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Would a transfer of federal lands to the State of Idaho make or lose money?

by

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Executive Summary

Whether a transfer of federal lands to the State of Idaho would make or lose money depends on a) which lands are transferred; b) what management functions would continue following a transfer; c) how much additional timber would be harvested, which in turn generates monetary benefits and has employment impacts; and d) the timber stumpage price that could be expected. This analysis looks in depth at the Idaho Department of Lands (IDL) proposed transfer of 6.9 million acres of National Forest System lands and 9.5 million acres of BLM lands.

Under three timber quantity-price scenarios, and assuming that wildland fire management costs would be the annual average experienced on federal lands pro-rated to the IDL proposal, the state could expect net income from timber sales ranging from a loss of \$6 million/year under the low-end scenario to a gain of \$45 million/year under the medium scenario to a gain of \$129 million/year under the high-end scenario. (Low-end scenario is 500 million bf/year at \$150/mbf; medium scenario is 800 million bf/year at \$200/mbf; high-end scenario is 1 billion bf/year at \$250/mbf.)

If the State of Idaho were to provide recreation opportunities similar to those that currently exist on the transferred lands, as well as highway maintenance, the net income would be reduced by \$19 million/year. Payments to counties in 2012 were \$33 million on the lands propose for transfer. The costs of managing BLM lands, net of grazing and mineral receipts, would be \$53 million/year.

In total, after subtracting all these costs from the timber net income, the proposed transfer would result in a loss to the State of Idaho of \$111 million/year under the low-end scenario and \$60 million/year under the medium scenario. Under the high-end scenario the state would see a gain of \$24 million/year.

Employment impacts from new jobs in the forest products and supporting industries would range from 3,375 to 8,775 to 12,375 jobs in the low, middle and high scenarios respectively. These new jobs would provide wages and salaries ranging from \$99 million/year to \$257 million/year to \$363 million/year in the low, middle and high scenarios respectively. New state income taxes on those wages/salaries would range from \$16 million/year to \$41million/year to \$58 million/year in the low, middle and high scenarios respectively. These estimates are all net of the loss of wages/salaries and state income taxes from federal jobs that would be lost after the transfer.

Background and introduction

The Idaho Legislature created the Federal Lands Interim Committee in 2013 to study the potential for transferring to state control some portion of almost 34 million acres of federal lands in Idaho (almost 64% of the state), including the surface estate rights and mineral estate rights. Under a resolution outlining the rationale for a transfer, the Legislature excluded from consideration lands in the National Wilderness Preservation System plus lands administered by the National Park Service, Department of Defense, and Department of Energy. That leaves 27.5 million acres of federal lands administered by the U.S. Department of Agriculture–Forest Service (USFS) and the U.S. Department of the Interior–Bureau of Land Management (BLM) in the transfer proposal, plus 49,000 acres of National Wildlife Refuge System lands (**Table 1**).

Should a transfer occur, a key question is what it would cost the State of Idaho to manage the transferred lands. The legislative committee was presented with two contradictory reports on the fiscal impacts of a transfer. Using different sets of assumptions, one report said the state would make money from the transfer, the other said it would not. To illuminate the committee's deliberations, Rep. Mike Simpson requested a report from the Congressional Research Service (CRS 2013) detailing how much it costs the federal government to manage lands in Idaho, and what revenues are produced. The CRS reported that information for FY 2012, and Rep. Simpson delivered it to the committee in September 2013 (**Table 2**).

Rep. Lawrence Denney, committee co-chair (and elected Secretary of State in November 2014), asked the University of Idaho's College of Natural Resources Policy Analysis Group to analyze the cost issue and include employment effects. The findings of that analysis are reported herein, and are sensitive to the upfront assumptions regarding a hypothetical transfer, and timber quantity-price scenarios describing future costs and returns following transfer.

Assumptions

The two contradictory estimates of cash flows were developed by the Idaho Department of Lands (IDL) and the Idaho Conservation League (ICL) and presented to the committee in August 2013 and December 2013, respectively (see Groeschl 2013, Hjerpe 2013). These two analyses are alike only in the amount of additional timber to be harvested each year and its unit value (**Table 3**). Different acreages for the transfer were used by IDL (16.4 million) and ICL (27.5 million). IDL excluded 9.3 million acres of roadless areas and some additional acres for Wild & Scenic River corridors; ICL included them. IDL estimated \$45 million/year for additional wildfire suppression and suppression preparedness; ICL estimated \$188 million/year. ICL included costs for recreation, road maintenance, and county payments; IDL did not. ICL noted that wages and state income taxes from lost federal jobs would be foregone and provided an estimate of that loss. IDL mentioned that wages and state income taxes from additional timber-related jobs should be included in the analysis, but did not provide an estimate. This analysis addresses these differences and proceeds as follows.

First, the 32 million acres of federal lands administered by the U.S. Forest Service in the National Forest System (NFS, 20.4 million acres), Bureau of Land Management (BLM, 11.6 million acres), and the U.S. Fish and Wildlife Service in the National Wildlife Refuge System (49,000 acres) are placed into several land-use categories (**Table 1**):

Second, the costs of land and resource management functions that are likely to be essential after a hypothetical transfer are allocated to the above land-use categories (**Table 4a** for NFS, **Table 4b** for BLM). Federal appropriations totaled \$148.8 million for FY 2012. Although this total included \$96 million in wildland fire management appropriations for the NFS and BLM, it did not include the additional \$118 million in wildfire suppression costs the two agencies expended in FY 2012, a year in which Idaho more than doubled its 10-year average of about 700,000 acres per year burned (**Figure 1**) and led the nation with almost 1.8 million acres burned. The wildland fire management costs used in this analysis are actual NFS and BLM expenditures averaged between 2007-2013.

Third, for the 5.3 million acres of NFS roaded timberlands and 600,000 acres of BLM timberlands, timber harvest quantity-price scenarios are developed based on the IDL and ICL analyses of sawtimber board feet (bf) volume and reviewers' comments on earlier drafts of this document. Additional timber harvests following transfer range from 500 million to 800 million to 1 billion bf/year. Timber stumpage values per thousand board feet (mbf) range from \$150/mbf to \$200/mbf to \$250/mbf. The combination of these three timber harvest quantities and three stumpage prices result in nine quantity-price scenarios. This analysis follows the IDL assumption that grazing revenues would be approximately equal to management costs after a transfer.

Fourth, using information in Morgan et al. (2013), the potential economic impacts from a gain in forest products industry employment are estimated, net of the potential loss of federal jobs following transfer of lands.

Additional timber harvest following transfer

The most recent statewide forest inventory report by the U.S. Forest Service estimated 155 billion bf of sawtimber on 12.2 million acres of National Forest System (NFS) timberlands in Idaho, and another 6 billion bf of sawtimber on 600,000 acres of BLM timberlands (**Table 5**). Wilderness areas are not included in that estimate; NFS roadless areas are. For the 6.9 million acres of NFS roadless timberlands,¹ this analysis subtracts 45 billion bf, leaving a remainder of 110 billion bf on 5.3 million acres of NFS roaded timberlands.

This analysis confirms IDL's finding that the historic level of 800 million to 1 billion bf/year of timber harvests from federal lands in Idaho is realistic. Between 1960 and 1990, timber harvests from federal lands in Idaho averaged 700 million bf/year, and in at least three years approached 1 billion bf/year (**Figure 2**). With this level of timber harvest from federal lands, the growing stick volume on Idaho's forest resource base, which is predominately National Forest System timberlands, increased during these three decades (**Figure 3**). Based on the reported annual growth rate on federal timberlands (**Table 5**), the amount of timber that could be harvested from NFS timberlands could be more than that, but this analysis treats the historic high harvest of 1 billion bf/year from federal lands as the maximum quantity.

Net cash flow to the State of Idaho after transfer

The IDL's analysis assumed it would take 10-15 years to ramp up to timber harvests on the transferred lands to their full potential and assumed timber stumpage value of \$200/mbf. IDL estimated cost of timber management at 40% of revenues, which translates into 8% of the quantity of timber harvested at a stumpage value of \$200/mbf in IDL's two quantity scenarios of 800 million or 1 billion bf/year. Under these scenarios annual net income from timber management would be either \$96 million or \$120 million/year (**Table 6**).

¹ Data compiled from Idaho roadless area documents (USFS 2008) identify 3.3 million acres of timberlands with 27 billion board feet of timber, thus averaging 8,200 bf/acre. It is likely that there are another 3.6 million acres of timberlands in roadless areas that managers did not identify as timberlands during the roadless area review, perhaps because they are poorly stocked. If these additional acres had an average of 5,000 bf/acre, then there are another 18 billion bf of timber in roadless areas.

IDL prepared their analysis in February 2013 (Schultz 2013) and presented it in August 2013 (Groschl 2013). Since then IDL timber stumpage values have trended upwards to \$300/mbf, which perhaps could be a reasonable price scenario for this analysis (T. Schultz, personal communication). Before the Great Recession of 2008-2009 stumpage prices for IDL timber exceeded \$300/mbf in every year since 1993 (adjusted for inflation to 2013 constant dollars, **Figure 4**). Nevertheless the high-end scenario for this analysis is more conservative, with additional timber sales of 1 billion bf/year at \$250/mbf, for net income of \$170 million/year.

What is a realistic stumpage value for timber from transferred NFS land? Because no one knows what the future holds, a variety of scenarios are used. As **Figure 4** indicates, average stumpage values of \$200-250/mbf for NFS timber were attained for eight years running (1993-2000, adjusted for inflation to 2013 constant dollars), but have been much lower since then. The low-end quantity scenario in this analysis is 500 million bf/year, as suggested in review comments by the Idaho Dept. of Fish and Game, and a low-end timber stumpage price of \$150/mbf, as suggested in review comments by the U.S. Forest Service. The low-end scenario would provide net income from timberlands of \$35 million/year (**Table 6**).

Additional management costs for the NFS transfer of 6.9 million acres should be deducted from the net timber income generated by the timber quantity-price scenarios (**Table 7**), in part to account for costs of “matrix” lands surrounding timberlands, which are either non-productive forest lands or other non-forested lands adjacent to timberlands. Costs must include wildland fire management, and should perhaps also include road maintenance, recreation and county payment costs that were not in the IDL analysis, even though these functions are not currently IDL responsibilities.

The transfer to the state of 11.1 million acres of BLM land outside of wilderness areas would cost the state \$67 million per year, with little potential for enhanced revenue production. The IDL proposal called for the transfer of 9.5 million acres of BLM lands, which on a pro-rated basis represents a cost of \$53 million to the state, which is used in this analysis. Additional grazing and mineral resource development may be possible after a transfer, but are highly speculative and have not been included in this analysis.

The total net cost to the State of Idaho for the IDL transfer proposal would range from a loss of \$111 million/year under the low-end scenario to a loss of \$60 million/year under the medium scenario to a gain of \$24 million/year under the high-end scenario. Only under the high-end scenario of 1 billion bf/year at \$250/mbf would the state realize a gain after covering costs of wildfire, recreation, highway maintenance and payments to counties.

Cost components are dominated by wildfire preparedness (\$35 million/year on NFS land and \$12 million/year on BLM land); wildfire suppression (\$85 million/year on NFS land and \$26 million/year on BLM land), and payments to counties (\$53 million/year). Because of its variability (see **Figure 1**), the wild card in this analysis is wildfire suppression. The question whether payments to counties should continue is likely to spark lively debate.

Economic impact in the State of Idaho after transfer

There would be a substantial positive economic impact in the state from additional timber-related jobs. In 2013, each million board feet of timber harvested in Idaho provided 9.6 direct jobs and 8.4 indirect and induced jobs (or 0.875 indirect and induced jobs for every direct job); these jobs provided wages and salaries of \$528,000 per million board feet harvested (Morgan et al. 2014).

Based on the low-end timber quantity-price scenario of 500 million bf/year, there would be 4,800 new jobs in the forest products industry. However, after the transfer there would be a loss of perhaps as many as 3,000 federal jobs under the IDL's set of assumptions (2,000 NFS jobs and 1,000 BLM jobs). The net gain in direct jobs would range from 1,800 (low-end timber quantity-price scenario) to 4,680 or 6,600 new direct jobs in the middle- or high-end scenarios. Adding to that the indirect and induced jobs would result in a total of 3,375 new jobs (low-end scenario) to 8,775 or 12,375 in the middle- or high-end scenarios. These new jobs would provide wages and salaries in a range from \$99 million/year (low-end scenario) to \$257 million/year or \$363 million/year (middle- and high-end scenarios). New state income taxes on wages/salaries would range from \$16 million/year (low-end scenario) to \$41million/year or \$58 (middle- or high-end scenarios). These estimates are all net of the loss of wages/salaries and state income taxes from federal jobs that would disappear after the transfer.

Would a transfer of federal lands to the State of Idaho make or lose money?

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Table 1. Acres of land in Idaho in the National Forest System, Bureau of Land Management and National Wildlife Refuge System by land-use category (millions of acres).

| | USDA – Forest Service | USDI – Bureau of Land Mgmt. | USDI – Fish & Wildlife Service | Total |
|----------------------------------|------------------------|-----------------------------|--------------------------------|--------------------|
| Timberland | 12,227 ^{a, b} | 613 ^a | 0 | 12,480 |
| Forest land, reserved | 3,456 ^{a, c} | 0 | 0 | 3,456 ^c |
| Forest land, unproductive | 540 ^a | 330 ^a | 0 | 870 |
| Other land, reserved | 549 ^{c, d} | 517 ^c | 0 | 1,066 ^c |
| Other land, not reserved | 3,645 ^e | 10,150 | 49 ^f | 13,844 |
| TOTAL | 20,417 | 11,610 | 49 | 32,076 |
| TOTAL, less reserves | 16,412 | 11,093 | 49 | 27,554 |

^a Source: Witt et al. (2012). *Idaho's Forest Resources, 2004-2009*. RMRS-RB-14, U.S. Dept. of Agriculture, Forest Service, Fort Collins, CO. Table 2.

^b Individual National Forest System (NFS) units reported a total of 3.3 million acres of timberlands in the 9.3 million acres of roadless areas on which there are 27 million board feet of timber (USFS 2008). However, that is not enough roadless timberlands to make all categories add to the total timberland acres as well as NFS acres. For this analysis, then, it was determined that there are 6.9 million acres of timberlands in NFS roadless areas and 5.3 million acres of NFS timberland outside of roadless areas. Assuming that 2/3 of the 3.6 million acres of NFS “other land, not reserved” are in NFS roadless areas, then there must be an additional 3.6 million acres of unreported timberlands in NFS roadless areas.

^c Reserved land is in the National Wilderness Preservation System.

^d Calculated as 4.522 million acres of wilderness in Idaho (USFS 2014a) minus reserved forest land (Witt et al. 2012) minus BLM wilderness (BLM 2014a).

^e Calculated as total 20.4 million NFS acres less timberland, less reserved land.

^f Source: Gorte et al. (2012). *Federal Land Ownership: Overview and Data*. R2346, Congressional Research Service 7-5700, Washington, DC.

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| Table 2. Appropriations of federal funds to selected federal land management agencies in Idaho, FY 2012 (thousands of dollars). | | | | |
|--|-----------------------|-----------------------------|--------------------------------|---------|
| | USDA – Forest Service | USDI – Bureau of Land Mgmt. | USDI – Fish & Wildlife Service | Total |
| Appropriated funds to agency | 165,567 ^a | 132,605 ^b | 3,094 ^c | 301,266 |
| Federal Highway Admin. funds | 15,983 | 0 | 25 | 16,008 |
| Subtotal, appropriations | 181,550 | 132,605 | 3,119 | 317,274 |
| Payments in Lieu of Taxes (PILT) | 16,467 | 9,562 | 16 | 26,045 |
| Payments, Secure Rural Schools | 31,200 | 0 | 0 | 31,200 |
| Subtotal, payments to state | 47,667 | 9,562 | 16 | 57,245 |
| Total public land appropriations | 229,217 | 142,167 | 3,135 | 374,519 |

Source: CRS (2013). Congressional Research Service Memorandum of September 19, 2013 to the Honorable Michael K. Simpson, US Congress House of Representatives.

^a Includes National Forest System land and resource management, planning and analysis (\$56.7 million), wildland fire management (\$44.1 million), capital improvement and maintenance (\$16.8 million) State & Private Forestry (\$5.2 million), Forest and Rangeland Research (\$3.3 million), land acquisition (\$0.8 million), and a variety of other unspecified cost allocations and funds (\$16.5 million).

^b Includes land and resource management, planning and analysis (\$60,157), wildland fire management (\$52.0 million), land acquisition (\$6.4 million), construction and access (\$1.4 million), recreation fees (\$1.8 million), range improvements (\$1.1 million), forest health (\$0.5 million), and a variety of other functions and funds (\$7.3 million).

^c Includes only funds for management of National Wildlife Refuge System lands; the agency also manages fish hatcheries (\$0.8 million), has administrative and regulatory functions under the Endangered Species Act and other federal laws (\$8.6 million), and provides a variety of appropriated grants to the state (\$13.8 million). It is assumed that these functions other than land management would continue if a land transfer were to happen.

Table 3. Comparison of assumptions in Idaho Department of Lands (IDL) and Idaho Conservation League (ICL) analyses of a hypothetical transfer of federal lands to the State of Idaho.

| Assumptions |  |  |
|---|--|---|
| US-FS lands transferred | 6.9 million acres | unspecified |
| US-BLM lands transferred | 9.5 million acres | unspecified |
| Total federal lands transferred | 16.4 million acres | 28.0 million acres |
| Timberlands transferred, roaded | 7 million acres | unspecified |
| Timberlands transferred, roadless | 0 | > 9.3 million acres |
| Timber harvest, years 5-9 | 500 mmbf/yr | 500 mmbf/yr |
| Timber harvest, years 10-20 | 800–1,000 mmbf/yr | 1,000 mmbf/yr |
| Timber value (constant, years 1-20) | \$200/mbf | \$200/mbf |
| Wildfire suppression & preparedness costs | \$45 million/yr | \$188 million/yr |
| Recreation & road maintenance costs | 0 | \$22 million/yr |
| Loss of county payments (SRS & PILT) | 0 | \$54 million/yr |
| Loss or gain of wages & state income tax | gain, unspecified | loss, specified, not in cash flow analysis |

mbf = thousand board feet ; mmbf = million board feet.

Source: Groeschl, D. (2013); Hjerpe (2013).

| Land-use Category | % of all NFS land | Wildfire Prep. | Wildfire Supp. | Timber Mgmt. | Land Mgmt. | Recreation | FHWA Maint. | SRS & PILT | Total |
|----------------------------|---------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|--------------------------|
| Timberland, roaded | 26.0% | 9.1 | 22.1 | 5.0 | 0.5 | 3.8 | 11.0 | 32.0 | 83.5 |
| Timberland, roadless | 33.8% | 11.8 | 28.7 | -- | 0.5 | 1.3 | -- | 7.5 | 49.8 |
| Forest land, unproductive | 2.6% | 0.9 | 2.2 | -- | 0.2 | 0.1 | 1.0 | 1.1 | 5.5 |
| Forest land, reserved | 16.9% | 5.9 | 14.4 | -- | 0.2 | 1.3 | -- | 2.7 | 24.5 |
| Other land, reserved | 2.7% | 1.0 | 2.3 | -- | 0.2 | 0.1 | -- | 1.1 | 4.7 |
| Other land, not reserved | 17.7% | 6.3 | 15.1 | -- | 0.4 | 1.0 | 4.0 | 2.9 | 29.7 |
| Total | 100.0%^a | 35.0^b | 85.0^b | 5.0^c | 2.0^d | 7.6^d | 16.0^e | 47.3^f | 197.9^g |
| Total, less reserved areas | 80.4% | 28.1 | 68.3 | 5.0 | 1.8 | 7.6 | 16.0 | 44.2 | 169.4 |

^a Source: **Table 1**; cells do not add to total due to rounding.

^b Source: Brunelle, A., review comments. Wildfire preparedness is the average annual expenditure for 2011-2013. Wildfire suppression is the average annual expenditure for 2007-2013. Allocations to land-use category cells are based on “% of all land” column.

^c Source: IDL proposal assumes timberland management costs to be 40% of timber revenues; NFS sold 100 million board feet at an average of \$125/mbf.

^d Source: CRS (2013); with allocation to roaded timberland proportionally higher; USFS budget book for FY 2012 (see USFS 2014b) was helpful in identifying the % of all NFS expenditures for various land management activities including wildlife & fisheries, vegetation & watershed management, as well as recreation (recreation revenues of \$2.0 million are netted out of appropriated costs).

^e Source: CRS (2013); with Federal Highway Administration funds allocated only to roaded areas.

^f Source: CRS (2013); 100% of \$31.2 million in SRS payments allocated to roaded timberland; PILT appropriations for NFS lands totaling \$16,1 million allocated according to “% of all land” column.

^g Cells do not add to total due to rounding.

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| Land-use Category | % of all BLM land | Wildfire Prep. | Wildfire Supp. | Timber Mgmt. | Land Mgmt. | PILT | Total |
|----------------------------|---------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| Timberland | 5.3% | 0.7 | 1.4 | 1.0 | 2.0 | 0.5 | 5.6 |
| Forest land, unproductive | 2.8% | 0.3 | 0.8 | -- | 1.0 | 0.3 | 2.4 |
| Other land, reserved | 4.5% | 0.6 | 1.2 | -- | 1.0 | 0.4 | 3.2 |
| Other land, not reserved | 87.4% | 10.8 | 23.6 | -- | 16.0 | 8.2 | 58.6 |
| TOTAL | 100.0% ^a | 12.4 ^b | 27.0 ^b | 1.0 ^c | 20.0 ^d | 9.4 ^b | 69.8 ^g |
| TOTAL, less reserved areas | 95.5% | 11.8 | 25.8 | 1.0 | 19.0 | 9.0 | 66.6 |

^a Source: **Table 1**.

^b Source: Wildfire preparedness and wildfire suppression are average annual expenditures for 2007-2013 (see BLM 2014b). Allocations to land-use category cell values are based on “% of all land” column.

^c Source: IDL assigns timberland management costs of 40% of timber revenues; BLM sold 28 million board feet in FY2013 and 11 million board feet in FY2012. Cell value is 40% of average of 19 million board feet at an average of \$125/mbf (as used in NFS analysis).

^d Source: CRS (2013); land management includes grazing, recreation, energy and minerals, etc., less 50% for planning and analysis to comply with federal laws; \$9.3 million in revenues from various sources are netted out of this allocation.

^e Source: CRS (2013); with Federal Highway Administration appropriations allocated only to roaded areas.

^f Source: CRS (2013); 100% of SRS payments allocated to roaded timberland; PILT appropriations allocated according to “% of all land” column.

^g Cells do not add to total due to rounding.

Table 5. Idaho forest inventory data on timberland by ownership category, 2009.

| Inventoried parameter | USDA-FS | USDI-BLM | State | Private | Total |
|--|---------|----------|-------|---------|--------|
| Sawtimber volume (billion board feet) ^a | 155.3 | 5.9 | 15.7 | 21.2 | 198.1 |
| Sawtimber volume (billion cubic feet) ^b | 24.084 | 0.923 | 2.438 | 3.283 | 30.728 |
| Growing-stock volume (billion ft ³) ^c | 30.702 | 1.196 | 3.116 | 4.682 | 39.696 |
| Gross growth (annual average, million ft ³) ^d | 731.1 | 23.7 | 102.4 | 192.9 | 1,050 |
| Growth rate %, all live trees | 2.4% | 2.0% | 3.3% | 4.1% | 2.6% |
| Mortality (annual average, million ft ³) ^e | 483.8 | 4.8 | 22.1 | 25.7 | 536 |
| Mortality as % of gross growth | 66% | 20% | 22% | 13% | 51% |
| Timber harvest (annual average, million ft ³) ^f | 18 | -- | 53 | 94 | 165 |
| Timber harvest as % of gross growth | 2.5% | -- | 51.8% | 48.7% | 15.7% |

Source: developed from data in Witt et al. (2012) *Idaho's Forest Resources, 2004-2009*. Resource Bulletin RMRS-RB-14, U.S. Forest Service, Fort Collins, Co, 134 p.

^a All trees > 9" diameter at breast height on Idaho timberlands in 2009; Witt et al. (2012), Table 19, using same % of distribution by ownership as in Table 20.

^b Witt et al. (2012), Table 20.

^c All trees > 5" diameter at breast height on Idaho timberlands in 2009; Witt et al. (2012), Table 18.

^d Witt et al. (2012), Tables 21 & 25.

^e Witt et al. (2012), Table 25.

^f Witt et al. (2012), page 41, applying conversion factor of 5 bf/ft³.

Would a transfer of federal lands to the State of Idaho make or lose money?

Table 6. Net timber income from additional timber sales following hypothetical transfer of 5.9 million acres of federal timberlands to the State of Idaho.

| Harvest Scenario | Additional harvest level (mmbf/year) | Stumpage value (\$/mbf) | Gross revenue (\$ million) | Management costs (\$ million)* | Net income from timber (\$ million) |
|-------------------------|---|--------------------------------|-----------------------------------|---------------------------------------|--|
| Low | 500 | 150 | 75 | 40 | 35 |
| Low | 500 | 200 | 100 | 40 | 60 |
| Low | 500 | 250 | 125 | 40 | 85 |
| Medium | 800 | 150 | 120 | 64 | 56 |
| Medium | 800 | 200 | 160 | 64 | 96 |
| Medium | 800 | 250 | 200 | 64 | 136 |
| High | 1,000 | 150 | 150 | 80 | 70 |
| High | 1,000 | 200 | 200 | 80 | 120 |
| High | 1,000 | 250 | 250 | 80 | 170 |

*In IDL analysis, management costs are 40% of the value of the timber harvested, which because the price did not vary from \$200/mbf is equivalent to 8% of the quantity of timber harvested.

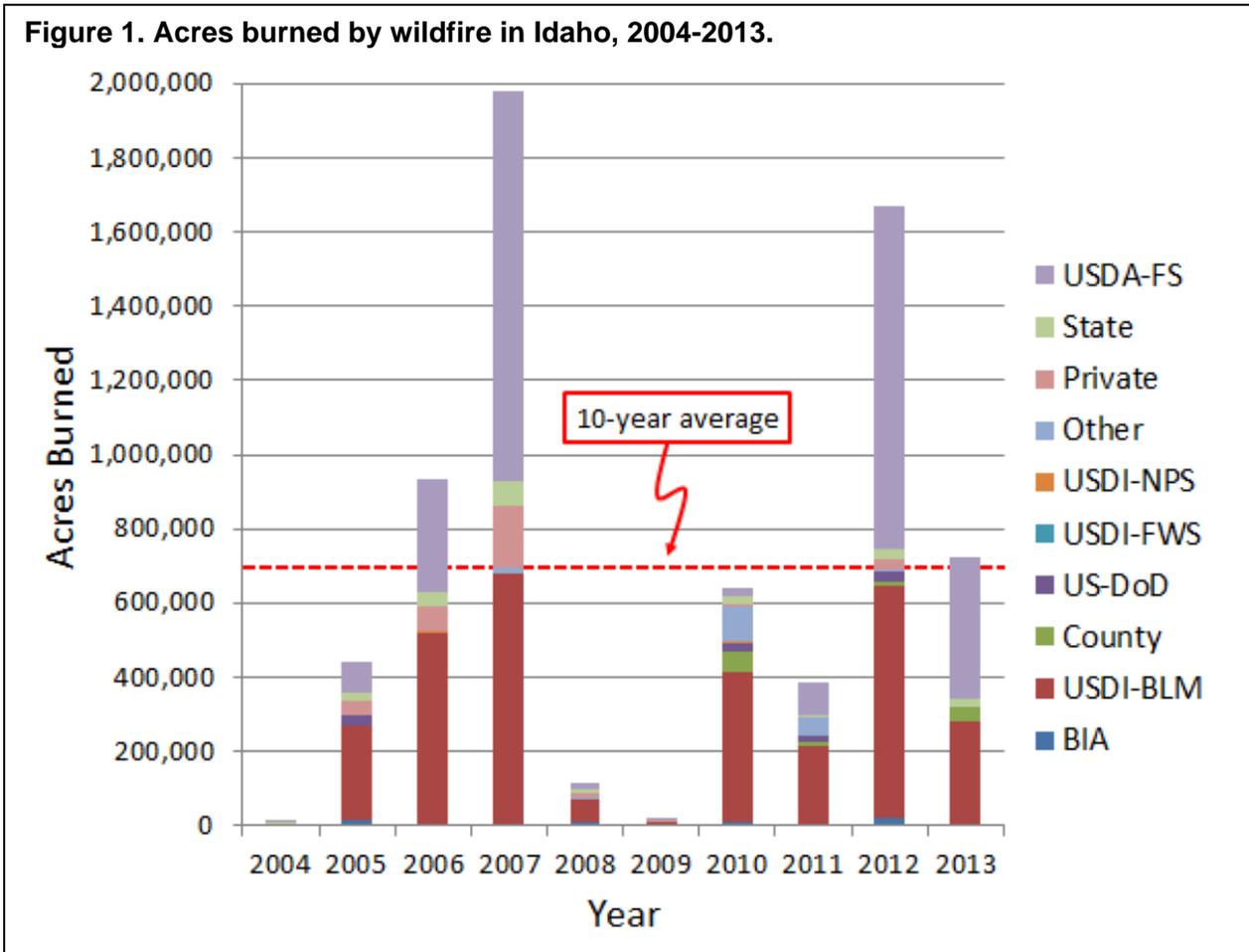
Note: Shaded rows are the quantity-price scenarios referred to in the body of the report.

Would a transfer of federal lands to the State of Idaho make or lose money?

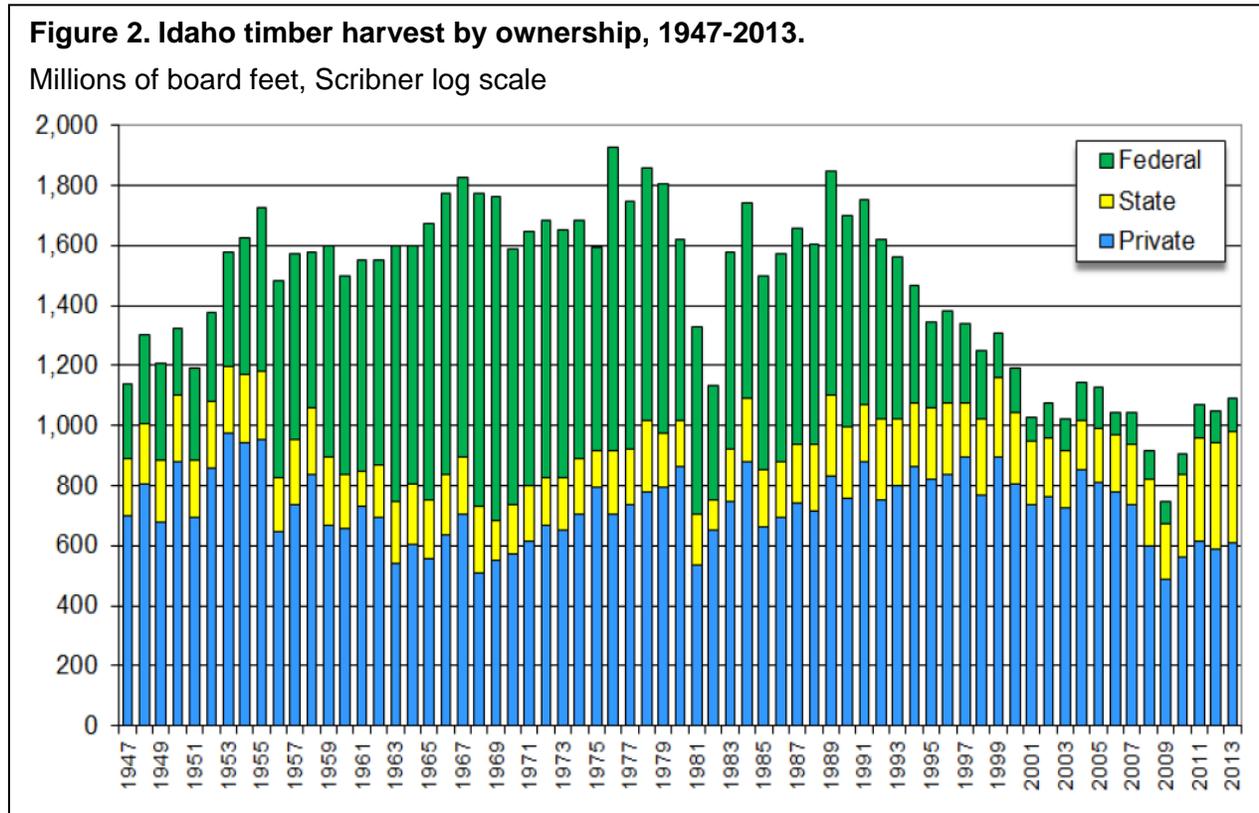
| Table 7. Total net income from additional timber sales following hypothetical transfer to the State of Idaho of 5.9 million acres of federal timberlands plus 1.0 million acres of “matrix” lands* plus 8.9 million acres of BLM non-forest lands (millions of dollars/year). | | | |
|--|------------------------|------------------------|----------------------|
| | Low Scenario | Middle Scenario | High Scenario |
| Net timber income (see Table 6) | \$35 to \$85 | \$56 to \$136 | \$70 to \$170 |
| Cost of timberland management (5.9 Million acres) | \$0.8 | \$0.8 | \$0.8 |
| Cost of “matrix” land* management (1.0 million acres) | \$0.2 | \$0.2 | \$0.2 |
| Cost of wildland fire management (see Table 4a) | \$40 | \$40 | \$40 |
| (a) Subtotal: timberland management | -\$6 to \$44 | \$15 to \$95 | \$29 to \$129 |
| Cost of recreation area management (see Table 4a) | \$7 | \$7 | \$7 |
| Cost of highway maintenance (see Table 4a) | \$12 | \$12 | \$12 |
| (b) Subtotal (a) plus recreation and highway maintenance | -\$25 to \$25 | -\$4 to \$76 | \$10 to \$110 |
| Cost or SRS payments to counties (see Table 4a) | \$31.2 | \$31.2 | \$31.2 |
| Cost of PILT payments to counties (see Table 4a) | \$1.9 | \$1.9 | \$1.0 |
| (c) Subtotal (b) plus payments to counties | -\$58 to -\$8 | -\$37 to \$43 | -\$23 to \$77 |
| Cost of BLM lands (9.5 million acres; see Table 4b)† | -\$53 | -\$53 | -\$53 |
| Total net cash flow to the State of Idaho | -\$111 to -\$61 | -\$90 to -\$10 | -\$76 to \$24 |

*“Matrix” lands are unproductive or roadless forest lands or other lands surrounding roaded timberlands.

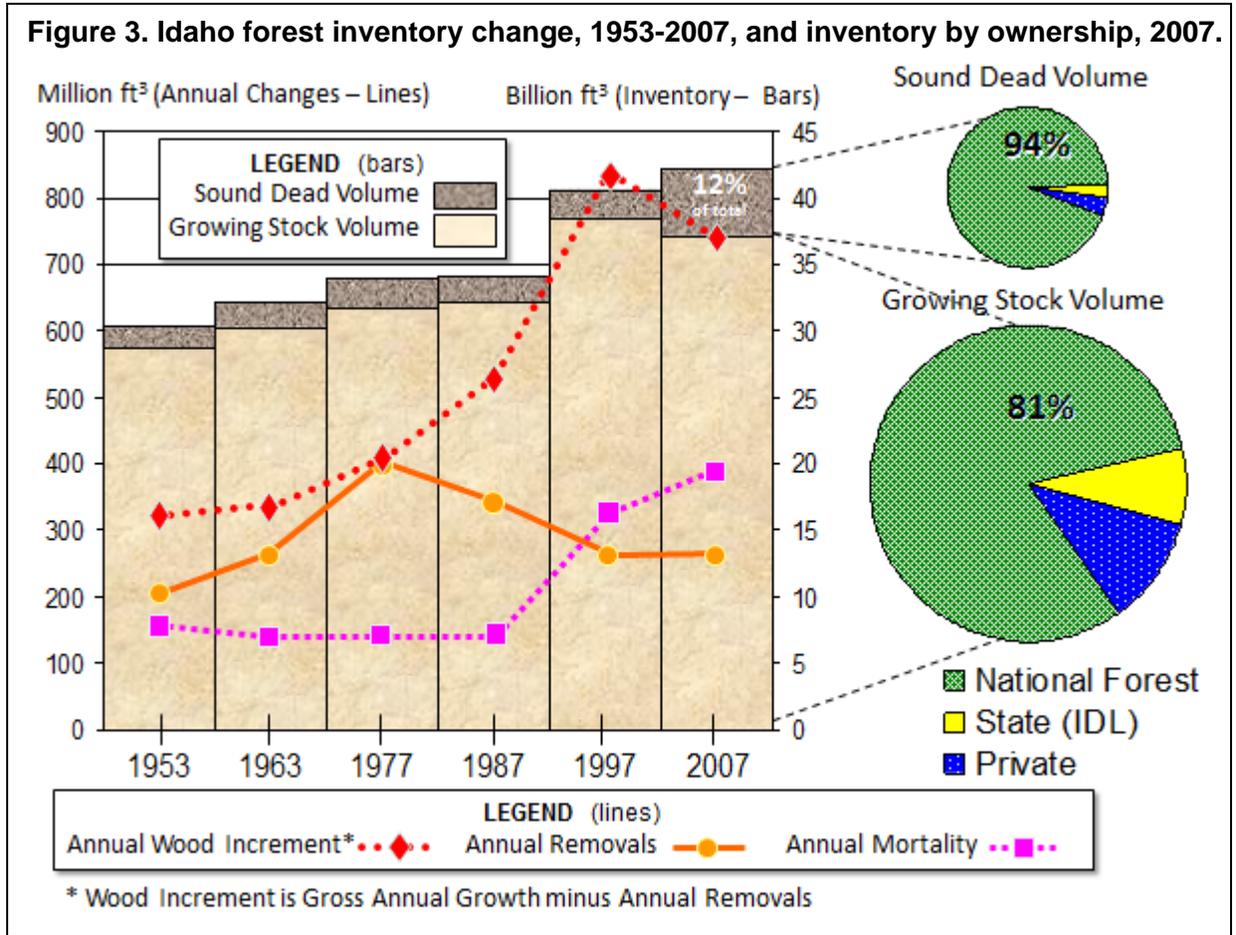
†Includes payments to counties and costs for all wildfire and land management functions except timberland management, which is included in subtotal (a) above.



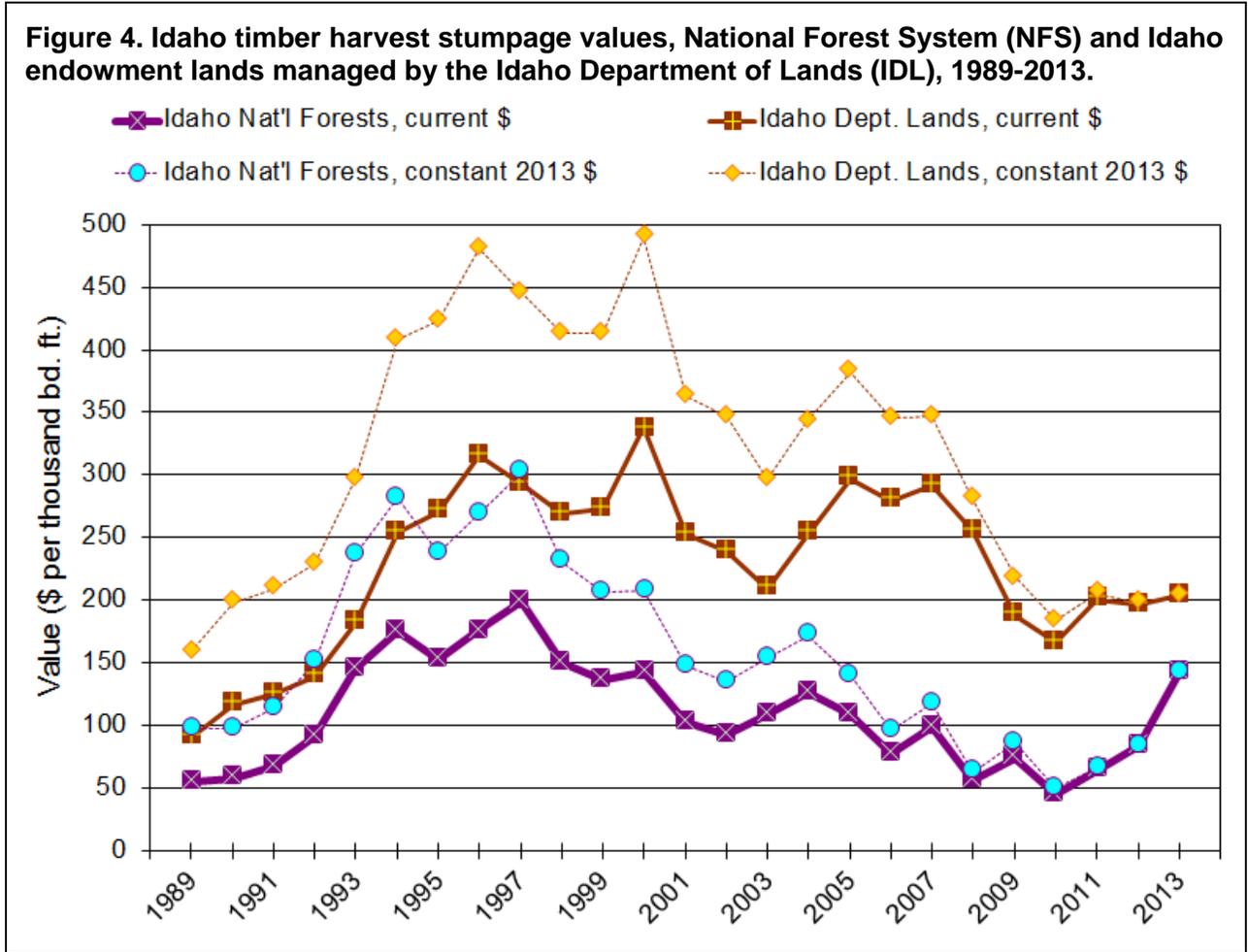
Source: Statistics webpage, National Interagency Fire Center, Boise, Idaho.



Source: Bureau of Business and Economics Research, The University of Montana, Missoula (from Morgan et al. 2014); U.S. Forest Service, Region One Office, Missoula, Montana.



Source: developed from data in Smith et al. (2009). *Forest Resources of the United States, 2007*. Gen. Tech Rep. WO-78, U.S. Forest Service, Washington, DC. 336 p.



Sources: U.S. Forest Service, Forest Management Cut and Sold Reports webpage; Idaho Department of Lands annual reports; U.S. Bureau of Labor Statistics, Producer Price Index for All Manufacturing Industries.

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