Appendix J – Economic Contributions

CONTENTS

Date: September 27, 2010

Contribution of National Forest and Grassland Resource Management to the US Economy in 2009

OBJECTIVE

This paper describes the methods used to estimate the economic contribution of Forest Service (FS) National Forest and Grassland resource management activities to the US economy in 2009 for use in the Planning Rule DEIS. This is a summary analysis for National Forest System (NFS) activities. A far more detailed study for the entire Forest Service is carried out periodically for the Strategic Plan Analysis.

ECONOMIES AS SYSTEMS

Economies are webs of interactions between producers and consumers of goods and services. Economic activity supports jobs and jobs give people the disposable income to support economic activity. Natural resource management on National Forests and Grasslands contributes to economic activity nation-wide by providing recreation opportunities and commodities such as timber and grazing. Additionally, a portion of the revenues collected by the Forest Service is returned to states and counties to support schools, road maintenance, and stewardship management projects. The information presented in this report quantifies the economic contribution of Forest Service resource management activities; recreation, hunting, fishing, wildlife watching, grazing, forest management, secure rural schools returns to states and counties, and budget expenditures supporting management of the National Forest System. One important activity was left out of this analysis, minerals management. The minerals leasing activities (such as oil, natural gas, etc.) are administered by the Department of Interior (DOI) rather than the Forest Service. National estimates of other mineral program activities were not available for this analysis.

SUMMARY TABLES: ECONOMIC CONTRIBUTION

Table 1 presents an estimate of the annual economic activity supported by FS management of the National Forests and Grasslands. This includes the effects of expenditures by the Agency to manage natural resources as well as including expenditures made by visitors enjoying recreational opportunities on the National Forests, wildlife related activities such as hunting, fishing, and wildlife watching, economic activity in the livestock sector supported by access to FS grazing allotments, the economic activity supported by logging companies and primary processors of forest products, as well as the gathering and sales other forest products.

Table 1: National Forest and Grassland Contributions to US Employment, Income, GDP and Total Sales by Program for 2009.

	Total Contribution (Initial Expenditures plus Ripple Effects)			
Resource *	**Full and Part Time Jobs**	**Labor Income (Thousands of 2009 dollars)**	**GDP (Thousands of 2009 dollars)**	**Output (Total Sales) (Thous. of 2009 dollars)**
Recreation - Not Wildlife Related	199,883	$8,036,853	$13,688,259	$26,418,402
Wildlife and Fish Recreation	24,259	$1,034,624	$1,756,845	$3,392,073
Grazing	3,695	$91,919	$194,047	$540,565
Timber	44,083	$2,054,923	$2,333,635	$11,820,121
Minerals **	N/A	N/A	N/A	N/A
Other Forest Products	100	$3,821	$5,906	$12,773
Payments to States/Counties	10,634	$506,774	$705,061	$1,295,913
Forest Service Expenditures	37,175	$1,764,434	$2,504,903	$3,475,555
Total Forest Management	319,829	$13,493,348	$21,188,656	$46,955,402

** Only the "Forest Service Expenditures" line reflects jobs and income generated from FS program budget expenditures. All the previous lines reflect private sector activity stimulated by FS resources entering the national economy.*

*** Minerals management is administered jointly between the Department of the Interior and FS. National estimates of commodity outputs were not available for this analysis.*

These estimates include backward linkages - the ripple effects through the economy of an infusion of money from the use of products and amenities on the National Forests. For example, in FY 2009, visitors to the National Forests spent $13billion for things like lodging, food and fuel (*National Visitor Use Monitoring Result, National Summary Report, FY2009,* April 2010). The full contribution of these expenditures are realized as the hotels, restaurants and gas stations turn around and pay for labor, utilities, taxes and other inputs that enable them to sell goods and services to the visitors. In addition, an economic contribution is made when the employees of the hotels, restaurants and gas stations spend their disposable income. As can be seen in Table 1, the total contribution stemming from the initial expenditure of $13billion is more than 24,000 jobs from wildlife related recreation, and over 199,000 jobs from other recreation. The same type of ripple effect can be seen economy-wide in income, GDP and sales.

As another example, the Grazing Program contributed almost 4,000 jobs and over $91 million of wages and proprietor's income economy-wide in 2009. It is important to note that this does not include the total number of ranchers and their employees, but rather is the economic contribution of value added to livestock given access to forage on the National Forests and Grasslands.

The other Programs shown in Table 1 have comparable ripple effects through the US economy. See Appendix A for a detailed display of results for this analysis. Appendix B shows the data and data sources used. Appendix C displays "Response Coefficients" – the economy-wide economic response to each $1million of; recreation expenditures, final demand for animals grazed on National Forest and Grasslands, state and local

government expenditures of Secure Rural School returns to counties, and FS Program expenditures. Timber response coefficients are expressed as the economy-wide economic response to 1MMCF of harvest from the National Forests.

GENERATING ESTIMATES OF INCOME AND EMPLOYMENT

For this analysis, one model was built for the entire US using the "IMPLAN" economic software and data system first developed by the Forest Service and now updated and supported by the Minnesota IMPLAN Group (www.implan.com). IMPLAN models show the interdependencies and interactions of businesses and consumers. Models contain data for 440 economic sectors and 9 income brackets using 2008 data, the most recent data available. Table 2 shows the source of some of the key data pieces in IMPLAN.

Table 2: Sources for the 2008 IMPLAN data set

Data Type	Source Data	Comments
Industry sales	▪ U.S. Bureau of Census (Census) economic censuses, ▪ U.S. Bureau of Economic Analysis (BEA) output estimates ▪ U.S. Bureau of Labor Statistics (BLS) employment projections.	Total Industry Output equals the value of all sales to intermediate (business to business) and final (consumers, exports) demand.
Employment (jobs)	▪ BEA: Regional Economic Information System (REIS) ▪ BLS: ES202 employment security data ▪ Census: County Business Patterns	Employment (jobs) is defined as in 2009 employment. It includes full and part time, temporary, and seasonal jobs as well as multiple jobs held by a single person.
Labor Income	▪ Employee compensation: o BLS ES202 o BEA REIS data. ▪ Proprietor's Income: Federal tax forms.	Labor Income includes: ▪ Employee compensation: the value of wages and benefits ▪ Proprietor's income: Any income received for payment of self-employed work.

IMPLAN is an "Input-output (I-O)" model and is used as a means of examining relationships within an economy both among businesses and between businesses and final consumers. It captures all monetary market transactions for consumption in a given time period. There are two principle ways IMPLAN is used; an examination of the current situation is a "Contribution Analysis", while a prediction of economic activity in response to a change in management or policy is an "Impact Analysis". The purpose of this report is to estimate the ***contribution*** of current natural resource management to the US economy.

Input-output models are driven by final consumption (or final demand). Industries respond to meet demand for their product or service directly or indirectly (by supplying goods or services to industries responding directly). Each industry that produces goods

or services generates demands for other goods and services. A $1 final demand for the goods and services of an industry ultimately leads to an output of more than $1 of the goods and services of the total economy. Other industries supply inputs to the industry receiving a demand for its product and increase the stimulus to the regional economy. These are secondary effects. People spending wages earned in any of these industries also provide income to other goods and service industries, an "induced effect". Direct, indirect and induced effects are measured with "multipliers" which measure how much employment and income is stimulated by demand for goods and services. Complex economies generate larger multipliers than simple, rural economies. "Response coefficients" are a type of multiplier that measures economic response as a result of each $1million of spending related to natural resource management.

RESPONSE COEFFICIENTS AND FEAST

After the IMPLAN model was built, a million dollars was run through the model for; wildlife and other recreation, range, timber, and secure rural schools payments. These "response coefficients" are then imported into FEAST, an Excel workbook which handles calculation and reporting tasks. Appendix C shows the estimated FS Program response coefficients for the US economy.

RESOURCE DATA AND ANALYSIS RESULTS

Appendix B shows a table of resource data inputs used in FEAST with the data sources noted. FEAST multiplies these data by the response coefficients from IMPLAN to get the jobs and income estimates. The results tables from FEAST are displayed in *Appendix A*.

A WORD ABOUT IMPLAN ESTIMATES

In order to use these estimates correctly, please keep a few words of warning in mind:

1. IMPLAN is used to examine "marginal" changes: The numbers presented in Appendix A hold only for relatively small changes to the US economy. Any resource management action large enough to change the underlying structure and trade relationships of the economy will necessarily change the relationships quantified in the coefficients. A new model would need to be specified and run.
2. In reality, effects would be "lumpy": These estimates were generated for a large geographic area which contains well developed and complex economies. At a smaller scale, management actions that affect rural, simple economies would necessarily have smaller response coefficients and thus a smaller job and income response.
3. Jobs do NOT equal Full Time Equivalents. Jobs are annual average full and part time, seasonal, and temporary employment in the private sector.
4. Labor income includes employee compensation (wages plus the value of benefits) and the income of sole proprietors.
5. GDP (Gross National Product): GDP measures the incremental value added to a product or service at each step of the production process. This is a conventional and widely used measure of economic growth. This is called "Value Added" in IMPLAN output.

6. Output (Total Sales): Sales value of goods and services. This is not normally used as a measure of economic growth as it counts both intermediate and final sales of goods and services in the production process.

FULL FEAST OUTPUT TABLES

Contribution of National Forest Management to the US Economy

Table A. Current Economic Contribution of National Forest & Grassland Resource Management

Resource	Jobs (Full and Part Time)	Labor Income (Thous. $2009)	GDP (Thous. $2009)	Output (Total Sales: Thous. $2009)
Recreation - Not Wildlife Related	199,883	$8,036,853	$13,688,259	$26,418,402
Wildlife and Fish Recreation	24,259	$1,034,624	$1,756,845	$3,392,073
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Timber	44,083	$2,054,923	$2,333,635	$11,820,121
Minerals	N/A	N/A	N/A	N/A
Other Forest Products	100	$3,821	$5,906	$12,773
Payments to States/Counties	10,634	$506,774	$705,061	$1,295,913
Forest Service Expenditures	37,175	$1,764,434	$2,504,903	$3,475,555
Total Forest Management	319,829	$13,493,348	$19,304,175	$46,955,400

Table B. Economic Contribution to Tax Revenues by Program in 2009

	Thousands of 2009 dollars	
Industry	State & Local	Federal
Recreation - Not Wildlife Related	$1,458,597	$1,655,026
Wildlife and Fish Recreation	$162,699	$181,989
Grazing	$22,045	$22,882
Timber	$346,657	$502,722
Minerals	N/A	N/A
Other Forest Products	$583	$818
Payments to States/Counties	$59,755	$105,710
Forest Service Expenditures	$177,954	$266,106
Total Forest Management	$2,228,290	$2,735,254

Table C. Economic Contribution by Major Industry in 2009

Industry	Jobs (Full and Part Time)	Labor Income (Thous. $2009)	GDP (Thous. $2009)	Output (Total Sales: Thous. $2009)
Agriculture	19,170	476,983	646,539	2,662,120
Mining	923	155,290	387,638	756,087
Utilities	985	168,151	523,697	965,294
Construction	4,385	243,069	257,924	520,041
Manufacturing	22,833	1,432,431	1,981,886	10,216,809
Wholesale Trade	10,734	798,708	1,305,503	2,332,377
Transportation & Warehousing	11,875	601,278	818,971	1,625,273
Retail Trade	33,789	942,048	1,589,576	2,594,267
Information	4,984	468,336	803,721	2,177,442
Finance & Insurance	9,742	828,923	1,262,844	2,628,368
Real Estate & Rental & Leasing	10,170	307,465	2,108,577	3,440,597
Prof, Scientific, & Tech Services	13,643	1,010,745	1,279,132	2,431,476
Mngt of Companies	2,758	309,351	394,487	736,445
Admin, Waste Mngt & Rem Serv	15,197	491,133	607,727	1,080,042
Educational Services	3,440	111,286	116,728	240,135
Health Care & Social Assistance	17,103	831,795	923,033	1,749,835
Arts, Entertainment, and Rec	18,033	521,292	963,316	2,232,646
Accommodation & Food Services	82,800	2,088,095	3,381,839	6,180,110
Other Services	11,895	330,472	431,815	944,320
Government	25,370	1,376,495	1,403,702	1,335,503
Total Forest Management	319,829	$13,493,348	$21,188,654	$46,955,400

Table D. Economic Contributions to Tax Revenues by Major Industry (In 2009, $1,000)

	Thousands of 2009 dollars	
Industry	State & Local	Federal
Agriculture	89,687	118,003
Mining	46,450	56,079
Utilities	58,716	71,105
Construction	28,772	40,519
Manufacturing	255,714	324,595
Wholesale Trade	137,189	163,635
Transportation & Warehousing	100,379	122,069
Retail Trade	162,049	191,028
Information	96,528	116,399
Finance & Insurance	155,497	188,717
Real Estate & Rental & Leasing	231,758	280,375
Prof, Scientific, & Tech Services	158,667	196,524
Mngt of Companies	51,552	61,644
Admin, Waste Mngt & Rem Serv	76,961	92,631
Educational Services	14,779	17,959
Health Care & Social Assistance	114,887	140,794
Arts, Entertainment, and Rec	110,065	125,837
Accommodation & Food Services	394,772	450,437
Other Services	51,377	62,861
Government	127,655	168,560
Total Forest Management	$2,463,454	$2,989,769

Table E. Forest Service Secure Rural Schools Payments to Counties (Annual Avg, ; Thousands of 2009 dollars)

	Current
Payment to States/Counties	$467,608

Table F. Current Role of Forest Service-Related Contributions to the US Economy

	Employment (jobs)		Labor Income (Thousands of 2009 dollars)	
Industry	US Totals	FS-Related	US Totals	FS-Related
Agriculture	3,760,534	19,170	$71,689,938	476,983
Mining	905,275	923	$125,532,267	155,290
Utilities	557,117	985	$96,592,447	168,151
Construction	11,286,915	4,385	$581,557,209	243,069
Manufacturing	13,829,566	22,833	$1,079,427,116	1,432,431
Wholesale Trade	6,323,779	10,734	$475,756,596	798,708
Transportation & Warehousing	18,850,522	11,875	$557,046,036	601,278
Retail Trade	5,652,794	33,789	$302,253,880	942,048
Information	3,592,765	4,984	$334,252,107	468,336
Finance & Insurance	8,178,963	9,742	$713,060,733	828,923
Real Estate & Rental & Leasing	7,564,435	10,170	$230,879,080	307,465
Prof, Scientific, & Tech Services	12,035,141	13,643	$932,623,837	1,010,745
Mngt of Companies	1,861,054	2,758	$211,683,964	309,351
Admin, Waste Mngt & Rem Serv	10,442,019	15,197	$349,340,727	491,133
Educational Services	3,492,557	3,440	$115,082,530	111,286
Health Care & Social Assistance	17,562,096	17,103	$862,689,084	831,795
Arts, Entertainment, and Rec	3,531,574	18,033	$97,209,354	521,292
Accommodation & Food Services	11,949,225	82,800	$257,694,287	2,088,095
Other Services	10,080,334	11,895	$267,143,307	330,472
Government	24,860,136	25,370	$1,587,921,038	1,376,495
Other				
Total	176,316,800	319,829	$9,249,435,537	$13,493,348
FS as Percent of Total	---	0.18%	---	0.14%

DATA INPUT SUMMARY REPORT

- NL - NonLocal Visitors who live more than 50 miles from the National Forest
- L – Local Visitors who live within 50 miles of the National Forest
- Day – Day use
- OVN-NF – Overnight on the National Forest
- OVN – Overnight off the National Forest
- NOTE: Non-primary visits (visitors who were recreating on the forest or grassland but not in the area primarily to visit the forest) were added to the Local Day use visit total to reflect their low spending on NF recreation.

1

Recreation Use	Units	Current	No Action
NL-Day	Visits	12,941,720	
NL-OVN-NF	Visits	9,412,160	
NL-OVN	Visits	20,000,840	
L-Day Trips	Visits	69,414,680	
L-OVN-NF	Visits	4,706,080	
L-OVN	Visits	1,176,520	
NL-Day Downhill Ski	Visits	4,477,800	
NL-OVN Downhill Ski	Visits	13,134,880	
L-Day Downhill Ski	Visits	11,642,280	
L-OVN Downhill Ski	Visits	597,040	

Source: "Spending Profiles of National Forest Visitors, NVUM Round 2 Update", White, Eric and Dan Stynes, March 2010

2

Recreation Expenditures / Unit	Units	Current	No Action
NL-Day Trips	$/Visit	24.30	
NL-OVN-NF	$/Visit	79.70	
NL-OVN	$/Visit	205.13	
L-Day Trips	$/Visit	15.08	
L-OVN-NF	$/Visit	57.41	
L-OVN	$/Visit	86.04	
NL-Day Downhill Ski	$/Visit	53.86	
NL-OVN Downhill Ski	$/Visit	268.16	
L-Day Downhill Ski	$/Visit	29.33	
L-OVN Downhill Ski	$/Visit	88.80	

Source: "Spending Profiles of National Forest Visitors, NVUM Round 2 Update", White, Eric and Dan Stynes, March 2010

3

Range Use	Units	Current	No Action
Cattle & Horses	HMs	4,818,401	
Sheep & Goats	HMs	1,984,715	
Cattle Inventory -- Impact Area	Animals	96,034,500	
Cattle weighted proportion marketed	Number	.46	
Cattle weighted selling price	$/Animal	1,104	
FS Cattle HMs in Inventory Data Year	HMs	4,818,401	
Sheep Inventory -- Impact Area	Animals	4,636,500	
Sheep weighted proportion marketed	Number	.26	
Sheep weighted selling price	$/Animal	306	
FS Sheep HMs in Inventory Data Year	HMs	1,984,715	

Sources: "Annual Grazing Statistical Report", (www.fs.fed.us/ranglands/reports/index.shtml) and National Agricultural Statistics Service (www.usda.gov/nass)

4

Wildlife & Fish Use	Units	Current	No Action
NL-Day Trips	Visits	3,609,341	
NL-OVN-NF	Visits	3,886,982	
NL-OVN	Visits	3,054,058	
L-Day Trips	Visits	15,825,571	
L-OVN-NF	Visits	832,925	
L-OVN	Visits	555,283	

Source: "Spending Profiles of National Forest Visitors, NVUM Round 2 Update", White, Eric and Dan Stynes, March 2010

5

Wildlife & Fish Expenditures/Unit	Units	Current	No Action
NL-Day Trips	$/Visit	27.83	
NL-OVN-NF	$/Visit	125.84	
NL-OVN	$/Visit	199.17	
L-Day Trips	$/Visit	21.12	
L-OVN-NF	$/Visit	81.57	
L-OVN	$/Visit	88.71	

Source: "Spending Profiles of National Forest Visitors, NVUM Round 2 Update", White, Eric and Dan Stynes, March 2010

6

Timber	Units	Current	No Action
Softwood Sawtimber	CCF	2,094,229	
Softwood Pulp	CCF	493,911	
Hardwood Sawtimber	CCF	167,253	
Hardwood Pulp	CCF	252,089	
Poles	CCF	12,724	
Posts	CCF	7,237	
Fuelwood	CCF	501,376	
All Other Products	CCF	410,911	

Sources: Annual Cut and Sold Reports, Volume harvested, "Service-wide Products FY 2009" (www.fs.fed.us/forestmanagement/reports/sold-harvest/cut-sold.html).

7

Secure Rural Schools/25% Fund	Units	Current	No Action
Roads	$	198,733	
Schools	$	198,733	
General Gov't	$	23,380	
Title II Projects	$	46,761	

Source: "ASR18-1_18-2_FY2009.xls", (www.fs.fed.us/srs/county2009.shtml)

8

FS Employment & Expenditures All Programs	Units	Current	No Action
NFS FTEs All Programs	FTEs	14,500	
Expenditures			
Salary	%	.39	
Nonsalary	%	.61	
Total NFS	Thous $$	$1,452,729	

Source: Ross Arnold, WO Research, SPRA, personal communication, and National Finance Center, Budget Object Code annual expenditure data.

9

Other Forest Products Quantities	Units	Current	No Action
Other Forest Products	ccf	410,911	

Source: Source: Annual Cut and Sold Reports, Volume harvested, "Service-wide Products FY 2009" (www.fs.fed.us/forestmanagement/reports/sold-harvest/cut-sold.html).

10

Other Forest Products Costs (2008 dollars)	Units	Current	No Action
Other Forest Products	ccf	10	

Sources: Annual Cut and Sold Reports, Volume harvested, "Service-wide Products FY 2009" (www.fs.fed.us/forestmanagement/reports/sold-harvest/cut-sold.html).

11

IMPLAN Data for Impact Area	Units	Current	No Action
Employment	number	176,316,800	176,316,800
Employee Compensation	$	8,038,855,998,714	8,038,855,998,714
Proprietary Income	$	1,106,300,002,875	1,106,300,002,875
Labor Income	$	9,145,155,991,341	9,145,155,991,341
Other Property Income	$	4,248,944,035,175	4,248,944,035,175
Total Income	$	13,394,100,039,978	13,394,100,039,978

Source: 2008 US IMPLAN model

RESPONSE COEFFICIENTS FROM THE US IMPLAN MODEL

In the following tables, "Direct Effects" come from the initial expenditures that are applied to the US IMPLAN model. "Indirect Effects" are the impact of local industries and services buying goods and services from other local businesses in response to the Direct Effects. "Induced Effects" are caused by the re-spending of income received by workers and sole proprietors of the Directly and Indirectly affected businesses.

EMPLOYMENT RESPONSE COEFFICIENTS		**EMPLOYMENT (Jobs/$1MM of FD)**			
		Direct	Indirect	Induced	Total
Other Forest Products	Other Forest Products	1.8	15.3	6.8	23.9
Range	Cattle & Horses	8.1	9.2	4.1	21.4
	Sheep & Goats	19.3	5.5	3.1	27.9
Recreation - Not Wildlife Related	Nonlocal - Day Use	7.7	3.1	4.4	15.2
	Nonlocal - Overnight on National Forest	7.3	3.1	5.0	15.4
	Nonlocal - Overnight off National Forest	9.3	3.5	5.4	18.2
	Local - Day Use	6.6	2.9	4.1	13.6
	Local - Overnight on National Forest	5.7	2.9	4.6	13.2
	Local - Overnight off National Forest	8.0	3.2	5.0	16.2
	Nonlocal - Day Use Downhill Ski	8.0	4.4	5.3	17.7
	Nonlocal - Overnight Downhill Ski	9.7	4.0	5.7	19.5
	Local -Day Use Downhill Ski	8.0	4.1	5.1	17.2
	Local -Overnight Downhill Ski	9.7	4.0	5.7	19.4
Wildlife and Fish Recreation	Nonlocal - Day Use	5.7	2.6	3.8	12.1
	Nonlocal - Overnight on National Forest	7.0	3.0	4.8	14.7
	Nonlocal - Overnight off National Forest	8.3	3.2	5.1	16.6
	Local - Day Use	5.4	2.5	3.8	11.7
	Local - Overnight on National Forest	5.6	2.7	4.4	12.8
	Local - Overnight off National Forest	6.5	2.9	4.8	14.2
Secure Rural Schools	Roads	8.3	4.2	8.2	20.7
	Schools	10.5	1.7	7.4	19.6
	General Government	6.8	1.7	5.3	13.8
	Title II Projects	37.6	1.4	12.8	51.8
FS Salary Expenditures	Middle Income Bracket	7.1	3.7	5.7	16.5
FS Non-Salary Expenditures	US Average Expenditure Profile	7.3	2.8	7.2	17.3

		EMPLOYMENT (Jobs/MMCF)			
		Direct	Indirect	Induced	Total
Timber	Forestry and Logging (16)	13.00	11.90	16.14	41.04
	Sawmills (95)	18.30	24.43	27.34	70.07
	Plywood and Veneer Softwood (96)	30.90	27.62	37.00	95.52
	Plywood and Veneer Hardwood (96)	30.90	27.62	37.00	95.52
	Oriented Strand Board (OSB) (98)	4.80	4.93	7.17	16.90
	Mills Processing Roundwood Pulp Wood (104, 105, 106, 107)	4.80	13.90	16.85	35.55
	Other Timber Products (97,99,100,102,103)	49.50	35.21	47.71	132.42
	Facilities Processing Residue From Sawmills (98, 104, 105, 106, 107)	4.80	13.90	16.85	35.55
	Facilities Processing Residue From Plywood/Veneer (98, 104, 105, 106, 107)	4.80	13.90	16.85	35.55

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LABOR INCOME RESPONSE COEFFICIENTS		**LABOR INCOME ($/$1MM of FD)**			
		Direct	Indirect	Induced	Total
Other Forest Products	Other Forest Products	99,100	497,804	306,208	903,112
Range	Cattle & Horses	53,129.0	308,650.5	185,750.6	547,530.1
	Sheep & Goats	85,363.0	187,368.7	140,309.1	413,040.8
Recreation - Not Wildlife Related	Nonlocal - Day Use	215,756	172,079	199,525	587,360
	Nonlocal - Overnight on National Forest	272,671	167,679	226,607	666,957
	Nonlocal - Overnight off National Forest	283,852	190,886	244,297	719,035
	Local - Day Use	199,802	161,922	186,075	547,799
	Local - Overnight on National Forest	247,053	155,859	207,338	610,250
	Local - Overnight off National Forest	262,584	173,367	224,332	660,283
	Nonlocal - Day Use Downhill Ski	222,005	240,832	238,112	700,949
	Nonlocal - Overnight Downhill Ski	285,954	217,715	259,171	762,840
	Local -Day Use Downhill Ski	220,890	226,677	230,254	677,821
	Local -Overnight Downhill Ski	284,829	216,860	258,151	759,840
Wildlife and Fish Recreation	Nonlocal - Day Use	187,955.2	146,401.7	171,980.5	506,337.5
	Nonlocal - Overnight on National Forest	255,231.9	162,635.1	215,023.7	632,890.8
	Nonlocal - Overnight off National Forest	270,852.2	175,763.4	229,827.1	676,442.6
	Local - Day Use	189,980.6	140,556.9	170,016.2	500,553.8
	Local - Overnight on National Forest	241,424.3	147,900.3	200,342.4	589,666.9
	Local - Overnight off National Forest	267,475.1	156,596.4	218,252.7	642,324.2
Secure Rural Schools	Roads	463,644.9	252,121.2	368,072.2	1,083,838.3
	Schools	548,845.0	100,310.8	334,457.6	983,613.3
	General Government	367,863.8	100,156.9	240,928.1	708,948.8
	Title II Projects	1,033,708.8	87,291.2	575,450.6	1,696,450.6
FS Salary Expenditures	Middle Income Bracket	288,115.0	212,721.8	257,650.2	758,487.0
FS Non-Salary Expenditures	US Average Expenditure Profile	474,884.0	154,514.8	324,114.5	953,513.3

		LABOR INCOME ($/MMCF)			
		Direct	Indirect	Induced	Total
Timber	Forestry and Logging (16)	481.89	510.97	643.38	1,636.24
	Sawmills (95)	816.32	1,075.08	1,208.84	3,100.24
	Plywood and Veneer Softwood (96)	1,364.27	1,242.02	1,556.23	4,162.52
	Plywood and Veneer Hardwood (96)	1,364.27	1,242.02	1,556.23	4,162.52
	Oriented Strand Board (OSB) (98)	369.48	393.65	421.77	1,184.90
	Mills Processing Roundwood Pulp Wood (104, 105, 106, 107)	369.48	673.61	577.84	1,620.93
	Other Timber Products (97,99,100,102,103)	2,147.77	2,009.32	2,220.37	6,377.46
	Facilities Processing Residue From Sawmills (98, 104, 105, 106, 107)	369.48	673.61	577.84	1,620.93
	Facilities Processing Residue From Plywood/Veneer (98, 104, 105, 106, 107)	369.48	673.61	577.84	1,620.93

OUTPUT RESPONSE COEFFICIENTS		**TOTAL Output ($/$1MM of FD)**			
		Direct	Indirect	Induced	Total
Ecosystem Restoration	Other Forest Products	1,000,000	1,004,591	1,014,372	3,018,963
Range	Cattle & Horses	1,000,000.0	1,609,721.0	615,394.9	3,225,116.0
	Sheep & Goats	1,000,000.0	898,055.8	464,947.9	2,363,003.7
Recreation - Not Wildlife Related	Nonlocal - Day Use	742,379	605,411	661,168	2,008,958
	Nonlocal - Overnight on National Forest	802,151	584,119	750,936	2,137,205
	Nonlocal - Overnight off National Forest	872,500	651,531	809,555	2,333,587

	Local - Day Use	703,800	575,650	616,591	1,896,041
	Local - Overnight on National Forest	738,083	571,083	687,075	1,996,240
	Local - Overnight off National Forest	807,019	609,834	743,389	2,160,241
	Nonlocal - Day Use Downhill Ski	881,330	785,735	789,034	2,456,099
	Nonlocal - Overnight Downhill Ski	912,939	725,163	858,840	2,496,942
	Local -Day Use Downhill Ski	854,149	743,026	762,998	2,360,172
	Local -Overnight Downhill Ski	909,351	722,311	855,462	2,487,124
Wildlife and Fish Recreation	Nonlocal - Day Use	659,107.0	517,232.7	569,876.5	1,746,216.3
	Nonlocal - Overnight on National Forest	769,305.3	571,324.0	712,541.7	2,053,171.1
	Nonlocal - Overnight off National Forest	819,383.2	611,830.7	761,602.4	2,192,816.3
	Local - Day Use	645,920.3	496,728.5	563,365.4	1,706,014.1
	Local - Overnight on National Forest	714,210.9	535,062.0	663,887.9	1,913,160.8
	Local - Overnight off National Forest	762,058.1	556,556.8	723,252.5	2,041,867.3
Secure Rural Schools	Roads	1,000,000.0	839,111.9	1,219,602.3	3,058,714.2
	Schools	978,859.8	349,897.8	1,108,480.4	2,437,237.9
	General Government	993,062.7	316,998.1	798,432.7	2,108,493.5
	Title II Projects	1,000,000.0	395,145.1	1,906,473.7	3,301,618.7
FS Salary Expenditures	Middle Income Bracket	1,000,000.1	717,869.2	853,768.2	2,571,637.5
FS Non-Salary Expenditures	US Average Expenditure Profile	995,801.6	510,895.5	1,074,146.9	2,580,844.0

		TOTAL Output ($/MMCF)			
		Direct	Indirect	Induced	Total
Timber	Forestry and Logging (16)	2,472	3,814	5,977	12,263
	Sawmills (95)	4,279	4,937	5,908	15,124
	Plywood and Veneer Softwood (96)	5,663	4,571	6,021	16,255
	Plywood and Veneer Hardwood (96)	5,663	4,571	6,021	16,255
	Oriented Strand Board (OSB) (98)	1,923	1,794	2,046	5,763
	Mills Processing Roundwood Pulp Wood (104, 105, 106, 107)	2,465	4,386	3,927	10,778
	Other Timber Products (97,99,100,102,103)	7,401	6,364	7,086	20,852
	Facilities Processing Residue From Sawmills (98, 104, 105, 106, 107)	2,465	4,386	3,927	10,778
	Facilities Processing Residue From Plywood/Veneer (98, 104, 105, 106, 107)	2,465	4,386	3,927	10,778