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Fiscal Impacts to the State of Idaho from HR 22 Implementation

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I. Introduction

In April 2013, the Idaho Legislature passed House Concurrent Resolution 22 (HR 22), which demands that the federal government "imminently transfer title to all public lands" within Idaho to the state government. While specifics of the plan are few, the Idaho Legislature tasked the Federal Lands Interim Committee to identify a process for transfer and management of these lands.

Because the concepts are at a preliminary stage, a detailed economic analysis of costs, revenues, and impacts is not possible. But an initial assessment of the potential fiscal impacts clearly illustrates the economic irrationality of this approach. We recommend that the Idaho Legislature clearly analyze and articulate the full cost accounting associated with implementation of HR 22.

A similar effort in Arizona was vetoed in 2012 by Governor Jan Brewer based primarily on "significant and unaccounted" fiscal impacts that would likely further burden the state treasury. The Arizona Governor also cited a lack of constitutionality.[1] With even a cursory look at the economics, it is clear that this resolution is bad business for Idaho communities and residents. Below, we describe a number of the significant and unaccounted fiscal impacts that would be felt by the state of Idaho, its communities and residents.

II. Fiscal Impacts of HR 22

To determine the fiscal impacts of HR 22, we estimate a net present value of a federal lands transfer. Net present valuation is the appropriate accounting method for measuring the fiscal impacts of policy decisions that will generate various costs and revenues for many years into the future. In addition to the net present value analysis, we provide estimates of lost federal wages and broad risks to ecosystem services provided by federal lands.

HR 22 calls for the transfer of all Idaho's public lands, except for Indian lands, or almost 34 million acres. The resolution states that, upon transfer of title, "the Legislature of the State…intends to cede national park land to the federal government," and "all lands currently designated as part of the National Wilderness Preservation System pursuant to the Wilderness

[1] Brewer, Janice K. 2012. Correspondence to Arizona Secretary of State Ken Bennett. May 14.

Act of 1964, National Monuments, Department of Defense lands, and Department of Energy reservations."[2]

Of the federal lands in Idaho (Table 1), 97 percent are managed by the U.S. Forest Service (USFS) and Bureau of Land Management (BLM). Other federal lands include national park lands, Department of Defense lands, and Department of Energy lands.

Table 1 Total acres of federal lands in Idaho excluding tribal lands.

Land Ownership	Acres
U.S. Forest Service	20,367,000
Bureau of Land Management	12,291,000
Other federal lands	1,124,000
Total	**33,782,000**

Source: Economic Profile System—HDT (http://headwaterseconomics.org/tools/eps-hdt)

Once all federal lands aside from USFS and BLM lands are removed, the remaining lands total 32,658,000 acres. To estimate potential fiscal impacts of the resolution, we then remove lands designated as wilderness or national monuments, leaving approximately 28 million federal acres (Table 2).

Table 2 Total acres of USFS- and BLM-managed lands included in this analysis.

Land Management and Designation	Acres
U.S. Forest Service and Bureau of Land Management acres	32,658,000
Minus acres designated as wilderness	–4,480,000
Minus acres designated as national monuments	–273,000
Total	**27,905,000**

Source: www.wilderness.net

Based on the language of HR 22, we estimate the fiscal impacts associated with transferring 28 million acres of federal lands, or 83 percent of total nontribal federal lands. In the estimates provided below, we present costs of transferring all federal lands to the state, and then reduce them by 17 percent to represent the costs of transferring 83 percent of federal lands, per HR 22 language.[3]

III. Net Present Valuation of HR 22

We determine the net present value of transferring public lands to the state of Idaho by estimating costs and revenues associated with the transfer of 28 million acres of USFS and BLM lands. Below, we provide full cost and revenue accounting categories for the net present value of a transfer of Idaho public lands. The categories include revenue, management costs, and loss of federal land payments. See the last page for a fact sheet summarizing the costs of HR 22 implementation.

[2] Note that the language "intent to cede" is less binding than "will cede" or "disclaims." Despite this language, we conservatively remove these lands from the analysis.

[3] While there can be differences in average costs of management for various types of federal acres (e.g., USFS, BLM, or Department of Defense), a general reduction based on overall acreage transferred provides coarse estimates.

A. Revenue

The primary revenue source cited by advocates of a takeover of Idaho public lands has been increased timber harvesting. With limited sawmills, reduced logging workforces, and volatile timber markets, a return to previous high logging levels on national forests in Idaho would require substantial time and resources, if it is possible at all. Despite these barriers, we conservatively estimate revenue to the state based on historic high-levels of harvest on national forest lands. We assume $200 per thousand board feet (mbf) of stumpage to the state and a ten-year ramp-up period to one billion board feet (bbf) of annual harvest.[4]

B. Timber Management Costs

To produce this stumpage revenue, we provide a timber management cost. Based on the Idaho Department of Lands' state timber operations, timber management costs generally run about 40 percent of overall timber revenue. As such, annual timber management costs are incorporated into the net present valuation at 40 percent of annual timber revenue.

C. Fire Management Costs

Given the tremendous forest resources and arid environment of Idaho, wildfire is a prevalent natural disturbance that plays a critical role in maintaining ecological functions. To protect lives, structures, and property, vast effort is expended to suppress and control wildfires. However, years of fire suppression have contributed to greater fuels accumulation. Combined with warming climates, wildfire size and intensity are increasing, particularly in forests of the Northern Rockies.[5] These trends are evident in Idaho forests, as both the number of acres burned and suppression costs are steadily increasing. For example, last year in Idaho, some 1.75 million acres burned and over $210 million were spent just on suppression, with the federal government covering more than 90 percent of these costs.[6]

With such tremendous wildfires and associated management costs, what would be the fire management costs to the state of Idaho if federal lands were transferred to the state?

Wildfire Suppression Costs

According to the Idaho Department of Lands, fires burned over 840,000 acres annually between 2003 and 2008 across the state of Idaho (includes forest and range fires).[7] When the number of acres burned for the last four years is added, the ten-year annual average is approximately 800,000 acres burned per year across Idaho. According to the Idaho Department of Lands' year-end fire reports, approximately 11,600 acres have burned annually over the last ten years on state and private lands for which the department maintains fire management responsibility, a figure

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[4] However, if a ten-year ramp-up is achieved, the regional markets will be flooded, reducing the price for timber and stumpage.

[5] Westerling, A. L., et al. Warming and earlier spring increase western US forest wildfire activity. *Science* 313.5789 (2006): 940-943.

[6] See State Forester David Groeschl's 2/19/13 presentation to the State Legislature: Idaho wildfires of 2012. Available at: http://www.idahoforests.org/img/pdf/ForestryDayatLegislature_2013.pdf

[7] Idaho Department of Lands. 2008. Managing fire on lands protected by the State of Idaho: A handbook for policy makers, landowners and Idaho citizens. 43 p.

indicating that more than 98 percent of acres burned in Idaho have been on federally managed lands. [8]

The state of Idaho has a strict fire suppression policy (i.e., Idaho Code §38-107 declares uncontrolled wildfire a nuisance due to its "menace to life and/or property" and requires reasonable efforts for "immediate" suppression). But federal land management agencies have more flexibility in allowing some wildfires to play their natural ecological role. These differences in fire management policy lead to larger average fires on federally managed lands and accordingly account for differences in per acre burned suppression costs. For example, the ten-year (2003–2012) average suppression cost per acre burned for state of Idaho-managed lands is approximately $575/acre,[9] whereas the national average for USFS and BLM ten-year suppression cost per acre burned is approximately $205/acre,[10] or almost three times less per acre. While "suppression cost per acre burned" is not a perfect metric, as effort expended affects the size of fires, it provides a good picture of current wildfire expenditures.

To estimate fire suppression costs, we assume that 28 million acres of USFS and BLM lands are transferred to the state of Idaho and that the average annual number of acres burned continues.[11] A conservative estimate of fire suppression costs for all federal lands assumes 788,400 acres burned (annual statewide average of 800,000 minus annual state and private average of 11,600) at the federal average suppression cost of $205 per acre:

788,400 acres x $205 per acre = $161,622,000 of annual suppression cost

Because HR 22 calls for the transfer of 83 percent of federal lands, we reduce the total federal acres burned by 17 percent, providing an annual suppression cost of just over $134,000,000.

Therefore, annual wildfire suppression costs would be approximately $134 million for the state of Idaho and assume an amendment to the state's strict suppression policy.

Among the 28 million acres of USFS and BLM lands in Idaho that might be transferred, approximately 7 million acres of roaded timberlands are currently managed by the USFS. These 7 million acres are a likely target for increased timber harvest. The resulting harvest would likely trigger strict fire suppression similar to the Idaho Department of Lands' management of state and private timberlands to protect revenue targets, further increasing suppression costs.

As more forest is logged in future years, wildfire risk on those acres may decrease for some time. Similarly, as acres burn, fire risk is reduced for some time. But a decrease in fire risk on harvested and burned acres is unlikely to match the overall increasing risk in the remaining forested lands for some time. Furthermore, fire suppression begets more fire suppression need into the future by artificially extending the historical fire return intervals and providing for greater fuels accumulation. Due to this phenomenon, we maintain a constant suppression cost over the time

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[8] Available at: http://www.idl.idaho.gov/bureau/FireMgt/fire-annual-reports.html
[9] *Ibid.*
[10] Calculated from National Interagency Fire Center table "Federal fire fighting costs (suppression only)," available at: http://www.nifc.gov/fireInfo/fireInfo_documents/SuppCosts.pdf
[11] State management of federal lands could reduce the average number of acres burned through greater suppression efforts. But a substantial reduction in average acres burned would require a substantial increase in suppression funding.

horizon and believe this to be a conservative approach given the trends in fire costs and occurrence.

Wildfire Presuppression Preparedness

Fire management costs also include presuppression costs of preparedness. Preparedness includes having equipment, aircraft, and personnel trained and in place, but it is separate from costs of equipment and personnel used during wildfires. The much greater fire management role of the state of Idaho under a transfer of public lands would require much greater preparedness. From 1999 to 2008, the state of Idaho spent $8.2 million annually on suppression. During this same period, the state spent $6.65 million annually on preparedness, or approximately 80 percent of suppression expenditures.[12]

It is unclear whether preparedness costs increase at a similar rate to suppression costs when increasing the overall fire management area. But we do know that preparedness is a substantial part of the equation. To err on the conservative side, we reduce the ratio of preparedness to suppression for the state of Idaho by half and incorporate preparedness costs at 40 percent of previously estimated suppression costs:

$134 million in annual suppression costs x 0.4 = $54 million in annual presuppression costs

Therefore, wildfire presuppression costs focused on preparedness would result in approximately $54 million of new, annual management costs for the state of Idaho.

Wildfire Fuel Treatments and Rehabilitation

Other fire management costs include fuel treatments necessary to decrease wildfire intensity, especially near communities, and rehabilitation of severely burned areas. Fuel treatments such as fuels reduction projects in the wildland-urban interface and restoration thinning in unnaturally dense national forest lands are means to limit community damage from wildfires and help return normal fire regimes to forests. Currently, three USFS-funded collaborative forest landscape restoration programs are being implemented in Idaho. These projects are located on the Nez Perce-Clearwater, Payette, and Idaho Panhandle National Forests and were collectively approved for almost $4 million of federal funding in 2012. Much of this funding focuses on fuel treatments, and these projects have been shown to reduce wildfire intensity and provide safer conditions around communities. Numerous other fuels reduction projects, outside of the confines of the collaborative forest landscape restoration program, are annually conducted on USFS and BLM lands in Idaho.

The impact and location of severe wildfires often necessitate the seeding of native vegetation, stabilization of hillsides, or protection of water sources. These rehabilitation efforts can be very expensive and last long after the wildfire. The USFS provides funds for burned area emergency response activities, while the BLM provides funds for burned area rehabilitation actions. These federal expenditures vary based on wildfire severity, but they average millions of dollars annually in the West.

[12] Idaho Department of Lands. 2008. Managing fire on lands protected by the state of Idaho: A handbook for policy makers, landowners and Idaho citizens. 43 p.

Given the variable nature of these costs and the yet unquantified amount of avoided suppression costs in the future that would result from fuel treatments, we do not assign a dollar cost to fuel treatments and rehabilitation. However, in some years, these costs will be significant and would need to be covered by the state of Idaho.

D. Recreation Management Costs

Outdoor recreation is a major contributor to the Idaho economy, and the majority of outdoor recreation occurs on public lands. Outdoor recreation annually generates over $6 billion of consumer spending in Idaho. This sector provides for over 75,000 jobs annually in Idaho and over $450 million of state and local tax revenue.[13] Outdoor recreation generates nearly eight times as many jobs in the state of Idaho as the forest products industry[14] and is becoming a primary economic driver of Idaho's economy and visitor brand.

Both the USFS and the BLM invest heavily in outdoor recreation management in terms of trail, facility, and road maintenance and improvements. In fiscal year 2011, the USFS spent approximately $23.5 million,[15] and the BLM spent approximately $3.5 million[16] on recreation management and road maintenance in Idaho, for a total of $27 million. A major decrease in recreation funding would jeopardize this industry and the public's access to prime hunting, fishing, hiking, and boating. We presume that the state would need to spend the same amount as the federal agencies to maintain the quality recreational opportunities and resulting economic impacts. Reducing these expenditures by 17 percent yields a total of $22 million.

> $27 million in USFS and BLM costs x 0.83 = $22 million in annual recreation, road, and facility management costs

Therefore, recreation, road, and facility management costs would be at least $22 million annually.

E. Loss of Federal Land Payments (SRS and PILT)

Counties containing USFS federal lands have been receiving revenue-sharing funds since 1906. The USFS's 25 Percent Fund shared 25 percent of commodity receipts, primarily from timber sales, with counties for the development of schools and roads. In 1976, the Payment-In-Lieu-of-Taxes (PILT) Act broadened county payments for almost all federal lands, including BLM lands. After major declines in western timber receipts in the 1990s, the Secure Rural Schools and Community Self-Determination Act (SRS) was authorized in 2000 to offer optional payments to counties that had experienced declining revenue-sharing payments. SRS offered counties payments equal to their three highest years of revenue sharing.

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[13] Outdoor Industry Association. 2012 Outdoor recreation economy report. 20 p. Available at: http://www.outdoorindustry.org/pdf/OIA_OutdoorRecEconomyReport2012.pdf.
[14] Morgan, T., et al. 2011. Idaho's forest product industry current conditions and 2011 forecast. Station bulletin 97, contribution No. 1057 of the Idaho Forest, Wildlife, and Range Experiment Station, College of Natural Resources, University of Idaho. 4p.
[15] Personal communication with Andy Brunelle, USFS, on 9/12/13.
[16] BLM Idaho State Office. Office of Communications.

Combined, annual SRS and PILT payments to counties and the state of Idaho have averaged $65 million over the last five years.[17] Applying the 17 percent reduction factor yields an annual loss of $54 million.

> $65 million in annual SRS and PILT payments x 0.83 reduction factor = $54 million of lost annual SRS and PILT payments

Therefore, under a public lands transfer, the state of Idaho and counties would lose $54 million a year in federal land payments.

IV. Loss of Federal Income and Wage Injections to the State of Idaho

According to the BLM Office of Communications, there are approximately 1,000 BLM jobs in Idaho. According to the USFS, there are approximately 2,000 USFS jobs in Idaho, dispersed in more than 60 communities (excluding the National Interagency Fire Center and Rocky Mountain Research Station positions). These federal wages are very important to the state, as they are injections of outside money into the Idaho economy. But these jobs are even more important to rural communities in Idaho that have fewer economic opportunities. **Therefore, assuming 83 percent of these jobs are lost, the immediate impact of HR 22 would be the loss of approximately 2,500 federal jobs.**

> 3,000 jobs x 0.83 = 2,500 jobs lost

These lost federal wages would substantially affect rural communities and generated state income tax. At an assumed average annual federal wage of $67,800,[18] the effective Idaho state income tax is about 6.5 percent per job. **Therefore, loss of federal jobs translates into an initial loss of almost $170 million of annual wages in Idaho and more than an $11 million loss of state income tax.**

> $67,800 annual wage x 2,500 jobs lost = $170 million of lost annual wages

> $67,800 annual wage x 0.065 state income tax x 2,500 lost = $11 million of lost state income tax

Some of these lost federal jobs, wages, and income taxes may be replaced in later years by timber harvest operations. But such replacement would take many years, if ever, to fully offset the losses. Because some of these losses may be offset in future years, we conservatively do not include these losses in the net present valuation.

V. Risks to Ecosystem Services

Focusing only on marketized costs and revenues, the proposal neglects the numerous nonmarket and supporting ecosystem services produced on public lands, such as clean water, native biodiversity, climate regulation, and pollutant absorption. These ecosystem services are the benefits provided by nature to mankind. Though they typically don't show up in the accounting ledgers, they take substantial investments to maintain and are at tremendous risk when moving from multiple management objectives to a singular, profit-maximizing objective.

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[17] U.S. Department of Interior, PILT, 2013. U.S. Department of Agriculture, Secure Rural Schools, 2013.
[18] Census Bureau. 2012. Available at: www.census.gov/compendia/statab/2012/tables/12s0647.pdf

The USFS and BLM manage some of the most important sources of freshwater in Idaho, streams and lakes that are critical for communities, anadramous fish habitat, and recreationists. Headwater watersheds are also the most susceptible to altered sediment loading by logging and road construction associated with industrial development. Other ecosystem services at risk include the numerous cultural benefits provided by healthy public lands, such as opportunities for solitude and scientific research. If lands are not managed for multiple objectives, as public lands are, numerous benefits provided by Idaho's public lands may be jeopardized.

The USFS and BLM spent a collective $275 million in 2012, excluding fire suppression costs, to manage public lands and protect the production of ecosystem services in Idaho. For this analysis, we do not quantify the full cost of maintaining quality ecosystem services from public lands, but we acknowledge that these benefits are substantial and at risk under a transfer of public lands to the state of Idaho.

VI. Summary of Findings

Annual revenues and costs described in section III, and the yearly net present value, are presented below in Table 3. After the first year of implementing HR 22, the state of Idaho would lose almost a quarter billion dollars. This is equivalent to the amount that the state appropriated to the entire public safety program from the general fund in fiscal year 2013.[19] After five years of implementation, HR 22 would cost the state of Idaho almost one billion dollars. And after 20 years of implementation, the losses to the state would be well over two billion dollars.

Table 3 Net present valuation, with costs and revenues in millions of dollars.

Year	1…	5…	10…	20
Additional timber harvested annually (mmbf)	100	500	1,000	1,000
Gross revenue from additional timber harvest	**$20**	**$100**	**$200**	**$200**
Timber management costs	–$8	–$40	–$80	–$80
Fire suppression costs	–$134	–$134	–$134	–$134
Fire suppression preparedness costs	–$54	–$54	–$54	–$54
Recreation and road maintenance costs	–$22	–$22	–$22	–$22
Loss of SRS and PILT (county payments)	–$54	–$54	–$54	–$54
Net for the year	**–$252**	**–$204**	**–$144**	**–$144**
Net losses to the state (NPV)	**–$240**	**–$992**	**–$1,566**	**–$2,249**

Costs and revenues are discounted at an annual 5% rate.

Many other adverse economic impacts, not included in the final net present valuation, are likely to be incurred if HR 22 were implemented. Some of these have been detailed in sections IV and V of this report. In terms of employment, current federal jobs would be lost. Some of these may be offset by increases in timber harvesting and processing jobs. But increasing timber harvest also comes with opportunity costs that would likely result in a further loss of recreation and tourism employment. The cascading economic effects of the state of Idaho taking over federal lands are numerous and deserve great scrutiny.

[19] *Idaho Fiscal Facts*, available at: http://www.legislature.idaho.gov/budget/publications/FiscalFacts/current/FF.pdf

VII. Conclusion

An examination of the fiscal and other economic impacts that would likely result from implementation of HR 22 illustrates that the state of Idaho would incur multibillion dollar losses. Furthermore, shifting from a multiple-use management strategy to a primary objective of profit-maximization would harm Idaho's recreation economy, rural communities, and both Idaho and national residents who enjoy hiking, fishing, hunting, and wildlife viewing. There would likely be many additional costs not quantified in this analysis. Foremost among these would be the legal costs of pursuing legislation.

The Idaho Department of Lands produced a rough analysis of the potential fiscal impacts associated with HR 22.[20] However, the department's analysis looks at the hypothetical impacts of Idaho legislation based on the Utah HB 148, not the potential impacts of HR 22. As such, that analysis only considers the impacts of transferring about half of the nontribal federal lands in Idaho, whereas HR 22 calls for a transfer of all nontribal federal lands and includes an "intent" to cede about 17 percent of these lands back to the federal government. Additionally, the Idaho Department of Lands' rough analysis does not include any estimates of associated road and recreation management costs, nor does it include the loss of county SRS and PILT payments.

Fire suppression and preparedness costs estimated by the Idaho Department of Lands are also heavily underestimated. The Idaho Department of Lands estimated suppression and presuppression costs by extrapolating its current costs for protecting six million acres of state and timber association lands to only half of the potentially transferred federal lands. The six million acres for which the department has fire responsibility are very different from the federal lands pursued in HR 22. Idaho Department of Lands-managed acres are typically wetter, have more roads and access, and have less topographical variation than Idaho's public lands. A simple extrapolation of fire management costs on lands managed by the department to federal lands in Idaho results in a poor estimate of overall costs.

Finally and most importantly, the Idaho Department of Lands' economic analysis does not analyze any of the costs for the first 10 to 15 years after implementation of legislation. Its limited estimates of costs and revenues are simply a projection of what might exist many years into the future or after the lengthy ramp-up period to proposed timber harvest. Failure to conduct a net present valuation and to account for the most costly years of statement management completely undermines the presented economic estimates.

In conclusion, federal investments into public lands in Idaho are vast and substantial; they are the economic engine for driving primary state industry sectors and for protecting numerous nonmarket values critical to Idaho residents. Hundreds of millions of dollars are spent annually to manage public lands in Idaho for a variety of uses and users. Fully replacing these investments with revenues from extractive industries such as timber harvesting is not possible. Attempting to do so would be shortsighted and greatly reduce the number of beneficiaries of these public lands.

[20] Available at: http://blogs.idahostatesman.com/wp-content/uploads/2013/02/2-Handout-State-Management-of-Federal-Lands-in-Idaho1.pdf