Highlights

- Utah H.B. 148, passed in the 2012 general session of the Legislature, seeks the transfer of title to 31.2 million acres of land currently managed by the federal government to the state of Utah.
- The annual cost to the state of managing the transfer lands is estimated to be $248 million. Maintaining federal PILT (payments in lieu of taxes) payments to counties would add $31.7 million, bringing the total cost of managing lands to almost $280 million.
- Revenues produced on public lands are significant. In 2013, a total of $331.7 million was generated on lands managed by the BLM and Forest Service in Utah. Of this, mineral lease revenue accounted for $308.0 million. Oil and gas royalties were almost $257 million.
- Based on our analysis, the land transfer could be profitable for the state if oil and gas prices remain stable and high and the state assumes an aggressive approach to managing its mineral lease program.
- In 2013, activities on federal lands supported almost 29,000 jobs in Utah, generated $1.6 billion in earnings, and contributed $3.6 billion to Utah’s gross state product. The fiscal impacts included $788 million in tax revenue to state and local government agencies.
- The operational purchases of the Bureau of Land Management, Forest Service and Fish and Wildlife Service support almost 5,000 jobs in Utah and generate $236.2 million in earnings for Utah residents. The contribution to Utah’s gross state product is almost $200 million. Tax revenues include $15.8 million in state revenue and $1.4 million in revenue for local governments.
- Modest amounts of land owned by the federal government and managed for multiple use are associated with faster economic growth in counties, while large amounts of federal land managed for multiple use are associated with a drag on economic growth. The turning point at which the drag begins is county-specific, but overall occurs when 40 to 45 percent of the county’s land is owned and managed for multiple use by federal agencies. Twenty of Utah’s 29 counties exceed this threshold.
- The findings also show that the amount of state-owned land managed for multiple use does not aid economic growth until state-owned land has reached a critical mass of about 15 percent of the county area. After that point, state management is associated with faster economic growth.

Analysis of a Transfer of Federal Lands to the State of Utah

Jan E. Stambro, Senior Research Economist

Utah H.B. 148, passed in the 2012 general session of the Legislature, seeks the transfer of title to 31.2 million acres of land currently managed by the federal government to the state of Utah. This accounts for more than 60 percent of the state’s land area, or five times the amount of land the state currently owns and manages. A land transfer of this magnitude would be a major shift in the current economic structure of Utah.

In light of this, H.B. 142 was enacted in 2013 to require a study and economic analysis of the proposed land transfer. The Governor’s Public Lands Policy Coordination Office contracted with the Bureau of Economic and Business Research, Utah State University, and Weber State University to conduct the study and analysis. The study provides information about the current uses of the land, the economic effects and non-economic benefits of those uses, and the ramifications and impacts to the state assuming the lands are transferred. It also describes the programs and budgets of, and revenues generated by, the federal agencies that now manage the lands identified in H.B. 148.

Additionally, the research describes how public lands contribute to the economic growth of local economies and the quality of life of Utah citizens. Finally, the research team was asked to estimate the potential costs of managing the transferred lands, identify state agencies that could manage portions of those lands, and develop a method to estimate potential revenue streams that could be used to offset the land management costs.

Key Findings

Utah is a state rich in land resources, most of which are owned and managed by federal agencies. Like many other western states, land ownership in Utah is characterized by a high level of federally controlled land intermingled with state and privately owned lands.

The state’s land ownership legacy derives from federal land policies enacted shortly after the Revolutionary War which changed and evolved as the federal government acquired, disposed of and eventually retained its lands. Currently, federal agencies manage 64.5 percent of Utah’s 54.3 million acres. Most of this land is under the jurisdiction of two federal agencies—the
Bureau of Land Management (BLM) and the U.S. Forest Service. H.B. 148 aims to transfer these acres (excluding the acres designated as wilderness) to the state of Utah. Also included in the land transfer are acres under the jurisdiction of the U.S. Fish and Wildlife Service and the Utah portion of the Glen Canyon National Recreation Area, which is part of the National Park Service (Figure 1).

The largest federal land manager in the state is the BLM, which manages 22.8 million acres of primarily rangelands, employs 774 FTEs, and spends on average about $120 million annually to manage its lands. The Forest Service is the second key land management agency, overseeing 8.15 million acres of national forests in the state. The Forest Service employs more than 1,000 people and spends an estimated $107 million to manage the forests. Both the BLM and Forest Service maintain a regional office presence in Utah. The BLM Utah headquarters are in Salt Lake City while the Forest Service Region 4 headquarters are in Ogden. BLM Utah’s headquarters office oversees the agency’s activities in Utah. The Region 4 headquarters operations oversee the entire Intermountain Region, which includes other states.

With 112,696 acres under its jurisdiction in Utah, the U.S. Fish and Wildlife Service (FWS) has a much smaller land presence than either the BLM or Forest Service. Most of the FWS lands are tied to fish hatcheries and wildlife refuges. Those operations employ 35 people and cost almost $4.6 million; this represents a fraction of the agency’s activities in the state. The FWS is primarily a regulatory agency, not a land management agency.

Finally, the National Park Service (NPS) manages the Glen Canyon National Recreation Area, which covers 1.2 million acres in Utah and Arizona—most of this in Utah. Allocating spending on a per-acre basis, the NPS spends about $16 million annually to operate the Utah portion of Glen Canyon.

All totaled, 31.2 million acres would transfer from federal management to state ownership. In 2012, the federal agencies listed here (excluding the NPS) employed more than 2,100 people and spent a collective $247 million to manage the lands proposed in H.B. 148. This translates to about $8 per acre.

**Economic Impacts of Federal Agency Operations**

The operational spending of federal agencies has an economic impact on the state of Utah. The federal wages and spending are important to the state because they are injections of outside money into the Utah economy. The operational purchases of the BLM, Forest Service and FWS support almost 5,000 jobs in Utah.
Utah and generate $236.2 million in earnings for Utah residents. The contribution to Utah's gross state product is almost $200 million. Tax revenues include $15.8 million in state revenue and $1.4 million in revenue for local governments.

No one can predict how much of the current federal presence in Utah (jobs, wages and purchases of other goods and services) would remain when the federal estate is largely diminished. However, if all the jobs tied directly to land management activities of the BLM, Forest Service and FWS are lost, the immediate impact of H.B. 148 would be the loss of approximately 2,174 direct jobs, $149.8 million in payroll, and $10 million in tax revenue. Such losses could substantially affect Utah's rural communities that have a major federal presence and few economic opportunities if the state does not replace those jobs. Field offices and ranger districts of federal agencies are spread throughout the state, and the expenditures needed to support the land management activities in those communities are important.

**Potential Land Management Costs**

The cost to the state of managing the transfer lands is estimated to be $248 million by 2017 — the year we assumed the state would first have control of the lands. This estimate is very close to the amount federal agencies now spend. From a cost-per-acre perspective, federal agencies are relatively efficient managers and compare well to state agencies that provide similar services and programs. This cost estimate does not include the federal PILT (payments in lieu of taxes) that is paid to counties to help offset foregone property tax revenues due to nontaxable federal lands within their boundaries. The state has indicated it would continue these payments, which add an additional $31.7 million, bringing the total cost of managing lands in 2017 to almost $280 million.

Almost 35 percent of the direct land management cost (net of PILT) is for wildfire. Addressing wildfire is a critical aspect of managing public lands in Utah. From FY2003 to FY2012, wildfire-related expenditures in Utah by the Forest Service, BLM and Forestry, Fire and State Lands averaged $85.6 million annually in inflation-adjusted 2013 dollars. The two federal agencies bore over 90 percent of these costs (91.7 percent). Fire suppression, the most unpredictable component, amounted to 39.4 percent ($33.7 million of $85.6 million).

Compared with other western states, wildfire size and frequency are not unusually high in Utah. The wildfire costs are a function of Utah’s arid climate, insect infestation, the spread of nonnative fire-prone vegetation, and increased development on lands at risk for wildfire.

In the event of land transfer, the state would need to consider how to replace $27.6 million in BLM and Forest Service spending on fire suppression in Utah, most of which would be withdrawn. In addition, the state would also lose access to key firefighting resources — trained personnel, a fleet of aircraft, and other equipment available from federal agencies because they manage extensive lands in the state. The state also relies on the federal government for fire dispatch center and aviation support infrastructure.

Post-transfer, the state could choose to address wildfire proactively through prevention and preparedness, as well as active management of forests and grasslands to keep them healthy and resilient.

Apart from the direct costs there are potential liabilities that the state might have to assume in the land transfer. Two of these—deferred maintenance and abandoned mines—could cost the state millions of dollars. The combined deferred maintenance backlog for both agencies is estimated to be almost $100 million. In addition there is the cost to remediate abandoned mines on federal lands. The BLM estimates there are between 8,000 and 11,000 openings on lands it manages that need to be inventoried, field validated and remediated. The agency estimates that 5 to 10 percent of these openings have associated water quality issues.

Furthermore, many state agencies receive federal funds, grants and subsidies that are tied to federal land ownership. After lands transfer to the state, these funds may no longer be available. Based on information from state agencies, the total could be as high as $8 million annually.

In addition, the land transfer would reduce federal funding to the Utah Department of Transportation (UDOT) and increase the state match rate requirements. UDOT would lose a portion of its funding each year reserved through the Federal Lands Access Program and would be required to pay higher state match rate percentages for all projects that tap into federal funds based on land ownership. While UDOT was not able to provide a precise estimate of the additional spending Utah would need to match federal transportation dollars after the transfer, an outcome between $12.5 and $71.5 million could be expected assuming current levels of funding from these types of programs.

**Potential Revenues**

Revenues produced on public lands are significant. In 2013, a total of $331.7 million was generated on lands managed by the BLM and Forest Service in Utah. Of this, mineral lease revenue accounted for 93 percent, or $308.0 million. Oil and gas royalties were almost $257 million (83 percent of all mineral lease revenue). Historically, oil and gas royalties account for the majority share of all mineral lease revenue produced on federal lands. Of the $331.7 million in revenue generated on public lands in 2013, Utah and counties in Utah received $149.8 million, or 45.2 percent of the total. Typically, Utah receives 50 percent of the mineral lease royalties, less a small processing fee paid to the Office of Natural Resources Revenue, an office within the U.S. Department of the Interior that collects all mineral lease monies generated on federal lands. In addition to the payments noted above, counties received a total of $35.4 million in PILT in 2013.

Two primary concerns regarding the land transfer are the cost of managing the lands, and whether the state could generate enough revenue to cover that cost. The most direct and reliable source of revenue would be royalties and taxes on oil and gas production. The Utah Geological Survey has estimated that proved reserves of oil and natural gas in Utah stand at 613 million barrels of crude oil, 7.8 trillion cubic feet of natural gas,
and 268 million barrels of natural gas liquids. Clearly, tapping into this resource could provide a substantial revenue stream for the state.

The second largest royalty stream comes from coal. Coal royalties are much more volatile than those from oil and gas, and averaged $28.6 million annually between 2003 and 2013.

The potential revenue streams to the state from oil and gas production were projected using an oil and gas forecasting model developed by the BEBR research team. Ten forecasts were produced using two different price assumptions (five forecasts under each assumption). The high price (our “Reference” price) assumed an average price per barrel for oil of $92 and gas at $5.10 per thousand cubic feet. A low-price forecast assumed an average price per barrel for oil of $62 and gas at $3.30 per thousand cubic feet.

Based on our analysis, the land transfer could be profitable for the state if oil and gas prices remain stable and high and the state assumes an aggressive approach to managing its mineral lease program. Our projections show that the state could cover land management costs (including PILT) in 2017 under four of the eight land transfer scenarios, at both the low and high price. These forecasts are based on aggressive assumptions, the single most important being a change in the royalty share (see footnotes in Table 1). These revenue forecasts are shown in Figures 2 and 3 and Table 1.

Under the existing mineral lease revenue share arrangement, Utah receives about 50 percent of all mineral lease royalties, with the federal government keeping the remainder. Four of BEBR’s forecasts incorporate a change in the royalty revenue share from 50 percent to 100 percent. Although we modeled other aggressive approaches, such as increasing the royalty rate on new production and increasing the number of wells drilled by 15 percent over the baseline projection, neither of these had the same substantive effect as changing the royalty rate share to 100 percent on all production. Without this change, even at the higher price forecast, oil and gas revenues are not sufficient to cover the state’s total land management costs for at least two years after the transfer. At the lower price forecast, without a change in the royalty revenue share, oil and gas royalties would never be sufficient to cover the state’s costs. In this case, the state would need to rely on other revenue sources such as coal royalties and user fees similar to those charged by the BLM and Forest Service; however, it would be more prudent for the state to negotiate this change rather than gamble on oil and gas prices remaining high.
While some of the revenue forecasts show that Utah could cover the costs of managing the lands with the royalties and tax revenues from oil and gas production, they do not take into account the fact that mineral lease revenues are statutorily obligated. Currently, federal mineral revenues are distributed to account the fact that mineral lease revenues are statutorily revenues from oil and gas production, they do not take into cover the costs of managing the lands with the royalties and tax While some of the revenue forecasts show that Utah could be a lucrative revenue source in the deep future. Economic Impacts of Activities on Federal Lands Public lands are used for many purposes and accessed by tens of millions of people each year. In addition to mineral and energy extraction, public lands are used for recreation (including hunting, fishing and wildlife watching), forage grazing, and timber production. These activities contribute to Utah’s economic well-being by supporting jobs, generating earnings for Utah residents, and providing tax revenue for the state. In 2013, activities on federal lands supported almost 29,000 jobs in Utah, generated $1.6 billion in earnings, and contributed $3.6 billion to Utah’s gross state product. The fiscal impacts included $788 million in tax revenue to state and local government agencies. Public Lands, Recreation and Quality of Life As important as public land use is in generating employment and income for Utah residents, the vast vistas offered by western landscapes and ready accessibility to public land in western communities improve the conditions for residents of those communities. Recreation activities on public lands have value far beyond market expenditures because they contribute to an improved quality of life for Utah residents. These benefits are not captured in traditional market-based measures such as jobs, income and gross state product, yet they have value. The economic value of public land is just one aspect of the total value. The opportunity to recreate and have access to lands is important even if the opportunity is not realized. Utah’s unique geography, topography, geologic features, and climate are ideal for outdoor recreation. Utah residents are more than twice as likely as the national average to participate in
several outdoor recreational activities. Economists at Utah State University and Weber State University measured the recreational benefits to Utah residents of Forest Service and BLM lands using the benefit transfer method; recreation values from prior economic studies were used to calculate the value, or net benefit, received by Utah residents for recreating on public lands. The value estimates can be used to illustrate the importance of maintaining the quality and access of outdoor recreation sites on public lands. This type of analysis would help public land managers, state or federal, balance competing uses of public lands so as to maximize the well-being of citizens.

The total value of recreation and travel in Utah is approximately $16.9 billion; this consists of resident and non-resident consumer spending of $9.8 billion, and an overall net benefit (over and above what consumers spend) to Utah residents of approximately $7.1 billion. The $7.1 billion figure represents the aggregate net benefit to Utah residents of 14 outdoor recreation activities that take place on Forest Service and BLM multiple-use land. Net benefit measures the amount that visitors are willing to pay over and above what they have to pay; it is akin to profit, but realized by the consumer. The net benefit to society may actually be larger if our analysis included nonresident recreational users, or if the quality of public lands used for recreation were to be improved.

Sightseeing, hiking, and camping are the three outdoor recreation activities on public lands with the greatest level of participation by Utah residents. Day hiking has the highest net benefit value (about $1.4 billion), followed by mountain biking ($1.3 billion) (Figure 4). Outdoor recreation is part of Utah’s culture and heritage, and preserving such opportunities enhances the quality of life for residents and visitors. If recreational resources were degraded, impaired or polluted, the demand for travel to recreational destinations would fall, and so would the benefits to society.

Utah residents place considerable value on public lands and resources. Surveys conducted by Utah State University in 2007 show that 82 percent of survey participants agreed that Utah’s public lands “are an important part of the culture and heritage” of their communities. The results of that same survey also show that responses vary along local contexts. Even though there may be broad-based expressions of public support for the presence and protection of public lands, perspectives regarding specific locations, management strategies, and land-use patterns are quite variable, and in some cases highly contentious.

**Figure 4**

Aggregate Net Benefits by Activity, 2012

(Millions of Dollars)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Net Benefits (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day hiking</td>
<td>$1,600</td>
</tr>
<tr>
<td>Mountain biking</td>
<td>$1,400</td>
</tr>
<tr>
<td>Sightseeing</td>
<td>$1,200</td>
</tr>
<tr>
<td>Wildlife viewing</td>
<td>$1,000</td>
</tr>
<tr>
<td>Freshwater fishing</td>
<td>$800</td>
</tr>
<tr>
<td>OHV</td>
<td>$600</td>
</tr>
<tr>
<td>Camping</td>
<td>$400</td>
</tr>
<tr>
<td>Picnicking</td>
<td>$200</td>
</tr>
<tr>
<td>Big game hunting</td>
<td>$100</td>
</tr>
<tr>
<td>Backpacking</td>
<td>$100</td>
</tr>
<tr>
<td>Motorized boating</td>
<td>$100</td>
</tr>
<tr>
<td>Waterfowl/migratory bird hunting</td>
<td>$70</td>
</tr>
</tbody>
</table>

Source: BEBR analysis.

**Public Lands and Economic Growth**

While public lands are highly valued from a qualitative perspective, the degree to which they contribute to economic growth at the county level is not well understood. In the study, the relationship between land ownership, land use and economic growth was explored using a Regional Adjustment Model developed by research team members at USU and WSU. The results of that model show modest amounts of land owned by the federal government and managed for general use (also referred to as “multiple use”) are associated with faster economic growth in counties, while large amounts of federal land managed for general use are associated with a drag on economic growth. The turning point at which the drag begins is county-specific, but overall occurs when 40 to 45 percent of the county’s land is owned and managed for general use by federal agencies. This relationship is strongest for income growth and migration and weakest for employment growth. Twenty of Utah’s 29 counties exceed this threshold.

The findings also show that the amount of state-owned land managed for general use does not aid economic growth until state-owned land has reached a critical mass of about 15 percent of the county area. After that point, state management is associated with faster economic growth. Only four of Utah’s counties have state-owned land at this level.

Further, counties with well-developed mining sectors had faster income growth than counties without a dominant mining sector, all else equal. Counties with relatively well-developed recreation sectors have greater migration, employment, and income growth than counties without well-developed recreation sectors, all else equal. However, it is important to note that these activities are not mutually exclusive. Two of the key findings of the model are that counties with well-developed economic sectors that serve mining and recreation industries enjoy faster economic growth.
economic growth than counties without such sectors. In fact, the dataset used in the model includes counties that have both large recreation and mining sectors, so that framing economic development choices as “resource use vs. recreation” is a false dichotomy.

Public Education

Public education is a top priority in every legislative session. No other function of state government requires near the funding that public education does. In the fiscal year 2014 budget, 48.9 percent of the $5.5 billion General Fund and Education Fund was appropriated to public education.

A source of funding for public education particularly relevant to this study is the State Permanent School Fund administered by the School and Institutional Trust Lands Administration (SITLA). Revenue generated on school trust lands must go to the State Permanent School Fund. Currently the fund has an asset value of over $1.6 billion. By state statute only the dividend and interest earnings generated by the fund are distributed annually to public schools. In FY2014, SITLA distributed $37.4 million to public schools, the largest distribution to date.

Most SITLA trust lands are public school lands and, with few exceptions, are largely scattered across the state in noncontiguous parcels interspersed with private and federal lands. Where state lands have development potential but are surrounded by federal lands, federal agencies become the de facto managers of trust lands, complicating state trust land development and resource use. Some have suggested the land transfer would allow SITLA to more easily develop its resources and ultimately provide more funding for public education in Utah.

There is no doubt that SITLA could develop its resources more easily if the state owned the surrounding lands, but raising per-student spending in Utah’s public schools to the national average would require $2.6 billion in additional funding, according to the Utah Office of Legislative Fiscal Analyst. The incremental increase in revenues (revenue in excess of the land management costs) that could be directed for public education funding would not substantially reduce Utah’s per-student funding gap. While there could be some marginal increase in funding at the state level, the net gain would likely not exceed 5 percent of current state expenditures for public education.

County Feedback

From a county perspective, the land transfer could be a positive catalyst for change, it could also present major challenges. In many rural counties, PILT and Forest Service Secure Rural Schools payments are significant sources of revenue. In nine counties, these payments accounted for more than 10 percent of county revenue and more than 20 percent in two counties. Replacing these revenues would require sizeable new economic activity, higher local tax rates and/or state assistance.

In general, county officials have expressed concerns about the lack of a well-developed plan and organizational structure for the management and funding of the transferred lands. With an increase of 31 million acres, many counties are unsure how land management under the state would function. Some fear the state would mimic the federal government in practice and policy, negating any net benefit to cities and counties throughout Utah. Understanding the magnitude of the land transfer and amount of additional resources needed, many county officials are concerned about the funding and establishment of new organizational structures and policies.

Conclusion

The full study provides a wealth of information about current activities and operations that are tied to public lands in Utah. Using that information, the cost of managing the transferred lands can be estimated and the potential revenue streams identified, but forecasting the full economic effects of a land transfer from the federal government to the state of Utah is simply not possible. For example, both the BLM and Forest Service maintain thousands of structures in Utah. It was beyond the scope of this study to assess the market value of these structures or to estimate the potential cost of procuring and maintaining these structures. However, based on information provided by these agencies, the costs could be substantial.

The state of Utah is in the early stages of formulating a plan to manage a public land portfolio vastly larger than the one it now oversees. Which programmatic actions—such as grazing, wild horse and burro control, invasive species management—would be managed by the state and which would remain with the federal government has not yet been determined.

Broadly speaking, public lands can be managed to harvest marketable resources such as oil, gas, and timber, provide for outdoor recreation, and minimize disturbance of natural land cover to provide amenity and quality-of-life values associated with the preservation of unique landscapes and ecosystems. As noted by the Governor’s Council of Balanced Resources,

We want Utah to be prosperous. This requires a diversified and enduring economy. To get there, we need to pursue development and the recreational economy, and ensure that our efforts to promote one economic sector do not unduly constrain another.

In conclusion, from a strictly financial perspective, it is likely the state of Utah could take ownership of the lands and cover the costs to manage them. Our research also suggests that it could put a strain on the state’s funding priorities in the early years as the state adjusts to the loss of federal dollars, evaluates land resources and conditions, and develops programs to replace those now managed by federal agencies.
The University seeks to provide equal access to its programs, services, and activities to people with disabilities.