

6-2014

The Future of Federal-State Land Exchanges

John C. Ruple

S.J. Quinney College of Law, University of Utah, john.ruple@law.utah.edu

Robert B. Keiter

S.J. Quinney College of Law, University of Utah, robert.keiter@law.utah.edu

Follow this and additional works at: http://dc.law.utah.edu/stegner_pubs



Part of the [Environmental Law Commons](#), and the [Land Use Law Commons](#)

Recommended Citation

Ruple, John C. and Keiter, Robert B., "The Future of Federal-State Land Exchanges" (2014). *Wallace Stegner Center for Land, Resources, and the Environment publications*. 3.

http://dc.law.utah.edu/stegner_pubs/3

This Article is brought to you for free and open access by the Wallace Stegner Center for Land, Resources, and the Environment at Utah Law Digital Commons. It has been accepted for inclusion in Wallace Stegner Center for Land, Resources, and the Environment publications by an authorized administrator of Utah Law Digital Commons. For more information, please contact valeri.craigle@law.utah.edu.

The Future of Federal-State Land Exchanges

John Ruple and Robert Keiter

June 24, 2014



Wallace Stegner Center
for Land, Resources and the Environment
UNIVERSITY OF UTAH S.J. QUINNEY COLLEGE OF LAW

TABLE OF CONTENTS

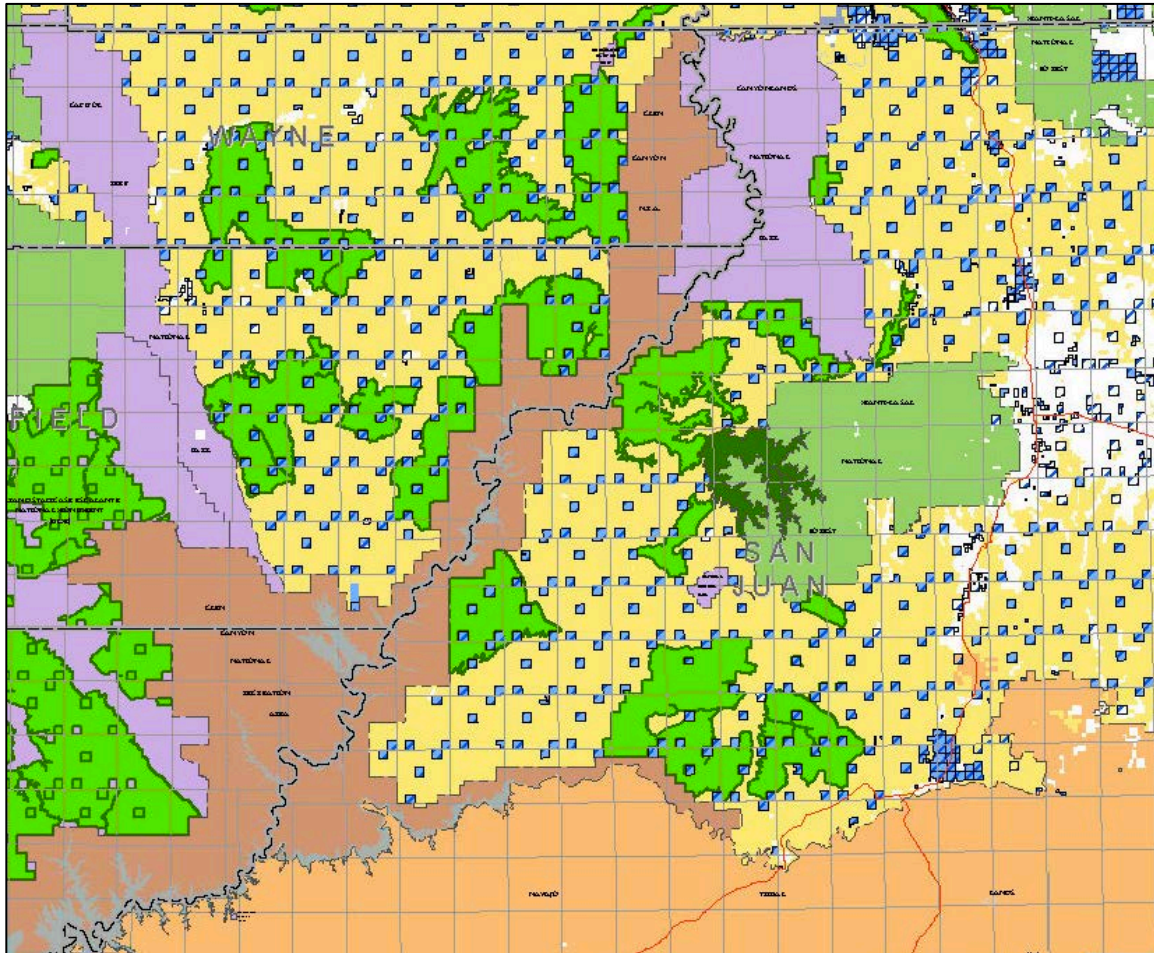
I. Living with the Blue Rash	1
A. Fragmentation	2
1.How We Got Here	3
B. Conflicting Mandates	4
C. The Economic and Ecological Costs of Fragmentation.....	5
II. Land Exchanges	6
A. Key Requirements for Federal-State Land Exchanges	6
1.Equal Value	6
2.Public Interest.....	8
B. Additional Barriers to Successful Federal-State Exchanges	9
1.Resource Values	9
2.Existing Revenue Distributions.....	11
3.Continuing Claims to Federal Lands	13
III. Future Research Regarding Potential Reforms.....	14

This paper was made possible by generous support provided by the Rocky Mountain Mineral Law Foundation. The authors would also like to thank John Andrews of the Utah School and Institutional Trust Lands Administration, Susan Culp of the Sonoran Institute, and the Utah State Office of the Bureau of Land Management for their careful review and thoughtful comments on early drafts of this paper. The authors are solely responsible for the opinions and recommendations expressed herein. The views and opinions do not necessarily reflect those of the Rocky Mountain Mineral Law Foundation, School and Institutional Trust Lands Administration, the Sonoran Institute, or the Bureau of Land Management.

I. LIVING WITH THE BLUE RASH

[Today, t]he land ownership map of the West in many places resembles a crazy quilt, without reason or coherent pattern. . . . [O]ften no single owner (states, private entities, or the Federal government) owns enough contiguous land to allow effective management of land holdings, . . . [and] fragmented ownership patterns generate a plethora of disputes over access and similar problems.¹

Figure 1.
Land Ownership in Southeastern Utah



Source: Utah School and Institutional Trust Lands Administration.

Mapping conventions dictate that state trust lands are shown in blue, and the prevalence of blue state sections found on land ownership mapping results in what has been referred to as a “blue rash.”² Figure 1 shows Southeastern Utah and the pervasive nature of state trust lands.

The bright green areas in Figure 1 represent Wilderness Study Areas (WSAs). The Bureau of Land Management (BLM), which manages the WSAs, is obligated to ensure that activities within WSAs do “not impair the suitability of such areas for preservation as wilderness.”³ Road construction or surface disturbing development is prohibited within Wilderness Areas, effectively precluding such development within WSAs.⁴ This preservation mandate invites conflict because as discussed in more detail

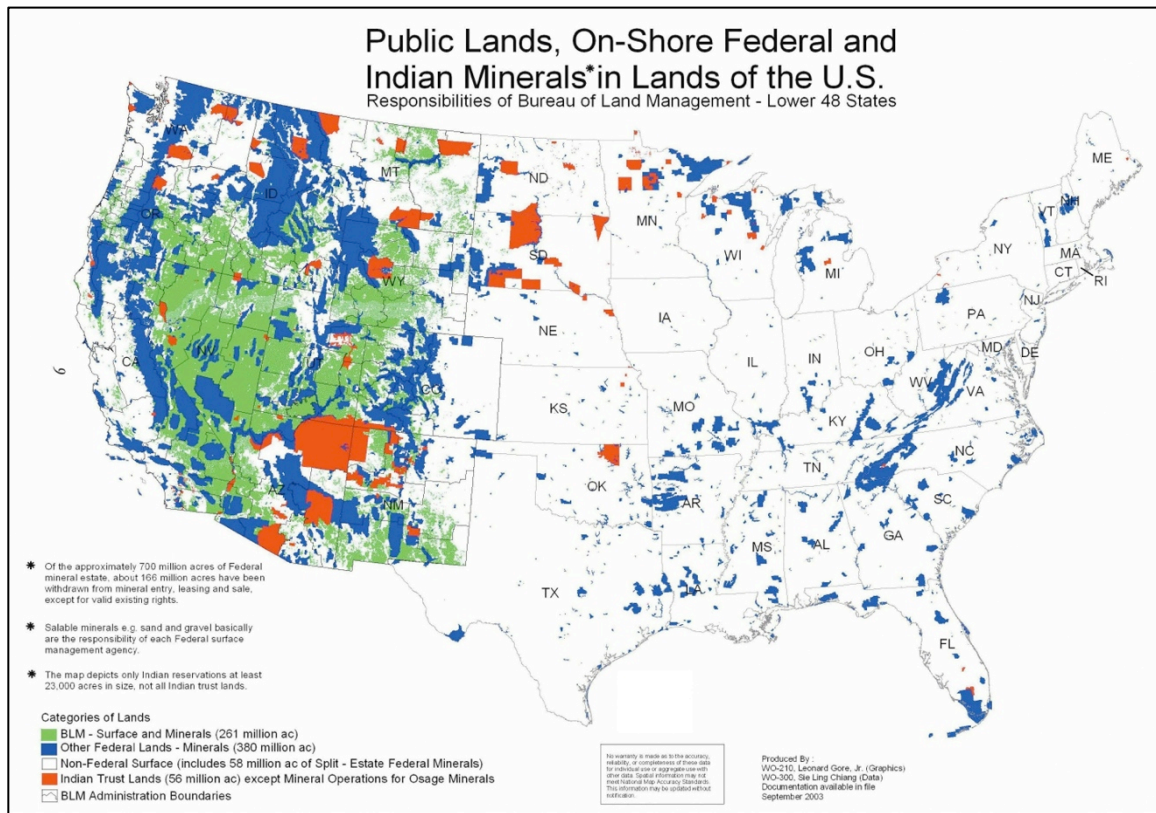
below, the Utah School and Institutional Trust Lands Administration (SITLA), which manages state trust lands within Utah, is obligated to optimize revenue from these lands to support public schools and institutions.⁵ The scope of the conflict is vast – 96,000 SITLA managed acres are within Wilderness Study Areas,⁶ and the Red Rocks Wilderness bill⁷ would capture 817,000 acres of SITLA surface estate within newly created Wilderness Areas.⁸

While this paper focuses on examples from Utah, the challenges posed by a fragmented landscape and conflicting management objectives are much broader. Across the 11 contiguous Western states, state trust lands account for twice the acreage of National Parks and trust lands are often interspersed with protected or sensitive lands. Inholdings within National Forests, for example, total 14.3 million acres.⁹ While many inholdings are owned by private parties rather than state trust land agencies, the fact that National Forest inholdings in the 11 contiguous Western states account for more land than all of Maryland and Vermont combined indicates the scope of the problem.

A. FRAGMENTATION

Across the 11 contiguous Western states, the federal government controls 362 million acres (565,400 mi²) of land surface. The BLM is the largest single landowner and oversees 172 million surface acres (268,700 mi²) and an even larger mineral estate.¹⁰ The U.S. Forest Service controls 142.4 million acres (222,500 mi²) of land surface.¹¹ These federal lands are shown in Figure 2 and summarized in Table 1. State trust lands are often interspersed, as can be seen in Figure 1.

Figure 2.
Federal Public Lands



Source: U.S. Department of the Interior, Bureau of Land Management.

**Table 1.
Land Ownership in Acres (2012)**

	State Trust Lands	USFS	BLM	NPS	Total State Area
Arizona	9,033,939	10,887,147	12,333,412	2,587,116	72,864,243
California	304,960	20,620,161	15,577,435	7,717,178	100,387,592
Colorado	2,693,222	14,419,327	8,286,845	664,013	66,015,890
Idaho	2,431,819	20,367,277	12,290,691	127,937	53,333,686
Montana	5,150,294	18,515,274	6,517,197	1,257,973	92,306,919
Nevada	8,225	5,775,523	47,595,668	763,978	70,750,381
New Mexico	8,871,722	9,298,320	13,428,855	382,714	77,761,778
Oregon	1,414,160	16,371,134	15,729,365	197,384	61,930,355
Utah	3,341,552	8,064,101	22,870,057	2,116,707	54,196,778
Washington	3,595,925	9,107,632	190,446	1,951,798	42,983,504
Wyoming	3,551,106	8,992,007	17,171,830	2,330,976	62,237,548
TOTAL	40,396,924	142,417,903	171,991,801	20,097,774	754,768,674

Source: Headwaters Economics.

State trust lands administrators manage 40.4 million acres (63,100 mi²) of surface estate across the same landscape.¹² In Utah, for example, SITLA manages 3.3 million acres — a land area larger than Connecticut¹³ but scattered across the landscape in 9,249 individual parcels.¹⁴ Fragmentation and conflicting management objectives invite conflict, especially when preservation and development mandates collide. In Montana, for example, 1.2 million of the state’s 5.1 million acres of state trust lands are land-locked by federal and private lands.¹⁵

1. How We Got Here

Developing a path out of the quagmire requires an understanding of how we came to live in such a fragmented landscape. The short answer is that the federal government acquired what is now the “West” through conquest or purchase; treaties were signed, federal territories were established, and territories eventually became the states that we know today. Railroads, miners, settlers, and newly admitted states were granted lands in order to support settlement, development, or essential government programs. Under laws intended to dispose of public lands, the federal government conveyed vast tracts of federal public lands to corporations and private individuals: approximately 270.2 million acres (422,200 mi²) to homesteaders;¹⁶ roughly 94.4 million acres (147,400 mi²) to railroads;¹⁷ about 70.9 million acres (110,700 mi²) to mineral claimants,¹⁸ and by 1907, approximately 68.2 million acres (106,600 mi²) to returning veterans.¹⁹ Grants to homesteaders, railroads, miners, and veterans were scattered across the landscape, reflecting claimant interest rather than orderly disposition.

The federal government also granted extensive lands to newly admitted states, though the formula for disposal varied from state to state.²⁰ Under the public land survey system, public lands are divided into townships, each of which contains 36 sections; each section is normally one square-mile in size (640 acres).²¹ Townships and sections form an invisible grid over the landscape, as shown in Figure 3. Upon admission to the Union, Utah received the right to title to sections 2, 16, 32, and 36.²² Lands granted to the states were scattered across the landscape to ensure a representative sample of resources were available to support state institutions, and to create an incentive to develop all parts of the state. Lands that were not granted away remain in federal

ownership. The result is the patchwork of ownership evident in Figures 1 and 2.

**Figure 3.
Public Land Survey System**

6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36

Source: Wallace Stegner Center for Land, Resources, and the Environment.

Laws disposing of federal lands and resources, created in an era when the federal government was land-rich but cash poor,²³ set a course for western public land management that is often difficult to reconcile with evolving social priorities. Much of the tension can be traced to a belief in manifest destiny and reconstruction era laws that ushered in westward expansion and dramatic economic growth.²⁴ Their imprint remains evident today, and the path these laws charted for a youthful nation is sometimes fraught with tension because of evolving realities and changing national priorities.

Fragmented ownership would matter little if all landowners and managers operated under similar objectives and could harmonize their efforts. Objectives, however, are often in conflict.

B. CONFLICTING MANDATES

SITLA, like other states' trust lands administrators, is obligated to manage trust lands in the most "prudent and profitable manner possible" to support public schools and institutions.²⁵ Specifically, SITLA is directed to "obtain the optimum values from use of

trust lands and revenues for the trust beneficiaries, including the return of not less than fair market value for the use, sale, or exchange of school and institutional trust assets.”²⁶ In contrast to SITLA, the BLM operates under a multiple-use, sustained-yield mandate that includes protecting sensitive lands.²⁷ BLM’s holdings include 22,870,057 acres in Utah, or roughly 42% of the entire state.²⁸

Optimizing revenues for trust beneficiaries can be a challenge, as 96,000 SITLA acres are within Wilderness Study Areas,²⁹ which are managed under a non-impairment standard that precludes most commercial uses.³⁰ An additional 20,220 acres are within either the Beaver Dam Wash or Red Cliffs National Conservation Areas, which are managed, in part, “to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the National Conservation Area.”³¹ Other federal lands, such as Areas of Critical Environmental Concern,³² are often incompatible with resource development and surround many more SITLA acres. Preservation proposals threaten to capture even more SITLA land, the most profound example being the Red Rocks Wilderness bill,³³ which would capture 817,000 acres of SITLA surface estate within newly created Wilderness Areas.³⁴ The proposed Greater Canyonlands National Monument would capture 151,230 acres of SITLA lands³⁵ and significant portions of oil and gas fields that, during 2012, produced over 350,000 barrels of oil and 185 million cubic feet of natural gas.³⁶ The more modest Canyonlands Completion proposal, which has received much broader support, would still capture almost 31,000 acres of SITLA lands.³⁷

State trust land inholdings within sensitive federal public lands is a pervasive problem across the 11 contiguous Western states. State trust land inholdings are found in BLM managed National Monuments in Arizona, California, Idaho, Montana, and New Mexico, where inholdings collectively total 197,713 acres.³⁸ In addition to Utah, state trust land inholdings are found in BLM managed National Conservation Areas in Arizona and Idaho, where inholdings total 46,662 acres.³⁹ While inholdings within National Forests are not broken out by ownership type, inholdings are found in National Forest Service managed Wilderness areas in each of the 11 contiguous Western states, where they total 92,479 acres.⁴⁰ All told, inholdings in National Forest Service managed lands that are managed under a conservation designation total 416,615 acres (651 mi²) across this same landscape.⁴¹ The inability to both conserve and optimize revenue generation from the same landscape invites conflict.

C. THE ECONOMIC AND ECOLOGICAL COSTS OF FRAGMENTATION

The scattered nature of many state trust land parcels increases management costs and impacts development potential. For example, developing a SITLA parcel that is surrounded by federal land necessitates obtaining access across surrounding federal land. While SITLA and its lessees are entitled to reasonable access across federal lands, the federal government is also able to impose reasonable regulation on access in order to minimize impacts to resources.⁴² Striking a balance between access and protection of competing resource values involves complex discretionary decisions on the part of the BLM. These decisions almost assuredly represent “major federal actions significantly affecting the quality of the human environment”⁴³ and therefore trigger the National Environmental Policy Act (NEPA).⁴⁴ The NEPA compliance process often necessitates preparation of an Environmental Impact Statement and costs both time and money. Furthermore, at 640 acres, many state trust land parcels are too small to develop economically unless they are part of a larger development that includes surrounding BLM lands. Where the BLM does not choose to pursue development, trust

land beneficiaries may be unable to realize the full economic value of trust assets.

The ecological values at stake are equally compelling, including some of the most dramatic and ecologically significant lands in the West. The development that trust land managers are charged with pursuing threatens Wilderness Study Areas, Areas of Critical Environmental Concern, and other sensitive landscapes. Development threatens to fragment large blocks of habitat, many of which provide habitat for species protected under the Endangered Species Act.⁴⁵ Fragmentation could also negatively impact habitat connectivity for large mammals that disperse over a broad geographic range.⁴⁶ Protecting and increasing landscape-scale connectivity is one of the most common recommendations for protecting biodiversity in the face of climate change.⁴⁷ As the National Fish, Wildlife and Plants Climate Adaptation Partnership notes, the ability to “[c]onserve, restore, and as appropriate and practicable, establish new ecological connections among conservation areas to facilitate fish, wildlife, and plant migration, range shifts, and other transitions caused by climate change” is a key adaptation strategy.⁴⁸ Land exchanges are specifically identified as a primary means to affect that end.⁴⁹

Consolidating state ownership would facilitate improved planning and leasing for revenue-generating economic uses of state trust lands. Consolidating important conservation lands would facilitate new protective designations and management prescriptions that are often associated with economic growth in adjacent communities.⁵⁰

II. LAND EXCHANGES

Land exchanges have proven useful in “rationalizing” land ownership and management.⁵¹ While sometimes controversial, land exchanges appear to provide the single best opportunity for rationalizing ownership and control over public lands and the resources they contain. The transformed landscape could simultaneously facilitate both responsible energy development and conservation of sensitive landscapes.

The BLM’s land exchange authority is contained in the Federal Land Policy and Management Act (FLPMA) sections 205 and 206, which set forth the BLM’s authority to acquire and dispose of public lands.⁵² The two key requirements for a FLPMA exchange involve determinations that the parcels to be exchanged are of equal value, and that the exchange is in the public interest. Congress can bypass FLPMA, enacting legislation specifically authorizing a land exchange and exempting the exchange from one or more of FLPMA’s requirements, but practical and political realities, as well as past legislative exchanges, indicate that some assurance of equal value and public interest will still be required. While the fragmentation-reducing benefits of land exchanges are clear, the complexities and high transaction costs foil most efforts.

A. KEY REQUIREMENTS FOR FEDERAL-STATE LAND EXCHANGES

1. Equal Value

Under FLPMA, exchanged lands must be in the same state and of equal value,⁵³ based on nationally approved appraisal standards.⁵⁴ The appraisal must set forth an opinion regarding the market value of the lands. “In estimating market value, the appraiser shall: (1) Determine the highest and best use of the property to be appraised;” and “(2) Estimate the value of the lands and interests as if in private ownership and available for sale in the open market.”⁵⁵ “Highest and best use means the most probable legal use of a property, based on market evidence as of the date of valuation, expressed in an appraiser’s supported opinion.”⁵⁶ In order to equalize the value of parcels exchanged, the exchange may incorporate cash payments for up to 25% of the values of

the federal lands and interests exchanged.⁵⁷ Land exchanges under FLPMA can involve the surface estate, mineral interests, or both.⁵⁸

Equal value determinations necessitate formal appraisals, which are impracticable for consolidating exchanges involving hundreds of parcels and thousands of acres. Furthermore, highest and best use determinations do not adequately capture nonmarket values: “[a] noneconomic highest and best use, such as conservation, natural lands, preservation, or any use that requires the property to be withheld from economic production in perpetuity, is not a valid use upon which to estimate market value.”⁵⁹ This prohibition proves especially problematic where federal agencies seek to acquire inholdings to advance conservation objectives.

The appraisal’s market analysis becomes even more complicated for mineral bearing parcels. For such parcels, the analysis must consider the physical characteristics of the minerals and the land; the demand for and marketability of the minerals, including the access to markets and transportation costs, price, and competition; production volume, including rate, production lifespan, and costs; environmental considerations including permitting and reclamation costs; taxes, royalty rates, capitalization, discount rates, foreseeable technology advances, and a host of other considerations that may necessitate complex assessments or development of formal mining plans.⁶⁰ As the Eighth Circuit Court of Appeals observed: “Many of these factors are impossible to predict with reasonable accuracy.”⁶¹ And mineral appraisals may be needed for literally hundreds of separate parcels. Questionable accuracy and high transaction costs, coupled with the risk of litigation, stop most consolidating exchange efforts before they begin.

Finally, appraisals represent value estimations at a fixed moment in time, while the market conditions upon which appraisals depend are subject to constant change. The validity period for most appraisals is generally between six months to one year, depending on market conditions in the project area. The time required to process an exchange varies with workload and exchange complexity, and extended processing times can cause the appraisal validity to be called into question. This may create an incentive to advance smaller, less complicated exchange proposals rather than the kinds of large proposals that would have the greatest benefit.

In the face of the challenges involved in consummating consolidating federal-state exchanges under FLPMA, many exchanges seek congressional authorization.⁶² While a legislative exchange can be drafted to avoid many of FLPMA’s requirements, and most large exchanges proceed legislatively for just this reason, equal value requirements remain a practical reality even where FLPMA does not apply. Legislators normally want at least some assurance that the exchange is fair. Common compromises are legislative language authorizing less complex valuation methods, applying less stringent value equalization requirements, or including a determination that exchanges involve lands of equal or approximately equal value.⁶³

Alternatively, congressionally authorized exchanges can incorporate revenue sharing provisions that reduce the need for formal mineral appraisals. This approach shifts the emphasis from putting a precise value on the lands to be conveyed towards ensuring that all parties receive a fair share of whatever revenue may eventually be generated. Under the Utah Recreational Land Exchange (URLE), for example, the U.S. reserved half of any rent and bonus bids as well as a “royalty in the amount that would have been received by the Federal Government if the oil shale resources had been retained in Federal ownership.”⁶⁴ The decision to apply revenue sharing only to oil shale resources proved to be problematic because the region also contains significant quantities of natural gas. Appraisals were needed for conventional hydrocarbon resources, and as discussed in more detail below, fluctuations in the price of natural gas

reduced the value of the land to be conveyed to the state, forcing major revisions to the exchange.

Pending legislation that would authorize the relinquishment of state trust lands within the Uintah and Ouray Indian Reservation and the selection of federal public lands to replace the lands relinquished extends revenue sharing to all minerals subject to the federal Mineral Leasing Act.⁶⁵ Whether an expanded use of revenue sharing represents a viable model remains to be seen. While uncertainty remains, revenue sharing appears to represent a powerful tool in the effort to minimize transaction costs while ensuring fair outcomes to all parties.

2. Public Interest

FLPMA requires that exchanges be in the public interest. Like land valuation and equalization requirements, a public interest determination is also a practical necessity for legislative exchanges. Under FLPMA, the Secretary must determine that “the public interest will be served by making the exchange.”⁶⁶ FLPMA’s implementing regulations require a determination that an exchange serves the public interest be predicated on a finding that:

- (1) The resource values and the public objectives that the Federal lands or interests to be conveyed may serve if retained in Federal ownership are not more than the resource values of the non-Federal lands or interests and the public objectives they could serve if acquired, and (2) The intended use of the conveyed Federal lands will not, in the determination of the authorized officer, significantly conflict with established management objectives on adjacent Federal lands and Indian trust lands. Such finding and the supporting rationale shall be made part of the administrative record.⁶⁷

At a conceptual level, demonstrating that an exchange is in the public interest appears fairly straightforward for consolidating federal-state exchanges because of the clear benefits that stand to accrue to each party.⁶⁸ This argument flows from the BLM’s regulations, which state that:

When considering the public interest, the authorized officer shall give full consideration to the opportunity to achieve better management of Federal lands and resources, to meet the needs of State and local residents and their economies, and to secure important objectives, including but not limited to: protection of fish and wildlife habitats, cultural resources, watersheds, and wilderness and aesthetic values; enhancement of recreation opportunities and public access; consolidation of lands and/or interests in lands, such as mineral and timber interests, for more logical and efficient management and development; consolidation of split estates; expansion of communities; accommodation of existing or planned land use authorizations (§ 254.4(c)(4)); promotion of multiple-use values; implementation of applicable Forest Land and Resource Management Plans; and fulfillment of public needs.⁶⁹

Exchanges that facilitate both sensitive area protection and responsible development appear to advance these goals. Conceptual ease, however, is complicated by the time and effort required to document consideration of all the factors reflected in

applicable regulations. For a FLPMA exchange, the determination is often integrated into the NEPA analysis for the proposed exchange. The NEPA documents and public interest determination must also consider other legal requirements, such as compliance with the Endangered Species Act and the National Historic Preservation Act, that can involve considerable time and expense. Furthermore, the identification, valuation, and balancing of the resource values associated with the parcels to be acquired and conveyed can increase NEPA document complexity, and with it, the time and expense required to conclude the public interest determination.

When Congress weighs in on a federal-state land exchange, Congress often includes a determination that the exchange is in the public interest.⁷⁰ A congressional determination does not, however, eliminate requirements to comply with substantive and procedural requirements contained in statutes such as the Endangered Species Act and the National Historic Preservation Act. A congressional public interest determination, while potentially expediting an exchange, may also reduce opportunities for public involvement. And of course public interest determinations may be met with skepticism, especially where there has been a history of disproportionate windfalls to one party.⁷¹

Calls for a formal presumption that consolidating federal-state land exchanges are in the public interest respond, at least in part, to the subjectivity inherent in the determination.⁷² Whether improvements in efficiency outweigh the benefits resulting from careful and transparent deliberation is an open question, and likely to generate strong opinions by all parties. At present, the requirements associated with the public interest determination appear less problematic than the requirements associated with the equal value determination, but these requirements are still likely to result in significant time and expense to the parties involved.

B. ADDITIONAL BARRIERS TO SUCCESSFUL FEDERAL-STATE EXCHANGES

Federal-state land exchanges that consolidate lands and reduce fragmentation can simultaneously facilitate both responsible resource development and protection of sensitive landscapes. Despite the clear benefit to a wide range of interests, such exchanges remain rare. Having already discussed the transaction costs associated with land and resource valuation, this section explores other reasons why mutually beneficial exchanges are so difficult to effectuate.

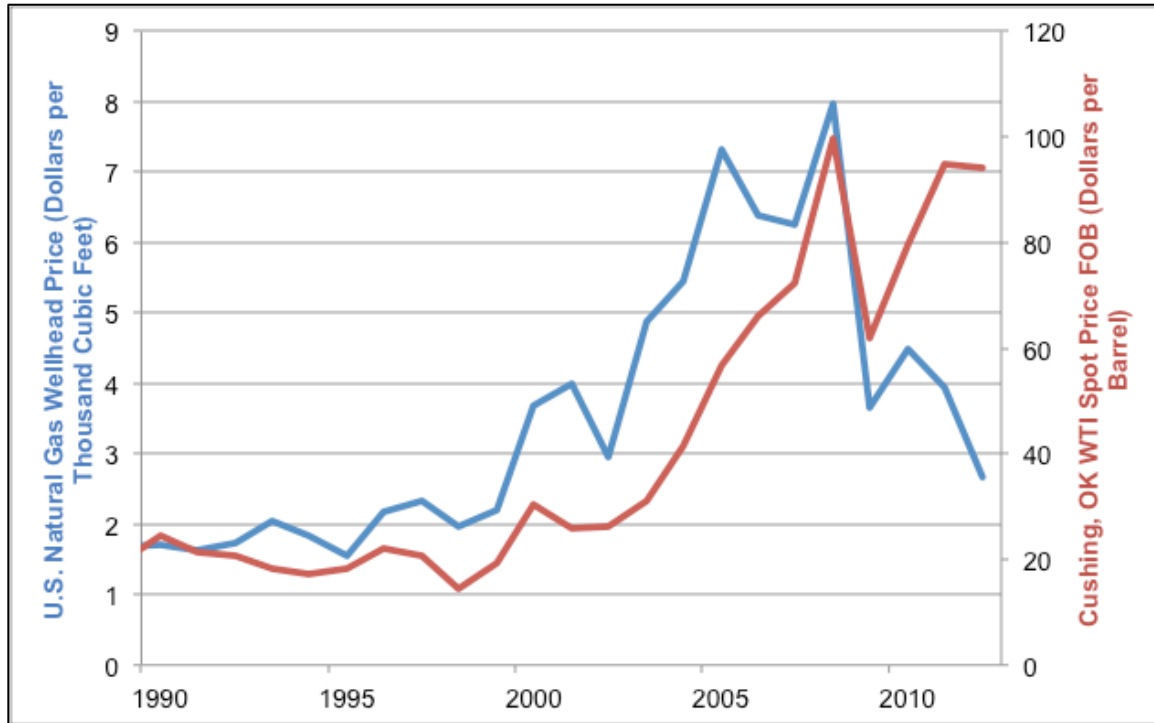
1. Resource Values

Oil and natural gas are the most common mineral resources extracted from federal and state lands. These resources are sold on commodity markets where prices fluctuate based on factors beyond the producers' control. In 1998, for example, West Texas intermediate crude oil sold for an average annual price of \$14.42 per barrel; a decade later, the price had increased almost 700% to \$99.67 per barrel.⁷³ Natural gas markets are equally volatile, with the average annual wellhead price hitting \$7.97 per thousand cubic feet in 2008 but falling to \$2.66 per thousand cubic feet in 2012.⁷⁴ See Figure 4.

Market volatility can directly impact land and resource value, as it did with the Utah Recreational Land Exchange Act. The Act authorized the BLM to convey 35,609 acres of developable public land to Utah in return for 45,826 acres of sensitive state lands located near National Parks and along the Colorado River.⁷⁵ The initial authorization was subject to modification as needed to equalize the value of the lands exchanged. Appraisals and exchange documentation took four and a half years, and between the Act's passage and exchange consummation, the price of natural gas fell precipitously, reducing the value of the federal lands to be conveyed to the State by

more than \$10 million. To ensure an equal value exchange, 36 state parcels totaling 20,273 acres were dropped from the exchange and will not receive the federal protections that all parties initially envisioned.⁷⁶

Figure 4.
Domestic Oil and Gas Market Prices 1990-2012



Data from the United States Energy Information Administration.

Changes in technology can also frustrate value equalization efforts. The combination of horizontal drilling and hydraulic fracturing has enabled the energy industry to access and produce oil and natural gas much more economically, lowering the per-unit cost of production while making previously unprofitable reserves economically recoverable. Such changes can radically impact the value of mineral resources underlying state and federal lands, playing havoc with efforts to equalize values.

Unconventional resources such as oil shale are even more troubling. For example, a 2010 U.S. Geological Survey report estimated in-place oil shale resources of the Green River Formation within the Uinta Basin of Utah and Colorado at over 1.3 trillion barrels.⁷⁷ To put that into perspective, Saudi Arabia has approximately 265 billion barrels of proven oil reserves.⁷⁸ At almost 5 times the size of Saudi Arabia's proven reserves, the potential resources within the Green River Formation are staggering. However, commercial scale oil shale to liquid fuel production does not exist anywhere in the world. To value oil shale bearing lands based on the oil equivalency of in-place resources ignores the unknown cost of production and uncertain rate of recovery, potentially dramatically overstating the economic value of the resource. However, simply assuming that since oil shale will never be produced commercially because it has not been profitably developed to date risks dramatic underestimation of economic value. Inaccurate assumptions could create huge winners and losers, and the risk of loss resulting from faulty assumptions stands as a major barrier to successful exchanges.

While it is unrealistic to expect that market and technological uncertainty can be eliminated, reducing uncertainty can help minimize transaction costs and the risk to all parties. Minimizing the likelihood that appraisals will require revision or that NEPA documents will need supplementation reduces the likelihood that the time and expense incurred completing these steps will inhibit mutually beneficial exchange efforts. Likewise, since the risk of entering into an exchange that subsequently results in a windfall to one party is a strong psychological barrier to exchange finalization, minimizing this risk may facilitate progress towards exchange consummation. Revenue sharing provisions may be a means of addressing some of these challenges.

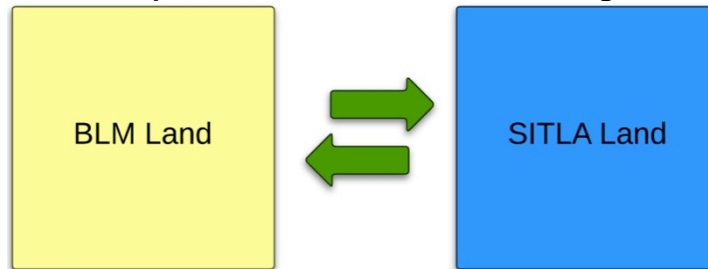
2. Existing Revenue Distributions

Environmental matters aside, a land exchange involving federal and state trust lands at first appears to be a simple matter of ascertaining the value of the lands involved, and then ensuring that the lands conveyed by the federal government to the trust lands administration are equal in value to the lands conveyed by the trust lands administration to the federal government. It is not that simple.

Under the Mineral Leasing Act (MLA),⁷⁹ states are entitled to roughly half of the revenue from mineral development occurring on federal lands,⁸⁰ and mineral revenue payments to states are “directed giving priority to those subdivisions of the State socially or economically impacted by development of minerals . . . for (i) planning, (ii) construction and maintenance of public facilities, and (iii) provision of public services.”⁸¹ The equal value federal-trust lands exchange shown in Figure 5 therefore affects interests in future revenue depicted in Figure 6.

Figure 5.

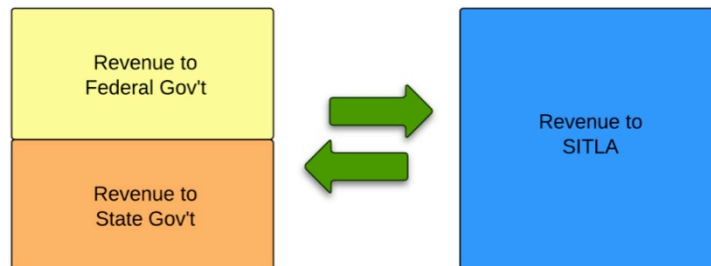
Simple Federal-Trust Lands Exchange



Source: Wallace Stegner Center for Land, Resources, and the Environment.

Figure 6.

Revenue Distribution for Federal-Trust Lands Exchanges



Source: Wallace Stegner Center for Land, Resources, and the Environment.

An equal value federal-state exchange would pose little difficulty if both parcels have the same likelihood of development. A problem arises when the federal

government seeks to obtain lands for conservation purposes, and these lands contain valuable mineral resources that would likely have been developed had the land remained in state ownership. Such scenarios are common because the threat of developing a mineral-rich trust lands parcel, deemed better suited for conservation or surrounded by federal lands managed for conservation purposes, motivates most federal acquisitions. While the federal government may be willing to forego potential future revenue in return for conservation benefits, that decision impacts a potential source of future revenue for local governments. The loss of that potential revenue stream will invariably raise a concern for the communities that will face the shortfall. Of course the income forgone is speculative revenue since there are no guarantees that the parcel would have been developed, but it is likely to raise concerns all the same.

At this point it is worth noting that the federal government is under no obligation to retain land in federal ownership.⁸² If the federal government chose to dispose of public lands through sale or grant, no MLA revenue from development occurring after federal disposal would accrue to either the state or local governments.⁸³ Accordingly, as a purely legal matter, the federal government is likely free to exchange federal lands without regard to the impact on MLA revenue. However, as a practical matter, an exchange that reduces the potential for future federal mineral revenue production, half of which is directed to local governments, may founder for lack of local support.

In addition to questions regarding the *amount* of MLA revenue that would be directed to local governments, federal-state exchanges raise difficult questions regarding how MLA revenue would be *distributed among* those governments. Since mineral revenue derived from federal land development is returned to the counties where the development occurred, an exchange that shifts development from one county to another also shifts revenue between counties, even if the exchange does not result in a change in the net amount of revenue produced. Again, counties that suspect they will lose future revenue as a result of a federal-state exchange are likely to be exchange skeptics.

There are several ways to protect the potential state revenue stream, but all are problematic. As a practical matter, a federal-state land exchange is unlikely to succeed unless it is fair to all parties involved – that is, no party can give up more than it receives. State and local governments also are unlikely to support exchanges that eliminate their potential to receive a share of the revenue generated from mineral development on federal lands within the county's borders, effectively requiring either an increased contribution from trust lands administrators or the federal government.

The federal government cannot provide additional value because to do so would violate FLPMA's equal value requirement.⁸⁴ While legislative exchanges are likely to include less rigid equal value requirements, the perception that the federal government fails to obtain a fair return will almost certainly generate strong public opposition to legislation giving more than equal value to states.⁸⁵

Provision of additional value by state trust land managers is equally problematic. In Utah, state trust lands administrators owe a fiduciary duty to trust beneficiaries, obligating them to "manage the lands and revenues generated from the lands in the most prudent and profitable manner possible."⁸⁶ "Trust lands administrators must be concerned with both income for current beneficiaries and the preservation of trust assets for future beneficiaries, which requires a balancing of short and long-term interests so that long-term benefits are not lost in the effort to maximize short-term gains."⁸⁷ The precise requirements of the duty vary from state to state depending on the language contained in the federal enabling acts offering land upon admission to the Union, state constitutions accepting federal grants, and state statutes regarding trust lands administration.⁸⁸ Subtle difference aside, the common thread is that trust lands administrators cannot give up valuable trust assets without obtaining fair market value in

return.⁸⁹ Therefore, if state trust lands administrators choose to give up value in order to ensure that state and local governments maintain a source of revenue, the trust lands administrators would be in breach of their fiduciary duties and the exchange would be in legal jeopardy.

The state and its subdivisions could agree to a reduction in potential revenue in order to maintain exchange viability. Reducing landscape fragmentation will likely produce new economic opportunities, and increases in tax revenue attributed to new activity may offset some or all of the potential mineral revenue foregone. However, while some reduction seems reasonable, it is unlikely that either the legislature or local governments will agree to a federal-state exchange that they perceive to be economically unadvantageous.

While fuller consideration of environmental values appears appropriate and desirable,⁹⁰ existing legal requirements preclude non-market value consideration.⁹¹ Therefore, to be fair to all, the parties must agree to discount the value of the lands and resources to reflect the likelihood of development. For example, where state trust lands containing valuable mineral resources are surrounded by federal lands that are managed to protect scenic or wilderness related values, the smaller size of trust lands parcels and the management requirements associated with surrounding federal lands may reduce the likelihood of development. The question becomes how much to discount the value of trust lands by. Subjectivity in these determinations may create some room for flexibility in equal value negotiations.

Another option is to include other valuable consideration in the exchange. Such consideration could create flexibility if the parties are afforded deference to the value they attach to it. For example, the State of Utah and the federal government consummated one of the largest exchanges ever in 1998, eliminating over 452,000 acres of state trust lands inholdings from National Parks, National Forests, Indian Reservations, and the newly created Grand Staircase-Escalante National Monument.⁹² In return, the state received a \$50,000,000 cash payment, a \$13,000,000 interest in coal revenue from development on federal lands, 156 million tons of coal, and over 117,000 acres of federal land.⁹³ The State of Utah, as part of the exchange agreement, also agreed to seek dismissal of an ongoing lawsuit over valuation of parcels contained in a prior land exchange bill.⁹⁴ The value attached to the litigation foregone is somewhat subjective, and a similar agreement to drop ongoing litigation in association with an exchange agreement may provide valuable flexibility to future exchange efforts.

3. Continuing Claims to Federal Lands

Assuming that the federal and state governments are successful in negotiating an exchange that consolidates a block of federal land that can then be managed for conservation purposes, any outstanding mechanism that can fragment that newly consolidated landscape, whether real or perceived, threatens exchange completion. The continued existence of non-federal inholdings can pose such a threat. For purposes of this analysis, we assume that private inholdings can be eliminated through federal-private exchanges. We also assume that all existing state and state trust lands inholdings are removed as part of the exchange. While this appears to resolve the problem, the continued existence of unclaimed “quantity grants” could cause uncertainty and generate resistance within federal agencies, if such grants are not understood.

When the Western states were admitted to the Union, they received the right to title to designated sections of land within each township. In Utah’s case, the newly created state received sections 2, 16, 32, and 36 in each township.⁹⁵ We refer to these as section grants. Utah, like its sister states, also received the right to select hundreds of

thousands of acres in support of specific objectives such as to fund construction of the State Capitol.⁹⁶ We refer to these as quantity grants. The right of selection for quantity grants was established without restriction or regard to the value of the lands selected, though mineral lands are excluded from selection.⁹⁷ While most quantity grants were selected many years ago, SITLA retains approximately 2,800 to 5,000 acres of as of yet unselected quantity grants; the quantity is in dispute. Because quantity grants are not tied to value, SITLA has a strong incentive to claim lands with the highest value lands possible. SITLA will therefore likely claim lands only near urban areas where land values are generally higher. SITLA has little incentive to seek inholdings within areas otherwise managed for conservation purposes.

A similar though less pressing concern exists with respect to in-lieu lands. These are lands that state trust lands administrators are entitled to select in-lieu of section grants that had been conveyed out of federal ownership before they could be conveyed to the state.⁹⁸ In-lieu land selection is intended to “make the States whole for the loss of value resulting from the unavailability of the originally designated cross section of lands within the State.”⁹⁹ Accordingly, mineral lands are generally unavailable for in-lieu selection except as indemnity for mineral lands that would have been conveyed to the state but for prior reservation or conveyance to a third party.¹⁰⁰ Similarly, the Secretary of the Interior can classify lands as available for in-lieu selection in order to avoid selection resulting in conveyance of grossly disparate value to the state.¹⁰¹ This limitation appears to reduce federal concern that a state may seek to acquire disproportionately valuable lands through in-lieu selection. The administrative process involved in in-lieu selection also provides federal land managers with increased voice in the selection process, creating an opportunity to resolve concerns or disagreements that is lacking with respect to quantity grants.

III. FUTURE RESEARCH REGARDING POTENTIAL REFORMS

The goal of this paper was to identify opportunities and challenges and begin a conversation about alternative courses of action. Given the potential for mutually beneficial federal-state land exchanges, reform opportunities represent a fruitful area for future research.

As noted earlier, regulations applicable to federal land exchanges preclude consideration of non-market values. Yet a key motivator behind many large federal-state land exchanges is the removal of trust lands inholdings from sensitive landscapes, thereby removing the threat of development and facilitating conservation oriented management across a broader landscape. Valuation reform allowing consideration of ecosystem services and non-extractive uses could lead to more complete and accurate valuation.¹⁰²

In the face of the challenges involved in concluding consolidating federal-state exchanges under FLPMA, many exchanges seek congressional authorization. Legislation can authorize less complex valuation methods or find that exchanges involve lands that are equal in value. Alternatively, congressionally authorized exchanges can shift the focus from valuation and equalization to the underlying goal, ensuring that neither the state nor the federal government is unjustly enriched by the transaction. The Utah Recreational Land Exchange and Uintah and Ouray Relinquishment and Selection proposals discussed above are potential models for broader reforms. Future research should evaluate these efforts to determine whether they produce the intended results and seek to develop models that improve both efficiency and efficacy.

While revenue sharing provides a valuable tool, especially when the exchange involves resources that are subject to significant uncertainty or market volatility, revenue

sharing does not resolve the problems posed by the MLA's ongoing commitment to return revenue generated from development on federal lands to the communities where that development occurred. Utah has created a Land Exchange Distribution Account,¹⁰³ which directs a percentage of the proceeds from development on lands acquired through land exchanges back to the counties that lost federal lands as part of that exchange.¹⁰⁴ This account and associated statute may provide a useful model for other states. Regardless of how reform efforts proceed, careful attention should be paid to unintended changes to revenue distribution, and the consequences such changes portend.

Finally, trust (or the lack thereof) stands as one of the most significant barriers to exchange efforts. Closing out remaining quantity grants and in-lieu selections as part of a consolidating federal-state exchange could help secure support for mutually beneficial exchanges. Public support is especially important, particularly where past exchange efforts have stalled because of a lack of trust or fears of an inequitable outcome. Overcoming these challenges will necessitate careful process design, meaningful public involvement, and transparency.

Despite the challenges ahead, we are optimistic that, with appropriate reforms, federal-state land exchanges can reduce management fragmentation and conflicts. The ecological and economic benefits consolidating exchanges justify a concerted reform effort.

Endnotes

- ¹ GEORGE CAMERON COGGINS AND ROBERT L. GLICKMAN, PUBLIC NATURAL RESOURCES LAW, § 2, 9 (2d ed. 2010).
- ² Steven M. Davis, *Preservation, Resource Extraction, and Recreation on Public Lands: A View From the States*, 48 NAT. RESOURCES J. 303, 332 (2008).
- ³ 43 U.S.C. § 1782(c) (2006).
- ⁴ See 43 U.S.C. § 1133(c) (2006) (prohibiting road construction, motorized equipment, and structures within designated Wilderness areas).
- ⁵ UTAH CODE ANN. § 53C-1-302(2) (2013).
- ⁶ Personal communication, Jessica Kirby, Utah School and Institutional Trust Lands Administration GIS Manager.
- ⁷ H.R. 1630 and S. 769, 113th Cong. (2013).
- ⁸ Personal communication, Jessica Kirby, Utah School and Institutional Trust Lands Administration GIS Manager.
- ⁹ Compiled from, U.S. FOREST SERVICE, DEPARTMENT OF AGRICULTURE, LAND AREAS OF THE NATIONAL FOREST SYSTEM (Jan. 2013).
- ¹⁰ Headwaters Economics, Economic Profile System-Human Dimensions Toolkit (2013) <http://headwaterseconomics.org/tools/eps-hdt>.
- ¹¹ Compiled from, U.S. FOREST SERVICE, *supra* note 9.
- ¹² Headwaters Economics, *supra* note 10.
- ¹³ The land area of Connecticut is 4,840 square-miles or 3,097,600 acres. U.S. CENSUS BUREAU, DEPARTMENT OF COMMERCE, 2012 STATISTICAL ABSTRACT OF THE UNITED STATES, Table 358. Land and Water Area of States and Other Entities: 2008 *available at* <http://www.census.gov/compendia/statab/>.
- ¹⁴ Personal communication, Jessica Kirby, Utah School and Institutional Trust Lands Administration GIS Manager.
- ¹⁵ Karl Puckett, *A New Approach: Program Aims to Open Islands of Landlocked State Land*, GREAT FALLS TRIBUNE (March 4, 2014).
- ¹⁶ PAUL W. GATES, HISTORY OF PUBLIC LAND LAW DEVELOPMENT 797 (1968).
- ¹⁷ *Id.* at 385.
- ¹⁸ DEP'T OF THE INTERIOR, PUBLIC LAND STATISTICS 2012, Table 3-2 (2013) *available at* http://www.blm.gov/public_land_statistics/.
- ¹⁹ BENJAMIN HORACE HIBBARD, A HISTORY OF THE PUBLIC LAND POLICIES 132 (1965).
- ²⁰ See GATES, *supra* note 16 at 804-05.
- ²¹ 43 U.S.C. § 751 (2006).
- ²² 28 Stat. 107, 109 (1894)
- ²³ Note that until 1913, the federal government lacked the power to “lay and collect taxes on incomes” until ratification of the 16th Amendment to the U.S. Constitution.

- ²⁴ See generally, CHARLES F. WILKINSON, CROSSING THE NEXT MERIDIAN: LAND, WATER, AND THE FUTURE OF THE WEST (1992).
- ²⁵ UTAH CODE ANN. § 53C-1-102(2)(b) (2013); see also JON A. SOUDER AND SALLY K. FAIRFAX, STATE TRUST LANDS: HISTORY, MANAGEMENT, & SUSTAINABLE USE chs. 1&2 (1996) (discussing mandate as applied across the West).
- ²⁶ UTAH CODE ANN. § 53C-1-302(1)(b)(iii) (2013).
- ²⁷ 43 U.S.C. §§ 1701(a)(7) and 1702(c) (2006).
- ²⁸ Headwaters Economics, *supra* note 10.
- ²⁹ Personal communication, Jessica Kirby, Utah School and Institutional Trust Lands Administration GIS Manager.
- ³⁰ 43 U.S.C. § 1782(c) (2006).
- ³¹ 16 U.S.C. § 460www(a) (2012) (Red Cliffs NCA); 16 U.S.C. § 460xxx(a) (2012) (Beaver Dam Wash NCA). Acreage calculations are from DEP'T OF THE INTERIOR, *supra* note 18 at 205.
- ³² See 43 U.S.C. § 1702(a) (2006) (defining an ACEC as an area requiring special management attention to prevent irreparable damage to important resources).
- ³³ H.R. 1630 and S. 769, 113th Cong. (2013).
- ³⁴ Personal communication, Jessica Kirby, Utah School and Institutional Trust Lands Administration GIS Manager.
- ³⁵ Utah School and Institutional Trust Lands Administration, Greater Canyonlands National Monument Boundary Proposal Map (Dec. 5, 2012) on file with authors.
- ³⁶ Productions estimates were obtained from the Utah Division of Oil, Gas & Mining and are based on producing oil and gas field overlapping at least a portion of the Greater Canyonlands area.
- ³⁷ Personal communication, Jessica Kirby, Utah School and Institutional Trust Lands Administration GIS Manager.
- ³⁸ DEP'T OF THE INTERIOR, *supra* note 18 at 203.
- ³⁹ *Id.* at 205.
- ⁴⁰ Compiled from, U.S. FOREST SERVICE, *supra* note 9.
- ⁴¹ *Id.*
- ⁴² Utah v. United States, 486 F.Supp. 995, 1009 (D. Utah 1979).
- ⁴³ 42 U.S.C. § 4332(2)(C) (2006).
- ⁴⁴ See Sierra Club v. Hodel, 848 F.2d 1068, 1090-91 (10th Cir. 1988) (holding that BLM actions to insure county road construction proposal did not exceed the scope of its right-of-way through public lands did not constitute "major federal action," but the BLM's duty to prevent unnecessary degradation of adjoining wilderness study areas elevated situation to one of major federal action).
- ⁴⁵ 16 U.S.C. § 1531-43 (2012).

- ⁴⁶ See e.g., CONTINENTAL CONSERVATION: SCIENTIFIC FOUNDATIONS OF REGIONAL RESERVE NETWORKS (Michael E. Soule & John Terorgh eds., 1999).
- ⁴⁷ MICHELLE D. STAUDINGER ET AL., IMPACTS OF CLIMATE CHANGE ON BIODIVERSITY, ECOSYSTEMS, AND ECOSYSTEM SERVICES: TECHNICAL INPUT TO THE 2013 NATIONAL CLIMATE ASSESSMENT, COOPERATIVE REPORT TO THE 2013 NATIONAL CLIMATE ASSESSMENT, 5-20 (2012) *available at* <http://assessment.globalchange.gov>. See also, ELLEN HANNIBAL, THE SPINE OF THE CONTINENT: THE MOST AMBITIOUS WILDLIFE CONSERVATION PROJECT EVER UNDERTAKEN (2012).
- ⁴⁸ NATIONAL FISH, WILDLIFE AND PLANTS CLIMATE ADAPTATION PARTNERSHIP, NATIONAL FISH, WILDLIFE AND PLANTS CLIMATE ADAPTATION STRATEGY 59 (2012) *available at* <http://www.wildlifeadaptationstrategy.gov/pdf/NFWPCAS-Final.pdf>.
- ⁴⁹ *Id.*
- ⁵⁰ Ray Rasker, Patricia H. Gude, and Mark Delorey, *The Effect of Protected Federal Lands on Economic Prosperity in the Non-Metropolitan West*, 43 J. REGIONAL ANALYSIS & POL'Y 110-22 (2013); Ray Rasker, *Wilderness for Its Own Sake or as Economic Asset?*, 25 J. LAND RESOURCES & ENVTL. L. 15 (2005); Ray Rasker and Andrew Hansen, *Natural Amenities and Population Growth in the Greater Yellowstone Region*, 7 HUM. ECOLOGY REV. 30 (2000), and Ray Rasker, *A New Look at Old Vistas: the Economic Role of Environmental Quality in Western Public Lands*, 65 U. COLO. L. REV. 369 (1994).
- ⁵¹ See John W. Andrews, *Swapping With the Feds: An Updated Look at Federal Land Exchanges*, 51 ROCKY MT. MIN L. INST. 8-2 (2004).
- ⁵² See 43 U.S.C. §§ 1715(a) and 1716(a) (2006).
- ⁵³ 43 U.S.C. § 1716(b) (2006).
- ⁵⁴ 43 U.S.C. § 1716(f)(2)(A) (2006).
- ⁵⁵ 43 C.F.R. § 2201.3-2(a)(1)-(2) (2013).
- ⁵⁶ 43 C.F.R. § 2200.0-5(k) (2013).
- ⁵⁷ 43 U.S.C. § 1716(b) (2006). The Secretary of the Interior and the other parties involved in the exchange may agree to employ bargaining or other processes to determine the value of properties involved. 43 U.S.C. § 1716(d)(4) (2006).
- ⁵⁸ 43 U.S.C. § 1719(a) (2006).
- ⁵⁹ APPRAISAL INSTITUTE & U.S. DEP'T OF JUSTICE, UNIFORM APPRAISAL STANDARDS FOR FEDERAL LAND ACQUISITIONS §§ A-14 and B-3 (2000) *available at* <http://www.justice.gov/enrd/land-ack/Uniform-Appraisal-Standards.pdf>.
- ⁶⁰ *Id.*
- ⁶¹ *United States v. 47.14 Acres of Land*, 674 F.2d 722, 726 (8th Cir. 1982).
- ⁶² Examples from Utah include: Utah Schools and Lands Improvement Act of 1993, Pub. L. No. 103-93, 107 Stat. 995 (1993); Utah Schools and Lands Exchange Act of 1998, Pub. L. No. 105-335, 112 Stat. 3139 (1998); Utah West Desert Land Exchange Act of 2000, Pub. L. No. 106-301, 114 Stat. 1059 (2000); Utah Recreational Land Exchange Act of 2009, Pub. L. No. 111-53, 123 Stat. 1982 (2009).
- ⁶³ See e.g., Utah Schools and Lands Exchange Act of 1998, Pub. L. No. 105-335, 112

Stat. 3139 (1998), at § 2(15) (“The Congress finds that, under this Agreement taken as a whole, the [interests exchanged], are approximately equal in value.”); Utah West Desert Land Exchange Act of 2000, Pub. L. No. 106-301, 114 Stat. 1059 (2000), at § 2(5) (utilizing same clause).

⁶⁴ Pub. L. No. 11-53, § 3(f), 123 Stat. 1982, 1984 (2009).

⁶⁵ H.R. 356, 113th Cong. § 5 (2013).

⁶⁶ 43 U.S.C. § 1716(a) (2006).

⁶⁷ 43 C.F.R. § 2200.0-6(b) (2013).

⁶⁸ George Cameron Coggins and Robert L. Glicksman, *Public Natural Resources Law* § 13.41 (2d. ed. 2007).

⁶⁹ 36 C.F.R. § 254.3(b)(1) (2013).

⁷⁰ See e.g., Utah West Desert Land Exchange Act of 2000, Pub. L. No. 106-301, 114 Stat. 1059 (2000), at § 2(5); and Utah Schools and Lands Exchange Act of 1998, Pub. L. No. 105-355, 112 Stat. 3139 (1998), at § 2(9).

⁷¹ See e.g., Janine Blaeloch, Western Lands Project, *Giving Up The Commons: Congress & Our Public Lands* (2009), George Draffan and Janine Blaeloch, Western Lands Project, *Commons or Commodity? The Dilemma of Federal Land Exchanges* (2000).

⁷² See e.g., Western Governors’ Association Policy Resolution 13-01, Federal-State Land Exchanges and Purchases § B.2 (2013).

⁷³ U.S. Energy Information Administration, Cushing, OK Spot Price for West Texas Intermediate Crude Oil, Freight On Board available at: <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=rwtc&f=a>.

⁷⁴ U.S. Energy Information Administration, U.S. Natural Gas Wellhead Price available at: <http://www.eia.gov/dnav/ng/hist/n9190us3m.htm>.

⁷⁵ 123 Stat. 1982 (2009).

⁷⁶ See, BUREAU OF LAND MGMT., U.S. DEP’T OF THE INTERIOR, DECISION RECORD FOR ENVIRONMENTAL ASSESSMENT DOI-BLM-UT-9100-2013-0001-EA, UTAH RECREATIONAL LAND EXCHANGE (February 2014).

⁷⁷ RONALD C. JOHNSON ET AL., UNITED STATES GEOLOGICAL SURVEY, ASSESSMENT OF IN-PLACE OIL SHALE RESOURCES IN THE EOCENE GREEN RIVER FORMATION, UINTEA BASIN, UTAH AND COLORADO (2010).

⁷⁸ U.S. Energy Information Administration, Saudi Arabia Analysis Brief (Feb. 26, 2013) available at: <http://www.eia.gov/countries/cab.cfm?fips=SA>.

⁷⁹ Codified as amended at 30 U.S.C. §§ 181-287 (2012).

⁸⁰ The states’ 50% share is reduced by 2% to cover administrative costs incurred by the federal government. See Public L. No. 111-88, 123 Stat. 2915 (2009), the application of which was made permanent by sec. 302 of the Bipartisan Budget Act of 2013, H. J. Res. 59, which was signed into law on Dec. 26, 2013.

⁸¹ 30 U.S.C. § 191(a) (2012). Note that revenues due to the State of Alaska are subject

to a different formula.

⁸² See 43 U.S.C. § 1701(a)(1) (2006) (authorizing disposal where it will serve the national interest). The “[Federal] Government has, with respect to its own lands, the rights of an ordinary proprietor. . . . It may sell or withhold them from sale.” *Camfield v. United States*, 167 U.S. 518, 524 (1897) (upholding statute prohibiting the construction of a fence enclosing federal lands). “[I]t lies in the discretion of the Congress, acting in the public interest, to determine of how much of [its] property it shall dispose.” *Ashwander v. Tennessee Valley Authority*, 297 U.S. 288, 336 (1936) (holding that where the United States holds title to a hydroelectric dam, rights to the water passing through the dam, and all features incident to power generation, the electricity produced “constitutes property belonging to the United States,” and the Property Clause does not constrain Congress’s power to determine the terms of property dispossession).

⁸³ Indeed, the State of Utah and others argue aggressively that the federal government is obligated to dispose of federal land. See e.g., the Transfer of Public Lands Act, requiring the federal government to “extinguish title to the public lands,” and “transfer title to public lands to the state.” UTAH CODE ANN. § 63L-6-103(1)(a) and (b) (2011, 2013 Supp.).

⁸⁴ 43 U.S.C. § 1716(b) (2006); 43 C.F.R. 2200.0-6(c) (2013).

⁸⁵ See *supra*, note 71.

⁸⁶ UTAH CODE ANN. § 53C-1-102(2)(b) (2014).

⁸⁷ UTAH CODE ANN. § 53C-1-1-102(2)(c) (2013). See e.g., *Lassen v. Arizona State Highway Dep’t*, 385 U.S. 458 (1966) (holding that the trust lands beneficiaries are entitled to the full market value of rights of way granted across trust lands). See also, *Duchesne County v. State Tax C’mmn*, 140 P.2d 335, 338 (Utah 1943) (holding that school trust lands are subject to trust management obligations); and *Nat’l Parks Conservation Ass’n v. Board of State Lands*, 869 P.2d 909 (Utah 1993) (discussing trust lands management obligations).

⁸⁸ See generally, chs. 1&2 in JON A. SOUDER AND SALLY K. FAIRFAX, *STATE TRUST LANDS: HISTORY, MANAGEMENT & SUSTAINABLE USE* (1996) (discussing trust lands management requirements).

⁸⁹ See *Lassen*, 385 U.S. 458, *Duchesne County*, 140P.2d 335, and *Nat’l Park Conservation Ass’n*, 869 P.2d 909.

⁹⁰ Susan Culp and Joe Marlow, Lincoln Institute of Land Policy, *A Fair Trade: Observations and Recommendations for Improving the Land Tenure Adjustment Process between State and Federal Agencies in the West* (2012).

⁹¹ APPRAISAL INSTITUTE & U.S. DEP’T OF JUSTICE, *supra* note 59 at §§ A-14 and B-3.

⁹² The Utah Schools and Lands Exchange Act of 1998, Pub. L. No. 105-335, 112 Stat. 3139 (1998).

⁹³ Agreement to Exchange Utah School Trust Lands Between the State of Utah and the United States of America, May 8, 1998, at § 3 (on file with authors).

⁹⁴ *Id.* at § 12.

⁹⁵ Utah Enabling Act, 28 Stat. 107, 109 (1894).

⁹⁶ *Id.*, at 109-19.

⁹⁷ 43 C.F.R. § 2622.0-8 (2013).

⁹⁸ See *e.g.*, Utah Enabling Act, 28 Stat. 107, 109 (1894).

⁹⁹ *Andrus v. Utah*, 446 U.S. 500, 510 (1980).

¹⁰⁰ 43 C.F.R. § 2621.0-3 (2013).

¹⁰¹ *Andrus v. Utah*, 446 U.S. at 520.

¹⁰² *Culp & Marlow*, *supra* note 90.

¹⁰³ See UTAH CODE ANN. § 53C-3-203 (2013).

¹⁰⁴ The Land Exchange Distribution Account is effective only where the state receives value in excess of what it gives up in school trust lands, otherwise any distribution to counties would reduce revenue to trust beneficiaries below fair market value and violate the states trust obligations.