI.com) proprietary software to process, gather, normalize, aggregate, and analyze terabytes of data from hundreds of distinct data sources. This enables the software to instantly value each unique parcel of federally controlled public land, under a wide variety of policy maker assumptions and scenarios.

A. In-Held Federally Controlled Public Lands (lands entirely within Utah city boundaries)

Entirely contained within Utah city boundaries are more than **217,000 acres of** U.S. Forest Service (USFS) and Bureau of Land Management (BLM) **in-held lands**. This amounts to **less than 7/10^{ths} of 1% (.0066) of all federally controlled public lands in Utah**.

For the purposes of this particular analysis of PILT, compared to the equivalent property tax for similar property, the federally controlled public lands inside city limits (in-held) include only Bureau of Land Management (BLM) and U.S. Forest Service (USFS) lands, and exclude military, national parks, and other federally controlled lands with congressionally designated protections.

- The federal **PILT payment** for these 217,000 in-held acres is **$505,000**.
- The **equivalent property tax** for these 217,000 acres of **raw, undeveloped federal in-held land**, under the current city zone or general plan, exceeds **$131 million a year**.
- The **potential property tax equivalent** for these 217,000 acres, **assuming** their built-out use as **low density residential**, under the current city zone and general plan, exceeds **$361 million a year**.

(We conservatively assumed the lowest built out tax rate for low density housing. The Commission and policy makers can alter this assumption to the actual neighboring use and tax rate as they deem necessary).

- The **fair market value** of the 217,000 raw, undeveloped, in held federal acres **exceeds $21 billion dollars**.
- If the federal government decided to apply these in-held lands to community planning and recovery, as it did for more than 70,000 acres in and around Las Vegas, Nevada over the past two decades (pursuant to the Southern Nevada Public Lands Management Act), the **five percent (5%) attributable to the support of Utah schools** under our Statehood Enabling Act, **exceeds $1 billion**.

B. Federally Controlled Lands Within One (1) Mile of City Boundaries (including the preceding In-Held Lands)

USFS and BLM land **within one (1) mile of city boundaries**, including the above-referenced in-held federally controlled public lands within city boundaries, **exceeds 650,000 acres**. This amounts to **less than 2% (.0197) of all federally controlled public lands in Utah**.

For purposes of this analysis of the federal PILT payments compared to the equivalent property tax for similar property, the in-held federally controlled lands include only Bureau of Land Management (BLM) and U.S. Forest Service (USFS) lands, and exclude military, national parks and other federally controlled lands with congressionally designated protections.

- The federal **PILT payment** for these 650,000 acres of federally controlled land within 1 mile of Utah city boundaries is **$1.4 million**.
- The **equivalent property tax** for these 650,000 acres of **raw, undeveloped federally controlled lands** inside of 1 mile of city boundaries, under the current city zone or general plan, **exceeds $358 million a year**.
- The **potential property tax equivalent** for these 650,000 acres, **assuming** their built-out use as **low density residential**, under the current city zone and general plan, is **nearly $1.7 billion a year**.
  (We conservatively assumed the lowest built out tax rate for low density housing. The Commission and policy makers can alter this assumption to the actual neighboring use and tax rate as they deem necessary).
- The **fair market value** of the 650,000 undeveloped federal acres is **more than $56 billion** dollars.
- If the federal government decided to apply these in-held lands inside of one (1) mile of city limits to community planning and recovery, as it did for more than 70,000 acres in and around Las Vegas, Nevada over the past two decades (pursuant to the Southern Nevada Public Lands Management Act), the **five percent (5%) attributable to the support of Utah schools,** under our statehood enabling act, **exceeds $2.8 billion**.

C. Lowest Taxable Value

The lowest tax rate for private lands throughout the state is unimproved recreational use.

- The **equivalent property tax amount** for the 32 million acres of federally controlled public lands in the state of Utah, based on unimproved recreational use, **exceeds $180 million**.
- This is four and a half times (4.5x) the 2019 federal **PILT payment,** which was just over $40 million, for all federally controlled public lands in the state.
- The tax equivalent amount for **federally controlled public lands, that are "in held"** within municipal boundaries, **and the balance at recreational use** is:
    - **$309 million** for raw lands in-held within municipalities plus the recreational value.
    - **$540 million** for low density residential entirely within municipalities plus the recreational value.
- Tax equivalent for **federally controlled lands inside one (1) mile of municipal boundaries** (including in-held federally controlled public lands) **and the balance recreational use** is:
    - **$534 million** for raw lands in and around municipalities plus the recreational value.
    - **$1.8 billion** for low density residential in and around municipalities plus the recreational value.

We assembled and analyzed hundreds of comparable sales examples of unimproved recreational lands from distinct data sources. The lowest statewide tax equivalent amount is a conservative estimate, based on comparable sales of recreational use properties statewide. With this conservative per acre value as a foundation, we extrapolated this analysis, to generate the lowest taxable value for federally controlled public lands statewide.

D. Resource Management Plan Values

The FEDERAL LAND VALUATION MODEL incorporates the Resource Management Plans for each of Utah's 29 counties. Inasmuch as any particular parcel of federal controlled public land may have a variety of natural resources on that parcel, there are hundreds of thousands of possible Resource Management Plan valuation scenarios. The Commission, Commission staff, and policy makers can run valuation proforma scenarios for each parcel of federally controlled public land for the various corresponding natural resource uses, identified in the County Resource Management Plans.

While this functionality was not originally contemplated in our agreement, we believe this dynamic resource management plan valuation ability will greatly assist you in analyzing and valuing every unique parcel of federally controlled public lands, under any variety of policymaker driven assumptions.

E. Tax Equivalent Amount for PILT

Attached hereto as **Appendix A** is a spreadsheet breakdown by county and by the valuation matrix categories set forth by the Commission chairs.

As set forth above and with the capability of adjusting any number of policy maker driven assumptions and scenarios, PILT amounts to a miniscule fraction of the tax equivalent amount, committed by Congress. A commitment which has always been intended, to offset the impact to Utah's children and communities, due to the abundance of non-taxable federally controlled public lands throughout the state.

Federal Land Valuation Model Expanded Analysis and Report

Our agreement specified the following deliverables for the Federal Land Valuation Model:

a. accurately calculate, in real time, the market value of every acre of FEDERAL LAND within a designated county in the state of Utah;
b. enable a user to manually modify VALUATION FACTORS to calculate in real time, the market value of FEDERAL LAND based on different assumptions about the presence of various VALUATION FACTORS relating to that land, that affect its market value;
c. provide technical anchors to market data to ensure the ongoing integrity of the modeling tool and to ensure that land values determined by the modeling tool are defensible and based on sound and generally accepted valuation methodologies;
d. assimilate market data and visualization of GIS data related to all FEDERAL LAND in the state of Utah and tie to land lease and commodities level market data for mineral extraction, energy production, water management, and timber management and for recreational and agricultural uses;
e. provide land valuation estimates that compare FEDERAL LAND to all available private lands and School and Institutional Trust Lands in the state of Utah;
f. allow the finished product to be tied to actual market sources and is sufficiently robust to enable valuation estimates to adjust automatically to current market conditions so that the modeling tool can be relied upon year after year on an ongoing basis; and
g. allow a user to estimate the value of FEDERAL LAND as it is currently used and to estimate changes in value due to future uses under various scenarios under private or public ownership.

As demonstrated herein, the fully functioning capability of the Federal Land Valuation Model meets and exceeds the aforementioned deliverable requirements of our agreement.

1. Background

a. Congress Agreed to Pay PILT on a Tax Equivalency Basis

The Legislature's initiative to determine the tax equivalent amount for federal Payments in Lieu of Taxes (PILT) is consistent with numerous federal analyses. Some examples include the following:

- According to the Congressional Research Service, when the federal public lands policy shifted in 1976 from one of disposal to one of retention, "Congress agreed with recommendations of the [Public Land Law Review] Commission that if these federal lands were never to become part of the local tax base, some compensation should be offered to local governments (generally counties) to make up for the presence of nontaxable land within their jurisdictions." (Congressional Research Service (CRS), PILT Somewhat Simplified, October 5, 2017, page 1).

- In a report commissioned by the BLM, the United States Forest Service concluded that "PILT held the promise of both stabilizing Federal payments to counties and improving prospects for tax equivalency." (An Analysis of PILT-Related Payments and Likely Property Tax Liability of Federal Resource Management Lands, USDA General Technical Report RMRS-GTR-36WWW, September 1999, page 1).
- The U.S. Government Accountability Office confirms that PILT was meant to "compensate counties by providing payments in lieu of taxes that would have been received by these jurisdictions if the federal lands were privately owned." (Land Management Agencies Revenue Sharing Payments to States and Counties, U.S. Government Accountability Office, September 1998, page 1).
- "[I]t is the obligation of the United States to make certain that the burden of that [federal land retention] policy is spread among all the people of the United States and is not borne only by those states and governments in whose area the lands are located. Therefore, the Federal Government should make payments to compensate state and local governments for the tax immunity of Federal lands." (A Report to the President and to the Congress by the Public Land Law Review Commission, June 1970).
- "A new statutory framework should be enacted to make public lands available for the expansion of existing communities and for the development of new cities and towns…. We believe such a measure would facilitate planning and more orderly urban growth, get public lands needed for development onto the tax rolls more quickly, return a fair value to the U.S. Treasury, and reduce the administrative cost of disposal to the Federal Government." (A Report to the President and to the Congress by the Public Land Law Review Commission, June 1970).

b. A New Era for PILT

The federal standard for tax equivalency for PILT is clear. It is also clear that, until recently, neither the federal government nor the state of Utah had the technological capabilities to assess the value of millions of acres of unique land, in a timely manner. The development of this FEDERAL LAND VALUATION MODEL ushers in a new era of data-driven determinations and discussions for tax equivalent PILT.

c. Utah Legislative History

HB 357 (2018), which was unanimously cosponsored in the House and unanimously passed in both chambers, gave rise to the Federal Land Valuation Model. The legislation provided in pertinent part:

> "The [federalism] commission shall hold a hearing regarding the impact on the state from the failure of the federal government to make payments in lieu of tax that are equivalent to the property tax revenue that the state would generate but for federally controlled land."

The enormity and complexity of this undertaking resulted in the issuance of a Request for Proposals (RFP) by the Commission, from which this Federal Land Valuation Model came to fruition.

d. Washington County Prototype

Pursuant to the RFP, we initially performed an analysis of the tax equivalent amounts for PILT for Washington County. Based on the results of this analysis, the Commission sought a valuation model for the entire state.

2. Statewide Tax Equivalent PILT Determination

a. Data Assessment, Development and Automation

Because the value of land is a function of its use, coupled with what people are able to generate on that land over time, we first researched, compiled, validated, and digitized the land use, the zoning, and general plan data for every city in Utah. This was necessary to provide the foundational use and value of neighboring federally controlled public lands. This was the most time and labor-intensive aspect of this project.

There are still a number of Utah cities and communities that do not have digitized parcel data stored in the State Geographic Information Database (SGID). This is key to anchoring use and resource data to detached parcels. We have been working closely with the Utah Automated Geographic Reference Center (AGRC) and School and Institutional Trust Lands Administration (SITLA) to resolve discrepancies or inconsistencies in parcel data and related information. They have both been very helpful. Given the sheer number of parcels and data, there will continue to be discrepancies, requiring our coordination with these organizations.

AGRC is engaged with a working group of legislators and local government leaders to help all Utah cities and communities have access to digitized and consistently updated zone and general plan data. This will help the Commission have access to regularly updated data as we maintain the FEDERAL LAND VALUATION MODEL over the maintenance period.

b. Interactive Resource Management Plan

We have also formatted and uploaded all of the county resource management plans. As an enhancement and addition to the contract requirements, we felt this added effort would be extremely helpful for the Commission and policy makers in general.

The RMP Overlay enables the Commission to analyze the resource value of distinct parcels of federally controlled public land throughout the state. This functionality opens the door for a dynamic economic impact analysis, in the event federal land use laws, regulations, or declarations jeopardize the use, value, and corresponding compensation to the state and its subdivisions.

c. Unique Federal Parcels vs. 32 Million Amorphous Acres

The Land Owner and Land Owner Type Overlays, combined with the other overlays, features, and proforma capabilities of the FEDERAL LAND VALUATION MODEL, enable the Commission to not only identify the location of federal parcels in a timely manner, but also to analyze the unique soils, flood, topography, resource characteristics, and valuation of these federal lands.

With the FEDERAL LAND VALUATION MODEL, the otherwise unfocused conversations about 32 million amorphous acres of federally controlled public land, gives way to much more deliberate and data driven discussions about the unique characteristics and specific valuation of distinct and identifiable parcels.

3. Statewide Federally Controlled Public Land Valuation Matrix

a. Matrix – Locations

In order to distill the valuation analysis for more than 32 million acres of federally controlled public land, the Commission chairs outlined a valuation matrix as a meaningful and actionable starting point. The chairs' matrix called on us, to assess the tax equivalent amounts for the following locations of federally controlled public land:

> (A) all USFS and BLM in-held lands (i.e., USFS/BLM lands entirely within city boundaries). These in-held, federally controlled public lands do not include military, national parks or other federally controlled lands with congressionally designated protections).
> (B) all USFS/BLM lands, described above, within 1 mile, inclusive of lands within the city boundaries;
> (C) all federally controlled public lands not including military, national parks, or other federally controlled lands with congressionally designated protections.

b. Matrix - Uses

For each of these locations of federally controlled public land, the chairs' matrix called on us to assess the tax equivalent amounts compared to current PILT payments for the following use types:

(i) the lowest real property tax rate in each of the respective counties;
(ii) land having similarly situated resource characteristics for the resources identified in the County Resource Management Plans;
(iii) raw (undeveloped) lands under the current city zone or general plan; and
(iv) **(the potential tax equivalent amount for)** land and improvements similar to adjacent properties under the current city zone or general plan.

c. **Assumptions**

Because land value is a direct function of land use, and because for most of the federally controlled public lands, there are any number of potential uses, we have made certain use and output assumptions. These assumptions should be reviewed by the policy makers, in order to make final determinations on assumptions and priorities, in generating final tax equivalent amounts for desired locations and desired/prioritized uses of lands.

The input and feedback of the Commission and policy makers is essential for determining and fine-tuning location and use assumptions, from which the tax equivalent amounts are derived.

(i) For lands within 1 mile of city boundaries, we made the assumption to only include USFS and BLM lands, excluding all other federally controlled public lands (military, of course, and national parks and all other federally controlled public lands with congressionally designated protections). The Commission and policy makers can adjust this assumption as they may determine.

(ii) For lands within 1 mile of city boundaries, we did not exclude any USFS/BLM lands based on the slope of the land. The Commission and policy makers may choose to adjust this assumption.

(iii) For tax equivalent amounts based on land and improvements, we made the assumption that the improvements are the lowest land and improvement tax amounts, which is low density residential, subject to tax on only 55% of the taxable value. Many of the federal in-held lands fall within commercial and industrial zones, producing in general, much higher taxable values not subject to the residential reduction. The Commission and policy makers may choose to employ any number of variations on the spectrum of "highest and best use."

(iv) For Resource Management Plan uses, there are generally several different resources associated with any given location. Before generating tax equivalent amounts for Resource Management Plan uses and locations, and thereby generating tax equivalent amounts for all federally controlled public lands, the Commission and policy makers' input on the assumptions and priorities for resource use is essential.

d. Matrix – Results

i. In-Held Federally Controlled Public Lands (lands entirely within Utah city boundaries)

Entirely contained within Utah city boundaries, are more than **217,000 acres of** U.S. Forest Service (USFS) and Bureau of Land Management (BLM) **in-held lands**. This amounts to **less than 7/10^{ths} of 1% (.0066) of all federally controlled public lands in Utah**.

For purposes of this analysis of the federal PILT payments compared to the equivalent property tax for similar property, the in-held federally controlled lands include only Bureau of Land

Management (BLM) and U.S. Forest Service (USFS) lands, and exclude military, national parks and other federally controlled lands with congressionally designated protections.

- The federal **PILT payment** for these 217,000 in held acres is **$505,000**.
- The **equivalent property tax** for these 217,000 acres of **raw, undeveloped federal in-held land**, under the current city zone or general plan, exceeds **$131 million a year**.
- The **potential property tax equivalent** for these 217,000 acres, **assuming** their built-out use as **low density residential**, under the current city zone and general plan, exceeds **$361 million a year**.
  (We conservatively assumed this lowest built out tax rate for low density housing. The commission and policy makers can alter this assumption to the actual neighboring use and tax rate as they may chose).
- The **fair market value** of the 217,000 raw, undeveloped, in-held federally controlled acres **exceeds $21 billion dollars**.
- If the federal government decided to apply these in-held lands to community planning and recovery, as it did for more than 70,000 acres in and around Las Vegas, Nevada over the past two decades (pursuant to the Southern Nevada Public Lands Management Act), the **five percent (5%) attributable to the support of Utah schools,** under our statehood enabling act, **exceeds $1 billion**.

ii. Federally Controlled Public Lands Within One (1) Mile of City Boundaries (inclusive of the preceding In-Held Federally Controlled Lands)

USFS and BLM land **within one (1) mile of city boundaries**, including the above-referenced In-Held Federally Controlled Lands within city boundaries, **exceeds 650,000 acres**. This amounts to **less than 2% (.0197) of all federally controlled public lands in Utah**.

For purposes of this analysis of the federal PILT payments compared to the equivalent property tax for similar property, federally controlled public lands in-held within city boundaries and within 1 mile thereof, include only BLM and USFS lands, and exclude military, national parks and other federally controlled lands with congressionally designated protections.

- The federal **PILT payment** for these 650,000 acres of federally controlled land within 1 mile of Utah city boundaries is **$1.4 million**.
- The **equivalent property tax** for these 650,000 acres of **raw, undeveloped federally controlled lands** inside of 1 mile of city boundaries, under the current city zone or general plan, **exceeds $358 million a year**.
- The **potential property tax equivalent** for these 650,000 acres, **assuming** their built-out use as **low density residential**, under the current city zone and general plan, is **nearly $1.7 billion a year**.
  (We conservatively assumed this lowest built out tax rate for low density housing. The commission and policy makers can alter this assumption to the actual neighboring use and tax rate as they may chose).

- The **fair market value** of the 650,000 undeveloped federal acres is **more than $56 billion** dollars.

If the federal government decided to apply these in-held lands to community planning and recovery, as it did for more than 70,000 acres in and around Las Vegas, Nevada over the past two decades (pursuant to the Southern Nevada Public Lands Management Act), the **five percent (5%) attributable to the support of Utah schools,** under our statehood enabling act, **exceeds $2.8 billion**.

Appendix A contains a spreadsheet breakdown of the tax equivalent valuation results for PILT, pursuant to the matrix set forth by the Commission chairs.

e. In-Held Federally Controlled Public Land Examples

Of the 217,000 acres of federally controlled public lands in-held within Utah city boundaries, many of these lands fall within commercial or industrial zones in their respective cities. **Appendix B** to this letter, provides just three of the many examples of in-held federally controlled public lands, which depict the potential for these in-held lands:

i. **Beaver City -** 40.74 acres of BLM land on I-15 in the Central Development Zone (C-D) in Beaver City. The PILT for this land is $33.41. The raw land tax equivalent is $24,835. The built-out tax equivalent under the current zone is $1,752,420.

ii. **Cedar City -** 35.26 acres of federally controlled public land next to the Cedar City Airport, in the Industrial and Manufacturing 2 Zone (I&M2). The PILT for this land is $97.68. The raw land tax equivalent is $19,483. The built-out tax equivalent under the current zone is $1,371,366.

iii. **Saratoga Springs -** 20.31 acres of federally controlled public land, half a mile from the Mountain View Bypass Road in the Single Family (R-1-10) zone. The PILT for this land is $55.27. The raw land tax equivalent is $24,256. The built-out tax equivalent under the current zone is $142,116.

f. Resource Management Plan Values

Appendix B provides an example of the **Resource Management Plan Overlay** for Utah County. The resource items come from the county RMPs. Each resource can be isolated and applied to the resource efficiency, to derive the value for any particular parcel of federally controlled public land. Due to the number of resources for any particular parcel, the Commission and policy makers can determine the resource(s) they wish to emphasize in the valuation of lands for each county. This interactive overlay will serve the Commission, the Legislature, and the State in determining resources to optimize, as well as the value of lands where laws, regulations or policies restrict the use of available resources.

g. Overlays - Land Ownership, Site Suitability, Demographic Utilities, Traffic, Etc.

These overlays aid in isolating unique parcels of federally controlled public land by ownership type; site suitability data (soils from USGS, flood from FEMA, and topography from USDA); demographic data from the American Census Survey; traffic and highway data from UDOT and the local road plans, as available; and Opportunity Zone data.

h. Market Data

Utah is a non-disclosure state for real estate transactions. This means that buyers and sellers of real property do not have to publicly disclose the sale price of their transactions. This makes market analysis on real estate extremely difficult. However, through a strategic relationship with Colliers International, we are able include in the algorithm (although not specifically disclose) current sales, lease, and vacancy data for each market segment available through the state, in addition to such market data as may be public available.

i. Economic Data

General economic data included but not limited to inflation rates, sales price, home price appreciation, and build costs, are uploaded on a weekly, monthly, or quarterly basis. The frequency of the updates is based on the particular data source. Data sources include the United States Bureau of Labor Statistics, RS Means, LoopNet, and others.

j. Demographic Data

Demographic overlays within the software, provide additional insight into specific geographic areas or individual parcels. Some of the demographic data collected and visualized in the application include household size, median income, in labor force, total population, income per capita, etc. These overlays are dynamic and can be turned on or off according to the policy makers' needs and preferences. These overlays are also additional features beyond the contract specifications.

k. Data Dashboards

Though not required under the contract, we have provided a number of data dashboards. These dashboards provide readily actionable data regarding the status of PILT payments broken down by county, as compared to the tax equivalent values. They also provide information pertaining to the matrix valuation assumptions requested by the Commission chairs.

Validation

The terms of the agreement called for an independent validation of the model's results by a "competent, reputable professional engaged in the profession of valuing land." To this end, we have engaged Howard Layton, who is the former President of the Utah Appraisal Institute and the

current President of the Utah CCIM (Certified Commercial Investment Member) chapter. You will note from Mr. Layton's attached resume that his qualifications more than exceed the professional standard for providing the independent validation called for in the agreement. Mr. Layton will forward his validation letter to the Commission in the coming days.

Please note that Mr. Layton will be available for further validation, in conjunction with any additional services the Commission desires beyond the scope of this engagement.

Recommendations

The unanimous, bipartisan nature of this PILT tax equivalency initiative creates, as Senator Lee noted, "a generational opportunity." Governor Gary Herbert noted, in regard to public lands initiatives, that they require competent coordination in the areas of education, negotiation, legislation, and potentially litigation, to move such issues forward.

Success in this initiative will require the development of broad, bipartisan, intrastate, interstate, and national coalitions.

To optimize the utility of this FEDERAL LAND VALUATION MODEL, including the intricacies associated with the sheer volume of data, it will likely require additional data enhancements, digitization, and automation for underserved data communities in Utah. Beyond the maintenance obligations under the agreement, education, negotiation, legislation and litigation (should that path be considered necessary), will likely require further modifications and enhancements to keep pace with the ever-changing nature of the data values and sources, and the Commission's dynamic strategy and messaging needs for such an initiative.

Beyond the five-year FEDERAL LAND VALUATION MODEL maintenance specified under the agreement, we are uniquely qualified with the technical expertise and local, regional, and national coalition-building experience to help the Commission and the Legislature shepherd this vital initiative to fruition.

We believe we can greatly magnify the effectiveness of this project in providing the State of Utah with expeditious and favorable outcomes.

Conclusion

As this project has developed, every member of our team has become deeply invested as Utahns in the successful outcome of your mission. It has been our distinct privilege to play a role in this awe-inspiring work.

The Congressional Research Service, the U.S. Forest Service, the GAO, and other federal analyses, affirmed in 1976, that "Congress agreed" to pay PILT on a "tax equivalent" basis in order to compensate our children and communities for the property tax revenue denied them due to the presence of substantial amounts of non-taxable federally controlled public lands.

We have been in contact with leaders across the political spectrum in several other states, who express interest in following Utah's lead in this effort. Beyond our duties spelled out in the agreement to maintain the FEDERAL LAND VALUATION MODEL for the next five years, we believe we can add significant value to your efforts to educate, negotiate, legislate, and to provide critical litigation support, should that become necessary, in order to secure the promises made to Utah's children and communities.

We would be honored to continue to contribute our years of expertise and the unique skillsets of our team members, to this vitally important endeavor.

We look forward to learning more about your longer-term strategy for this initiative and discussing the various ways we can help you accomplish your objectives in this great work.

With Kindest Regards,

Ryan Freeman
CEO

cc: Stuart Adams, Utah Senate President
Brad Wilson, Speaker of the Utah House of Representatives
Robert Rees
Jonathan Ball

Appendix A

PILT v. Property Tax Equivalent
Valuation Matrix

County	Total Acres	Property Tax Equivalent - Lowest Taxable Use (Recreation)	Property Tax Equivalent - Lowest Taxable Use w/ In-held Federal Lands Assuming Raw Lands	Property Tax Equivalent - Lowest Taxable Use w/ Federal Lands w/in 1 mile (incl. In-held) Assuming Raw Lands
Beaver	1,284,849	$ 3,505,259	$ 3,524,099.03	$ 4,055,646.32
Box Elder	1,201,275	$ 1,176,883	$ 1,442,121.32	$ 3,088,514.01
Cache	283,147	$ 1,381,754	$ 1,491,029.05	$ 3,529,360.73
Carbon	435,996	$ 5,055,032	$ 5,130,412.41	$ 5,334,568.24
Daggett	361,910	$ 759,758	$ 759,758.39	$ 1,717,716.97
Davis	38,221	$ 1,221,347	$ 1,392,613.68	$ 11,449,015.44
Duchesne	897,157	$ 2,658,646	$ 2,658,645.82	$ 2,658,645.82
Emery	2,253,047	$ 20,953,286	$ 21,131,693.38	$ 22,253,666.03
Garfield	2,610,278	$ 12,284,116	$ 13,106,748.93	$ 16,788,451.18
Grand	1,744,042	$ 26,127,273	$ 28,286,241.83	$ 32,369,768.72
Iron	1,243,127	$ 2,193,240	$ 2,760,272.32	$ 7,839,956.82
Juab	1,524,078	$ 3,154,841	$ 3,154,841.46	$ 3,226,043.16
Kane	2,299,278	$ 14,485,269	$ 14,554,758.10	$ 14,554,758.10
Millard	3,379,354	$ 4,357,681	$ 4,357,987.13	$ 4,382,244.99
Morgan	16,229	$ 159,653	$ 159,653.47	$ 159,653.47
Piute	361,881	$ 6,978,325	$ 7,833,368.75	$ 9,688,183.73
Rich	221,551	$ 3,844,837	$ 3,844,836.60	$ 4,196,654.77
Salt Lake	100,336	$ 1,833,659	$ 15,283,030.11	$ 57,568,693.01
San Juan	3,059,923	$ 17,992,335	$ 18,636,669.01	$ 25,531,380.11
Sanpete	535,037	$ 2,304,470	$ 2,305,048.95	$ 2,540,928.14
Sevier	968,059	$ 6,202,742	$ 6,206,395.12	$ 7,002,587.49
Summit	532,181	$ 1,383,657	$ 1,437,539.00	$ 1,720,944.64
Tooele	2,059,577	$ 6,261,040	$ 6,348,520.57	$ 7,474,037.36
Uintah	1,829,322	$ 4,162,449	$ 4,163,104.17	$ 4,523,684.86
Utah	686,509	$ 2,836,457	$ 17,534,581.18	$ 67,624,863.04
Wasatch	462,458	$ 611,812	$ 22,860,840.25	$ 64,109,080.75
Washington	1,145,911	$ 10,845,885	$ 82,567,716.58	$ 116,029,008.99
Wayne	1,327,789	$ 14,934,017	$ 14,936,301.79	$ 16,072,248.55
Weber	65,950	$ 1,013,981	$ 2,058,263.84	$ 16,541,067.11
Statewide	**$ 32,928,472.00**	**$ 180,679,701.55**	**$ 309,927,092.21**	**$ 534,031,372.57**

In-Held Federal Lands within Municipal Borders (BLM and USFS)

County	In-Held Acres	PILT	Raw Land Value	Property Tax Equivalent - Raw Land	Property Tax Equivalent - Low Density Residential	Property Tax Equivalent - Lowest Taxable Use
Beaver	354	$ 289	$ 2,713,376	$ 19,806	$ 1,007,541	$ 966
Box Elder	672	$ 1,860	$ 45,067,305	$ 265,897	$ 2,009,246	$ 658
Cache	507	$ 1,360	$ 18,319,550	$ 111,749	$ 1,465,881	$ 2,474
Carbon	1,844	$ 5,035	$ 15,358,798	$ 96,760	$ 5,540,048	$ 21,380
Daggett	0	$ -	$ -	$ -	$ -	$ -
Davis	157	$ 371	$ 24,828,765	$ 176,284	$ 942,933	$ 5,017
Duchesne	0	$ -	$ -	$ -	$ -	$ -
Emery	6,855	$ 3,908	$ 39,057,999	$ 242,159	$ 14,079,952	$ 63,751
Garfield	11,712	$ 4,182	$ 182,864,867	$ 877,750	$ 26,620,103	$ 55,117
Grand	9,060	$ 6,588	$ 370,112,271	$ 2,294,696	$ 12,094,386	$ 135,727
Iron	7,446	$ 20,599	$ 89,256,871	$ 580,169	$ 27,083,362	$ 13,137
Juab	0	$ -	$ -	$ -	$ -	$ -
Kane	493	$ 262	$ 11,523,161	$ 72,595	$ 1,359,404	$ 3,106
Millard	29	$ 13	$ 66,359	$ 344	$ 86,778	$ 37
Morgan	0	$ -	$ -	$ -	$ -	$ -
Piute	10,295	$ 6,902	$ 169,930,228	$ 1,053,567	$ 38,382,576	$ 198,523
Rich	0	$ -	$ -	$ -	$ -	$ -
Salt Lake	9,520	$ 23,371	$ 1,866,212,571	$ 13,623,351	$ 32,504,986	$ 173,980
San Juan	1,494	$ 779	$ 77,752,316	$ 653,119	$ 6,853,146	$ 8,785
Sanpete	6	$ 16	$ 110,133	$ 605	$ 17,840	$ 26
Sevier	36	$ 77	$ 626,590	$ 3,884	$ 113,441	$ 231
Summit	73	$ 202	$ 13,864,823	$ 54,072	$ 126,012	$ 190
Tooele	1,351	$ 2,446	$ 16,068,161	$ 91,588	$ 2,542,649	$ 4,107
Uintah	3	$ 5	$ 129,950	$ 662	$ 10,535	$ 7
Utah	15,355	$ 41,741	$ 2,501,960,673	$ 14,761,567	$ 68,993,901	$ 63,442
Wasatch	20,773	$ 56,496	$ 3,775,679,773	$ 22,276,510	$ 62,469,151	$ 27,482
Washington	119,069	$ 327,197	$ 11,749,807,098	$ 72,848,803	$ 52,970,428	$ 1,126,971
Wayne	17	$ 6	$ 515,958	$ 2,476	$ 30,199	$ 191
Weber	822	$ 1,843	$ 128,892,826	$ 1,056,921	$ 4,679,798	$ 12,638
Statewide	**217,943**	**$ 505,547**	**$ 21,100,720,422**	**$ 131,165,334**	**$ 361,984,293**	**$ 1,917,943**

County	Total Acres	Property Tax Equivalent - Lowest Taxable Use (Recreation)	Property Tax Equivalent - Lowest Taxable Use w/ In-held Federal Lands Assuming Raw Lands	Property Tax Equivalent - Lowest Taxable Use w/ Federal Lands w/in 1 mile (incl. In-held) Assuming Raw Lands
Beaver	1,284,849	$ 3,505,259	$ 3,524,099.03	$ 4,055,646.32
Box Elder	1,201,275	$ 1,176,883	$ 1,442,121.32	$ 3,088,514.01
Cache	283,147	$ 1,381,754	$ 1,491,029.05	$ 3,529,360.73
Carbon	435,996	$ 5,055,032	$ 5,130,412.41	$ 5,334,568.24
Daggett	361,910	$ 759,758	$ 759,758.39	$ 1,717,716.97
Davis	38,221	$ 1,221,347	$ 1,392,613.68	$ 11,449,015.44
Duchesne	897,157	$ 2,658,646	$ 2,658,645.82	$ 2,658,645.82
Emery	2,253,047	$ 20,953,286	$ 21,131,693.38	$ 22,253,666.03
Garfield	2,610,278	$ 12,284,116	$ 13,106,748.93	$ 16,788,451.18
Grand	1,744,042	$ 26,127,273	$ 28,286,241.83	$ 32,369,768.72
Iron	1,243,127	$ 2,193,240	$ 2,760,272.32	$ 7,839,956.82
Juab	1,524,078	$ 3,154,841	$ 3,154,841.46	$ 3,226,043.16
Kane	2,299,278	$ 14,485,269	$ 14,554,758.10	$ 14,554,758.10
Millard	3,379,354	$ 4,357,681	$ 4,357,987.13	$ 4,382,244.99
Morgan	16,229	$ 159,653	$ 159,653.47	$ 159,653.47
Piute	361,881	$ 6,978,325	$ 7,833,368.75	$ 9,688,183.73
Rich	221,551	$ 3,844,837	$ 3,844,836.60	$ 4,196,654.77
Salt Lake	100,336	$ 1,833,659	$ 15,283,030.11	$ 57,568,693.01
San Juan	3,059,923	$ 17,992,335	$ 18,636,669.01	$ 25,531,380.11
Sanpete	535,037	$ 2,304,470	$ 2,305,048.95	$ 2,540,928.14
Sevier	968,059	$ 6,202,742	$ 6,206,395.12	$ 7,002,587.49
Summit	532,181	$ 1,383,657	$ 1,437,539.00	$ 1,720,944.64
Tooele	2,059,577	$ 6,261,040	$ 6,348,520.57	$ 7,474,037.36
Uintah	1,829,322	$ 4,162,449	$ 4,163,104.17	$ 4,523,684.86
Utah	686,509	$ 2,836,457	$ 17,534,581.18	$ 67,624,863.04
Wasatch	462,458	$ 611,812	$ 22,860,840.25	$ 64,109,080.75
Washington	1,145,911	$ 10,845,885	$ 82,567,716.58	$ 116,029,008.99
Wayne	1,327,789	$ 14,934,017	$ 14,936,301.79	$ 16,072,248.55
Weber	65,950	$ 1,013,981	$ 2,058,263.84	$ 16,541,067.11
Statewide	**$ 32,928,472.00**	**$ 180,679,701.55**	**$ 309,927,092.21**	**$ 534,031,372.57**

Federal Lands within a Quarter Mile Outside Municipal Borders (BLM and USFS)

County	In-Held Acres	PILT	Raw Land Value	Property Tax Equivalent - Raw Land	Property Tax Equivalent - Low Density Residential	Property Tax Equivalent - Lowest Taxable Use
Beaver	2,874	$ 2,343	$ 19,607,267	$ 143,132	$ 8,300,363	$ 7,841
Box Elder	1,166	$ 3,227	$ 94,101,108	$ 555,196	$ 3,467,764	$ 1,142
Cache	1,123	$ 3,013	$ 78,678,335	$ 479,937	$ 3,237,931	$ 5,480
Carbon	7,217	$ 19,708	$ 27,220,858	$ 171,491	$ 21,612,877	$ 83,675
Daggett	332	$ 129	$ 20,721,425	$ 140,905	$ 1,046,752	$ 697
Davis	2,550	$ 6,019	$ 421,670,785	$ 2,993,862	$ 16,550,733	$ 81,485
Duchesne	0	$ -	$ -	$ -	$ -	$ -
Emery	18,676	$ 10,646	$ 111,518,274	$ 691,412	$ 38,404,366	$ 173,686
Garfield	19,216	$ 6,862	$ 317,154,534	$ 1,522,341	$ 43,606,862	$ 90,432
Grand	7,595	$ 5,523	$ 308,662,715	$ 1,913,708	$ 10,062,189	$ 113,780
Iron	10,490	$ 29,020	$ 264,764,924	$ 1,720,971	$ 38,061,158	$ 18,507
Juab	0	$ -	$ -	$ -	$ -	$ -
Kane	0	$ -	$ -	$ -	$ -	$ -
Millard	528	$ 236	$ 977,989	$ 5,085	$ 2,000,302	$ 681
Morgan	0	$ -	$ -	$ -	$ -	$ -
Piute	11,377	$ 7,628	$ 183,960,751	$ 1,140,556	$ 42,417,145	$ 219,388
Rich	343	$ 690	$ 11,835,597	$ 41,424	$ 414,000	$ 5,952
Salt Lake	13,869	$ 34,048	$ 3,076,895,518	$ 22,461,337	$ 47,304,927	$ 253,459
San Juan	9,241	$ 4,820	$ 538,693,852	$ 4,525,028	$ 42,708,216	$ 54,337
Sanpete	27	$ 72	$ 966,534	$ 5,315	$ 82,143	$ 116
Sevier	659	$ 1,407	$ 20,299,131	$ 125,853	$ 2,222,448	$ 4,222
Summit	367	$ 1,016	$ 24,894,760	$ 97,089	$ 647,825	$ 954
Tooele	2,642	$ 4,783	$ 38,340,196	$ 218,538	$ 4,938,653	$ 8,032
Uintah	121	$ 204	$ 11,127,064	$ 56,747	$ 374,981	$ 275
Utah	24,725	$ 67,212	$ 4,106,677,456	$ 24,229,396	$ 111,337,245	$ 102,157
Wasatch	25,224	$ 68,601	$ 4,589,226,156	$ 27,076,434	$ 75,738,582	$ 33,370
Washington	34,815	$ 95,670	$ 3,035,634,024	$ 18,820,930	$ 69,025,098	$ 329,519
Wayne	1,266	$ 483	$ 44,733,830	$ 214,721	$ 2,963,156	$ 14,239
Weber	2,677	$ 6,001	$ 465,976,308	$ 3,821,005	$ 15,219,748	$ 41,159
Statewide	**199,120**	**$ 379,361**	**$ 17,814,339,391**	**$ 113,172,413**	**$ 601,745,463**	**$ 1,644,586**

Federal Lands within a Half Mile Outside Municipal Borders (BLM and USFS)

County	In-Held Acres	PILT	Raw Land Value	Property Tax Equivalent - Raw Land	Property Tax Equivalent - Low Density Residential	Property Tax Equivalent - Lowest Taxable Use
Beaver	5,388	$ 4,393	$ 36,660,335	$ 267,620	$ 15,541,687	$ 14,699
Box Elder	1,676	$ 4,639	$ 144,142,328	$ 850,439	$ 5,052,374	$ 1,642
Cache	1,832	$ 4,915	$ 154,213,576	$ 940,702	$ 5,288,420	$ 8,940
Carbon	12,629	$ 34,486	$ 42,278,974	$ 266,357	$ 37,923,056	$ 146,423
Daggett	740	$ 288	$ 46,139,625	$ 313,749	$ 2,333,122	$ 1,553
Davis	4,890	$ 11,543	$ 814,207,662	$ 5,780,874	$ 32,097,899	$ 156,259
Duchesne	0	$ -	$ -	$ -	$ -	$ -
Emery	23,284	$ 13,273	$ 143,192,892	$ 887,795	$ 47,883,860	$ 216,541
Garfield	26,861	$ 9,592	$ 460,164,555	$ 2,208,789	$ 61,078,560	$ 126,409
Grand	10,386	$ 7,552	$ 420,431,270	$ 2,606,673	$ 13,725,315	$ 155,591
Iron	14,911	$ 41,250	$ 447,413,264	$ 2,908,185	$ 54,127,264	$ 26,307
Juab	0	$ -	$ -	$ -	$ -	$ -
Kane	0	$ -	$ -	$ -	$ -	$ -
Millard	1,071	$ 479	$ 2,057,334	$ 10,697	$ 4,097,871	$ 1,381
Morgan	0	$ -	$ -	$ -	$ -	$ -
Piute	14,135	$ 9,477	$ 237,115,825	$ 1,470,117	$ 52,698,335	$ 272,572
Rich	1,034	$ 2,080	$ 35,762,033	$ 125,167	$ 1,267,975	$ 17,944
Salt Lake	17,841	$ 43,799	$ 4,178,475,327	$ 30,502,869	$ 60,934,398	$ 326,048
San Juan	10,892	$ 5,681	$ 630,769,063	$ 5,298,460	$ 50,354,870	$ 64,045
Sanpete	197	$ 526	$ 4,903,090	$ 26,966	$ 691,363	$ 849
Sevier	1,784	$ 3,808	$ 48,783,619	$ 302,458	$ 6,081,972	$ 11,431
Summit	699	$ 1,935	$ 37,318,377	$ 145,541	$ 1,253,873	$ 1,817
Tooele	4,927	$ 8,920	$ 79,803,147	$ 454,877	$ 9,235,672	$ 14,978
Uintah	285	$ 480	$ 26,521,089	$ 135,257	$ 884,635	$ 648
Utah	34,031	$ 92,510	$ 5,692,637,260	$ 33,586,559	$ 153,930,799	$ 140,606
Wasatch	29,502	$ 80,236	$ 5,374,853,999	$ 31,711,638	$ 88,619,968	$ 39,030
Washington	51,120	$ 140,476	$ 3,682,450,046	$ 22,831,189	$ 116,296,911	$ 483,844
Wayne	2,776	$ 1,060	$ 99,313,554	$ 476,705	$ 6,528,372	$ 31,222
Weber	4,999	$ 11,207	$ 967,087,918	$ 7,930,120	$ 28,846,006	$ 76,860
Statewide	**277,890**	**$ 534,603**	**$ 23,806,696,162**	**$ 152,039,803**	**$ 856,774,578**	**$ 2,337,641**

Federal Lands within 1 Mile Outside Municipal Borders (BLM and USFS)

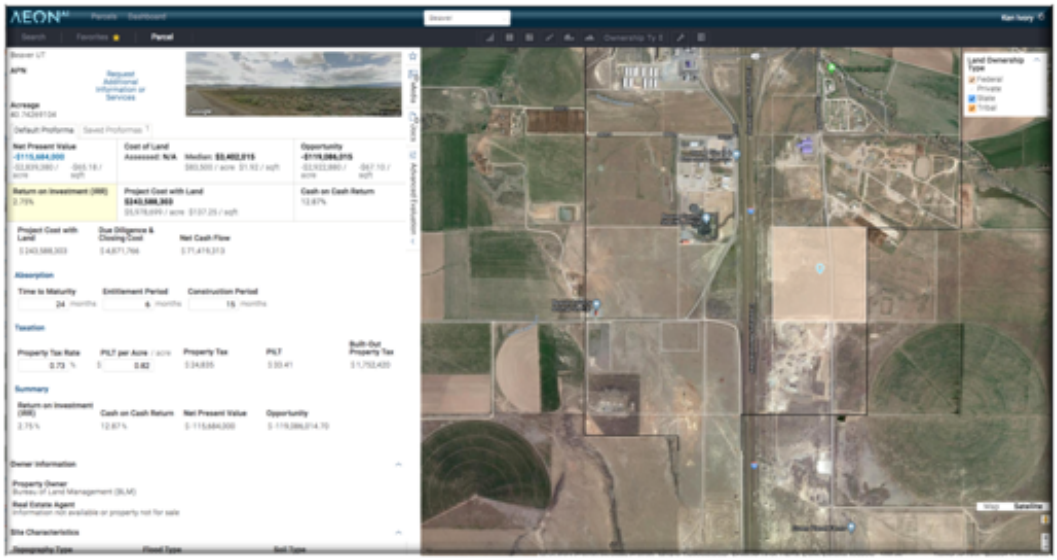
County	In-Held Acres	PILT	Raw Land Value	Property Tax Equivalent - Raw Land	Property Tax Equivalent - Low Density Residential	Property Tax Equivalent - Lowest Taxable Use
Beaver	11,088	$ 9,039	$ 76,958,554	$ 561,797	$ 31,987,960	$ 30,250
Box Elder	2,743	$ 7,592	$ 279,505,154	$ 1,649,080	$ 8,288,665	$ 2,687
Cache	3,422	$ 9,182	$ 336,890,518	$ 2,055,031	$ 9,911,677	$ 16,699
Carbon	23,729	$ 64,798	$ 76,075,495	$ 479,275	$ 71,319,079	$ 275,119
Daggett	2,270	$ 885	$ 141,577,226	$ 962,724	$ 7,160,070	$ 4,765
Davis	8,789	$ 20,746	$ 1,455,951,210	$ 10,337,253	$ 58,100,015	$ 280,851
Duchesne	0	$ -	$ -	$ -	$ -	$ -
Emery	33,097	$ 18,866	$ 230,608,854	$ 1,429,774	$ 68,038,662	$ 307,801
Garfield	43,448	$ 15,515	$ 809,619,242	$ 3,886,171	$ 98,974,627	$ 204,469
Grand	17,405	$ 12,656	$ 700,688,636	$ 4,344,269	$ 23,053,039	$ 260,742
Iron	22,284	$ 61,647	$ 787,538,679	$ 5,119,000	$ 80,921,246	$ 39,316
Juab	390	$ 353	$ 12,001,715	$ 72,009	$ 1,403,986	$ 807
Kane	0	$ -	$ -	$ -	$ -	$ -
Millard	2,902	$ 1,298	$ 5,384,720	$ 28,000	$ 11,134,973	$ 3,742
Morgan	0	$ -	$ -	$ -	$ -	$ -
Piute	20,326	$ 13,627	$ 362,382,535	$ 2,246,771	$ 75,807,604	$ 391,956
Rich	3,461	$ 6,963	$ 117,680,400	$ 411,881	$ 4,245,304	$ 60,063
Salt Lake	22,796	$ 55,963	$ 5,849,625,295	$ 42,702,264	$ 77,757,571	$ 416,601
San Juan	14,217	$ 7,415	$ 830,750,882	$ 6,978,307	$ 65,741,341	$ 83,596
Sanpete	1,953	$ 5,217	$ 44,416,815	$ 244,291	$ 7,126,032	$ 8,412
Sevier	5,301	$ 11,316	$ 133,896,611	$ 830,158	$ 18,134,557	$ 33,966
Summit	1,669	$ 4,620	$ 73,781,062	$ 287,745	$ 3,005,266	$ 4,339
Tooele	11,891	$ 21,527	$ 203,800,940	$ 1,161,665	$ 22,385,851	$ 36,148
Uintah	760	$ 1,281	$ 71,041,338	$ 362,310	$ 2,358,412	$ 1,729
Utah	52,176	$ 141,835	$ 8,526,416,885	$ 50,305,858	$ 237,095,465	$ 215,576
Wasatch	38,341	$ 104,275	$ 6,999,824,505	$ 41,298,964	$ 115,200,250	$ 50,723
Washington	81,495	$ 223,945	$ 5,521,392,322	$ 34,232,631	$ 180,823,300	$ 771,339
Wayne	7,086	$ 2,705	$ 253,259,688	$ 1,215,645	$ 16,714,098	$ 79,698
Weber	8,794	$ 19,715	$ 1,782,684,364	$ 14,618,011	$ 51,062,280	$ 135,208
Statewide	**441,833**	**$ 842,980**	**$ 35,683,753,645**	**$ 227,820,884**	**$ 1,347,751,332**	**$ 3,716,604**

Federal Lands within municipal borders and 1 Mile Outside Municipal Borders (BLM and USFS)

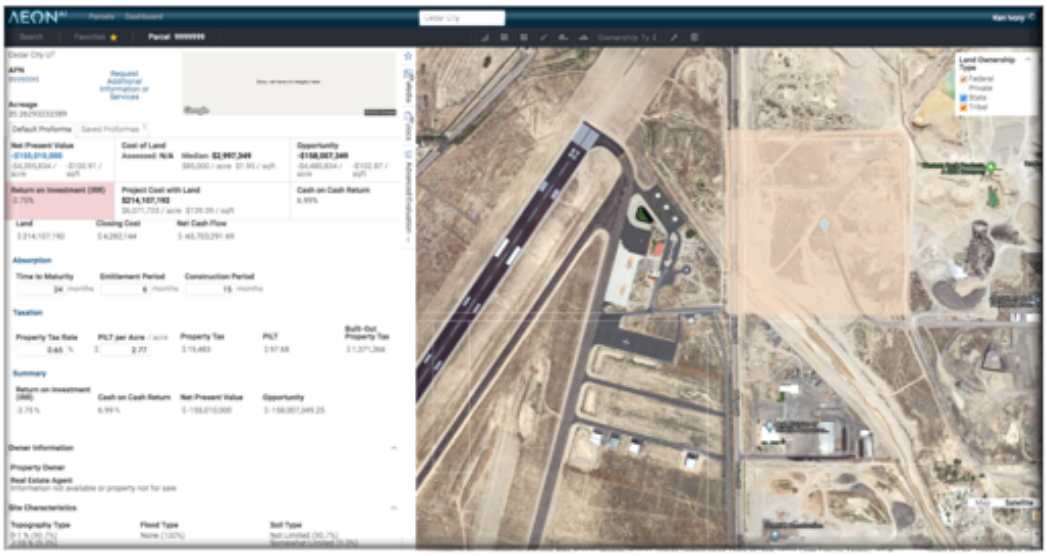
County	In-Held Acres	PILT	Raw Land Value	Property Tax Equivalent - Raw Land	Property Tax Equivalent - Low Density Residential	Property Tax Equivalent - Lowest Taxable Use
Beaver	11,442	$ 9,328	$ 79,671,930	$ 581,603	$ 32,995,501	$ 31,215
Box Elder	3,415	$ 9,452	$ 324,572,459	$ 1,914,977	$ 10,297,911	$ 3,346
Cache	3,929	$ 10,542	$ 355,210,068	$ 2,166,780	$ 11,377,558	$ 19,173
Carbon	25,573	$ 69,833	$ 91,434,293	$ 576,035	$ 76,859,127	$ 296,499
Daggett	2,270	$ 885	$ 141,577,226	$ 962,724	$ 7,160,070	$ 4,765
Davis	8,946	$ 21,116	$ 1,480,779,975	$ 10,513,537	$ 59,042,949	$ 285,868
Duchesne	-	$ -	$ -	$ -	$ -	$ -
Emery	39,952	$ 22,774	$ 269,666,853	$ 1,671,933	$ 82,118,614	$ 371,553
Garfield	55,160	$ 19,697	$ 992,484,109	$ 4,763,921	$ 125,594,730	$ 259,586
Grand	26,465	$ 19,245	$ 1,070,800,907	$ 6,638,965	$ 35,147,425	$ 396,469
Iron	29,730	$ 82,246	$ 876,795,550	$ 5,699,169	$ 108,004,609	$ 52,452
Juab	390	$ 353	$ 12,001,715	$ 72,009	$ 1,403,986	$ 807
Kane	493	$ 262	$ 11,523,161	$ 72,595	$ 1,359,404	$ 3,106
Millard	2,931	$ 1,311	$ 5,451,079	$ 28,344	$ 11,221,750	$ 3,780
Morgan	-	$ -	$ -	$ -	$ -	$ -
Piute	30,621	$ 20,529	$ 532,312,763	$ 3,300,338	$ 114,190,180	$ 590,479
Rich	3,461	$ 6,963	$ 117,680,400	$ 411,881	$ 4,245,304	$ 60,063
Salt Lake	32,316	$ 79,334	$ 7,715,837,866	$ 56,325,615	$ 110,262,556	$ 590,581
San Juan	15,711	$ 8,194	$ 908,503,198	$ 7,631,426	$ 72,594,487	$ 92,381
Sanpete	1,959	$ 5,233	$ 44,526,948	$ 244,896	$ 7,143,872	$ 8,438
Sevier	5,337	$ 11,392	$ 134,523,201	$ 834,042	$ 18,247,998	$ 34,196
Summit	1,742	$ 4,822	$ 87,645,885	$ 341,817	$ 3,131,278	$ 4,529
Tooele	13,242	$ 23,973	$ 219,869,101	$ 1,253,253	$ 24,928,500	$ 40,255
Uintah	763	$ 1,286	$ 71,171,288	$ 362,972	$ 2,368,947	$ 1,736
Utah	67,531	$ 183,576	$ 11,028,377,558	$ 65,067,425	$ 306,089,366	$ 279,019
Wasatch	59,114	$ 160,770	$ 10,775,504,278	$ 63,575,474	$ 177,669,401	$ 78,205
Washington	200,564	$ 551,142	$ 17,271,199,420	$ 107,081,434	$ 233,793,728	$ 1,898,310
Wayne	7,103	$ 2,711	$ 253,775,646	$ 1,218,121	$ 16,744,296	$ 79,889
Weber	9,616	$ 21,557	$ 1,911,577,190	$ 15,674,932	$ 55,742,078	$ 147,846
Statewide	**659,776**	**$1,348,527**	**$56,784,474,067**	**$ 358,986,218**	**$ 1,709,735,625**	**$ 5,634,547**

Appendix B

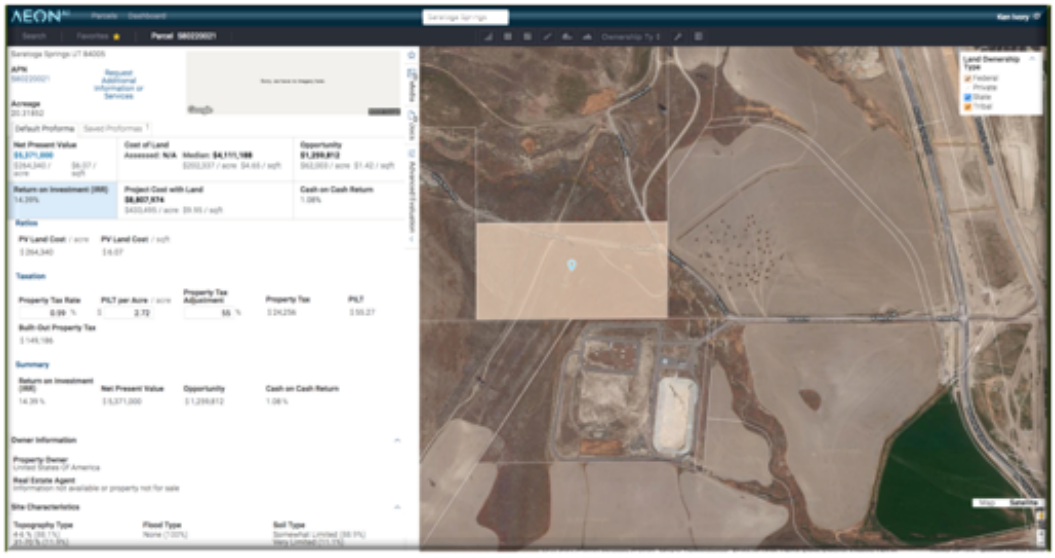
1. **In-Held Examples** (Federally controlled public land wholly within Utah city boundaries):
   a. **Beaver City** – 40.74 acres of BLM land sits adjacent to I-15 within the Central Development Zone (C-D) in Beaver City. The PILT attributable to this land amounts to $33.41. The tax equivalent for this raw land would be $24,835. The tax equivalent value if built out in accordance with adjacent property zoning would be $1,752,420.



   b. **Cedar City** – 35.26 acres of federally controlled public land sits across the road from the Cedar City Airport and is surrounded by industrial buildings within the Industrial and Manufacturing 2 Zone (I&M2) in Cedar City. The PILT attributable to this land amounts to $97.68. The tax equivalent for this raw land would be $19,483. The tax equivalent value if built out in accordance with adjacent property zoning would be $1,371,366.

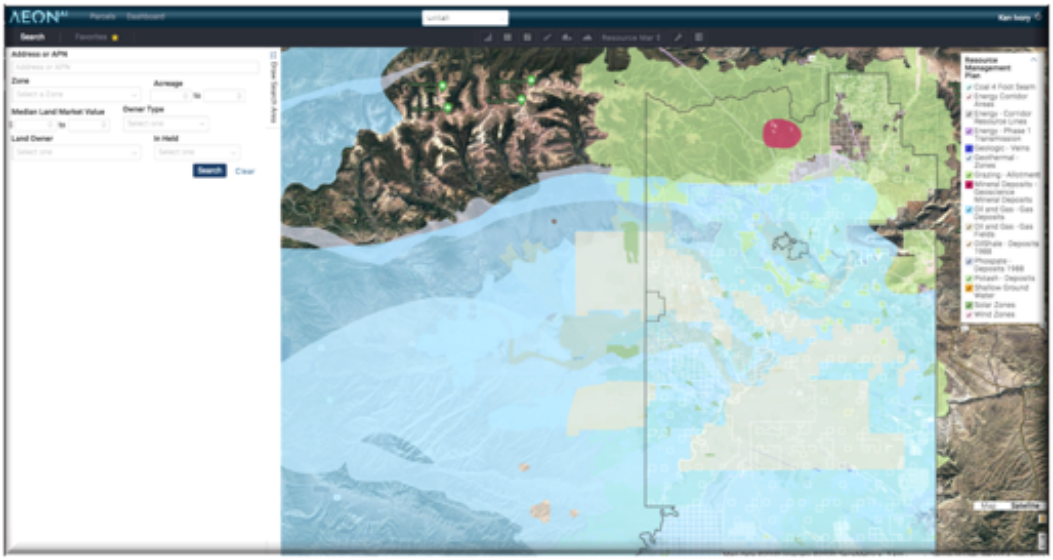


c. **Saratoga Springs** – 20.31 acres of federally controlled public land sits ½ mile from the Mountain View Bypass Road and is surrounded by newly built houses within the Single Family (R-1-10) zone in Saratoga Springs. The PILT attributable to this land amounts to $55.27. The tax equivalent for this raw land would be $24,256. The tax equivalent value, if built out in accordance with adjacent property zoning would be $142,116.

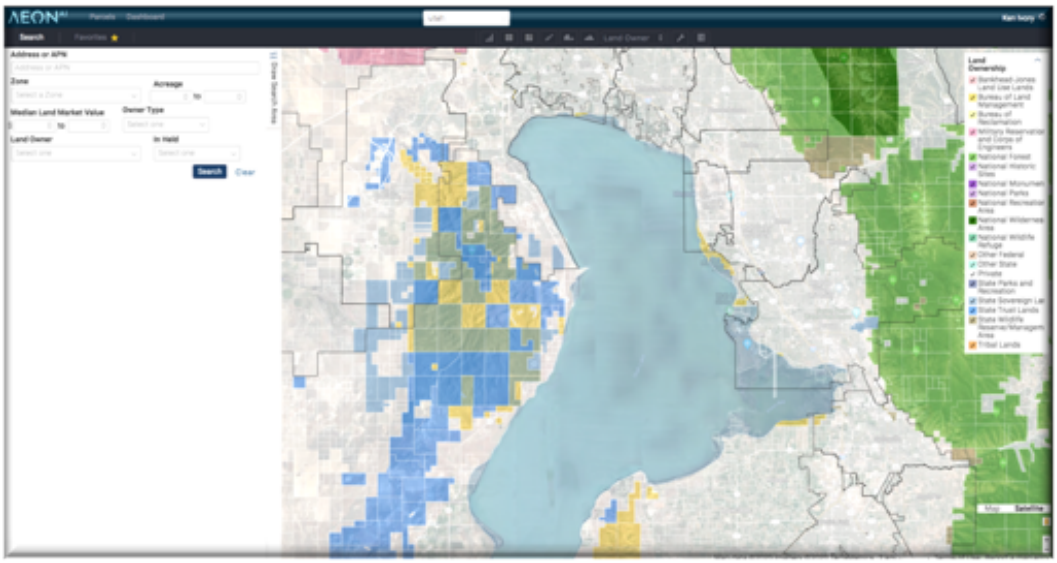


2. **Resource Management Plan**

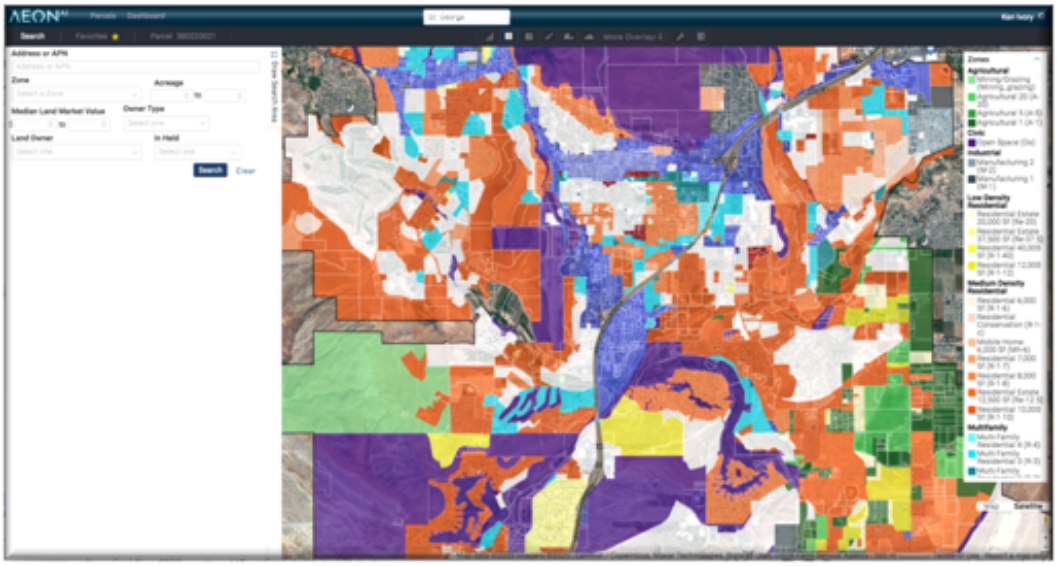
a. **Uintah County** – This is an example of the **Resource Management Plan Overlay,** which interactively displays the resources for any particular parcel of federally controlled public land. Each resource item comes from the various county RMPs and can be isolated and applied to the resource efficiency to derive the value of the corresponding land. It could also be used to determine the economic impact analysis of federally controlled parcels where use is restricted or denied.



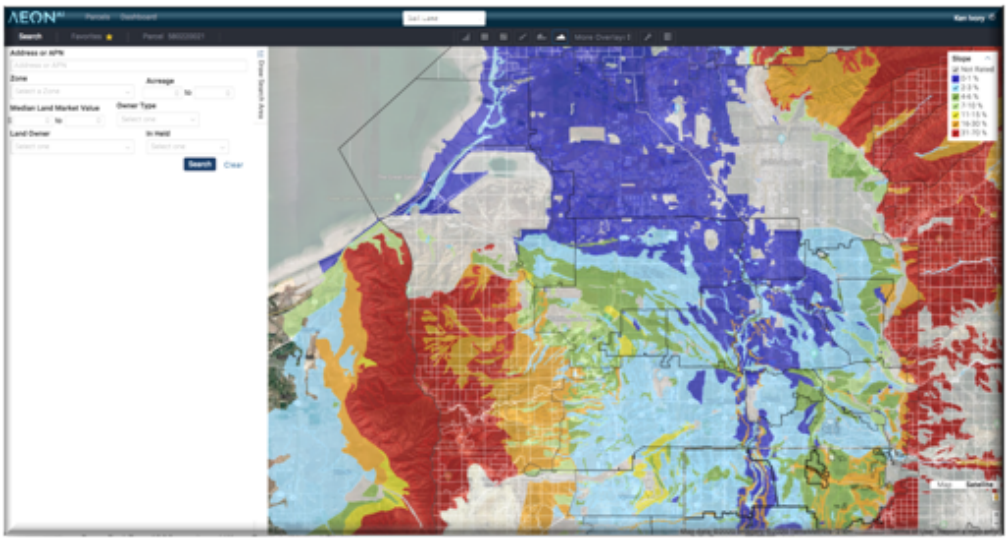
3. **Land Ownership**
   a. **Utah County –** The **Land Ownership Type and Land Ownership Overlays** will help the Commission and the State locate and analyze characteristics, relating to the value of federal, state, and private lands county by county, statewide. Note the various pockets of federally controlled land surrounding Utah Lake, for example.



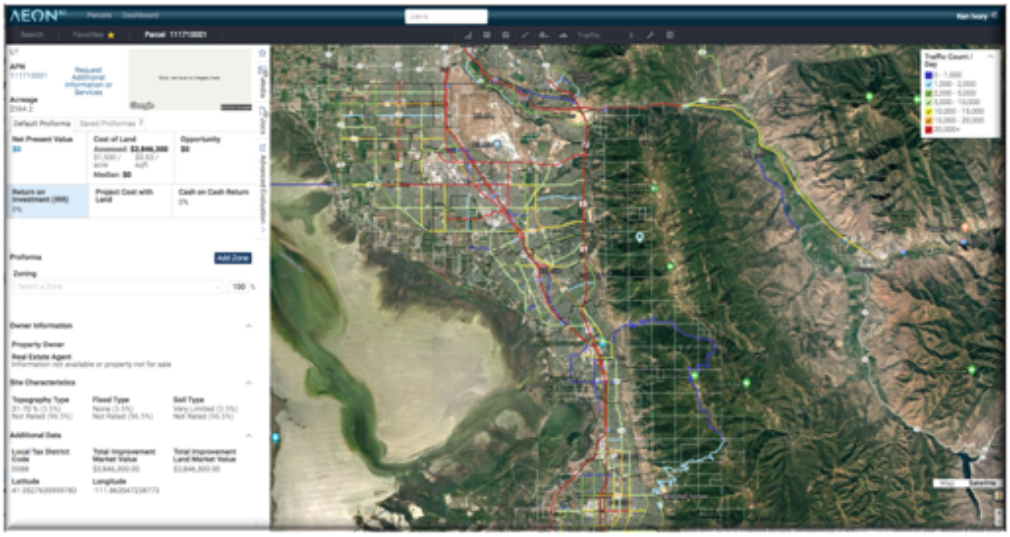
4. **Additional Overlays**: Zoning, General Plan, Site Suitability, Demographics, Transportation, Utilities, and Opportunity Zones
   a. **St. George – Zoning Overlay** shows the allowed uses within each community and populates the algorithm with the various associated, unique characteristics of each zone, within every city in Utah.



b. **Salt Lake County –** The **Soil, Flood, and Topography Overlays (shown here)** not only graphically depict the suitability of any given site, but they also populate the algorithm fields to reflect the costs of remediating any soil, flood, or topography issues. These are then instantly incorporated into the proforma analysis for every distinct property.



c. **Davis County – Highway and Traffic (shown here**) Overlays provide context for valuation.



d. **Ogden –** Among the dozens of Overlays from the **American Census Survey, Median Income (shown here)** can be helpful in Area Median Income determinations for affordable housing plans and determinations.