

The Economic "So-What" of
Federal Natural Resource
Management Decisions

1

- Given a snapshot of the local economy – how do management decisions support and/or change it?
 - Input 1 – “Response Coefficients”... rate of economic response in terms of jobs and income to a given amount of resource management/use
 - Input 2 – Resource flows; visitor days, PILT, oil and gas extraction, timber harvest, aum’s, etc.
 - Output – The effect of Federal govt management decisions on local jobs and income.

2

- Focus like a laser beam on
 - Local
 - The effect of Federal management
- We don’t care about
 - Economic activity outside the study area affected by Federal management decisions
 - Total economic activity except for comparisons and context

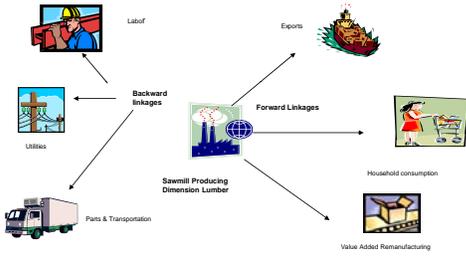
3

FEAST

- Why is that last point so important?

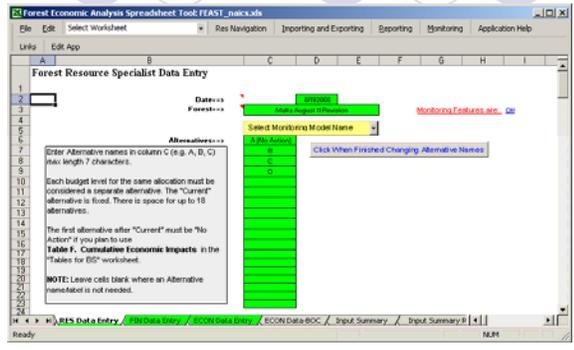
4

Figure 1. Industry and Consumer Backward and Forward Linkages for Sawmill Production

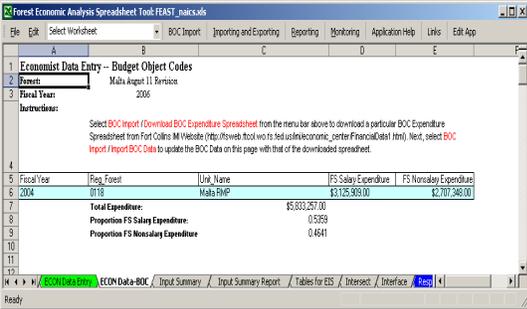


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Resource Data Entry Page



Econ Budget Object Code Page



Resource Data Request Form

- Get updated form from John

FEAST Checklist

- Introduction page
 - Read this page thoroughly
 - Tool Bar
 - Navigation
 - Importing and Exporting
 - Reporting
 - Help
 - Edit Application

FEAST Checklist...

- Res Data Entry page (Resource Data Entry page)
 - Read documentation found in upper-left hand corner
 - Enter Date and Forest Name (very important!)
 - Enter alternative names
 - Click button, Click when ...
 - Enter data (Note: 1. average annual quantity by alternative, and 2. certain resources need to have units entered.)
 - Enter documentation in yellow section at bottom of page

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FEAST Checklist...

- Fin Data Entry page
 - Select year of dollars entered on this page – very important (drop down list)
 - Select year of dollars for results – very important (reporting)
 - ONLY IF USING THE "TIMBER RAC METHOD": Enter data by resource (Note: 1) average annual quantity by alternative, and 2) certain resources need to have units entered.)
 - Enter Payments data – only money that is returned to your study area.
 - Enter documentation in yellow section at bottom of page

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FEAST Checklist...

- Econ Data Entry page
 - Economist enters data on this page
 - Select year of IMPLAN model/data (drop down list)
 - Select method of timber calculations
 - Enter cumulative effects year, employment and labor income (optional)
 - Enter data by resource
 - Remember your documentation in yellow section at bottom of page

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FEAST Checklist...

- Econ Data-BOC page
 - Budget Object Code data from PAG website
 - Just point and click and data is entered
- Also described, several pages where no data are entered.

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Tables for Environmental Impact Statement

Malta RMP

Table A. Employment by Program by Alternative (Average Annual, Decade 1)

Resource	Total Number of Jobs Contributed							
	Current	A (No Action)	B	C	D			
Recreation: non-local only	14	14	14	15	15			
Wildlife and Fish: non-local only	18	18	20	19	19			
Grazing	107	107	107	107	107			
Timber	3	3	6	6	6			
Minerals	235	131	155	225	236			
Ecosystem Restoration	46	46	59	59	59			
Payments to States/Counties	67	62	63	66	67			
BLM Expenditures	99	92	93	93	93			
Total BLM Management	588	472	516	590	601	0	0	
Percent Change from Current	---	-19.6%	-12.2%	0.3%	2.2%	-100.0%	-100.0%	

Table B. Labor Income by Program by Alternative (Average Annual, Decade 1; \$1,000)

Resource	Thousands of 2008 dollars							
	Current	A (No Action)	B	C	D			
Recreation: non-local only	\$284.2	\$284.2	\$294.4	\$305.1	\$307.4			
Wildlife and Fish: non-local only	\$378.4	\$378.4	\$411.6	\$401.7	\$397.7			
Grazing	\$2,340.0	\$2,340.0	\$2,340.0	\$2,340.0	\$2,340.0			
Timber	\$91.5	\$91.5	\$173.5	\$173.5	\$173.5			
Minerals	\$13,816.5	\$7,238.5	\$8,736.8	\$13,170.2	\$13,833.8			
Ecosystem Restoration	\$1,129.7	\$1,129.7	\$1,548.4	\$1,548.4	\$1,548.4			
Payments to States/Counties	\$2,299.9	\$2,132.0	\$2,172.1	\$2,282.3	\$2,296.8			
BLM Expenditures	\$4,703.4	\$3,886.0	\$4,014.9	\$4,014.9	\$4,014.9			
Total BLM Management	\$25,043.6	\$17,480.3	\$19,691.9	\$24,236.3	\$24,912.5	\$0.0	\$0.0	
Percent Change from Current	---	-30.2%	-21.4%	-3.2%	-0.5%	100.0%	100.0%	

Table C. Employment by Major Industry by Alternative (Average Annual, Decade 1)

Industry	Total Number of Jobs Contributed						
	Current	A (No Action)	B	C	D		
Agriculture	94	93	101	101	101		
Mining	152	85	100	146	152		
Utilities	2	2	2	2	2		
Construction	1	1	1	1	1		
Manufacturing	2	2	2	2	2		
Wholesale Trade	11	9	9	11	11		
Transportation & Warehousing	9	8	8	9	10		
Retail Trade	32	24	27	32	33		
Information	3	2	2	3	3		
Finance & Insurance	10	7	8	10	10		
Real Estate & Rental & Leasing	9	8	8	9	9		
Prof, Scientific, & Tech Services	13	11	12	13	14		
Mngt of Companies	0	0	0	0	0		
Admin, Waste Mngt & Rem Serv	31	29	30	31	31		
Educational Services	3	2	3	3	3		
Health Care & Social Assistance	23	16	18	23	23		
Arts, Entertainment, and Rec	8	6	7	8	8		
Accommodation & Food Services	39	33	36	40	40		
Other Services	20	15	18	20	21		
Government	126	120	123	126	127		
Total BLM Management	588	472	516	590	601	0	0
Percent Change from Current	---	-19.6%	-12.2%	0.3%	2.2%	-100.0%	-100.0%

Table D. Labor Income by Major Industry by Alternative (Average Annual, Decade 1; \$1,000)

Industry	Thousands of 2008 dollars						
	Current	A (No Action)	B	C	D		
Agriculture	\$1,882.8	\$1,875.4	\$2,062.0	\$2,066.4	\$2,067.0		
Mining	\$11,726.3	\$6,067.5	\$7,361.2	\$11,146.9	\$11,699.0		
Utilities	\$261.4	\$197.1	\$217.8	\$258.4	\$264.7		
Construction	\$22.8	\$18.7	\$20.4	\$22.9	\$23.3		
Manufacturing	\$62.9	\$47.7	\$53.2	\$62.6	\$64.2		
Wholesale Trade	\$421.5	\$343.4	\$374.3	\$426.2	\$436.7		
Transportation & Warehousing	\$345.9	\$284.1	\$310.0	\$350.8	\$359.3		
Retail Trade	\$731.8	\$544.2	\$615.3	\$724.5	\$741.3		
Information	\$114.7	\$90.2	\$100.8	\$116.0	\$118.9		
Finance & Insurance	\$283.7	\$214.8	\$236.6	\$282.2	\$290.9		
Real Estate & Rental & Leasing	\$340.4	\$284.2	\$314.6	\$345.8	\$351.1		
Prof, Scientific, & Tech Services	\$375.0	\$295.0	\$334.3	\$385.3	\$395.9		
Mngt of Companies	\$5.7	\$4.4	\$4.7	\$5.9	\$6.3		
Admin, Waste Mngt & Rem Serv	\$642.6	\$627.6	\$633.9	\$643.2	\$644.9		
Educational Services	\$51.5	\$36.1	\$40.6	\$49.7	\$51.0		
Health Care & Social Assistance	\$748.5	\$520.4	\$588.0	\$724.7	\$745.0		
Arts, Entertainment, and Rec	\$86.8	\$72.7	\$79.4	\$88.5	\$90.3		
Accommodation & Food Services	\$519.1	\$440.0	\$486.7	\$531.3	\$537.5		
Other Services	\$276.0	\$214.8	\$247.6	\$280.3	\$285.4		
Government	\$6,144.3	\$5,302.2	\$5,610.7	\$5,724.5	\$5,739.7		
Total BLM Management	\$25,043.6	\$17,480.3	\$19,691.9	\$24,236.3	\$24,912.5	\$0.0	\$0.0
Percent Change from Current	---	-30.2%	-21.4%	-3.2%	-0.5%	100.0%	100.0%

Table E. BLM Revenues and Payments to Counties (Annual Avg, Decade 1; Thousands of 2008 dollars)

	Current	A (No Action)	B	C	D		
All Program Revenues	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Payment to States/Counties	\$2,233.0	\$2,070.0	\$2,109.0	\$2,216.0	\$2,230.0	0	\$0.0

Table F. Cumulative Economic Impacts in 2008

Economic Indicator	2008		Are a Tot als	2008					
	Are a Tot als	Forest Portion		Forest Portion					
				A (No Action)	B	C	D		
Employment									
Total (jobs)	1	588	1	472	516	590	601	0	0
% of Area Totals	100%	58782.9%	100%	47243.4%	51600.2%	58971.3%	60100.8%	0.0%	0.0%
% Change from No Action	---	---	---	0.0%	9.2%	24.8%	27.2%	100.0%	100.0%
Labor Income (2008 dollars)									
Total (\$ million)	\$0.0	\$25.0	\$0.0	\$17.5	\$19.7	\$24.2	\$24.9	\$0.0	\$0.0
% of Base	100%	25043570.1%	100%	17480258.3%	19691855.5%	24236264.0%	24912549.8%	0.0%	0.0%
% Change from No Action	---	---	---	0.0%	12.7%	38.6%	42.5%	100.0%	100.0%

Table G. Current Role of BLM-Related Contributions to the Area Economy

Industry	Employment (jobs)		Labor Income (Thousands of 2008 dollars)	
	Area Totals	BLM-Related	Area Totals	BLM-Related
Agriculture	6,089	94	\$126,168.6	\$1,883
Mining	1,136	152	\$84,349.6	\$11,726
Utilities	248	2	\$25,426.6	\$261
Construction	1,496	1	\$47,040.9	\$23
Manufacturing	497	2	\$15,346.0	\$63
Wholesale Trade	801	11	\$31,642.0	\$421
Transportation & Warehousing	1,661	9	\$97,853.2	\$346
Retail Trade	3,103	32	\$74,306.5	\$732
Information	440	3	\$18,970.1	\$115
Finance & Insurance	1,119	10	\$34,786.9	\$284
Real Estate & Rental & Leasing	997	9	\$36,806.1	\$340
Prof, Scientific, & Tech Services	828	13	\$26,035.8	\$375
Mngt of Companies	6	0	\$262.9	\$6
Admin, Waste Mngt & Rem Serv	1,427	31	\$20,221.7	\$643
Educational Services	382	3	\$6,223.7	\$52
Health Care & Social Assistance	2,548	23	\$81,499.9	\$749
Arts, Entertainment, and Rec	700	8	\$8,102.4	\$87
Accommodation & Food Services	2,516	39	\$35,227.8	\$519
Other Services	2,028	20	\$26,239.4	\$276
Government	7,864	126	\$397,397.3	\$6,144
Total	35,886	588	1,193,907	25,044
BLM as Percent of Total	---	1.64%	---	2.10%

Table H. Local Recreation, Fish & Wildlife Employment by Program by Alternative (Average Annual, Decade 1)

Resource	A (No Action)					C	D
	Current	B	C	D	E		
Employment	Total Number of Jobs Contributed						
Recreation: local only	12	12	12	13	13		
Wildlife and Fish: local only	17	17	18	18	17		
Income	Thousands of 2008 dollars						
Recreation: local only	277	277	287	297	300		
Wildlife and Fish: local only	377	377	410	400	396		
Total	28	28	30	30	30	0	0
Percent Change from Current	---	0.0%	6.6%	6.7%	6.3%	-100.0%	-100.0%

Forest Economic Analysis Spreadsheet Tool (Database Version 4.0 9/04/2008)

This Excel workbook is designed to streamline data entry and preparation for the generation of economic impact tables placed in Forest Plan Revision EISs or other programmatic analysis documents. This workbook is set up to assist both economists and planning specialists in completing economic impact analysis. It is strongly recommended that a qualified economist define the impact area, build the IMPLAN model, and provide data in the "Economist Worksheets". Once this work has been completed, other ID Team specialists may enter their data, change their data, and run the macros as often as necessary to generate tables for the EIS. It is strongly recommended, again, that an economist be consulted to write or review the interpretation of results for the EIS. The workbook is divided into four sections: Introduction/Help, Forest ID Team worksheets, Economist worksheets, and Calculation worksheets (hidden). Each section is discussed below.

This version of FEAST incorporates the use of a MS Access backend database. This database, "FEAST_v4_be.mdb" can hold multiple FEAST datasets. You can only use one FEAST_naics.xls file. Think of FEAST as being a software program similar to IMPLAN. Do not move FEAST_naics.xls, or any of the supporting files (FEAST_v4_be.mdb or FEASTHelp.chm) from the folder in which it has been installed. Use the "Importing/Exporting" menu button to download or upload FEAST datasets into this FEAST workbook.

This version of FEAST can ONLY BE USED FOR IMPLAN DATA YEARS 2001 AND GREATER!!! IMPLAN data years 2000 and prior are SIC based. This version of FEAST is NAICS based.

Introduction

This "Introduction" worksheet provides general overview, advice, and instructions for the use of this tool. The tabs for worksheets that require data entry are colored **GREEN**. User input is allowed only in the **GREEN**-colored cells and in the **YELLOW**-colored notes section at the bottom of the page. ID Team specialists and economists and/or analysts are strongly encouraged to document assumptions, data sources, etc in the area provided at the bottom of the "data entry" worksheets. The **LIGHT BLUE**-colored cells receive input or data from the various macros (drop-down lists, buttons and menu selections).

There are cell comments throughout FEAST. These comments contain valuable information regarding the use of FEAST, data entry, data sources, etc. Simply move your cursor over cells with comment indicators (red triangle in corner of cell) to view the comment.

Forest ID Team Data Entry Worksheets

RES Data Entry

The "Resource Data Entry" worksheet is where alternatives are identified and resource output or use data are entered by ID Team specialists.

FIN Data Entry

The "Financial Data Entry" worksheet is where all relevant expenditure and revenue data are entered by the appropriate ID Team specialist. This information is used primarily for calculating the consequences of payments to states/counties in the traditional manner. The Rec Fee Demo program is not accounted for in handling recreation revenues.

Historical Monitoring Data

Use this worksheet to enter historical data for monitoring purposes.

Economist Data Entry Worksheets

ECON Data Entry

The "Econ Data Entry" worksheet is where all IMPLAN or industry-related data are entered by economists or analysts. Please read section of the Application Help regarding "Economic Data Entry." This is a valuable reference which should be reviewed by economists before starting their work.

Reporting Worksheets

Tables for EIS

The "Tables for EIS" worksheet is where all results are reported out. Seven standardized tables are located in this worksheet. Tables may be generated and published in MS Word format by clicking on the "Reports" command followed the "Build" and "Publish" commands at the top of this workbook. Each one may be copied from this worksheet and pasted into a MS Word or other formatted document for inclusion in an EIS. Print margins and landscape orientation are set so that each table will print on one page. **No data is entered in this worksheet.** All input is derived from running the "Build EIS Tables" menu button under "Reports".

Summary and Reference Worksheets

No data is entered in these worksheets.

ECON Data-BOC

The "ECON Data-BOC" worksheet is where Budget Object Code expenditure data, generated by the WOstaff, are imported from other supporting Excel spreadsheets. See "HELP" for assistance in IMPLAN input and output specifications. The **LIGHT BLUE**-colored cells receive BOC data input automatically by using the "BOC Import" / "Import BOC Data" menu button.

intersect

Selecting IMPLAN MODEL and then RETRIEVE MODEL DATA from the menu will import IMPLAN model data into the "Intersect" and "Econ Data Entry" worksheets. This information is used to convert Total Industry Output, TIO, estimates to changes in Final Demand for minerals and range.

Input Summary

The "Input Summary" worksheet is where all previously entered data has been transformed and made ready for linking with calculation worksheets. Data are summarized here so that users may view final data input in one location and to assist in identifying data problems, if needed.

interface

The "Interface" worksheet displays a list of all possible IMPLAN impact tables which can be built for FEAST. A macro which is executed by selecting "Load IMPLAN Coefficients" from the Importing and Exporting menu will load response coefficients for those impact table which have been built in IMPLAN. The Interface worksheet displays which response coefficients were loaded.

Calculation Worksheets

These worksheets are used for organizing data, calculating, and storing the results of impact estimates. These worksheets are protected and should not be modified. These worksheets interact with the designated IMPLAN model. Economists and analysts are encouraged to examine the calculations and intermediate results of the calculation worksheets.

Contributors

This Workbook has been prepared with input from the following individuals: WO-- Greg Alward, Mike Niccolucci, Walter Stewart, Susan Winter; RMRS, Missoula -- Krista Gebert; Region 1 -- Fred Stewart, Richard Marshall; Region 2 -- Mike Retzlaff, Julie Schaefer; Region 6 -- Dick Phillips, Doug Smith; Region 8 -- Clair Redmond; Region 9 -- Rickard H. Hokans; Region 10 -- Lisa Crone. Suggestions for improvement may be directed to Susan Winter or Doug Smith.

	A	B	C	D	E	F	G	H	I	J	
1	Forest Resource Specialist Data Entry										
2				8/11/2008							
3		Date==>									
4		Forest==>	Malta August 11 Revision					Monitoring Features are: Off			
5											
6		Alternatives==>									
7	<p>Enter Alternative names in column C (e.g. A, B, C) max length 7 characters.</p> <p>Each budget level for the same allocation must be considered a separate alternative. The "Current" alternative is fixed. There is space for up to 18 alternatives.</p> <p>The first alternative after "Current" must be "No Action" if you plan to use Table F. Cumulative Economic Impacts in the "Tables for EIS" worksheet.</p> <p>NOTE: Leave cells blank where an Alternative name/label is not needed.</p>		Current								
8			A (No Action)								
9			B								
10			C								
11			D								
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											

Click When Finished Changing Alternative Names

	A	B	C	D	E	F	G	H	I	J	
25		User input is allowed only in the GREEN -colored cells.									
26		Enter quantities for each output/outcome in by alternative in columns "D" through "V". All quantities must be expressed as annual averages									
27		User Defined Categories Recreation, Wildlife & Fish and Ecosystem Restoration: Enter units for each output/outcome in column "C".									
28											
29	Resources	Average Annual Quantity by Alt ==>									
30		Output/Outcome Description	Units	Current	A (No Action)	B	C	D	0	0	
31	Recreation										
32		NL-Day Trips	Visits	1,582	1,582	1,639	1,699	1,711			
33		NL-OVN-NF	Visits	2,373	2,373	2,459	2,548	2,567			
34		NL-OVN	Visits	5,538	5,538	5,737	5,946	5,990			
35		L-Day Trips	Visits	22,546	22,546	23,360	24,210	24,387			
36		L-OVN-NF	Visits	395	395	410	425	428			
37		L-OVN	Visits	7,120	7,120	7,377	7,645	7,701			
38		Recreation User Defined Category 1									
39		Recreation User Defined Category 2									
40		Recreation User Defined Category 3									
41		Recreation User Defined Category 4									
42		Recreation User Defined Category 5									
43		Recreation User Defined Category 6									
44		Recreation User Defined Category 7									
45		Recreation User Defined Category 8									
46		Recreation User Defined Category 9									
47		Recreation User Defined Category 10									
48											
49	Range										
50		Cattle and Horses HM	HMs	430,506	430,506	430,506	430,506	430,506			
51		Sheep and Goats HM	HMs								
52											
53	Wildlife & Fish										
54		NL-Day Trips	Visits	2,027	2,027	2,205	2,153	2,131			
55		NL-OVN-NF	Visits	3,041	3,041	3,308	3,229	3,196			
56		NL-OVN	Visits	7,096	7,096	7,719	7,534	7,458			
57		L-Day Trips	Visits	28,891	28,891	31,428	30,674	30,363			
58		L-OVN-NF	Visits	507	507	551	538	533			
59		L-OVN	Visits	9,123	9,123	9,924	9,687	9,558			
60		General Hunting (enter here if detail below unknown)									
61		Big Game Hunting									
62		Small Game Hunting									
63		Migratory Bird Hunting									
64		Other Game Hunting									
65		General Fishing (enter here is detail below unknown)									
66		Great Lakes Fishing									
67		Other Fresh Water Fishing									
68		Salt Water Fishing									
69		Non-consumptive Fish & Wildlife									
70		Wildlife & Fish User-Defined Category 1									
71		Wildlife & Fish User-Defined Category 2									
72		Wildlife & Fish User-Defined Category 3									
73		Wildlife & Fish User-Defined Category 4									
74		Wildlife & Fish User-Defined Category 5									
75											

A	B	C	D	E	F	G	H	I	J
76	Timber								
77	Harvest-Softwood Sawtimber	CCF	795	795	1,507	1,507	1,507		
78	Harvest-Softwood Pulp	CCF							
79	Harvest-Hardwood Sawtimber	CCF							
80	Harvest-Hardwood Pulp	CCF							
81	Poles	CCF							
82	Posts	CCF							
83	Fuelwood	CCF							
84	All Other Products	CCF							
85									
86	Minerals								
87	1. Oil and Gas Extraction (Sector 19)								
88	Natural Gas: 19	M Cubic Feet	15,328	5,821	7,999	12,043	14,949		
89	Crude Oil: 19	Barrels	288,250	109,450	150,400	266,450	281,100		
90	Natural Gas Liquids: 19	Gallons							
91	Carbon Dioxide: 19	M Cubic Feet							
92	Nitrogen: 19	M Cubic Feet							
93	Sulfur: 19	Long Tons							
94	2. Coal Mining (Sector 20)								
95	Coal: 20	Short Tons							
96	3. Iron Ore Mining (Sector 21)								
97	Iron Ore: 21	Short Tons							
98	4. Copper, Nickel, Lead and Zinc Mining (Sector 22)								
99	Copper: 22	Short Tons							
100	Gold: 22	Troy Ounces							
101	Lead: 22	Short Tons							
102	Molybdenum: 22	Short Tons							
103	Silver: 22	Troy Ounces							
104	Zinc: 22	Short Tons							
105	5. Gold, Silver, and Other Metal Ore Mining (Sector 23)								
106	Copper: 23	Short Tons							
107	Gold: 23	Troy Ounces							
108	Molybdenum: 23	Short Tons							
109	Palladium: 23	Troy Ounces							
110	Platinum: 23	Troy Ounces							
111	Silver: 23	Troy Ounces							
112	6. Stone Mining and Quarrying (Sector 24)								
113	Crushed Stone (Common Variety): 24	Short Tons							
114	Crushed Stone (High-Purity): 24	Short Tons							
115	Dimension Stone: 24	Short Tons							
116	7. Sand, Gravel, Clay, and Refractory Mining (Sector 25)								
117	Construction Sand and Gravel: 25	Short Tons	38,480	38,480	38,480	38,480	38,480		
118	Industrial Sand: 25	Short Tons							
119	Clay: 25	Short Tons	65,000	65,000	65,000	65,000	65,000		
120	Apatite: 25	Short Tons							
121	Ilmenite: 25	Short Tons							
122	Magnetite: 25	Short Tons							
123	8. Other Nonmetallic Mineral Mining (Sector 26)								
124	Gypsum: 26	Short Tons							
125	Mica: 26	Short Tons							
126	Phosphate: 26	Short Tons							

	A	B	C	D	E	F	G	H	I	J
127		Perlite: 26	Short Tons							
128		Pumice: 26	Short Tons							
129		Quartz Crystals: 26	Pounds							
130		Specialty Mineral Materials: 26	Short Tons							
131										
132		Sector 27 Input Options								
		<input type="checkbox"/> Model impacts with a detailed expenditure profile								
		<input checked="" type="checkbox"/> Model impacts based on allocating expenditures entirely to Sector 27								
133										
134		9. Drilling Oil and Gas Wells (Sector 27)-Dry Holes	Number	7	7	8	8	9		
135		10. Drilling Oil and Gas Wells (Sector 27)-Producers	Number	50	50	49	57	62		
136										
137		11. Support Activities for Oil and Gas Operations (Sector 28)	total \$							
138		12. Support Activities for Other Mining (Sector 29)	total \$							
139		13. Water, Sewage, and Other Systems (Sector 32)								
140		Geothermal: 32	Pounds Steam		40	40	40	40		
141		Hot Water: 32	kWh							
142		14. Ferroalloy and Related Product Manufacturing (Sector 204)								
143		Molybdenum: 204	Short Tons							
144		15. Primary Smelting and Refining of Copper (Sector 214)								
145		Copper: 214	Short Tons							
146		Molybdenum: 214	Short Tons							
147		Silver: 214	Short Tons							
148		16. Primary Nonferrous Metal, Except Copper and Aluminum (Sector 215)								
149		Copper: 215	Short Tons							
150		Gold: 215	Troy Ounces							
151		Lead: 215	Short Tons							
152		Zinc: 215	Short Tons							
153		Silver: 215	Troy Ounces							
154		Platinum: 215	Troy Ounces							
155		Palladium: 215	Troy Ounces							
156										
		Ecosystem Restoration project dollars are assumed to come from Stewardship project revenues. However, if the source of funds come from the Forest budget the budget amount on the FIN Data Entry worksheet must be reduced by that amount. Double counting of impacts would occur otherwise.								
157		Ecosystem Restoration								
158		PreCommercial Thinning	Acres	169	169	364	364	364		
159		Tree Planting	Acres							
160		Weed Spraying	Acres	806	806	806	806	806		
161		Mastication	Acres							
162		Prescribed Burning	Acres							
163		Road Work: Non-timber	Miles							
164		Road Decommissioning	Miles							
165		Road Closures	Miles							
166		Culvert Replacement	Number							
167		Burning and mechanical treatment - grasslands - BLM	Acres	355	355	355	355	355		

	A	B	C	D	E	F	G	H	I	J
168		Burning - forests - BLM	Acres	43	43	1033	1033	1033		
169		Mine reclamation and water treatment - contract	Project	1	1	1	1	1		
170		Weed Spraying - BLM	Acres	473	473	473	473	473		
171		Ecosystem Restoraton User-Defined Category 5								
172										
173		<i>User Notes/Documentation</i>								
174										
175		John has decided that we'll account for govt expenditures for ecosystem restoration on this page so that the report will reflect the economic impact of ecosystem restoration by both								
176		the BLM and by contract. The budget line on the financial data entry page will be reduced appropriately.								
177		Row 140 is actually operation of a wind farm. Construction jobs have been smeared								
178		over the 20 year life of the project.								
179		The units are -								
180										
181										
182										
183										
184										
185										
186										
187										
188										
189										
190										
191										
192										
193										
194										

Forest Financial Data Entry

User input is allowed only in the GREEN-colored cells and the yellow colored cells in the notes section below.

GDP Implicit Price Deflators

Select year of dollars for this page

Select year of dollars for results tables

Base Year	GDP Deflator
2008	1.2160
2008	1.2160

The Secure Rural Schools Act has not been renewed for 2007 to allow different proportions for all alternatives. For example, the C which Secure Rural School payments were made and thus there II project allocations. But, all other alternatives may reflect 2007 this case only Roads and Schools allocations should be made.

Average Annual \$1,000 by Alt ==>

Average Ann

Units Current A (No Action) B C D 0 0 0

Program Level Collections

Recreation Revenues	\$1,000									
Range Revenues	\$1,000									
Timber Revenues										
Softwood Sawtimber Revenues	\$1,000									
Softwood Pulp Revenues	\$1,000									
Hardwood Sawtimber Revenues	\$1,000									
Hardwood Pulp Revenues	\$1,000									
Poles Revenues	\$1,000									
Posts Revenues	\$1,000									
Fuelwood Revenues	\$1,000									
All Other Products Revenues	\$1,000									
Total Timber Revenues	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Protection Revenues (Non-Recreation Special Uses)	\$1,000									
Mineral Revenues	\$1,000									
Total All Program Revenues	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Payments (Secure Rural Schools Act full payments and/or 25% payments)

Total Payments to Counties	\$1,000	\$2,233	\$2,070	\$2,109	\$2,216	\$2,230				
Payments Used For:		The percents in the 4 cells below MUST add to 100 percent for each alternative that there is pa								
Roads	percent									
Schools	percent									
General Gov't	percent	100.00%	100.00%	100.00%	100.00%	100.00%				
Title II Projects	percent									
Total	percent	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%

Roads	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Schools	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Gov't	\$1,000	\$2,233	\$2,070	\$2,109	\$2,216	\$2,230	\$0	\$0	\$0	\$0
Title II Projects	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$1,000	\$2,233	\$2,070	\$2,109	\$2,216	\$2,230	\$0	\$0	\$0	\$0

Mineral Payments

25% Fund Payments Not Included Above	\$1,000									
Payments Subject to Different (i.e., non-25%) Distribution to Counties	\$1,000									
Total	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Payments Used For:

The percents in the 4 cells below MUST add to 100 percent for each alternative that there is pa

Roads	percent									
Schools	percent									
General Gov't	percent									
Total	percent	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Roads	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Schools	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Gov't	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Total Secure Rural Schools/25% Fund (Full Payment + Minerals)

Roads	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Schools	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Gov't	\$1,000	\$2,233	\$2,070	\$2,109	\$2,216	\$2,230	\$0	\$0	\$0	\$0
Title II Projects	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$1,000	\$2,233	\$2,070	\$2,109	\$2,216	\$2,230	\$0	\$0	\$0	\$0

FS Budget Expenditures All Programs

All Programs	\$1,000	\$6,312	\$5,215	\$5,388	\$5,388	\$5,388	\$0	\$0	\$0
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FS Employment

Permanent	FTEs	35	35	35	35	35			
Other than permanent	FTEs	23	23	23	23	23			
Total Employment	FTEs	58	58	58	58	58	0	0	0

	A	B	C	D	E	F	G	H
28		Resources						
29		Recreation						
30			Unit Conversions for Expenditure Studies			Non-Local		
31			One Res Data	= This Number	Expenditure	Percent of	Total Expenditures	
32			Entry Unit	of	Study Units	Total Use	Per Unit	Data Year
33		NL-Day Trips	Visits	0.4348	Party-Trip	100%	\$53.76	2001
34		NL-OVN-NF	Visits	0.4000	Party-Trip	100%	\$151.33	2001
35		NL-OVN	Visits	0.3704	Party-Trip	100%	\$244.46	2001
36		L-Day Trips	Visits	0.4762	Party-Trip	na	na	na
37		L-OVN-NF	Visits	0.4000	Party-Trip	na	na	na
38		L-OVN	Visits	0.4000	Party-Trip	na	na	na
39		Recreation User Defined Category 1	0		--	0%	\$0.00	2001
40		Recreation User Defined Category 2	0		--	0%	\$0.00	2001
41		Recreation User Defined Category 3	0		--	0%	\$0.00	2001
42		Recreation User Defined Category 4	0		--	0%	\$0.00	2001
43		Recreation User Defined Category 5	0		--	0%	\$0.00	2001
44		Recreation User Defined Category 6	0		--	0%	\$0.00	2001
45		Recreation User Defined Category 7	0		--	0%	\$0.00	2001
46		Recreation User Defined Category 8	0		--	0%	\$0.00	2001
47		Recreation User Defined Category 9	0		--	0%	\$0.00	2001
48		Recreation User Defined Category 10	0		--	0%	\$0.00	2001
49		Range						
50		Income, Marketings, & Sales Data		Year of Data	GDP Delfator			
51		Source: State Ag. Stat. Bureau or US Ag Census.		2006	1.1747			
52								
53		County-Level Data						
54			County Name	Cattle & Calves	Sheep & Lambs	County Name	Cattle & Calves	Sheep & Lambs
55		Enter County names for impact area and	Model area	41,817		County 11		
56		inventories (number of animals) for each type	County 2			County 12		
57		of livestock (animals).	County 3			County 13		
58			County 4			County 14		
59			County 5			County 15		
60			County 6			County 16		
61			County 7			County 17		
62			County 8			County 18		
63			County 9			County 19		
64			County 10			County 20		
65								
66			Area Total	41,817				0
67								
68		State-Level Data						
69		State						
70			Montana		State 2		State 3	
71			Cattle & Calves	Sheep & Lambs	Cattle & Calves	Sheep & Lambs	Cattle & Calves	Sheep & Lambs
72		Total Inventory (animals)	3,967,000					
73		Total Marketings (animals)	1,578,000					
74		Total Gross Income (\$1,000)*	\$1,117,548					
75		Selling Price per animal	\$ 708.21	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
76		* Equals cash receipts plus value of home consumption.						
77								
78		FS Use Data for Same Year as Inventory Data						
79			Cattle & Calves	Sheep & Lambs				
80		Head-months	430,506		0			
81								

	A	B	C	D	E	F	G	H
82		Wildlife & Fish						
83			Unit Conversions for Expenditure Studies			Non-Local		
84			One Res Data	= This Number	Expenditure	Percent of	Total Expenditures	
85			Entry Unit	of	Study Units	Total Use	Per Unit	Base Year
86		NL-Day Trips	Visits	0.4348	Party-Trip	100%	\$40.71	2001
87		NL-OVN-NF	Visits	0.4000	Party-Trip	100%	\$203.78	2001
88		NL-OVN	Visits	0.3704	Party-Trip	100%	\$249.95	2001
89		L-Day Trips	Visits	0.4762	Party-Trip	na	na	na
90		L-OVN-NF	Visits	0.4000	Party-Trip	na	na	na
91		L-OVN	Visits	0.4000	Party-Trip	na	na	na
92		General Hunting (enter if detail below unknown)	0	--	--	0%	\$0.00	2001
93		Big Game Hunting	0	--	--	0%	\$0.00	2001
94		Small Game Hunting	0	--	--	0%	\$0.00	2001
95		Migratory Bird Hunting	0	--	--	0%	\$0.00	2001
96		Other Game Hunting	0	--	--	0%	\$0.00	2001
97		General Fishing (enter if detail below unknown)	0	--	--	0%	\$0.00	2001
98		Great Lakes Fishing	0	--	--	0%	\$0.00	2001
99		Other Fresh Water Fishing	0	--	--	0%	\$0.00	2001
100		Salt Water Fishing	0	--	--	0%	\$0.00	2001
101		Non-consumptive Fish & Wildlife	0	--	--	0%	\$0.00	2001
102		Wildlife & Fish User-Defined Category 1	0	--	--	0%	\$0.00	2001
103		Wildlife & Fish User-Defined Category 2	0	--	--	0%	\$0.00	2001
104		Wildlife & Fish User-Defined Category 3	0	--	--	0%	\$0.00	2001
105		Wildlife & Fish User-Defined Category 4	0	--	--	0%	\$0.00	2001
106		Wildlife & Fish User-Defined Category 5	0	--	--	0%	\$0.00	2001

	A	B	C	D	E	F	G	H
107		Timber						
		<input type="checkbox"/> No Timber <input checked="" type="checkbox"/> Timber Mill Survey Method <input type="checkbox"/> Timber RAC Method <input type="checkbox"/> Show All (developers only)						
108								
134								
142								
143								
144								
145								
146		Timber Mill Survey Product Distributions						
147		<i>Enter % of Harvest Logged by Those Based in Model Area</i>				<i>% Distribution</i>		
148		Description	Types of Prdts Shipped	NAICS Numbers	IMPLAN Number	Softwood		
149						Sawtimber	Pulp	Sawtimber
150		Logging Camps and Logging Contractors	logs/pulp exported out of area, untreated posts/poles	1133	14	100%		
151		Households	personal use	--	494			
152		Totals -- must be less than or equal to 100%				100%	0%	0%
153								
154		<i>Enter % of Harvest Processed by Firms Based in Model Area</i>				<i>% Distribution</i>		
155		Description	Types of Prdts Shipped	NAICS Numbers	IMPLAN Number	Softwood		
156						Sawtimber	Pulp	Sawtimber
157		Sawmills and Planing Mills, General	lumber, bolts, woodchips, pallets	321113	112	0%		
158		Wood Preservation (Other Manufacturing)	all treated prdts	321114	113			
159		Reconstituted Wood Products (Residue)	particleboard	321219	114			
160		Veneer and Plywood	veneer, plywood	321211 & 321212	115			
161		Prefabricated Wood Buildings (Other Manufacturing)	residential/farm bldgs, log homes	321992	122			
162		Pulp Mills (Residue)	pulp	32211	124			
163		Paper and Paperboard Mills (Residue)	paper	32212 & 32213	125			
164		Paperboard Container Manufacturing (Residue)	container board, paper boxes	32221	126			
165		Totals -- must be less than or equal to 100%				0%	0%	0%
166								

	A	B	C	D	E	F	G	H
167								
168		Northern Rockies						
169								
170		Keegan Timber Method						
171			Direct	Indirect	Induced	Total		
172			Logging Camps & Contractors					
173		Employment (Jobs/MMCF)	23.0	10.5	7.9	41.3		
174		Employee Comp (\$/MMCF)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
175		Labor Inc (\$/MMCF)	644.000	294.934	173.419	1,112.353		
176		Total Inc (\$/MMCF)	1,031.191	496.281	346.647	1,874.119		
177			Sawmills					
178		Employment (Jobs/MMCF)	21.0	0.0	0.0	21.0		
179		Employee Comp (\$/MMCF)	714.000	0.000	0.000	714.000		
180		Labor Inc (\$/MMCF)	714.000	0.000	0.000	714.000		
181		Total Inc (\$/MMCF)	714.000	0.000	0.000	714.000		
182			Plywood					
183		Employment (Jobs/MMCF)	27.0	0.0	0.0	27.0		
184		Employee Comp (\$/MMCF)	972.000	0.000	0.000	972.000		
185		Labor Inc (\$/MMCF)	972.000	0.000	0.000	972.000		
186		Total Inc (\$/MMCF)	972.000	0.000	0.000	972.000		
187			Other					
188		Employment (Jobs/MMCF)	90.0	0.0	0.0	90.0		
189		Employee Comp (\$/MMCF)	1,980.000	0.000	0.000	1,980.000		
190		Labor Inc (\$/MMCF)	1,980.000	0.000	0.000	1,980.000		
191		Total Inc (\$/MMCF)	1,980.000	0.000	0.000	1,980.000		
192			Residue					
193		Employment (Jobs/MMCF)	12.0	0.0	0.0	12.0		
194		Employee Comp (\$/MMCF)	612.000	0.000	0.000	612.000		
195		Labor Inc (\$/MMCF)	612.000	0.000	0.000	612.000		
196		Total Inc (\$/MMCF)	612.000	0.000	0.000	612.000		
197								
198								

A	B	C	D	E	F	G	H
199	A Minerals						
200	Industry/Product Names	Units	Price/Unit				
201	1. Oil and Gas Extraction (Sector 19)						
202	Natural Gas: 19	m cubic feet	\$ 9.00				
203	Crude Oil: 19	barrel	\$ 115.00				
204	Natural Gas Liquids: 19	gallon					
205	Carbon Dioxide: 19	m cubic feet					
206	Nitrogen: 19	m cubic feet					
207	Sulfur: 19	long ton					
208	2. Coal Mining (Sector 20)						
209	Coal: 20	short ton					
210	3. Iron Ore Mining (Sector 21)						
211	Iron Ore: 21	short ton					
212	4. Copper, Nickel, Lead and Zinc Mining (Sector 22)						
213	Copper: 22	pound					
214	Gold: 22	troy ounce					
215	Lead: 22	pound					
216	Molybdenum: 22	pound					
217	Silver: 22	troy ounce					
218	Zinc: 22	pound					
219	5. Gold, Silver, and Other Metal Ore Mining (Sector 23)						
220	Copper: 23	pound					
221	Gold: 23	troy ounce					
222	Molybdenum: 23	pound					
223	Palladium: 23	troy ounce					
224	Platinum: 23	troy ounce					
225	Silver: 23	troy ounce					
226	6. Stone Mining and Quarrying (Sector 24)						
227	Crushed Stone (Common Variety): 24	short ton					
228	Crushed Stone (High-Purity): 24	short ton					
229	Dimension Stone: 24	short ton					
230	7. Sand, Gravel, Clay, and Refractory Mining (Sector 25)						
231	Construction Sand and Gravel: 25	short ton	\$ 4.00				
232	Industrial Sand: 25	short ton					
233	Clay: 25	short ton	\$ 55.00				
234	Apatite: 25	short ton					
235	Ilmenite: 25	short ton					
236	Magnetite: 25	short ton					
237	8. Other Nonmetallic Mineral Mining (Sector 26)						
238	Gypsum: 26	short ton					
239	Mica: 26	short ton					
240	Phosphate: 26	short ton					
241	Perlite: 26	short ton					
242	Pumice: 26	short ton					
243	Quartz Crystals: 26	pound					
244	Specialty Mineral Materials: 26	short ton					
245	9. Drilling Oil and Gas Wells (Sector 27)-Dry Hole	\$/dry hole/yr	\$ 72,000.00				
246	10. Drilling Oil and Gas Wells (Sector 27)-Producer	\$/producer/yr	\$ 120,000.00				
247	13. Water, Sewage, and Other Systems (Sector 32)						
248	Geothermal: 32	pound steam	\$ 88.500				
249	Hot Water: 32	kWh					
250	14. Ferroalloy and Related Product Manufacturing (Sector 204)						
251	Molybdenum: 204	pound					
252	15. Primary Smelting and Refining of Copper (Sector 214)						
253	Copper: 214	pound					
254	Molybdenum: 214	pound					
255	Silver: 214	troy ounce					
256	16. Primary Nonferrous Metal, Except Copper and Aluminum (Sector 215)						
257	Copper: 215	pound					

Note: To insure that sector expenditures are properly calculated, **mineral restoration costs** entered on this page should be expressed in the **same** base year. If IMPLAN base year mineral prices and ecosystem restoration conversion calculation should be made outside of FEAST using appropriate

At least item 9 Dry Holes and/or 10 Producer are required entries

A	B	C	D	E	F	G	H
258	Gold: 215	troy ounce					
259	Lead: 215	pound					
260	Zinc: 215	pound					
261	Silver: 215	troy ounce					
262	Platinum: 215	troy ounce					
263	Palladium: 215	troy ounce					
264							
			Current	A (No Action)	B	C	D
265	<i>Ecosystem Restoration</i>	Units	<u>Cost/Unit==> by Alternative</u>				
266	PreCommercial Thinning	Acres	\$718.00	\$718.00	\$718.00	\$718.00	\$718.00
267	Tree Planting	Acres					
268	Weed Spraying	Acres	\$198.33	\$198.33	\$198.33	\$198.33	\$198.33
269	Mastication	Acres					
270	Prescribed Burning	Acres					
271	Road Work: Non-timber	Miles					
272	Road Decommissioning	Miles					
273	Road Closures	Miles					
274	Culvert Replacement	Number					
275	Burning and mechanical treatment - grasslands - BLM	Acres	\$24.00	\$24.00	\$24.00	\$24.00	\$24.00
276	Burning - forests - BLM	Acres	\$942.00	\$942.00	\$942.00	\$942.00	\$942.00
277	Mine reclamation and water treatment - contract	Project	\$2,479,000.00	\$2,479,000.00	\$2,479,000.00	\$2,479,000.00	\$2,479,000.00
278	Weed Spraying - BLM	Acres	\$198.33	\$198.33	\$198.33	\$198.33	\$198.33
279	Ecosystem Restoraton User-Defined Category 5	0					

Economist Data Entry -- Budget Object Codes

Forest: Malta August 11 Revision

Fiscal Year: 2006

Instructions:

Select **BOC Import / Download BOC Expenditure Spreadsheet** from the menu bar at Spreadsheet from Fort Collins IMI Website (<http://fsweb.ftcol.wo.fs.fed.us/imi/econor> **Import / Import BOC Data** to update the BOC Data on this page with that of the dowr

Fiscal Year	Reg_Forest	Unit_Name
2004	0118	Malta RMP
	Total Expenditure:	\$5,833,257.00
	Proportion FS Salary Expenditure:	0.5359
	Proportion FS Nonsalary Expenditure:	0.4641

Multiple Forest Proportions for IMPLAN FS Non-Salary Group Weights

Fiscal Year	Reg_Forest	Unit_Name
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IMPLAN Model Used:

C:\Program Files\IMPLAN Professional 2.0\Models\Malta RMP 06.iap

110	Response Coefficient	Aggregate RC		2-Digit RC		Table Name: Do Not Change	Data Exist and No RC Loaded
		Loaded?	Date Loaded	Loaded?	Date Loaded		
1	IMT\$1MM FS NONSALARY	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM FS NONSALARY	
2	IMT\$1MM ROADS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM ROADS	
3	IMT\$1MM SCHOOLS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM SCHOOLS	
4	IMT\$1MM GENERAL GOVERNMENT	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM GENERAL GOVERNMENT	
5	IMT\$1MM TITLE II PROJECTS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM TITLE II PROJECTS	
6	IMT\$1MM FS SALARY	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM FS SALARY	
7	IMT\$1MM REC NonLocal DAY	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM REC NonLocal DAY	
8	IMT\$1MM REC NonLocal Over Night ON NF	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM REC NonLocal Over Night ON NF	
9	IMT\$1MM REC NonLocal Over Night OFF NF	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM REC NonLocal Over Night OFF NF	
10	IMT\$1MM REC Local DAY	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM REC Local DAY	
11	IMT\$1MM REC Local Over Night ON NF	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM REC Local Over Night ON NF	
12	IMT\$1MM REC Local Over Night OFF NF	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM REC Local Over Night OFF NF	
13	IMT\$1MM NR Recreation User Defined Category 1	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 1	
14	IMT\$1MM NR Recreation User Defined Category 2	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 2	
15	IMT\$1MM NR Recreation User Defined Category 3	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 3	
16	IMT\$1MM NR Recreation User Defined Category 4	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 4	
17	IMT\$1MM NR Recreation User Defined Category 5	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 5	
18	IMT\$1MM NR Recreation User Defined Category 6	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 6	
19	IMT\$1MM NR Recreation User Defined Category 7	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 7	
20	IMT\$1MM NR Recreation User Defined Category 8	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 8	
21	IMT\$1MM NR Recreation User Defined Category 9	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 9	
22	IMT\$1MM NR Recreation User Defined Category 10	No	Table Not Found	No	Table not found	IMT\$1MM NR Recreation User Defined Category 10	
23	IMT\$1MM RES Recreation User Defined Category 1	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 1	
24	IMT\$1MM RES Recreation User Defined Category 2	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 2	
25	IMT\$1MM RES Recreation User Defined Category 3	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 3	
26	IMT\$1MM RES Recreation User Defined Category 4	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 4	
27	IMT\$1MM RES Recreation User Defined Category 5	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 5	
28	IMT\$1MM RES Recreation User Defined Category 6	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 6	
29	IMT\$1MM RES Recreation User Defined Category 7	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 7	
30	IMT\$1MM RES Recreation User Defined Category 8	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 8	
31	IMT\$1MM RES Recreation User Defined Category 9	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 9	
32	IMT\$1MM RES Recreation User Defined Category 10	No	Table Not Found	No	Table not found	IMT\$1MM RES Recreation User Defined Category 10	
33	IMT\$1MM LOGGING CAMPS	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM LOGGING CAMPS	
34	IMT\$1MM SAWMILLS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM SAWMILLS	
35	IMT\$1MM WOOD PRESERVATION	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM WOOD PRESERVATION	
36	IMT\$1MM RECONSTITUTED WOOD	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM RECONSTITUTED WOOD	
37	IMT\$1MM VENEER AND PLYWOOD	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM VENEER AND PLYWOOD	
38	IMT\$1MM ENGINEERED WOOD	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM ENGINEERED WOOD	
39	IMT\$1MM WINDOWS AND DOORS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM WINDOWS AND DOORS	
40	IMT\$1MM CUT STOCK	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM CUT STOCK	
41	IMT\$1MM OTHER MILLWORK	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM OTHER MILLWORK	
42	IMT\$1MM CONTAINER AND PALLETS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM CONTAINER AND PALLETS	
43	IMT\$1MM PREFAB BUILDINGS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM PREFAB BUILDINGS	
44	IMT\$1MM MISC PRODUCTS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM MISC PRODUCTS	
45	IMT\$1MM PULP MILLS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM PULP MILLS	
46	IMT\$1MM PAPER AND PAPERBOARD MILLS	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM PAPER AND PAPERBOARD MILLS	
47	IMT\$1MM PAPERBOARD CONTAINER MANUF	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM PAPERBOARD CONTAINER MANUF	
48	IMT\$1MM OIL & GAS EXTRACTION	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM OIL & GAS EXTRACTION	
49	IMT\$1MM COAL	No	Table Exist: No Da	No	Table Exist: No Da	IMT\$1MM COAL	
50	IMT\$1MM IRON ORE	No	Table Not Found	No	Table not found	IMT\$1MM IRON ORE	
51	IMT\$1MM COPPER NICKEL LEAD & ZINC	No	Table Not Found	No	Table not found	IMT\$1MM COPPER NICKEL LEAD & ZINC	
52	IMT\$1MM GOLD SILVER & OTHER METALS	No	Table Not Found	No	Table not found	IMT\$1MM GOLD SILVER & OTHER METALS	

53	IMT\$1MM STONE	No	Table Exist: No Data	No	Table Exist: No Data	IMT\$1MM STONE
54	IMT\$1MM SAND GRAVEL CLAY & REFRACTORY	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM SAND GRAVEL CLAY & REFRACTORY
55	IMT\$1MM OTHER NONMETALLICS	No	Table Not Found	No	Table not found	IMT\$1MM OTHER NONMETALLICS
56	IMT\$1MM DRILLING OIL & GAS WELLS	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM DRILLING OIL & GAS WELLS
57	IMT\$1MM SUPPORT OIL & GAS	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM SUPPORT OIL & GAS
58	IMT\$1MM SUPPORT OTHER MINING	No	Table Exist: No Data	No	Table Exist: No Data	IMT\$1MM SUPPORT OTHER MINING
59	IMT\$1MM WATER SEWAGE & OTHER	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM WATER SEWAGE & OTHER
60	IMT\$1MM FERROALLOY PROD	No	Table Not Found	No	Table not found	IMT\$1MM FERROALLOY PROD
61	IMT\$1MM PRIMARY COPPER	No	Table Not Found	No	Table not found	IMT\$1MM PRIMARY COPPER
62	IMT\$1MM PRIMARY NONFERROUS	No	Table Not Found	No	Table not found	IMT\$1MM PRIMARY NONFERROUS
63	IMT#OIL & GAS-DRY HOLES	Yes	9/10/2008	Yes	9/10/2008	IMT#OIL & GAS-DRY HOLES
64	IMT#OIL & GAS-PRODUCERS	Yes	9/10/2008	Yes	9/10/2008	IMT#OIL & GAS-PRODUCERS
65	IMT\$1MM CATTLE GRAZING	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM CATTLE GRAZING
66	IMT\$1MM SHEEP GRAZING	No	Table Exist: No Data	No	Table Exist: No Data	IMT\$1MM SHEEP GRAZING
67	IMT\$1MM WL NonLocal DAY	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM WL NonLocal DAY
68	IMT\$1MM WL NonLocal Over Night ON NF	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM WL NonLocal Over Night ON NF
69	IMT\$1MM WL NonLocal Over Night OFF NF	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM WL NonLocal Over Night OFF NF
70	IMT\$1MM WL Local DAY	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM WL Local DAY
71	IMT\$1MM WL Local Over Night ON NF	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM WL Local Over Night ON NF
72	IMT\$1MM WL Local Over Night OFF NF	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM WL Local Over Night OFF NF
73	IMT\$1MM RES GEN HUNTING	No	Table Not Found	No	Table not found	IMT\$1MM RES GEN HUNTING
74	IMT\$1MM RES GEN FISHING	No	Table Not Found	No	Table not found	IMT\$1MM RES GEN FISHING
75	IMT\$1MM RES NC WILDLIFE	No	Table Not Found	No	Table not found	IMT\$1MM RES NC WILDLIFE
76	IMT\$1MM RES BIG GAME HUNTING	No	Table Not Found	No	Table not found	IMT\$1MM RES BIG GAME HUNTING
77	IMT\$1MM RES SMALL GAME HUNTING	No	Table Not Found	No	Table not found	IMT\$1MM RES SMALL GAME HUNTING
78	IMT\$1MM RES MIGRATORY BIRD	No	Table Not Found	No	Table not found	IMT\$1MM RES MIGRATORY BIRD
79	IMT\$1MM RES OTHER GAME	No	Table Not Found	No	Table not found	IMT\$1MM RES OTHER GAME
80	IMT\$1MM RES GREAT LAKES FISHING	No	Table Not Found	No	Table not found	IMT\$1MM RES GREAT LAKES FISHING
81	IMT\$1MM RES OTHER FRESH WATER	No	Table Not Found	No	Table not found	IMT\$1MM RES OTHER FRESH WATER
82	IMT\$1MM RES SALT WATER FISHING	No	Table Not Found	No	Table not found	IMT\$1MM RES SALT WATER FISHING
83	IMT\$1MM NR GEN HUNTING	No	Table Not Found	No	Table not found	IMT\$1MM NR GEN HUNTING
84	IMT\$1MM NR GEN FISHING	No	Table Not Found	No	Table not found	IMT\$1MM NR GEN FISHING
85	IMT\$1MM NR NC WILDLIFE	No	Table Not Found	No	Table not found	IMT\$1MM NR NC WILDLIFE
86	IMT\$1MM NR BIG GAME HUNTING	No	Table Not Found	No	Table not found	IMT\$1MM NR BIG GAME HUNTING
87	IMT\$1MM NR SMALL GAME HUNTING	No	Table Not Found	No	Table not found	IMT\$1MM NR SMALL GAME HUNTING
88	IMT\$1MM NR MIGRATORY BIRD	No	Table Not Found	No	Table not found	IMT\$1MM NR MIGRATORY BIRD
89	IMT\$1MM NR OTHER GAME	No	Table Not Found	No	Table not found	IMT\$1MM NR OTHER GAME
90	IMT\$1MM NR GREAT LAKES FISHING	No	Table Not Found	No	Table not found	IMT\$1MM NR GREAT LAKES FISHING
91	IMT\$1MM NR OTHER FRESH WATER	No	Table Not Found	No	Table not found	IMT\$1MM NR OTHER FRESH WATER
92	IMT\$1MM NR SALT WATER FISHING	No	Table Not Found	No	Table not found	IMT\$1MM NR SALT WATER FISHING
93	IMT\$1MM NR Wildlife & Fish User-Defined Category 1	No	Table Not Found	No	Table not found	IMT\$1MM NR Wildlife & Fish User-Defined Category 1
94	IMT\$1MM NR Wildlife & Fish User-Defined Category 2	No	Table Not Found	No	Table not found	IMT\$1MM NR Wildlife & Fish User-Defined Category 2
95	IMT\$1MM NR Wildlife & Fish User-Defined Category 3	No	Table Not Found	No	Table not found	IMT\$1MM NR Wildlife & Fish User-Defined Category 3
96	IMT\$1MM NR Wildlife & Fish User-Defined Category 4	No	Table Not Found	No	Table not found	IMT\$1MM NR Wildlife & Fish User-Defined Category 4
97	IMT\$1MM NR Wildlife & Fish User-Defined Category 5	No	Table Not Found	No	Table not found	IMT\$1MM NR Wildlife & Fish User-Defined Category 5
98	IMT\$1MM RES Wildlife & Fish User-Defined Category 1	No	Table Not Found	No	Table not found	IMT\$1MM RES Wildlife & Fish User-Defined Category 1
99	IMT\$1MM RES Wildlife & Fish User-Defined Category 2	No	Table Not Found	No	Table not found	IMT\$1MM RES Wildlife & Fish User-Defined Category 2
100	IMT\$1MM RES Wildlife & Fish User-Defined Category 3	No	Table Not Found	No	Table not found	IMT\$1MM RES Wildlife & Fish User-Defined Category 3
101	IMT\$1MM RES Wildlife & Fish User-Defined Category 4	No	Table Not Found	No	Table not found	IMT\$1MM RES Wildlife & Fish User-Defined Category 4
102	IMT\$1MM RES Wildlife & Fish User-Defined Category 5	No	Table Not Found	No	Table not found	IMT\$1MM RES Wildlife & Fish User-Defined Category 5
103	IMT\$1MM ER EcoSystem Forest Services NonRoads	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM ER EcoSystem Forest Services NonRoads
104	IMT\$1MM ER Mastication	No	Table Not Found	No	Table not found	IMT\$1MM ER Mastication
105	IMT\$1MM ER Roads	No	Table Not Found	No	Table not found	IMT\$1MM ER Roads
106	IMT\$1MM ER Burning and mechanical treatment - grasslands -	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM ER Burning and mechanical treatment - grasslands -
107	IMT\$1MM ER Burning - forests - BLM	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM ER Burning - forests - BLM
108	IMT\$1MM ER Mine reclamation and water treatment - contract	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM ER Mine reclamation and water treatment - contract
109	IMT\$1MM ER Weed Spraying - BLM	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM ER Weed Spraying - BLM
110	IMT\$1MM ER Ecosystem Restoraton User-Defined Category 5	No	Table Not Found	No	Table not found	IMT\$1MM ER Ecosystem Restoraton User-Defined Category 5

No.	Impact Tables Necessary for Mill Survey Method	Aggregate RC		2-Digit RC		Table Name: Do Not Change	Mill Survey Method is Checked
		Loaded?	Date Loaded	Loaded?	Date Loaded		
111	IMT\$1MM LOGGING CAMPS	Yes	9/10/2008	Yes	9/10/2008	IMT\$1MM LOGGING CAMPS	
112	IMT\$1MM SAWMILLS	No	able Exist: No Da	No	able Exist: No Da	IMT\$1MM SAWMILLS	
113	IMT\$1MM OTHER MANUFACTURING	No	able Exist: No Da	No	able Exist: No Da	IMT\$1MM OTHER MANUFACTURING	
114	IMT\$1MM RESIDUE	No	able Exist: No Da	No	able Exist: No Da	IMT\$1MM RESIDUE	
115	IMT\$1MM VENEER AND PLYWOOD	No	able Exist: No Da	No	able Exist: No Da	IMT\$1MM VENEER AND PLYWOOD	

+Malta RMP Economic Data Request (7/26/06)

Field Office Resource Specialist Data Request: For each alternative the following information should be collected. These data should reflect average annual use levels.

Resources (Output/Outcome Description)

Recreation (not related to fishing/hunting):

- 1. Non-Local Day Trips (visits) e.g. picnicing
- 2. Non-Local Overnight on BLM (visits) e.g. camping
- 3. Non-Local Overnight off BLM (visits) e.g. camping
- 4. Local Day Trips (visits) e.g. picnicing
- 5. Local Overnight on BLM (visits) e.g. camping
- 6. Local Overnight off BLM (visits) e.g. camping

Wildlife and Fish related Recreation:

- 7. Non-Local Trips (visits) e.g. bird/wildlife viewing
- 8. Non-Local Overnight on BLM (visits) e.g. bird/wildlife viewing
- 9. Non-Local Overnight off BLM (visits) e.g. bird/wildlife viewing
- 10. Local day trips (visits) e.g. bird/wildlife viewing
- 11. Local Overnight on BLM (visits) e.g. bird/wildlife viewing
- 12. Local Overnight off BLM (visits) e.g. bird/wildlife viewing
- 13. General Hunting (visits) (enter here if details below are unknown)
- 14. Big game hunting (visits)
- 15. Small game hunting (visits)
- 16. Migratory Bird hunting (visits)
- 17. Other Game Hunting (visits)
- 18. General Fishing (visits) (enter here if details below are unknown)
- 19. Lake fishing (visits)
- 20. Stream fishing (visits)
- 21. Non-consumptive Fish and Wildlife (visits) e.g. antler hunting

Recreation: FEAST Resource Data Entry

Row	Description	Current	A	B	C	D
General Recreation						
32	NL-Day Trips (visits)	1,187	14,840 x 0.08 = 1,187			
33	NL-OVN-BLM (visits)	1,039	14,840 x .07 = 1,039			
34	NL-OVN (visits)	2,671	14,840 x .18 = 2,671			
35	L- Day trips (visits)	6,975	14,840 x .47 = 6,975			
36	L-OVN-BLM (visits)	1,070	14,840 x .06 = 1,070			
37	L-OVN (visits)	2,078	14,840 x .14 = 2,078			
Fish and Wildlife Related Recreation						
54	NL-Day Trips (visits)	3,053	38,160 x 0.08 = 3,053			
55	NL-OVN-BLM (visits)	2,671	38,160 x 0.07 = 2,671			
56	NL-OVN (visits)	6,869	38,160 x .18 = 6,869			
57	Local Day Trips (visits)	17,935	38,160 x .47 = 17,935			

58	L-OVN-BLM (visits)	2,290	38,160 x 0.06 = 2,290
59	L-OVN (visits)	5,342	38,160 x .14 = 5,342
60	General hunting data (visits)	22,260	
65	General fishing data (visits)	6,890	

Recreation Assumptions:

1. Assumption: 8 % of BLM visits are non-local day use visits, 7 % are non-local overnight stays on BLM, 18 % involve overnight stays by non-locals, 47 % involve local day use, 6 % involve local overnight stays on BLM, and 14% involve overnight stays off BLM. See Table 1. Multiply these percentages times the total estimated BLM recreation use for each alternative. These values will fill in the blanks 1-6 above. Basis for assumption: Recreation use on BLM lands is similar to the average of that which occurs on the Lewis and Clark National Forest and the Dakota Prairie NF (Tables 1 and 2). The average of non-local and local use, day use, overnight stays on the Forests, and overnight stays off the Forests, as well as average expenditures for day trips and overnight trips are reasonable indicators of these characteristics associated with dispersed recreation use on BLM lands in the Malta Field Office.

**Table 1. Percent of Use on Forests
(Spreading nonprimary use proportionally among reported use)**

Forest	Non-Local Segments			Local Segments			Non Primary
	Day	OVN-NF	OVN	Day	OVN-NF	OVN	
Lewis and Clark NF	12	7	21	40	12	8	0
Dakota Priarie NF	4	7	15	53	1	20	
Average	8	7	18	47	6	14	

Source: Stynes, Daniel J. and Eric M. White, Spending Profiles of National Forest Visitors, NVUM Four Year Report, May 2005, Appendix A-2, pg. 26, 27.

Table 3. Spending Averages by Forest and Day Versus Overnight Trip Segments

Forest	Day Trips	Over night	Overall Average
Lewis and Clark NF	\$41	\$116	\$71
Dakota Prairie NF	31	123	68
Average	36	120	70

Source: Stynes, Daniel J. and Eric M. White, Spending Profiles of National Forest Visitors, NVUM Four Year Report, May 2005, Appendix A-1, pg. 23-25.

Table 3 displays the spending averages by Forest for day use and overnight trip segments for two forests (Lewis and Clark NF and the Dakota Prairie NF) as well as the average spending. The spending for the Lewis and Clark NF falls within the range of average spending on National Forests while the average spending for the Dakota Prairie NF falls

within the range of below-average spending on National Forests. Jon Collins and I discussed this and conclude that the spending pattern for the Malta RMP is probably most like that of Dakota Prairie NF.

2. Assumption: *The primary purpose of 37% of recreation use on BLM lands is wildlife and fish related.* Multiply this percentage (37%) times the total estimated BLM recreation use for each alternative. Also multiply this product times the percentages shown in assumption 1 above to fill in the blanks for number 9-14 above. Basis for assumption: Dispersed recreation use on BLM lands is similar to that which occurs on the Lewis and Clark and Dakota Prairie National Forests. The average of percentage of wildlife-related visits by Forest are reasonable indicators of these characteristics associated with dispersed recreation use on BLM lands in the Malta Field Office.

Percentage of Wildlife-Related Visits by Forest

Forest	Case Weights
Lewis and Clark NF	31
Dakota Prairie NF	42
Average	37

Source: Stynes, Daniel J. and Eric M. White, Spending Profiles of National Forest Visitors, NVUM Four Year Report, May 2005, Appendix B, Table B-6, pg. 42.

Recreation Use, Permitted Outfitters and Guides—Would any alternative affect current outfitter and guide use. Would alternatives vary in terms of fee collections for commercial fishing and floating outfitters who use developed BLM river access sites? Payment of these fees would have different administrative impacts, but the actual costs would likely be passed on to the clients. Will outfitters and guides continue to have the same opportunities under each alternative as they currently do? Will hunting outfitter and guides be able to camp at developed fee sites during hunting season? Are any commercial outfitter and guides using developed fee sites during hunting season.

Recreation revenues from recreation use permits, campground receipts, and outfitter and guide receipts would be how much per year?

AMS: Although visitor use information is lacking or incomplete for some areas, the BLM public lands in the Malta RMP area received a minimum of 53,000 recreation visits in 2005. Major recreation activity categories in the area, in order of approximate total use percentage, are reflected below:

- *Hunting (42%)* $53000 \cdot .42 = 22,260$
- *Sightseeing, picnicking, watching wildlife (17%)* $53000 \cdot .17 = 9,010$
- *Fishing (13%)* $53000 \cdot .13 = 6,890$
- *Driving for pleasure (12%)* $53000 \cdot .12 = 6,360$
- *Camping (9%)* $53000 \cdot .09 = 4,770$
- *Hiking, horseback riding, bicycling (3%)* $53000 \cdot .03 = 1,590$

- Winter sports (1%) 53000*.01= 530
- ORV activities (1%) 530
- Snowmobiling (1%) 530
- Water sports (1%) 530

General Recreation		Wildlife and Fish Related Recreation	
Driving pleasure	6,360	Hunting	22,260
Camping	4,770	Wildlife viewing	9,010
Hiking, bicycling	1,590	Fishing	6,890
Winter Sports	530	TOTAL	38,160
ORV	530		
Snowmobiling	530		
Water sports	530		
TOTAL	14,840		

Range:

22. Cattle and horse (head months)
23. Sheep and goats (head months)

Range: FEAST Resource Data Entry

Row	Description	Current	A	B	C	D
50	Cattle and Horse HM	525,840				
51	Sheep and Goats HM					

Range Assumptions:

3. 1 Head Month (cattle) = approximately 0.78 AUMs (cattle). Therefore, 1.28xTotal AUMs=Total headmonths. 1 Head month (sheep and goats) = approximately 0.2 AUMs (sheep and goats). Therefore, 5xTotal AUMs=total headmonths. 410,814 AUMs x 1.28 HM/AUM = 525,840 HM
4. There are 760 livestock operators using 1,030 allotments within the Butte FO. (Source: BLM, Malta AMS, 2007)
5. Range of dependency on BLM for forage for their herds?
6. Average authorized livestock use on BLM lands amount to 410,814 AUMs. Public Land Statistics for FY2006 reported 308,015 cattle/horse AUMs and 214 sheep/goats AUMs. This is inconsistent but probably reflects non-use because of recent drought (personal conversation with BJ Rhodes, 8/6/07). BJ and I discussed this on 8/6/07 and agreed that authorized use would be analyzed. Since

sheep and goats amount to less than one tenth of one percent of livestock use, I will analyze livestock as cattle and horses. Sheep and goats will not be analyzed.

AMS: In Fiscal Year 2005, livestock grazing on BLM lands involved livestock operators who had 609 Section 3 grazing permits (i.e., grazing on public lands within grazing districts, BLM Manual 1373.12) and 149 Section 15 grazing leases (grazing on public lands outside of grazing districts). Fifty percent of revenues from Section 3 grazing fees on public domain lands are distributed to the state and counties; 12.5 percent of grazing fees from Section 15 leases are distributed to the state and counties. The combined total (Section 3 and Section 15) number of active Animal Unit Months (AUMs) in FY05 was 410,814 AUMs.

Timber:

Timber: FEAST Resource Data Entry

Row	Description	Current	A	B	C	D
77	Harvest-Softwood sawtimber (CCF)	7.2				
78	Harvest-Softwood pulp (CCF)	0				
79	Harvest Hardwood Sawtimber (CCF)	0				
80	Harvest Hardwood Pulp (CCF)	0				
81	Harvest post and poles (CCF)	1.3				
82	Harvest firewood (CCF)	102.4				
83	Harvest House Logs (CCF)	6.6				
84	Harvest Christmas Trees (number)	76.3				

- 24. Harvest-Softwood sawtimber (CCF)
- 25. Harvest-Softwood pulp (CCF)
- 26. Harvest Hardwood Sawtimber (CCF)
- 27. Harvest Hardwood Pulp (CCF)
- 28. Harvest Aspen (CCF)
- 29. Harvest firewood (CCF)
- 30. Harvest post and poles (CCF)
- 31. Harvest House Logs (CCF)
- 32. Harvest Christmas Trees (number)
- 33. Harvest- All other products e.g. grape stakes, fence stays, teepee poles

Timber Assumptions:

1. What percent, if any, of 24-33 above would be salvage sales?
2. What is the conversion of MBF to CCF?
3. Timber Revenues: Vegetation Material Disposal Sales (\$1000) (Timber, Christmas trees, firewood, post/poles, Biomass, etc.) (\$1000) (4% of sales on PD lands distributed to the State/ 76% to BOR; 20% to US Treasury)

4. Salvage Sales (\$1000) (4% of sales on PD to State; 96% to BLM 5900 Subactibility)
5. What is the current (or annual average) timber program budget? Please clarify if this includes fuels budget to meet timber management objectives.

Timber: 10 year averages for Malta Field Office.....

7.2 CCF per year Harvest-Softwood sawtimber
 0 CCF per year Harvest-Softwood pulp
 0 CCF per year Harvest Hardwood sawtimber
 0 CCF per year Harvest Hardwood pulp
 0 CCF per year Harvest Aspen
 102.4 CCF per year Harvest Firewood
 1.3 CCF per year Harvest post and poles
 6.6 CCF per year Harvest House logs
 76.3 Christmas trees per year

Percent that is salvage (5900) = 5%

Conversion from CCF to MBF

Fuelwood = 500 board feet = 1 cord = 81.6 CF = .816 CCF
Posts (Average of all types) = 1 post/pole = 5.8 board feet = 1.4 CF = .014 CCF
Sawtimber 1000 board feet (MBF) = 250 CF = 2.5 CCF

Timber Revenues:

\$1,190.33 per year (all products)
 \$553 per year in salvage sales

The data above were provided by Bruce Reid, Lewistown FO forester.

Minerals Production:

Minerals: FEAST Resource Data Entry

Row	Description	Current	A	B	C	D
88	Natural Gas (M. Cubic Feet) \$6.9					
89	Crude Oil (Barrels)					
117	Construction Sand and Gravel 41 (Short tons)	75,000				
134	Drilling oil/gas wells: dry holes					
135	Drilling oil/gas wells: producers					

Sources: Wellhead: · 1949-1997—Energy Information Administration (EIA), Natural Gas Annual (NGA) 2000 (November 2001), Table 93. · 1998 forward—EIA, Natural Gas Monthly (NGM) (March 2004), Table 4. City Gate: · 1984-1997—EIA, NGA 2000 (November 2001), Table 96. · 1998 forward—EIA, NGM (March 2004), Table 4.

Imports: · 1972 and 1973—Federal Power Commission (FPC), Pipeline Imports and Exports of Natural Gas—Imports and Exports of LNG. · 1974-1976—FPC, United States

Imports and Exports of Natural Gas, annual reports. · 1977-1997—EIA, NGA, annual reports. · 1998 forward—EIA, NGM (March 2004), Tables 5 and 6

- 34. Production of Copper Ores (Sector 29)
 - Copper 29 (short tons)
 - Molybdenum 29 (short tons)
 - Silver 29 (Troy Ounces)
- 35. Production from Lead and Zinc Ores (Sector 30)
 - Lead 30 (short tons)
 - Zinc 30 (short tons)
 - Copper 30 (short tons)
 - Silver 30 (troy ounces)
 - Gold 30 (troy ounces)
- 36. Production of Gold Ores (Sector 31)
 - Gold 31 (troy ounces)
 - Silver 31 (troy ounces)
- 37. Production of Silver Ores (Sector 32)
 - Silver 32 (Troy ounces)
 - Copper 32 (short tons)
 - Gold (troy ounces)
- 38. Production of Ferroalloy Ores, Except Vanadium (Sector 33)
 - Molybdenum 33 (short tons)
- 39. Production of Metal Ores, N.E.C. (Sector 36)
 - Platinum 36 (troy ounces)
 - Palladium 36 (troy ounces)
- 40. Production of Coal (Sector 37)
 - Coal 37 (short tons)
- 41. Production of Natural Gas and Crude Petroleum (Sector 38)
 - Natural Gas 38 (M Cubic Feet)
 - Crude Oil 38 (Ballels)
 - Natural Gas Liquids 38 (Gallons)
 - Carbon Dioxide 38 (M Cubic Feet)
 - Nitrogen 38 (M Cubic Feet)
 - Sulfur 38 (Long tons)

Assumptions:

1. Acres of federal minerals leased by alternative?
2. Total number of wells drilled?
3. Type of well, i.e. oil or gas?
4. Conventional gas or CBNG?
5. Total number of wells drilled on BLM/federal minerals?
6. Cost/well to drill?
7. Employment/well to drill?
8. Local companies or non-local companies?
9. Anticipated production per well per year?

10. Anticipated total production by county?
11. Anticipated life of producing wells?
12. Commodity price?

42. Production of Dimension Stone (Sector 40)

- Crushed Stone (Common Variety) 40 (Short tons)
- Crushed Stone (High-Purity) 40 (Short tons)
- Dimension Stone 40 (Short tons)

43. Production of Sand and Gravel (Sector 41)

- Construction Sand and Gravel 41 (Short tons) 75,000
- Industrial Sand 41 (Short tons)
- Apatite 41 (Short tons)
- Ilmenite 41 (Short tons)
- Magnetite 41 (Short tons)

Assumptions:

1. Number of mineral material sales/county?
2. Volume of sales/county?
3. Revenue per sale/county?

44. Production of Clay, Ceramic, and Refractory Minerals (Sector 42) (Short tons)

45. Production of Potash, Soda, and Borate Minerals (Sector 43) (Short tons)

46. Production of Phosphate Rock (Sector 44) (Short tons)

47. Chemical and Fertilizer Mineral Mining, N.E.C. (Sector 45) (Short tons)

48. Production of Miscellaneous Nonmetallic Minerals, N.E.C. (Sector 47)

- Gypsum 47 (Short tons)
- Mica 47 (Short tons)
- Perlite 47 (Short tons)
- Pumice 47 (Short tons)
- Quartz Crystals 47 (Pounds)
- Specialty Minerals Materials 47 (Short tons)

49. Production of Electrometallurgical Products, Except Steel (Sector 255)

- Molybdenum 255 (Short tons)

50. Production of Primary Copper (Sector 260)

- Copper 260 (Short tons)
- Molybedenum 260 (Short tons)
- Silver 260 (Troy Ounces)

51. Production of Primary Nonferrous Metals, N.E.C. (Sector 262)

- Copper 262 (Short tons)
- Gold 262 (Troy ounces)
- Lead 262 (Short tons)
- Zinc 262 (Short tons)
- Silver 262 (Troy ounces)
- Platinum 262 (Troy ounces)

- Palladium 262 (Troy ounces)
- 52. Sanitary Services and Steam Supply (Sector 446)
 - Geothermal (Pounds Steam)
 - Hot Water (kWh)
- 53. Oil and Gas Wells Drilled (Dry Holes) (number)
- 54. Oil and Gas Wells Drilled (Producers) (number)

Financial Data Entry

Recreation Revenues:

- 55. Total All Recreation Revenues (\$1000) Recreation use permits e.g. campground receipts, outfitter/guide receipts

Public Revenues from Recreation Related Activities

Row	Description	Current	A	B	C	D
?	Special Recreation Permits (SRPs)	\$8,380				
	Recreation Use Permits (RUPs)	2,200				
	Total Recreation Revenues*	10,580				

Source: BLM, Management Information System, FY2006

Note: Recreation revenues are not distributed to the state or counties

Range Revenues: (50% of revenues from Sec. 3 grazing fees on public domain lands distributed to the State and counties; 12.5 % of revenues from Sec. 15 grazing fees on Bankhead Jones Act lands distributed to the State and counties). Current average annual revenues to the state/counties based on the average annual level of authorized grazing on BLM administered lands is \$262,740. See calculations below:

Range Revenue Table

Office	Sec. 3	Sec. 15	Total
Malta AUMs	145,233	505	145,738
Glasgow AUMs	90,910	15,585	106,495
Havre AUMs	55,101	5,074	60,175
TOTAL AUMs	291,244	21,164	312,408
% of total AUMs	.93	.07	1.00
Average Annual Revenue to State/Counties	\$1.35/AUM x .93 x 410,814 AUMs x 0.5 = \$257,888.	\$1.35/AUM x .07 x 410,814 AUMs x 0.125 = \$4,852.	\$257,888 + 4,852 = \$262,740

- 56. Cattle and Horses (\$1000)
- 57. Sheep and goats (\$1000)

Timber Revenues:

- 58. Vegetation Material Disposal Sales (\$1000) (Timber, Christmas trees, firewood, post/poles, Biomass, etc.) (\$1000) (4% of sales on PD lands distributed to the State/ 76% to BOR; 20% to US Treasury)
- 59. Salvage Sales (\$1000) (4% of sales on PD to State; 96% to BLM 5900 Subactibivity)

Timber Revenues:

\$1,190.33 per year (all products). Approximately \$50 distributed to the State
 \$553 per year in salvage sales. Approximately \$20 distributed to the State
 Approximately \$70 total timber revenues distributed to the State

Lands/Realty:

- 60. Land Disposal (\$1000) (Baca Bill)
- 61. Use Authorization (\$1000) (ROW, permits, lease rentals) (See IM 2004-151; Craig Haynes)
- 62. PILT (\$1000)

Public Revenues from Lands and Realty Related Activities (\$)

Row	Description	Current	A	B	C	D
?	Rights-of-way rentals	72,000				
62	PILT (8-county total)	1,902,777				

Note: Revenues from ROW rentals are not distributed to the state or counties

Minerals Revenues:

- 63. Federal Oil and Gas Leases (One-time lease bid= min. \$2.00/ac; min. lease rental=\$1.50/ac/yr. for 1st 5 years and \$2.00/ac/yr thereafter. Generally, 50% of lease revenues go to the State.)
- 64. Federal Oil and Gas Royalties (12.5 % value of production, ½ distributed to the state, 12.5% of state portion distributed to county of production (Adair et al., 2005))

BLM Oil and Gas Revenues (\$1000)

Row	Description	Current	A	B	C	D
	Average annual acres leased*	142,161				
	Annual first time bid (min. \$2.00/ac)	\$284,322				
	Total acres leased*	1,606,470				
	Min. lease rental \$2.00/ac/yr	\$3,212,940				
	Total Federal Lease Revenues	\$3,497,262				
	Total State Lease Revenue (50% of Federal Lease Revenues)	\$1,748,631				

	Natural gas production (M. cubic ft)					
	Federal gas royalties (12.5% of production) Commodity price?					
	Crude oil production (barrels)					
	Federal oil royalties (12.5% of production) Commodity price?					
	Total State Royalties (1/2 of Fed. Oil and Gas Royalties)					
	Total revenues to Counties (12.5% of State Royalties)					

*Source: Karen Johnson, 8/7/07

65. Federal Coal Leases (One-time Bonus Payment to buy lease= \$0.10-\$0.15/ton of estimated reserves; rental = \$3.00/ac./yr. for life of lease. Lease life =20 yrs with 10 year renewal periods. ½ of coal lease payment, one-time bonus payment distributed to state)
66. Federal Coal Royalties (12.5 % of selling price. ½ of coal royalty distributed to the state. Selling price has averaged \$8-10/ton over the past 10 years.)
67. Other Federal Coal Revenues (OSM collects reclamation fee of \$0.35/ton; Black Lung fee= approx. 4.5-5 % value of production)
68. Federal Locatable Mineral Royalties (none)
69. Salable Minerals

Federal Public Revenues from Salable Minerals Management

Row	Description	Current	A	B	C	D
	Construction Sand and Gravel \$1.00/ton*	\$75,000				

*Source: Dave Coppock, 8/8/07

Note: Revenues from sale of Federal Salable Minerals are not distributed to the state or counties.

70. Federal Mineral Materials Royalties (See Dave Coppock's Royalty Values by Commodity by Planning Area)
71. Montana Taxes
 - Corporate Income Tax (6.75 % of net income apportioned to MT)
 - Property Taxes (The State of Montana groups property into 11 classes for assessment purposes. Six classes are pertinent to the mining industry.)
 - Local Coal Gross Proceeds Tax (5% of gross value of production)
 - Sales and Use Taxes (Montana has no general sales or use taxes)
 - Metal Mines License Tax (See description)

- Miscellaneous Mineral (Micaceous) Mines License Tax (5.0 cents per ton of concentrates mined, extracted, or produced)
- Resource Indemnity and Ground Water Assessment Tax (RIGWAT) (See description)
- Cement and Gypsum Producers License Tax (22.0 cents per ton)
- Coal Severance Tax (See description)

72. Receipts subject to 25% distribution to counties

BLM Budget Expenditures by Program:

73. Recreation

74. Timber

75. Range

76. Soil, water, air

77. Minerals

78. Wildlife and Fish

79. Protection (including fire)

80. Weed treatment costs \$

BLM Employment:

81. Permanent

82. Other than permanent

83. Total

Federal Public Revenues from BLM Program Expenditures and BLM employment*

Row	Description	Current	A	B	C	D
73	Recreation Operations Expenditures					
74	Timber Operations Expenditures					
75	Range Operations Expenditures					
76	Soil, water, air Operations Expenditures					
77	Minerals Operations Expenditures					
78	Fish and Wildlife Operations Expenditures					
79	Fire Operations Expenditures					
80	Weeds Operations Expenditures					
	Total Operations expenditures	3,341,697				
	Total Labor Expenditures	2,483,176				
	Total Labor and Operations Expenditures	5,741,520				
81	Permanent employment	32				
82	Other than permanent employment	21				
83	Total employment	53				

* Expenditure data taken from BLM Management Information System (MIS).

Expenditure data represent a five-year average (2002-2006). Employment taken from BLM table of organization as of 9/17/07.

Resources (Average Annual Output/Outcome Description)				
	Alternative			
	A	B	C	D
Recreation (not related to fishing/hunting):				
1. Non-Local Day Trips (1,000 visits) e.g. picnicing				
2. Non-Local Overnight on BLM (1,000 visits) e.g. camping				
3. Non-Local Overnight off BLM (1,000 visits) e.g. camping				
4. Local Day Trips (1,000 visits) e.g. picnicing				
5. Local Overnight on BLM (1,000 visits) e.g. camping				
6. Local Overnight off BLM (1,000 visits)				
Range:				
7. Cattle and horses (head months)				
8. Sheep and goats (head months)				
Wildlife and Fish related Recreation				
9. Non-local trips (1,000 visits)				
10. Non-local overnight on BLM (1,000 visits)				
11. Non-local overnight off BLM (1,000 visits)				
12. Local day trips (1,000 visits)				
13. Local overnight on BLM (1,000 visits)				
14. Local overnight off BLM (1,000 visits)				
15. General hunting (1,000 visits) (enter here if details below are unknown)				
16. Big game hunting (1,000 visits)				
17. Small game hunting (1,000 visits)				
18. Migratory bird hunting (1,000 visits)				
19. Other game hunting (1,000 visits)				
20. General fishing (1,000 visits) (enter here if details below are unknown)				
21. Lake fishing (1,000 visits)				

Resources (Output/Outcome Description)	Alternative			
	A	B	C	D
	22. Stream fishing (visits)			
23. Non-consumptive fish and wildlife (visits) e.g. antler hunting				
Timber:				
24. Harvest- Softwood sawtimber (CCF)				
25. Harvest- softwood pulp (CCF)				
26. Harvest- hardwood sawtimber (DDF)				
27. Harvest- hardwood pulp (CCF)				
28. Harvest Aspen (CCF)				
29. Harvest firewood (CCF)				
30. Harvest post and poles (CCF)				
31. Harvest house logs (CCF)				
32. Harvest Christmas trees (number)				
33. Harvest all other products, e.g. grape stakes, fence stays, teepee poles covered under small sales permits				
Mineral Production				
34. Copper ores (sector 29) <ul style="list-style-type: none"> • Copper 29 (short tons) • Molybdenum 29 (short tons) • Silver 29 (troy ounces) 				
35. Lead and zinc ores (sector 30) <ul style="list-style-type: none"> • Lead 30 (short tons) • Zinc 30 (short tons) • Copper 30 (short tons) • Silver 30 (short tons) • Gold 30 (troy ounces) 				

Resources (Output/Outcome Description)				
	Alternative			
	A	B	C	D
36. Gold ores (sector 31) <ul style="list-style-type: none"> • Gold 31 (troy ounces) • Silver 31 (troy ounces) 				
37. Silver ores (sector 32) <ul style="list-style-type: none"> • Silver 32 (troy ounces) • Copper 32 (short tons) • Gold 32 (troy ounces) 				
38. Ferroalloy ores, except vanadium (sector 33) <ul style="list-style-type: none"> • Molybdenum 33 (short tons) 				
39. Metal ores, N.E.C. (sector 36) <ul style="list-style-type: none"> • Platinum 36 (troy ounces) • Palladium 36 (troy ounces) 				
40. Coal (sector 37) <ul style="list-style-type: none"> • Coal 37 (short tons) 				
41. Natural gas and crude petroleum (sector 38) <ul style="list-style-type: none"> • Natural gas 38 (M cubic feet) • Crude oil 38 (barrels) • Natural gas liquids 38 (gallons) • Carbon dioxide 38 (M cubic feet) • Nitrogen 38 (M cubic feet) • Sulfur 38 (Long tons) 				
42. Dimension Stone (sector 40) <ul style="list-style-type: none"> • Crushed stone 40 (common variety) (short tons) • Crushed stone 40 (high purity) (short tons) • Dimension stone 40 (short tons) 				

Resources (Output/Outcome Description)				
	Alternative			
	A	B	C	D
43. Sand and Gravel (sector 41) <ul style="list-style-type: none"> • Construction sand and gravel 41 (short tons) @ \$0.371/ton • Industrial sand 41 (short tons) • Apatite 41 (short tons) • Illmenite 41 (short tons) • Magnetite 41 (short tons) • 				
44. Clay, ceramic, and refractory mineral (sector 42) (short tons)				
45. Potash, soda, and borate minerals (sector 43) (short tons)				
46. Phosphate (sector 44) (short tons)				
47. Chemical and fertilizer mineral mining, N.E.C. (sector 45) (short tons)				
48. Miscellaneous nonmetallic minerals, N.E.C. (sector 47) <ul style="list-style-type: none"> • Gypsum 47 (short tons) • Mica 47 (short tons) • Perlite 47 (short tons) • Pumice 47 (short tons) • Quartz crystals 47 (pounds) • Specialty minerals materials 47 (short tons) • Limestone (short tons; 840,000 mined; 365,000 produced) 				
49. Electrometallurgical products, except steel (sector 255) <ul style="list-style-type: none"> • Molybdenum 255 (short tons) 				
50. Primary copper (sector 260) <ul style="list-style-type: none"> • Copper 260 (short tons) • Molybdenum 260 (short tons) • Silver 260 (troy ounces) 				

Resources (Output/Outcome Description)				
	Alternative			
	A	B	C	D
51. Primary nonferrous metals, N.E.C. (sector 262) <ul style="list-style-type: none"> • Copper 262 (short tons) • Gold 262 (troy ounces) • Lead 262 (short tons) • Zinc 262 (short tons) • Silver 262 (troy ounces) • Platinum 262 (troy ounces) • Palladium 262 (troy ounces) 				
52. Sanitary services and steam supply (sector 446) <ul style="list-style-type: none"> • Geothermal (pounds of steam) • Hot water (kWh) 				
53. Oil and gas wells drilled (dry holes) (number)				
54. Oil and gas wells drilled (producers) (number)				
54a. Coal bed natural gas wells drilled (producer) (numbers)				
Financial Data Entry				
	Alternative			
	A	B	C	D
Recreation Revenues:				
55. Total all recreation revenues (\$1000) e.g. recreation use permits, campground receipts, outfitter/guide receipts				
Range Revenues: (50% of revenues from Sec. 3 grazing fees on public domain lands distributed to State and counties; 12.5 % of revenues from Sec. 15 grazing fees on Bankhead Jones Act lands distributed to State and counties.				
56. Cattle and horses (\$1000)				

57. Sheep and goats (\$1000)				
Financial Data Entry				
	Alternative			
	A	B	C	D
<p>Timber revenues (\$1000):</p> <p>58. Vegetation materials disposal sales (timber, Christmas trees, firewood, post/poles, biomass, etc.) (4% of sales on PD lands distributed to the State; 76% to BOR; 20% to US Treasury)</p> <p>59. Salvage sale (4% of sales on PD to State; 96% to BLM 5900 subactivity)</p>				
<p>Lands and realty (\$1000):</p> <p>60. Land disposal (Baca Bill)</p> <p>61. Use authorizations (ROW, permits, lease rentals) (See Craig Haynes; IM 2004-151)</p> <p>62. PILT</p>				
<p>Mineral revenues (\$1000):</p> <p>63. Federal oil and gas leases (one-time lease bid=min. \$2.00/ac; min. lease rental =\$1.50/ac/yr for 1st 5 years and \$2.00/ac/yr. thereafter)</p> <p>64. Federal oil and gas royalties (12.5% value of production, ½ distributed to the state, 12.5% of state portion distributed to county of production)</p> <p>65. Federal coal lease (one-time bonus payment to buy lease=\$0.10-0.15/ton of estimated reserves; rental=\$3.00/ac/yr. for life of lease. Lease life = 20 yrs. With 10 year renewal period; ½ of coal lease payment and one-time bonus payment distributed to state)</p> <p>66. Federal coal royalties (12.5% of selling price, ½ of coal royalty distributed to the state. Selling price averaged \$8-10/ton over past 10 years.)</p> <p>67. Other federal coal revenues (OSM collects reclamation fee of \$0.35/ton; Black Lung fee= approximately 4.5-5% of value of production.)</p> <p>68. Federal locatable mineral royalties (none)</p> <p>69. Federal mineral materials royalties (See Dave Coppock's royalty values</p>				

by commodity by planning area.) (Butte FO: Sand/gravel \$0.50; rip rap \$5.50/yrd; building stone \$7.50/ton; decorative/facing stone \$15-20/ton)				
Financial Data Entry				
	Alternative			
	A	B	C	D
<p>70. Montana taxes (\$1000):</p> <ul style="list-style-type: none"> • Corporate income tax (6.75 % of net income apportioned to MT) • Property tax (the State of MT groups property into 11 classes for assessment purposes. Six classes pertinent to the mining industry) • Local Coal Gross Proceeds Tax (5% of gross value of production) • Sale and use taxes (MT has no general sales or use tax) • Metal mines license tax (See description) • Miscellaneous Mineral (Micaeous) Mines License Tax (\$0.05 per ton of concentrates mined, extracted, or produced) • Resource Indemnity and Ground Water Assessment Tax (RIGWAT) (See description) • Cement and Gypsum Producers License Tax (\$0.22 per ton) • Coal Severance Tax (See description) • State Income Tax • Net Proceeds <p>71. Receipts subject to 25% distribution to counties</p>				
<p>BLM budget expenditures by program area (\$1000):</p> <p>72. Recreation</p> <p>73. Timber</p> <p>74. Range</p> <p>75. Soil, water, air</p> <p>76. Minerals</p> <p>77. Wildlife and fish</p> <p>78. Protection (including fire)</p>				

78a.Fuels				
79. Weed treatment costs				
BLM employment (jobs)				
80. Permanent				
81. Other than permanent				
82. Total				

What about wind energy development? This would be common among alternatives. Assumptions for all alternatives:

- Site specific testing and monitoring rental: \$50 per year for each Meteorological tower or instrumentation facility (IM 2003-020)
- Site specific testing and monitoring rental within project area: \$1,000 per year for each Meteorological tower or instrumentation facility or \$1 per acre per year, whichever is greater (IM 2003-020)
- ROW rentals for commercial wind energy development minimum rental: \$2,365 per megawatt based on anticipated capacity of approved Plan of Development, capacity factor of 30 percent, royalty of 3 percent, and average purchase price of \$0.03 per kilowatt hour. (IM 2003-020)
- One 48.6 megawatt wind turbine generation project composed of 27-1.8 MW wind turbines (Application for Transportation and Utility Systems and Facilities on Federal Lands, Plan of Development, Oct. 21, 2002, Whitehall Wind LLC)
- Annual production on site= 164,333 MWh. (Application for Transportation and Utility Systems and Facilities on Federal Lands, Plan of Development, Oct. 21, 2002, Whitehall Wind LLC)
- Construction time: 6-8 months (Application for Transportation and Utility Systems and Facilities on Federal Lands, Plan of Development, Oct. 21, 2002, Whitehall Wind LLC)
- Cost of project: approximately \$60 million. Annual maintenance, operations including land leases would cost \$925,000. Operation, maintenance, and service would require up to 7 technicians. A 50 MW wind farm typically generates 25 short-term jobs of up to a 1 year in duration, with 5-7 permanent operations and maintenance jobs. (Application for Transportation and Utility Systems and Facilities on Federal Lands, Plan of Development, Oct. 21, 2002, Whitehall Wind LLC)

What about R&PP leases/permits? Assumptions for all alternatives: 2 fire stations (\$, 1 park, 1 shooting range, maybe 1 golf course)

Range:

7. 1 Head Month (cattle) = approximately 0.78 AUMs (cattle). Therefore, $1.28 \times \text{Total AUMs} = \text{Total headmonths}$. 1 Head month (sheep and goats) = approximately 0.2 AUMs (sheep and goats)
8. There are _____ livestock operators using _____ allotments within the Butte FO. (Source: BLM, Butte FO records, 2005)
9. Average authorized livestock use on BLM lands over the past 10-year period amounted to _____ AUMs.
- 10.

Forest Economic Analysis Spreadsheet Tool (FEAST) Check List

- I. Introduction page
 - ✓ Read this page thoroughly
 - ✓ Tool Bar
 - Navigation
 - Importing and Exporting
 - Reporting
 - Help
 - Edit Application

- II. Res Data Entry page (Resource Data Entry page)
 - ✓ Read documentation found in upper-left hand corner
 - ✓ Enter Date and Forest Name (very important!)
 - ✓ Enter alternative names
 - ✓ Click button, Click when ...
 - ✓ Enter data (Note: 1. average annual quantity by alternative, and 2. certain resources need to have units entered.)
 - ✓ Enter documentation in yellow section at bottom of page

- III. Fin Data Entry page
 - ✓ Select year of dollars entered on this page – very important (drop down list)
 - ✓ Select year of dollars for results – very important (reporting)
 - ✓ ONLY IF USING THE “TIMBER RAC METHOD”: Enter data by resource (Note: 1) average annual quantity by alternative, and 2) certain resources need to have units entered.)
 - ✓ Enter Payments data – only money that is returned to your study area.
 - ✓ Enter documentation in yellow section at bottom of page

- IV. Econ Data Entry page
 - ✓ Economist enters data on this page
 - ✓ Select year of IMPLAN model/data (drop down list)
 - ✓ Select method of timber calculations
 - ✓ Enter cumulative effects year, employment and labor income (optional)
 - ✓ Enter data by resource
 - ✓ Remember your documentation in yellow section at bottom of page

- V. Econ Data-BOC page
 - ✓ Budget Object Code data from PAG website
 - ✓ Just point and click and data is entered
 - ✓ Economist uses the proportions at bottom of page for developing resource program response coefficients

- VI. Input Summary page
 - ✓ No data entry required
 - ✓ Just a collection point for the data and a place for FEAST to conduct calculations

- VII. Tables for EIS page
 - ✓ Blank output (reporting) tables
 - ✓ FEAST will fill these in
 - ✓ User doesn't do anything here

- VIII. Intersect page
 - ✓ FEAST will retrieve this data for you when "Retrieve IMPLAN Model Data"
 - ✓ Economist will use this information for converting a TIO to FD
 - ✓ Economist will print this page out before conducting the IMPLAN analysis
 - ✓

- IX. Interface page
 - ✓ Listing of response coefficient names found in IMPLAN
 - ✓ Don't use the "IMT" prefix in your IMPLAN impact file names. Just start with \$
 - ✓ Economist – print this page out before beginning your IMPLAN analysis or get automatic model setup utility from Susan

USER'S GUIDE: Forest Economic Analysis Spreadsheet Tool (FEAST)

FEAST Overview

FEAST is a modeling tool used to assist in the development of economic impacts for Forest planning and monitoring. FEAST uses a Microsoft Excel workbook as the interface between user inputs and imported data from an existing IMPLAN model. The individual worksheets contain the formulas that drive the FEAST model while visual basic for applications was used to create the FEAST menu bar and the macros (visual basic procedures and functions) that make FEAST operational. The goal for the FEAST application is to assist both economists and planning specialists in completing economic impact analyses by standardizing and streamlining the modeling process.

Two versions of FEAST currently exist. FEAST_sic was built to use IMPLAN data prior to 2001. IMPLAN data prior to 2001 used the Standard Industrial Classification of industries. FEAST_naics uses IMPLAN data for 2001 and beyond. IMPLAN data for 2001 and beyond uses the North American Industrial Classification System of industries. The remainder of this discussion focuses on FEAST_naics. FEAST_naics will be referred to as simply, FEAST.

FEAST contains four data entry worksheets. Three of the worksheets can be completed by an ID Team specialist. These worksheets include the RES Data Entry, FIN Data Entry, and the Historical Monitoring Data worksheets. The ECON Data Entry worksheet should be completed by a qualified economist. All of the remaining FEAST worksheets are used for calculation, data summary, results summary and reporting purposes.

It is strongly recommended that a qualified economist define the impact area, build the IMPLAN model, and provide data for the *Econ Data Entry* worksheet. Once this work has been completed, other ID Team specialists may enter/edit their data and run the model as often as necessary to generate impact estimates and reports. It is strongly recommended that an economist be consulted to write or review the interpretation of results for an EIS or any other Forest planning document.

FEAST uses a MS Access database, FEAST_v4_BE.mdb, to store FEAST model data. Only one copy/version of FEAST is needed. The backend database can hold multiple FEAST models. The backend database can be renamed to suit the user's needs. For example, when developing FEAST models for monitoring purposes the backend database might be given the name "MonitoringFEAST_v4_BE.mdb.

This portion of the technical guide does not explain how to model impacts for a particular resource activity. This portion of the technical guide explains how to use FEAST with respect to data entry, how to use the various menus to manage the backend database, import data from IMPLAN, building reports, and how to use the new monitoring features.

Using FEAST

Introduction

Select “**Enable Macros**” when the FEAST begins to open. Once FEAST opens, the Introduction worksheet is displayed. The Introduction sheet provides general overview, advice, and instructions for the use of this application. There are four worksheets that require data entry. The RES Data Entry, FIN Data Entry, and Historical Monitoring Data worksheets can be completed by an ID Team specialist. The ECON Data Entry Worksheet should be completed by a qualified economist or analyst.

The tabs for worksheets that require data entry are colored GREEN. User input is allowed only in the GREEN-colored cells and in the YELLOW-colored notes section at the bottom of the page. However, they can only be changed with respect to cell content. No other part of FEAST can or should ever be changed in any way. ID Team specialists and economists and/or analysts are strongly encouraged to document assumptions, data sources, etc in the area provided at the bottom of the "data entry" worksheets. The LIGHT BLUE-colored cells receive input or data from the various macros (drop-down lists, buttons and menu selections).

Deleting Cell Contents

Use the delete key to delete the contents of a data entry cell (GREEN colored or YELLOW colored notes sections). NEVER use the space bar, which seems to be a common habit of some Excel users.

All other worksheets are for data summary, results summary or reporting purposes. Most of the FEAST worksheets are hidden from view. For those economists or analysts wishing to explore the inner workings of FEAST the hidden worksheets can be unhidden.

FEAST now contains features which can be used for monitoring of a proposed action or preferred alternative during Forest plan implementation. These features allow the development of a FEAST model during every year of a Forest plan monitoring cycle (15 years). Historical resource, financial, and economic data can be entered in FEAST as well. Comparisons can then be made between the historical data, each of the monitoring year models, and the proposed action...either in tabular or graphic form.

FEAST Menu Bar

The standard MS Excel menu bar is replaced with a custom menu bar specific to FEAST. Menu bar items are listed and described below. Additional menu items will appear depending on the particular worksheet that is active (being viewed within FEAST).



The 9 menu bar options include File, Edit, Select Worksheet, Importing and Exporting, Reporting, Monitoring, Application Help, Links, and Edit App.

File

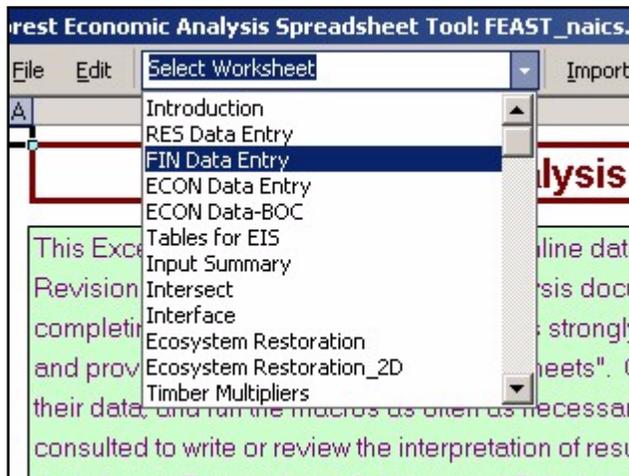
The only options available are Close, Save, the Printing options, and Exit.

Edit

The options available under the Edit menu are Undo, Repeat, Cut, Copy, Office Clipboard, Paste, and Move or Copy Sheet.

Select Worksheet

This button is a drop-down control which provides a fast and convenient way to navigate among the application worksheets rather than using the usual tabs that one sees at the bottom of the worksheet window. If you select any of the data entry worksheets or the



Tables for EIS worksheet you will then have navigation options available for moving around within the worksheet itself.

Worksheet Navigation Options

The data entry worksheets and the Tables for EIS worksheet have an additional navigation button that can be used. The navigation buttons are **Res Navigation**, **Fin Navigation**, **Econ Navigation** and **EIS Tables Navigation**, respectively. Use the navigation button options to move easily around these four worksheets.

Res Navigation	This option appears when the Resource Data Entry worksheet has been selected
Enter Alt Info	Directs you to the Alternative names. Here you can change/edit the alt names.
Enter Resource Outputs	It is often useful to freeze the worksheet panes when entering data in a large table. Selecting Enter Resource Outputs will freeze the row and column headers of the resource output table so that you can still see which row and column you are working in as you move down or across the input table.
Data Entry Finished	Select this to unfreeze the window panes when you are finished entering data or if you want to move the focus back up to the top of the worksheet.
Add Comments	This moves the focus to the designated comment area of the worksheet.
Back to Top	This moves the focus back to the top of the worksheet.

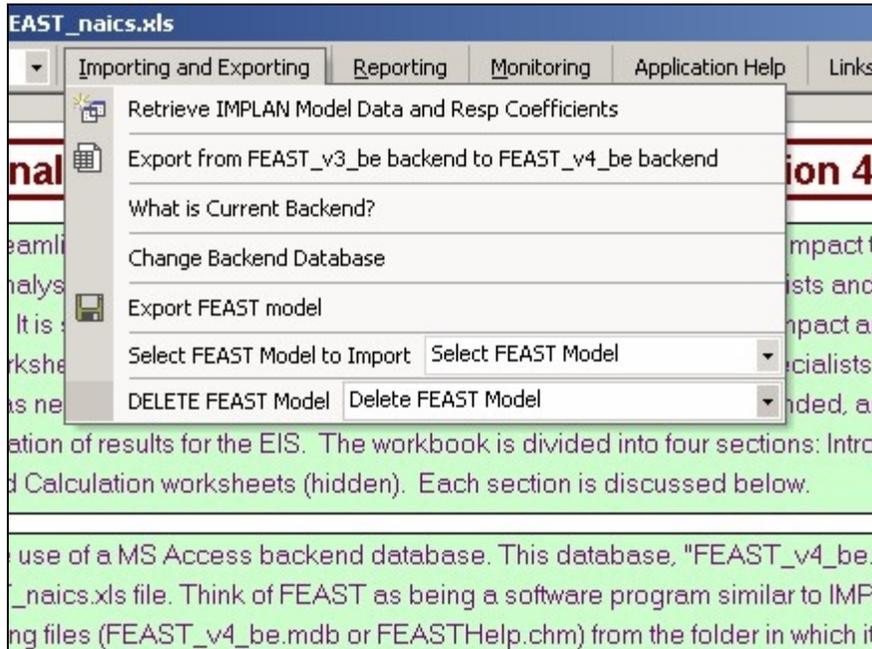
Fin Navigation	Fin Data Entry worksheet navigation. Similar to Res Navigation, but includes 2 more options.
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Econ Navigation	Econ Data Entry worksheet navigation options.
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EIS Tables Navigation	Tables for EIS worksheet navigation. In this worksheet there are 6 different EIS tables, Table A through Table F.
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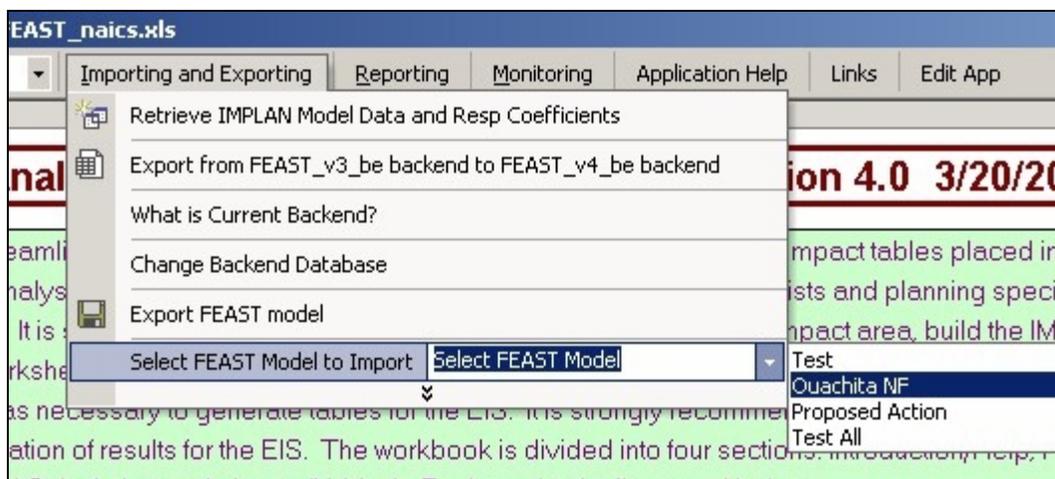
Importing and Exporting

There are seven Importing and Exporting options that include **Retrieve IMPLAN Model Data and Response Coefficients**, **Export from FEAST_v3_be backend to FEAST_v4_be backend**, **What is Current Backend?**, **Change Backend Database**, **Export FEAST Model**, **Select FEAST Model to Import**, and **DELETE FEAST Model**.



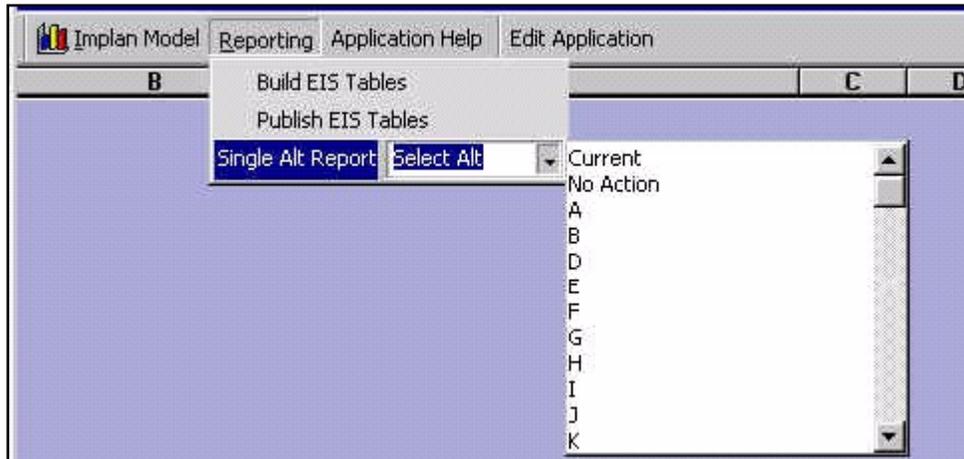
Retrieve IMPLAN Model Data and Resp Coefficients	This menu item is used to retrieve data from the IMPLAN model for the Econ Data Entry, Timber Multipliers, Timber Multipliers_2D, Intersect, the Interface worksheets. IMPLAN model response coefficients are imported into the Access and Access_2D_split worksheets (which are hidden). The Interface worksheet will show which aggregate and 2-digit response coefficients have been loaded and the date they were loaded.
	IMPLAN model data is placed into the following ranges:
Econ data entry	Base Year: C5 and the deflator for that year D5
	Implan Model Variables: C8 - C14
	Model Industry Jobs and Labor Income: J7 – K26
	RAC from Implan Model: rows 136 to 141
Intersect	IMPLAN cell intersects C7 to C24
Interface	Timber Mill Survey method information: D121 – E125
Timber Multipliers	All blue colored cells
Timber Multipliers 2D	All blue colored cells
What is Current Backend?	Click this button to see what the path and file name is of the current backend database. The default is FEAST_v4_BE.mdb

	which should be located in the same folder as the FEAST spreadsheet.
Change Backend Database	Click this button to select a different backend database to store or import FEAST data.
Export FEAST Model	FEAST uses a MS Access database to store FEAST model data. This FEAST backend database can store multiple FEAST models. If you are developing different scenarios for the same Forest, you need to change the Forest name for each different scenario, e.g., Colville NF_1, Colville NF_2, and so on. Simply select "Export FEAST Model" to export your FEAST model data to the current FEAST backend database.
Select FEAST Model to Import	Select this menu item to load the FEAST application with FEAST model data that has been previously exported using the method above. If there are no models currently stored in the FEAST backend database, the menu button's caption will say "No FEAST Models to Import."
Delete FEAST Model	Use this option to delete a particular FEAST model from the backend database.



Reporting

The Reporting menu bar button provides 3 options.



Build EIS Tables

Click on this to generate the Tables for EIS worksheet. The tables are empty at first. After selecting Build EIS Tables, the information is transferred, alternative by alternative, from the hidden Report worksheet into Tables A through F. If by chance you get an error when running this procedure, click End. **Do not click Debug.** Then run the single Alt Report for your first alternative. This procedure will take you to the Report worksheet. Clues as to why the error occurred can be found here. If you see any #div/0, #error, #name or something like that you know that somewhere along the way you entered or didn't enter something correctly. You can select Edit Application so that the formula bar is visible. From there you can trace your way back through the formulae and the worksheets, looking for something amiss. You will need to unhide all of the calculation worksheets to do this.

Publish EIS Tables

When you are satisfied with the final results from your analysis and you are ready to publish the EIS Tables, clicking this menu option will transfer the information from the Tables for EIS worksheet into a Microsoft Word document.

Single Alt Report

This allows reporting of a single alternative. When an alternative is selected from the drop down list, the reporting information on the Report (hidden) worksheet is developed. This is especially useful for validating the output from a single alternative. As mentioned above, this feature is useful for diagnosing problems associated with building the EIS tables.

Finding Data Errors

If an error occurs during the building of the EIS tables or if the tables are completed as you would expect then you should use the Single Alt Report feature. The Report worksheet will be activated after selecting an alternative for the Single Alt Report. You can see from the example below that there is a problem with recreation data. By tracing this formula back to its roots the error was found to be on the RES Data Entry worksheet. A text character was inadvertently added to the number when hitting the enter key (this actually happened).

	A	B	C	D	E
1	EMPLOYMENT, INCOME & TAX STATEMENT				
2	Lez Perce -- Current Condition National Forest				
3	FISCAL YEAR 2003				
4	For Alternative: Current				
5					
6		EMPLOYMENT	EMPLOYEE	EMPLOYEE	LABOR
7	RESOURCE PROGRAMS	(Jobs)	COMPENSATION	COMP / JOB	INCOME
			(\$Thousands)	(\$)	(\$Thousands)
8	Recreation Management	#VALUE!	#VALUE!	#VALUE!	#VALUE!
9	Fish & Wildlife Management	235	3,904.370	16,579.499	4,478.381
10	Rangeland Management	14	140.371	9,695.631	171.019
11	Timber Management MillSurvey	381	7,470.134	19,624.578	9,852.784
12	Minerals Management	2	49.678	26,553.399	58.197
13	Payments to States/Countries	54	1,465.377	27,106.639	1,731.926
14	Forest Service Expenditures	559	16,155.936	28,919.325	16,821.898
15	Total Forest Management	#VALUE!	#VALUE!		#VALUE!
16	Forest Total as a % of Total Area	#VALUE!	#VALUE!		#VALUE!
17					

Viewing Direct and Secondary Impacts

The **Report All Impacts** worksheet displays the direct and secondary (indirect plus induced) impacts by resource program. This worksheet also displays the aggregated 2-

digit impacts for each resource program. The difference between the sum of the aggregated 2-digit impacts and the total industry impacts should always be zero.

Response Coeff Unit Worksheet

This worksheet displays response coefficients as per unit of the output/use that is entered on the RES Data Entry worksheet. For example, if you entered 100 ccf for softwood sawtimber volume, the response coefficients reported on this worksheet would be jobs or income per 100 ccf. A word of caution is in order here. **DO NOT** try to summarize these response coefficients...the end result would be a meaningless number. That is, you can not add the response coefficient for logging camps to the response coefficient for sawmills, other manufacturing, residue, and plywood and expect to have a total response coefficient for timber.

Application Help

The Application Help menu button provides 2 help options that include **Microsoft Excel Help** and **Help with FEAST Application**.

Microsoft Excel Help	Opens the Usual Microsoft Excel Help.
Help With FEAST Application	Opens the FEAST Help for the application.

Links

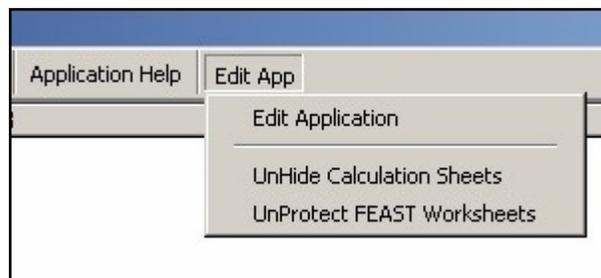
FEAST Web Site	The FEAST Web Site contains any late breaking news, a list of contacts, the latest versions of the FEAST spreadsheet application and the FEAST Help system.
FEAST Update Log on Web	The FEAST update log can be used to see if there are any new FEAST components (FEAST_naics.xls, FEAST_v3_BE.mdb or FEAST_naics_Help.chm) to download. The log also shows the features that have been corrected or added.
State DOE Links for Schools Financial Data	Dept. of Education links for various states. These sites are useful for obtain information regarding splits between Salary and Non-Salary expenditures for schools. More state links will be provided through time.

Links

Provides a link to the FEAST website and links to a website which has links to various state Dept. of Education, DOE, websites which are useful for determining the proportion that states spend on school related salaries and benefits. Economists which will be building IMPLAN impacts for Grants and Aid will need to know these proportions.

Edit App

The Edit App menu bar button provides three options that include **Edit Application**, **UnHide Calculation Sheets**, and **UnProtect FEAST Worksheets**.

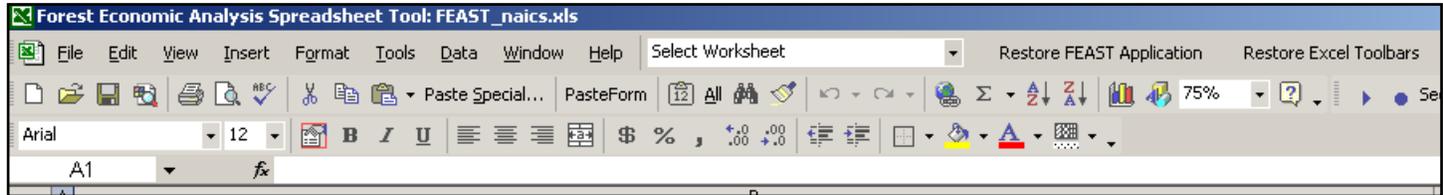


Edit Application

Select this menu item if you need to see the standard menu bar and tool bars associated with the usual Excel workbook. This menu item will mostly be useful for workbook or worksheet design enhancements...or those users who prefer to use the tool bar cut and paste buttons and formula bar while entering data.

Restore Application

Select Restore Application to return the application to its normal working state and to view the custom FEAST menu bar.



Restore Excel Toolbars

Occasionally you may encounter an error or bug or something that deletes the “Standard” and “Formatting” toolbars. A quick way to bring those tool bars back is to just click “Restore Excel Toolbars.” This is easier than clicking View/Toolbars, etc.

Unhide/Hide Calculation Sheets

Select this menu item to unhide/hide the FEAST calculation worksheets.

UnProtect FEAST Worksheets

The FEAST workbook and worksheets are password protected. The only cells which are not protected are the GREEN colored, data entry, cells. There is no need for the average user to unprotect the FEAST application.

Caution: Do not attempt to edit the design of this application. Changing worksheet names, the location of worksheet items, defined range names, etc., will cause many errors. That is, the visual basic code which runs the menu bars and macros, and imports data from IMPLAN models, will cease to function properly.

Entering Data into the FEAST Worksheets: Forest ID Team Inputs

Data input will be described sequentially in this section, starting with the RES Data Entry worksheet. The Forest ID Team and the economist can input data in the same sequence. User input is allowed only in the GREEN-colored cells and in the YELLOW-colored notes section at the bottom of the page. If it's not colored green or yellow you can not edit it.

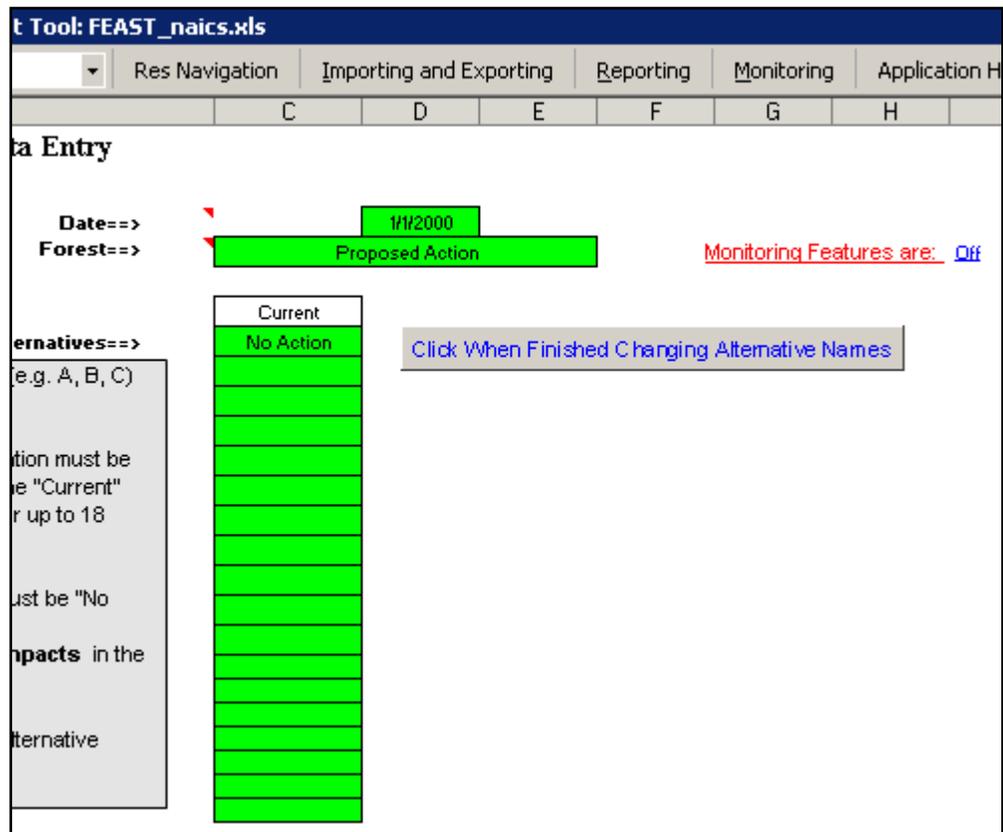
Resource Data Entry Worksheet

The RES Data Entry worksheet is where alternatives are identified and resource output or use data are entered by ID Team specialists. ID Team specialists are strongly encouraged to document assumptions, data sources, etc., in the area provided at the bottom of the worksheet.

There is a **Monitoring Features** indicator on the RES Data Entry worksheet which indicates if the Monitoring Feature are On or Off.

Data Input Items

- **Date:** Enter the current date in a mm/dd/yy format.
- **Model Name:** Enter a name for the new FEAST model. This can be the name of the Forest(s) being modeled or something else. To have different versions of the same forest for "What-if" scenarios, use a different forest name, e.g., Uinta National Forest_1, Uinta National Forest_2, and so on.
- **Alternative Names:** A maximum of 7 characters is allowed when entering alternative name. The alternative listed directly below the "Current" should be named "No Action" if Table F: Cumulative Economic Impacts on the "Tables for EIS" worksheet is to be used. Each budget level for the same allocation must be considered a separate alternative. The "Current" alternative is fixed. There is space for up to 18 alternatives. Leave cells blank where an Alternative name/label is not needed. After entering new alternative names in column C click the ***Click When Finished Changing Alternative Names*** button. This refreshes the list of alternative names in the drop-down lists of the "Single Alt Report" item on the "Reporting" menu. The cell can not be in edit mode. You must hit return or tab after changing alternative names before you can click the button.



- Entering Resource Output Data:** After editing the alternative names you are ready to input resource data by resource and by alternative. Select *Res Navigation* and then *Enter Res Outputs* from the menu and begin. There are 6 resource categories that you can enter output data for. These categories include Recreation, Range, Wildlife and Fish, Timber, Minerals, and Ecosystem Restoration.

Minerals

When entering data for “drilling oil and gas wells” under the Minerals category, you will have a choice as to whether you want to model impacts with a detailed expenditure profile or allocate all expenditures to sector 27. You are not required to select either option. If the first option is selected, the corresponding rows for entering prices for Drilling Oil and Gas Wells on the ECON Data Entry worksheet are hidden and not available for data inputs. If the second option is selected, then the corresponding rows for entering prices for Drilling Oil and Gas Wells on the ECON Data Entry worksheet are exposed and at least one of the entries is required. This is explained in further detail under the minerals section of the Impact Guide.

Option	Econ Data Entry worksheet Affect
Model Impacts with a detailed expenditure profile	9. Drilling Oil and Gas Wells-Dry Hole 10. Drilling Oil and Gas Wells-Producer Entries are hidden
Model impacts based on allocating expenditures to sector 27 entirely	9. Drilling Oil and Gas Wells-Dry Hole 10. Drilling Oil and Gas Wells-Producer At least one entry is required
No option selected	No affect on ECON Data Entry worksheet

RES Data Entry Worksheet		ECON Data Entry Worksheet	
123	8. Other Nonmetallic Mineral Mining (Sector 26)	237	8. Other Nonmetallic Mineral Mining (Sector 26)
124	Gypsum: 26	238	Gypsum: 26
125	Mica: 26	239	Mica: 26
126	Phosphate: 26	240	Phosphate: 26
127	Perlite: 26	241	Perlite: 26
128	Pumice: 26	242	Pumice: 26
129	Quartz Crystals: 26	243	Quartz Crystals: 26
130	Specialty Mineral Materials: 26	244	Specialty Mineral Materials: 26
131		245	9. Drilling Oil and Gas Wells (Sector 27)-Dry Hole
132	Sector 27 Input Options	246	10. Drilling Oil and Gas Wells (Sector 27)-Producer
	<input type="checkbox"/> Model impacts with a detailed expenditure profile	247	11. Water, Sewage, and Other Systems (Sector 32)
	<input checked="" type="checkbox"/> Model impacts based on allocating expenditures entirely to Sector 27	248	Geothermal: 32
133		249	Hot Water: 32
134	9. Drilling Oil and Gas Wells (Sector 27)-Dry Holes		
135	10. Drilling Oil and Gas Wells (Sector 27)-Producers		
136			
137	11. Support Activities for Oil and Gas Operations (Sector 28)		
138	12. Support Activities for Other Mining (Sector 29)		

- **Null Resource Output Values** If your Forest has no data for a particular resource you can leave those fields blank. You do not have to enter a zero. The application was developed to handle null values.

- **Data Sources and Comments** The ID Team specialists and the economist should document data sources, assumptions, comments etc., in the sections provided at the bottom of the input worksheets.

Financial Data Entry Worksheet

The Fin Data Entry worksheet is where all relevant expenditure, revenue, payments to counties, and FS employment data are entered by the appropriate ID Team specialist. All data should be converted to the same year dollars if the data came from different years. That is, if the timber data came from a 2006 cut and sold report and the recreation revenue data came from a 2005 report, then the data must be converted to the same year before entering it into the FIN Data Entry worksheet. GDP price deflators are used to do this. There is a list of deflators at the bottom of the worksheet. Divide the desired year deflator by the data year deflator and multiply this result by the dollar amount. For example, to convert \$100, which are in 2005 dollars, to 2006 dollars the equation would be $\$100 \times (2006 \text{ deflator} / 2005 \text{ deflator})$.

Data Input Items

- **Select Year Of Dollars For This Worksheet** Use this drop down to select the year of dollars for the data entered in this worksheet. For example, if you are using 2004 data, select 2004.
- **Select Year Of Dollars For Results Tables** Use this drop down to select the year of the dollars for the display of results. If you want your 2004 data converted to 2005 dollars, select the year 2005.
- **Download Latest GDP Deflators From Fort Collins Web** You can download the latest GDP deflators from the Fort Collins web site by selecting "Download GDP Spreadsheet" under the *GDP Deflators* button on the menu bar. After you have saved the downloaded spreadsheet to your hard drive, select "Update Deflators" under the same menu button. Next, a dialog window opens prompting you to browse and select the saved deflator spreadsheet. The FEAST deflators will then be updated.



- **Program Level Collections** Enter the appropriate average annual revenue information, in thousands of dollars, for each output identified on the RES Data Entry worksheet and that is shown on the Fin Data Entry worksheet.
- **Payments to Counties (Secure Rural Schools Act full payments and/or 25% payments)**

The Total Payments to Counties entered into the FIN Data Entry worksheet must be allocated between roads, schools, general government, and Title II projects. The percentage allocations must add to exactly 100%. The Secure Rural Schools Act has been renewed for 2007. Visit the Payment to States web site for further information regarding the Secure Rural Schools Act. If the Act is not renewed, the Total Payment should consist of only the traditional 25% fund payments. At that point, allocation of the total payment can only be between roads and schools. The same goes for Minerals Payments.

- **Minerals Payments**
Enter the Mineral related payments to counties.

25% Fund Payments Not Included Above

An entry is required here if the Secure Rural Schools Act full payment amount is chosen and there are mineral payments based on revenue from leases issued pursuant to the Mineral Leasing Act for Acquired Lands (1947)-30 U.S.C. 351 et seq. Minerals potentially subject to this act include phosphate, oil shale, gilsonite, sodium, sulphur, potassium, oil, natural gas, and coal.

Payments Subject to Different (i.e., non-25%) Distribution to Counties

These payments would typically be based upon mineral receipts generated from leases issued on public domain lands. This entry will likely involve contacting the relevant state for the method they use to allocate their 50% share of these receipts.

Again, you need to specify what these monies were used for by entering proportions in the cells labeled Roads, Schools, and General Gov't. The sum of these proportions MUST add to 100 percent.

- **FS Budget Expenditures by Program** Enter the average annual budget expenditures for each program in thousands of dollars.
- **FS Employment** Enter the average annual Forest Service employment, for your National Forest or unit, for permanent and other than permanent employees.
- **Data Sources and Comments** The ID Team specialists and the economist should document data sources, assumptions, comments etc., in the sections provided at the bottom of the input worksheets.

Note for Economists

When building the impacts for schools salary and non-salary expenditures must be split. Do this by running \$1,000,000 through a project in IMPLAN that consists of two weighted groups;

- 1) Detailed cost function ("SL govt cons exp elementary and secondary public s") and
- 2) The salary impact (Sector 503).

The detailed cost function can be imported from the backend database, FEAST_v4_be.mdb, when building IMPLAN groups. Import the group from "Model" and select All File types and browse to the location of the backend database. This cost function can all be downloaded from the link below. Download this file [509 - Expanded GOV FD.IAP](#) and import the cost function named "SL govt cons exp elementary and secondary public s."

The weights would be determined by how much the local state/local government spends on salary vs. non-salary. This information is easy to find on State Dept of Education websites.

Economist Inputs

Economic Data Entry Worksheet

The Econ Data Entry worksheet is where all IMPLAN or industry-related data are entered by economists or analysts. Economists and/or analysts are strongly encouraged to document assumptions, data sources, etc in the area provided at the bottom of the worksheet.

Response Coefficients

Response Coefficients (RCs) are calculated according to the information provided by ID Teams. RCs for commodities (range and minerals) are calculated on a production, or Total Industry Output (TIO), basis because field data for these resources are based on sales rather than final demand. The two commodities within FEAST are minerals and range. In contrast, RCs for consumer or government expenditures are calculated on a Final Demand basis. These include timber, recreation, wildlife, FS salaries, FS expenditures, and Grants and Aid. Response coefficients can be found in the Access and Access_2D_split worksheets.

Aggregation Template in IMPLAN

Before executing the "Retrieve IMPLAN Model Data" macro, be sure that the active Aggregation Template in IMPLAN is correct. It should have twenty NAICS 2-digit sectors. If by chance you have imported the wrong Aggregation in your IMPLAN model, FEAST will delete it and add the correct Aggregation scheme. If you don't have an Aggregation scheme in your IMPLAN model, FEAST will give you a warning.

Cumulative Effects: Cells D23-E25

Projections of employment are often available, but this is not the case for labor income. Projections of personal income are sometimes available through state governments. When income is projected, some components of personal income may be provided and not others. Care must be taken to use the same definition of labor income as that used in IMPLAN. To arrive at the IMPLAN definition of labor income, start with "Earnings by place of work" found in BEA personal income tables. This is the sum of "Earnings by Industry" or the sum of "Wage & salary disbursements + Other labor income + Proprietors' income". To this sum, add an estimate of employer contributions for social insurance. This measure is not readily available, but may be estimated by using personal contributions for social insurance. Employer and personal contributions are nearly equivalent and the later measure is found in BEA personal income tables. If earnings have been projected, but contributions for social insurance have not, one method for estimation is to use historical ratios of the two and apply that ratio to earnings projections.

Running IMPLAN for Recreation, Wildlife & Fish:

Non-resident Expenditure Profiles provided by PAG

Recreation and W&F expenditure groups must be imported into the impact area model from another IMPLAN model or library obtained from the PAG web site or Susan Winter, WO-PAG (970-295-5726). Once the expenditure groups have been imported,

each group should be examined to be sure the "% Local" column has been set for model RPCs. In most cases, the % will be less than 100. Model RPCs should be used where the data represent expenditures within a much larger area than the model area. The "% Local" column may be set at "100%" where the model area approximates or includes the expenditure data collection area (such as a state). Each expenditure group is already set up so that the Value column in the Impact window sums to total expenditures per person per day. Click on the "Analyze" button. Highlight each group, then enter into "Level" the result of dividing \$1,000,000 by the sum of the Value column from the previous window. This will provide a \$1 million change in Final Demand. Enter the appropriate Impact Name as specified on the INTERFACE worksheet (exclude "IMT", start with "\$1MM..."). Click on "Run Impact". The response coefficient will be on a "per \$1 million of expenditure" or final demand basis.

Non-resident Expenditure Profiles generated from Local Studies

Where local expenditure information is judged to be more representative than expenditure profiles available from PAG, recreation and W&F expenditures must be modeled from scratch. Rather than having an expenditure group for each modeled activity, this procedure requires having one expenditure project for each study to be modeled. PCE groups provide the basic building blocks for modeling the expenditures. PCE groups must be imported from the model library. In a separate workbook, build an expenditure profile from the local study matching study expenditure categories with PCE groups. For lodging, do not use a PCE group, but use Sector 479 (Hotels and motels, including casino hotels) and/or Sector 480 (Other accommodations) on a commodity basis. Convert each expenditure to a proportional share of total expenditures. Make sure PCE plus Sector 479 and/or 480 proportions sum to 1.0. Each PCE group and Sector 479 and/or 480 should be examined to be sure the "% Local" column has been set appropriately. Model RPCs should be used where the study represents expenditures within a much larger area than the model area. Where the model area approximates or completely includes the study area, the "% Local" column may be set at "100%". Because groups are already being used to represent different kinds of expenditures by tourists, the Project feature of IMPLAN must be used. In the Impact window, click on the Project tab. Add a project, then add all relevant groups to that project. Click on the "Analyze" button. Highlight each project, then enter "1,000,000" into "Level". This will provide a \$1 million change in Final Demand. Highlight each group in the project and enter the proportion calculated for each in the separate workbook discussed above. Enter the appropriate Impact Name as specified on the INTERFACE worksheet (exclude "IMT", start with "\$1MM NR REC USER 1"). Click on "Run Impact". The response coefficient will be on a "per \$1 million of expenditure" or final demand basis.

Running IMPLAN for FS Salaries and FS Non-Salaries

FS Salary

One household group must be imported into the impact area model from the Institution list. The household group representing incomes between \$50-\$70,000 best represents average FS salaries. Once the group has been imported, it should be examined to be sure the "% Local" column has been set for model RPCs (the default setting). The group should already be set up so that the Value column sums to 1.0000. Click on the

"Analyze" button. Highlight the household group and enter "1,000,000" in "Level". Then enter the Impact Name as specified on the INTERFACE worksheet, i.e. "\$1MM SALARY" (exclude "IMT"). Click on "Run Impact".

Another option for building the FS Salary impacts is to run \$1,000,000 through an IMPLAN Project with the groups and weights shown below. This may provide more accuracy.

<u>Groups</u>	<u>Weights</u>
Household LT10k	.18
Household 10-15k	.12
Household 15-25k	.11
Household 25-35k	.08
Household 35-50k	.14
Household 50-75k	.26
Household 75-100k	.10
<u>Household 100-150k</u>	<u>.01</u>
Total	1.00

FS Non-Salary

Create a FS Non-Salary group in IMPLAN by importing a Budget Object Code (BOC) expenditure function from an IMPLAN holding model. These BOC expenditure functions/profiles can be obtained from the Fort Collins-WO-IMPLAN webpage ([BOC Expenditure Functions--IMPLAN holding models](#)) or Susan Winter, WO-PAG (970-295-5726). Be sure to download the Normalized BOC expenditure functions...the Value column sums to 1.0000. Once the expenditure function/profile has been imported into IMPLAN, the group should be examined to be sure the "% Local" column has been set for model RPCs. Run \$1,000,000 through the FS Non-Salary group to build an impact table called "\$1MM FS NONSALARY."

If your impact area consists of more than one National Forest, then create an IMPLAN Project. The Project will consist of groups, one FS Non-Salary group for each National Forest. Run \$1,000,000 through the Project with weights applied to each group. Import BOC expenditure data into FEAST (see [Getting BOC Expenditure Data](#) below) for the desired Forests to get the weights, which will be shown in column F of the ECON Data-BOC worksheet.

Running IMPLAN for Payments to Counties:

Secure Rural Schools Act full payments and/or 25% payments

The FIN Data Entry worksheet allows the distribution of county payments to four possible activities: Roads, Schools, General Government, and Title II projects. If you have allocated payments to all four activities then you will need to build four response coefficients. The Secure Rural Schools Act has been renewed for 2007. Visit the Payment to States web site for further information regarding the Secure Rural Schools Act. If the Act is not renewed, the Total Payment should consist of only the traditional 25% fund payments.

Roads

One group with a single event must be created. Label the group "\$1 in Sector 39", and specify one event with Sector 39 valued at "1" on a commodity basis with RPCs. See [Commodity Basis Event](#) above for further explanation.

General Government

One group must be imported into the impact area model from the Institution list, "State/Local Govt Education". Once the group has been imported, it should be examined to be sure the "% Local" column has been set for model RPCs (the default setting). The group should already be set up so that the Value column sums to 1.0000.

Schools

When building the impacts for schools salary and non-salary expenditures must be split. Do this by running \$1,000,000 through a project in IMPLAN that consists of two weighted groups;

- 1) Detailed cost function ("SL govt cons exp elementary and secondary public s") and
- 2) The salary impact (Sector 503).

The detailed cost function can be imported from the backend database, FEAST_v4_be.mdb, when building IMPLAN groups. Import the group from "Model" and select All File types and browse to the location of the backend database. This cost function can all be downloaded from the link below. Download this file [509 - Expanded GOV FD.IAP](#) and import the cost function named "SL govt cons exp elementary and secondary public s."

The weights would be determined by how much the local state/local government spends on salary vs. non-salary. This information is easy to find on State Dept of Education websites.

Title II Projects

One group with a single event must be created. Label the group "\$1 in Sector 18", and specify one event with Sector 18 valued at "1" on a commodity basis with RPCs. See [Commodity Basis Event](#) above for further explanation.

ECON Data Entry: Data Input Items

- **IMPLAN Model Data** IMPLAN model data will be automatically loaded into various ranges within this worksheet when you select *Retrieve IMPLAN Model Data* from the menu bar (see [Importing and Exporting](#) above for more detail).
- **Year of IMPLAN Model/Data** The appropriate year and deflator are automatically loaded during the above step. If needed, you can do this manually, by selecting the year of the IMPLAN model data.
- **Economic Indicators for Cumulative Effects Table** See [Economist Notes](#) above.

- **Economic Data by Resource**

Recreation

If you are only modeling NVUM activities then there are no required inputs for recreation. On the other hand, if you are creating user-defined activities, then you will need to provide additional recreation inputs in rows 39 to 48. For more information about modeling recreation impacts see Recreation Section of Impact Guide.

Range

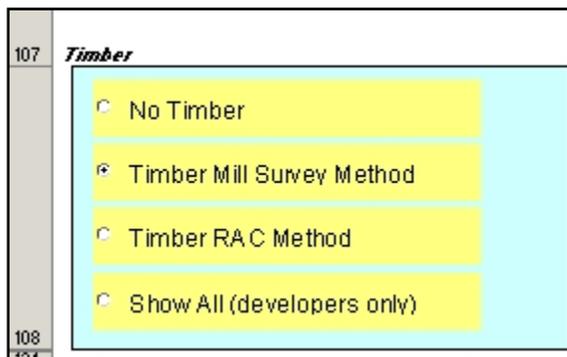
See Range Section of Impact Guide

Wildlife & Fish

Data entry is similar to Recreation. For more information see the Wildlife & Fish section of the Impact Guide.

Timber

The first input for timber is a selection of the type of timber impact you are going to use. The blue box in cell 107 has 4 possible choices. Normally, you should select one of the first three options. If you select “No Timber”, then all rows of data input pertaining to timber are hidden. If you select “Timber Mill Survey Method”, then just the portion of the worksheet pertaining to the Mill Survey Method is exposed. And the same goes for the “Timber RAC Method.” However, if you would like to see all of the timber inputs, Mill Survey, and RAC Methods, just click the “Show All” button.



107 **Timber**

- No Timber
- Timber Mill Survey Method
- Timber RAC Method
- Show All (developers only)

108

Timber Mill Survey Method

After completing the Timber Mill Survey Product Distributions entries in rows 150 to 164, and after you have imported the **IMPLAN Model Data**, you need to select a Region and State combination from the drop-down box “Select Region and State.”

Timber RAC Method

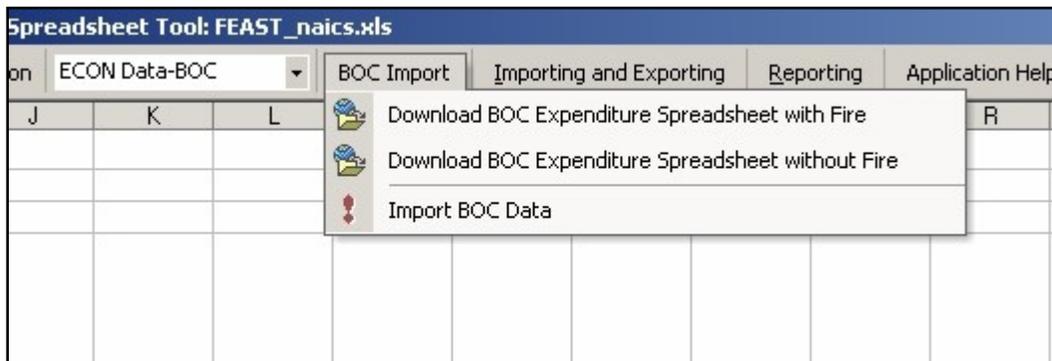
If you use the Timber RAC method, you will need to enter the appropriate data into the Timber RAC Product Distributions section. The RAC data entries are filled in during the importing of IMPLAN Model Data. Some of the RAC cells may not be loaded. For example, if the coefficient for RAC logging (14) input to pulp mills (124) is zero, then there must not be any pulp mills in your study area.

Minerals and Ecosystem Restoration

To insure that sector expenditures are properly calculated, mineral prices and ecosystem restoration costs entered on this worksheet should be expressed in the same year’s dollars as the IMPLAN base year. If IMPLAN base year mineral prices and ecosystem restoration costs are not available, a conversion calculation should be made outside of FEAST using appropriate deflators.

Economic Data-BOC Worksheet

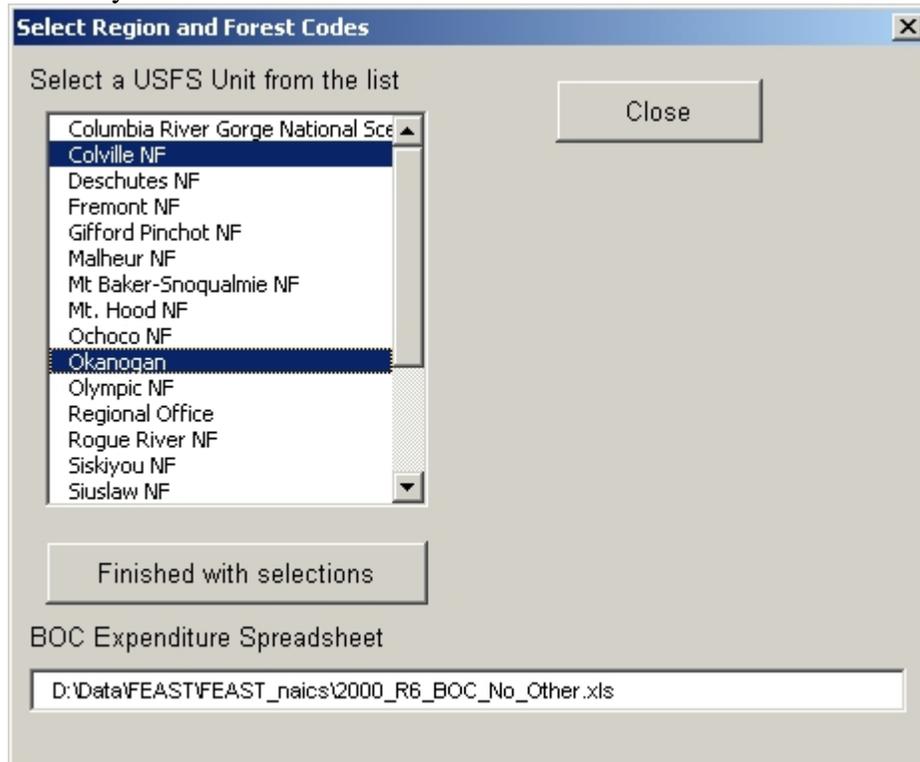
The **Econ Data-BOC** worksheet is where Budget Object Code data generated by Planning Analysis Group of the WO are displayed.



Getting BOC Expenditure Data

- **Download BOC Data:** Budget Object Code data by region and Forest, and with or without fire suppression expenditures, can be obtained from the Fort Collins web site: **Financial Information for Forests**. Select either *Download BOC Expenditure Spreadsheet with Fire* or *Download BOC Expenditure Spreadsheet without Fire* from the menu bar. This will open a browser window. Browse to the year that you want the BOC data for or select the 3 year average, and then select the region's data that you want to download. Save the zip file to your hard drive and unzip the enclosed spreadsheet.

- **Import BOC Data into FEAST:** Select *Import BOC Data* from the menu bar to import the expenditure data for one or more Forests into FEAST. A dialog window will open. Browse to the saved BOC spreadsheet, select and click OPEN. Next, pick the Forest/s to import from the list that appears. Clicking the button “Finished with selections” will summarize the data into two categories, FS Salary and FS Non-Salary. Click “Close” to exit out of the form.



The imported data on the ECON Data-BOC worksheet will show FS Salary and FS Non-Salary expenditures and the proportion of each to the total. If you are building an FS Non-Salary impact for multiple forests, FEAST will provide the IMPLAN Group weights necessary for the IMPLAN Project, see [FS Non-Salary Economist Notes](#) for more details.

Economist Data Entry -- Budget Object Codes

Forest: Test All

Fiscal Year: 2002

Instruction

Select **BOC Import / Download BOC Expenditure Spreadsheet** from the menu bar above to download a particular BOC Expenditure Spreadsheet from Fort Collins IMI Website (http://fsweb.ftcol.wo.fs.fed.us/imi/economic_center/FinancialData1.html). Next, select **BOC Import / Import BOC Data** to update the BOC Data on this page with that of the downloaded spreadsheet.

Fiscal Year	Reg_Forest	Unit_Name	FS Salary Expenditure	FS Nonsalary Expenditure
2007	Selected	Multiple	\$41,426,820.48	\$22,063,147.66

Total Expenditure: \$63,489,968.14

Proportion FS Salary Expenditure: 0.6525

Proportion FS Nonsalary Expenditure: 0.3475

Multiple Forest Proportions for IMPLAN FS Non-Salary Group Weights

Fiscal Year	Reg_Forest	Unit_Name	FS Salary Expenditure	FS Nonsalary Expenditure	IMPLAN Group Weights
2007	0402	BOISE		\$10,767,474.85	0.49
2007	0403	BRIDGER-TETON		\$4,702,481.10	0.21
2007	0415	CARIBOU-TARGHEE		\$6,593,191.71	0.30

FEAST Summary Information Worksheets

Input Summary Worksheet

The Input Summary worksheet is where all previously entered data has been transformed and made ready for linking with the other worksheets in this application. These data are summarized here so that users may view final data input in one location. No data is entered in this worksheet.

Intersect Worksheet

Selecting *Importing and Exporting* and then *Retrieve IMPLAN Model Data* from the menu will import IMPLAN model data into various worksheets, including the "Intersect" worksheet. Because Range and Minerals (commodities) expenditures represent Total Industry Outputs, TIO, all intermediate demands must be subtracted so that the result is the change in Final Demand. The Intersect worksheet accomplishes this calculation and passes the FD Factor (column G) to the Minerals and Range worksheets. The FD Factor is then multiplied by the TIO to produce the change in Final Demand.

Interface Worksheet

This worksheet lists the possible IMPLAN impacts tables (110 tables total) in column C. Not every IMPLAN model constructed will contain all the impacts tables listed. When an IMPLAN model is selected, with the *Importing and Exporting / Load IMPLAN coefficients* from the menu bar, information regarding each table in the model will be placed in columns D through G. "Aggregate RC Loaded?" refers to whether the response coefficients for that table were loaded. If loaded, the date it was loaded is shown in column E. Columns F and G refer to the 2-digit response coefficients in a similar fashion...loaded or not loaded and the date. Column I will show "Need Table" if resource data, financial data, and economic data were entered into FEAST but no response coefficients were loaded.

Impact Tables Necessary for Mill Survey Method

The Interface worksheet also displays the 5 impact tables and corresponding response coefficients needed in order to use the Timber Mill Survey method of calculating impacts. This information is shown in cells D121 to E125.

Producing and Publishing Reports

Producing Outputs

Tables for EIS

The Tables for EIS worksheet is where all results are reported. Several standardized tables are located in this worksheet. The tables are as follows:

Table A. Employment by Program by Alternative (Average Annual, Decade 1)

Table B. Labor Income by Program by Alternative (Average Annual, Decade 1;
\$1,000,000)

Table C. Employment by Major Industry by Alternative (Average Annual, Decade 1)

Table D. Labor Income by Major Industry by Alternative (Average Annual, Decade 1;
\$1,000,000)

Table E. Forest Service Revenues and Payments to Counties (Annual Avg, Decade 1;
\$1,000,000)

Table F. Cumulative Economic Impacts

Table G. Current Role of Forest Service-Related Contributions to the Area Economy

Table H. Local Recreation, Fish & Wildlife Employment by Program by Alternative
(Average Annual, Decade 1)

Publishing EIS Tables

Please see [Reporting](#) above under section titled “Getting Around the Application” for information regarding building the EIS tables, publishing the tables in a Word document, and looking at the results of a single alternative.

FEAST Monitoring

General Description

The monitoring features in FEAST allow users to create FEAST models, during and after plan revision, and store those models in a backend database. These models are called “Proposed Action”, “Monitoring Year 1”, etc. to Monitoring Year 15. It is assumed that after year 15 the Forest will be in plan revision mode again and the monitoring cycle starts over with development of a new Proposed Action.

This document does not explain how to build a FEAST model nor does it explain any FEAST features not related to Monitoring

Assumptions/Requirements

The user should already be familiar with building FEAST models.

The Proposed Action has been built.

The Proposed Action, as well as all other Monitoring Year models, should be developed as the Current alternative.

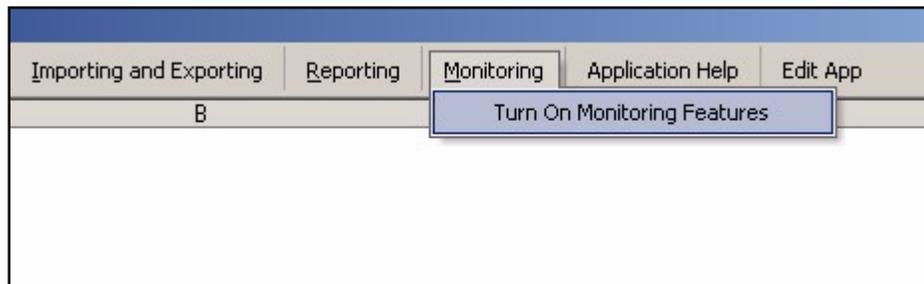
Only 10 different user-defined categories can be developed for Recreation, Fish & Wildlife, and Ecosystem Restoration over the complete monitoring cycle.

Building FEAST Monitoring Models

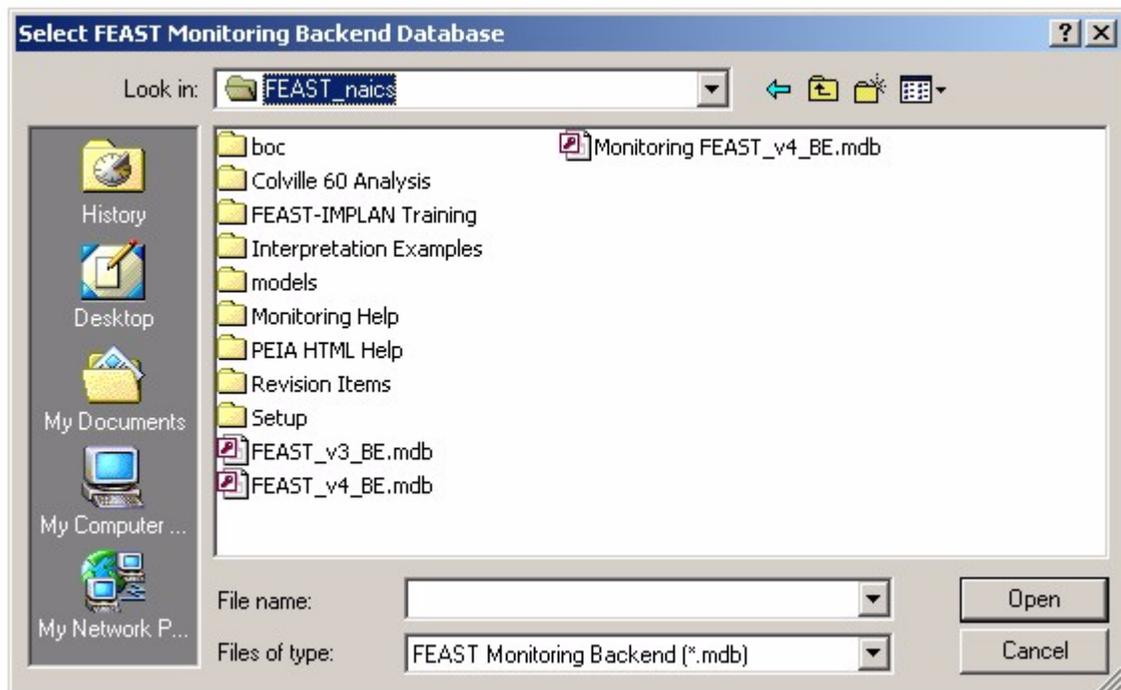
Step 1 Make a copy of the backend database, FEAST_v4_be.mdb, and rename it so that the file name tells you that it is used to store monitoring results, e.g. “monitoring FEAST_v4_BE.mdb”.

Step 2 Open FEAST and import the FEAST model that represents the Proposed Action. More than likely this FEAST model is named something other than “Proposed Action.”

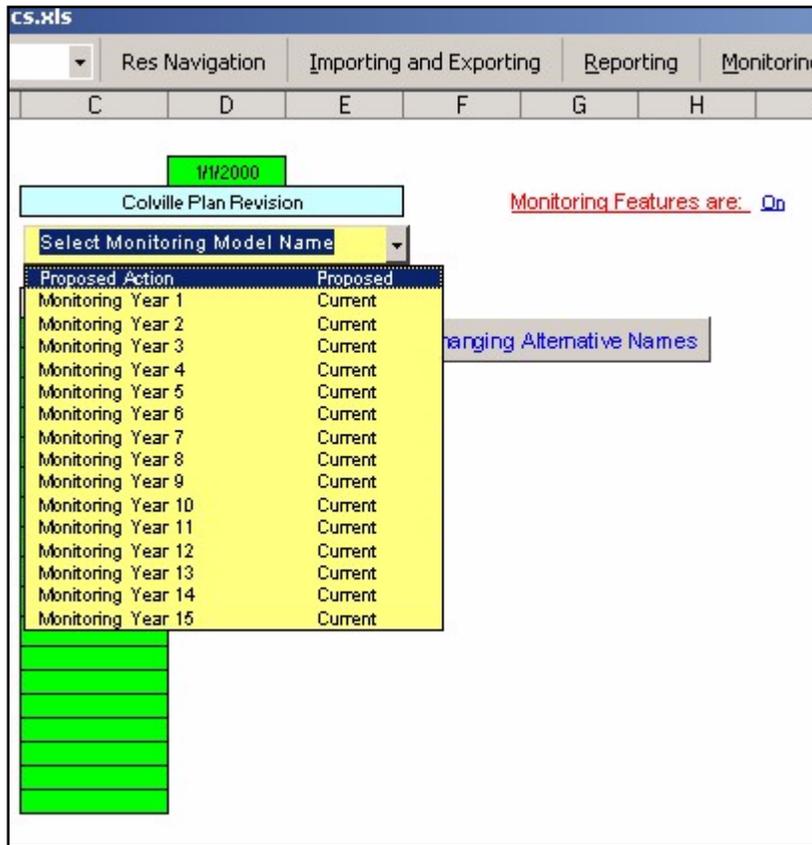
Step 3 Turn on the Monitoring Features by selecting ”Turn On Monitoring Features” from the Monitoring menu.



A dialog box will open where you will then be asked to select the backend database that will be used for monitoring.



Step 4 Go to the RES Data Entry worksheet in FEAST and change the name of your plan revision FEAST model to “Proposed Action” by selecting it from the drop down list.



Step 5 Export the Proposed Action to the monitoring backend database (created in Step 1) by selecting “Export FEAST Model” from the Importing and Exporting menu.

Assume that the new Forest Plan is being implemented and one year has passed. It is now time to build another FEAST model. Remember, all FEAST models built for monitoring should be developed in the Current alternative. Failing to do this will cause problems later when developing charts and other reports. This next FEAST model should be called “Monitoring Year 1.” Export the Monitoring Year 1 FEAST model to the monitoring backend database (see Step 5 above). Build another FEAST model for every subsequent year of Forest Plan implementation and name these FEAST models “Monitoring Year 2” and so on.

Step 6 Entering Historical Forest Data

Historical Forest Data should be entered into FEAST soon after the monitoring cycle has begun. The worksheet called “Historical Monitoring Data” is where this data is entered. This worksheet can be easily selected by selecting “Enter Historical Data” from the Monitoring menu. Enter historical data for years 1996 to 2007.

Save the historical data to the backend database by selecting “Export Historical Data” from the Monitoring menu. Any exported historical data can be retrieved by selecting “Import Historical Data” from the Monitoring menu.

Data Guide-Historical Worksheet

A Data Guide-Historical worksheet has been created which provides access to instructions for obtaining historical data for the “Historical Monitoring Data” worksheet. The data guide worksheet contains information regarding type of data, years that data is available, the type of data series, and web links to various data sources.

Viewing Monitoring Results

Results of the FEAST monitoring can be viewed at any time. There are three categories of results; 1) the economic impacts in terms of jobs and income, 2) the resource, financial, and economic data for each FEAST monitoring model that was entered into the RES Data Entry, FIN Data Entry, and ECON Data Entry worksheets, and 3) the historical data for the Forest.

Economic Impacts: Jobs and Income

A worksheet named “Monitoring Summary” displays the economic impacts for each FEAST monitoring model. Each model must be imported back into FEAST to calculate the impacts and populate this worksheet. This import must be performed by selecting the appropriate import option from the Monitoring menu. The option exist to import a single FEAST monitoring model or to import all existing models at once. Select “Import Proposed Action” to import the Proposed Action. Import a single FEAST monitoring model by selecting “Importing Monitoring Data / Select Monitoring Year”. Import all existing FEAST monitoring models to populate the whole worksheet.

The contents of the Monitoring Summary worksheet can be saved to the backend database by selecting “Export Economic Impacts Summary Worksheet Only” from the menu. It is not necessary to import FEAST monitoring models to populate the Monitoring Summary worksheet if the Monitoring Summary worksheet contents have been exported to the backend. Select “Import Economic Impacts Summary Worksheet Only” to re-populate the contents of this worksheet.

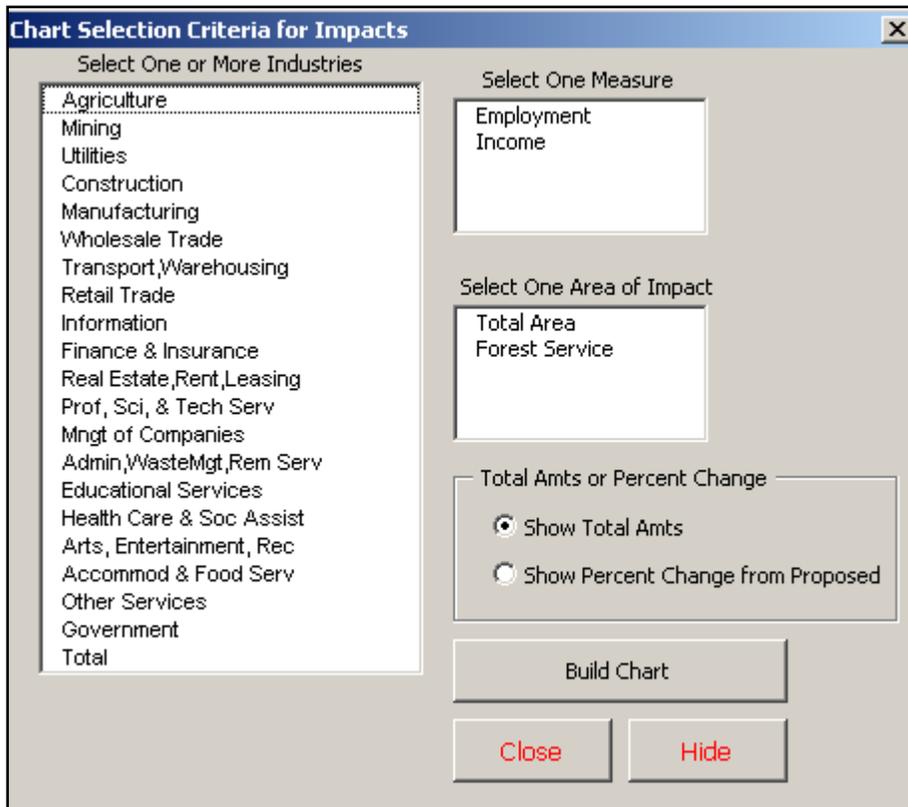
Reports and charts can be built after the Monitoring Summary worksheet has been populated by all existing FEAST monitoring models.

Monitoring Impacts Tables

A worksheet named “Tables for Monitoring” displays all economic impacts, by monitoring year. Table A: Current Role of Forest Service-Related Contributions to the Area Economy can be published in MS Word by selecting “Publish Monitoring Impacts Report Tables” from the Monitoring menu.

Charting Economic Impacts

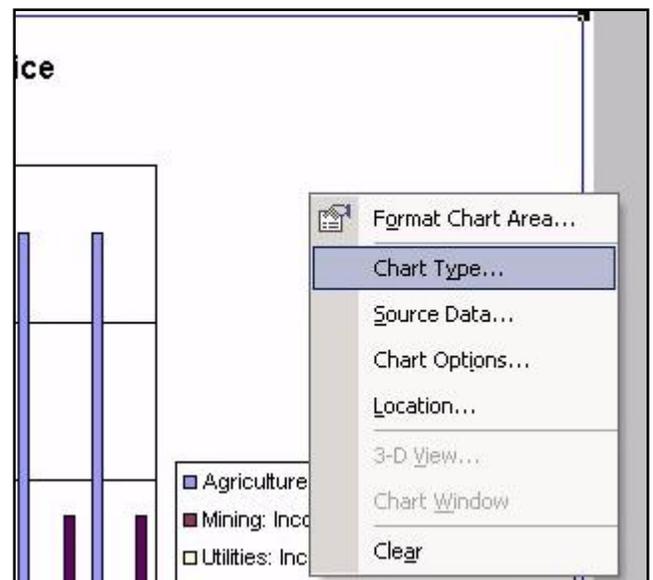
Selecting “Build Charts for Monitoring Impacts” from the “Monitoring” menu will open the chart builder.



Select one or more industries, Employment or Income, Total Area or Forest Service, Show Total Amts or Show Percent Change from Proposed, and then click the Build Chart button. A bar chart with the selected criteria will then be built.

Changing Chart Types

Right click the chart object and select chart type to change to a different chart type.



Resource, Financial, Minerals and Ecosystem Costs

A worksheet named “Resource_Financial Monitoring” is used to display all of the data that was entered in the RES Data Entry, FIN Data Entry, and price/cost data that was entered for Minerals and Ecosystem Restoration on the ECON Data Entry worksheets. Populate this worksheet by selecting “Import Resource, Financial, Prices, and Costs Data Only” from the Monitoring menu. There is no export option for the data on this particular worksheet. This data exist in various database tables in the backend database and is saved when the FEAST model itself is exported.

Charting Resource, Financial, Minerals and Ecosystem Costs

Selecting “Build Charts for Resource Outputs or Financial Data or Historical Data” from the “Monitoring” menu will open the chart builder.

Select a Program	Category	Units
Recreation	NL-Day Trips	Visits
Range	NL-OVN-NF	Visits
Wildlife & Fish	NL-OVN	Visits
Timber	L-Day Trips	Visits
6. Stone Mining and Quarrying (Sector 24)	L-OVN-NF	Visits
7. Sand, Gravel, Clay, and Refractory Mining (Sector 25)	L-OVN	Visits
Ecosystem Restoration	Skiing	Visits
Program Level Collections	Mushroom Picking	Visits
Timber Revenues	Sleeping	Visits
Other Collections	Berry Picking	Visits
Total Secure Rural Schools/25% Fund (Full Payment + Minerals)		
FS Budget Expenditures All Programs		
FS Employment		
Minerals Prices		
Ecosystem Restoration Costs		

Monitoring Year OR Historical Data

Show Historical Data
 Show Monitoring Year Data

Build Chart

Close Hide

Total Amts or Percent Change

Show Total Amts
 Show Percent Change from Proposed

First, select whether Historical Data or Monitoring Year Data is desired. Next, select the desired criteria from the Program list on the left and the desired categories from the list on the right. When selecting one or more categories to chart, it only makes sense to select

categories which have similar units. A chart of recreation visits combined with timber volume amounts would make no sense. Select a data option, Show Total Amounts or Show Percent Change from Proposed and then click the Build Chart button.

Historical Data

Follow the procedure above to chart the historical data.

Publishing Charts in MS Word

Select “Publish Monitoring Charts” from the Monitoring menu to publish any of the three monitoring charts in MS Word.

Monitoring Database Tables

Table: Monitoring_Summary

This table contains all of the economic impacts associated with the Proposed Action and all subsequent monitoring year models. This table is populated when the user selects “Export Economic Impacts Summary Worksheet Only” from the Monitoring menu.

Table: Monitoring_Historical_Data

This table contains all of the historical data that is entered in the Historical Monitoring Data worksheet. This table is populated when the user selects “Export Historical Data” from the Monitoring menu.

Table: Monitoring_ResFinDATA_ALL

This table contains all of the data that is entered into the RES Data Entry, FIN Data Entry, and the minerals prices and ecosystem restoration costs entered into the ECON Data Entry worksheets. This data table can be populated by selecting “Import Resource, Financial, Prices, and Costs Data Only” from the Monitoring menu. It can also be populated by opening the backend database and running the queries listed below.

Monitoring_ResFinDATA_ALL_empty

Monitoring_ResFinDATA_ALL_tmp_empty

Monitoring_ResData_ALL

Monitoring_FinData_ALL

Monitoring_Minerals_ALL

Monitoring_EcoRest_ALL

Monitoring_ResFinData_ALL_0 (see Note below)

Monitoring_ResFinData_ALL_1

Note: The query named Monitoring_ResFinData_ALL_0 is run only when building a chart for this data. It is not run when importing the data back to the Resource_Financial Monitoring worksheet. There is the possibility that a particular monitoring year or the proposed action will not have values for one or more items on the RES Data Entry, FIN Data Entry, or ECON Data Entry worksheets. This query gives those years a value of zero so that the chart will

show a complete series of data from the proposed action through the 15th year of monitoring.

PAG Web Site

The FEAST software and related downloads can be obtained by following the FEAST link on the IMPLAN page of the [PAG web site](http://fsweb.ftcol.wo.fs.fed.us/imi/imi_implan_center.htm) (http://fsweb.ftcol.wo.fs.fed.us/imi/imi_implan_center.htm) or by going directly to the [FEAST](http://fsweb_col.ewz.r6.fs.fed.us/epm/imisupplement/PEIA.htm) web site (http://fsweb_col.ewz.r6.fs.fed.us/epm/imisupplement/PEIA.htm). From this site you can download FEAST setup files which installs FEAST_naics, FEAST_v4_BE.mdb, and the FEAST html help system (FEAST_naics_Help.chm). If you already have the backend database and the help system installed, you can choose to just download FEAST_naics itself.

Recent changes and revisions can be seen from this web site by clicking “FEAST UPDATES LOG.”