FINANCIAL RESULTS OF THE FY 1998 FOREST MANAGEMENT PROGRAM

This section of the report highlights important findings from the "financial account" of TSPIRS. Costs and revenues are examined first for the forest management program as a whole, and then by program component. The focus is on describing national level results, but some regional and forest level data are presented and discussed. More detailed information about the financial accounts of specific regions and forests is contained in Appendixes C and D.

Overall Revenues and Expenses

The revenues and expenses that were associated with all aspects of the Forest Service's forest management program in FY 1998 are shown in Table (8). As indicated, the harvest of 3.30 BBF of timber produced a gross revenue of just under $546.1 million. The combined direct and indirect costs of operating the program were approximately $672.0 million, resulting in a loss of about $125.9 million.

Because of the new procedures that were used to account for road prism costs, the total expenditure and net revenue figures for FY 1998 are not directly comparable to those for prior years. Before valid comparisons can be made, adjustments are needed to ensure that road prism costs are treated in a consistent manner. Although the applicable Federal accounting standards do not require restatement of prior year results for an accounting change of the type the Forest Service made in FY 1998, as a service to readers, and to provide a basis for assessing the implications of the new accounting procedures, national level results were restated for selected years. Specifically, timber-related expenditures were estimated, for FY's 1994 to 1997, in two different ways:

- Assuming road prism costs are annually expensed – i.e., the approach used in FY 1997.

- Assuming road prism costs are depreciated over 50 years – i.e., the approach used in FY 1998.

No attempt is made here to explicitly compare depreciation over 50 years to the procedure used in FY 1996 and earlier years – i.e., capitalization of road prism costs into land values. The FY 1997 TSPIRS Report compared expensing to capitalization, so by combining data from that report with the information contained in this report, readers who desire to explicitly compare depreciation to capitalization can do so. Basically they will find that both

procedural changes – i.e., the switch from capitalization to annual expensing, and the switch from annual expensing to depreciation over 50 years – caused total timber program expenditures to increase. However, for the years for which restatements have been prepared depreciation over 50 years results in the highest road prism costs.

Table (8) -- Statement of Revenues and Expenses Associated with All Components of the Forest Management Program in FY 1998 [1] [2]

Account Description	Amount
	(000's of dollars)
Volume Harvested (BBF)	**3.30**
Revenues	
Timber Sale Receipts	451,754
Purchaser Road Credits	43,127
Associated Charges	43,560
Interest and Penalties	7,640
Total Revenues	**546,081**
Expenses	
Direct Expenses	
Timber Sale	526,755
Timber Program	70,485
Total Direct Expenses	**597,240**
Indirect Expenses	
Timber Sale	2,581
Timber Program	72,163
Total Indirect Expenses	**74,744**
Total Expenses	**671,984**
Net Rev. (before extraord. losses)	**-125,904**
Extraordinary Losses	**0**
Net Rev. (after extraord. losses)	**-125,904**

Table (9) shows, for the period FY 1994 to FY 1998, total timber revenues and two distinct sets of "total expenditure" and "net revenue" figures. The table is intended to document the

[1] Data reflect the application of accrual accounting concepts.

[2] Consistent with the results of a General Accounting Office (GAO) study completed in January of 1999, road prism costs have been depreciated over an anticipated useful life of 50 years. The GAO study – entitled *"Forest Service: Accounting Treatment of Roadbed Costs"* (GAO/AIMD-99-48R) – concluded that the agency had erred when, in preparing its FY 1997 TSPIRS Report, it elected to annually expense its prism costs. Specifically, the study found that the agency had misinterpreted the requirements of Statement of Federal Financial Accounting Standards (SFFAS) Number 6 as these apply to business type activities. The study did not actually conclude that a depreciation period of 50 years was appropriate for road prism costs, this figure was arrived at during subsequent discussions between the Forest Service and GAO, and represents that same depreciation period as the agency has traditionally applied to its bridge-related costs.

effects of the agency's latest change in road prism accounting procedures. The total expenditure and net revenue figures labeled "/e" show the financial results assuming annual expensing of road prism costs – i.e., the procedure used in FY 1997. The total expenditure and net revenue figures labeled "/d" display the financial results assuming depreciation of road prism costs over 50 years – i.e., the procedure used in FY 1998.

Table (9) – Summary of Restated Forest Management Program Revenues, Expenses, and Net Revenues for Period FY 1994–FY 1998 [3]

Fiscal Year	Total Revenue	Total Expense/e	Total Expense/d	Net Revenue/e	Net Revenue/d
	($ mill.)	($ mill.)	($ mill.)	($ mill.)	($ mill.)
1994	885	733	764	153	122
1995	696	678	711	17	-16
1996	619	678	715	-60	-96
1997	577	666	693	-89	-116
1998	546	NE*	672	NE*	-126

* NE = not estimated.

Table (9) shows that total timber-related expenses vary significantly depending on how road prism costs are handled from an accounting standpoint. Without exception, for the years for which restatements were prepared – i.e., FY 1994 to FY 1997 – total expenses increased as expensing was dropped in favor of depreciation over 50 years. Since total revenues were unaffected by the method of accounting for road prism costs, these higher expenses were directly reflected in reduced net revenues or profits. One result is that whereas the agency had previously not reported a loss for the timber program as a whole until FY 1996, it now appears that if it had consistently been depreciating road prism costs over 50 years, it would have posted its first loss a year earlier – i.e., in FY 1995. Specifically, the data in table (9) show that because of the decision to replace annual expensing with depreciation over 50 years:

- For FY 1994, total expense increased and net revenue fell by roughly $31 million ($764 million - $733 million).

- For FY 1995, total expense increased and net revenue fell by roughly $33 million ($711 million - $678 million).

[3] The display of restated TSPIRS amounts to reflect the change in accounting for road prism costs in prior years is not in accordance with Statement of Federal Financial Accounting Standards Number 6, Accounting for Property, Plant, and Equipment. This information is provided as supplemental information to improve the comparability of prior year information with the current year results. Because of errors introduced by rounding, some of the indicated net revenue figures may not equate to the apparent differences between total revenue and total expense.

- For FY 1996, total expense increased and net revenue fell by roughly $37 million ($715 million - $678 million).

- For FY 1997, total expense increased and net revenue fell by roughly $27 million ($693 million - $666 million).

- No attempt was made to restate the FY98 financial results using annual expensing of road prism costs since this procedure had been determined to be inappropriate.

The relationships described above become more apparent when the data displayed in Table (9) are plotted graphically as in Figure (18). As this figure indicates, regardless of the method used to account for road prism costs, timber-related revenues and expenses have both been falling since FY 1994, but revenues have fallen much more rapidly than expenses thereby causing net revenue to decline.[4] In any given year, the method used to account for road prism costs influences the total expense reported, and thus the implied net revenue – but the basic trends that were previously descriptive of what has been happening to the program's profitability over time remain unchanged. Specifically, the procedural change made in FY 1998 effectively caused the total expense trend-line to shift up and the net revenue trend-line to shift down. The reason why total expenses increased as the agency switched from expensing to depreciation relate to the changing size of its timber roads program. The program is much smaller today than it was in the past. Because of the decline that has occurred over time, current annual expenditures for road prisms – which is the amount that would be charged in any given year assuming annual expensing – are less than 1/50th the accumulated road prism costs incurred during prior years for which records are available – which is the amount that would be charged each year assuming depreciation over 50 years.

As a result of the timber revenues earned in FY 1998, $212.5 million was returned to the states and counties under the provisions of the 25 percent receipt-sharing program mentioned earlier. As noted at that time, these payments, by law, must be used to benefit local schools and roads. In FY 1998, the required payments-to-states were actually 39 percent of gross timber receipts – not 25 percent. This is because in those parts of Pacific Northwest where national forest timber harvesting was reduced to protect habitat for the northern spotted owl, these payments are based on past, not current, harvest levels.[5] In FY 1998, the timber-related portion of these so-called "spotted owl" payments, totaled $88.8 million – or over 40 percent of all the timber-related payments-to-states. As was noted during the review of TSPIRS, Forest Service policy is to treat these amounts as "transfer payments" not as timber program costs.

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[4] Normally these financial trends would be shown in constant dollar terms, but this has not been done here so that the actual restated financial results for each year could be displayed.

[5] See the Omnibus Budget Reconciliation Act of 1993 (PL 103-66).

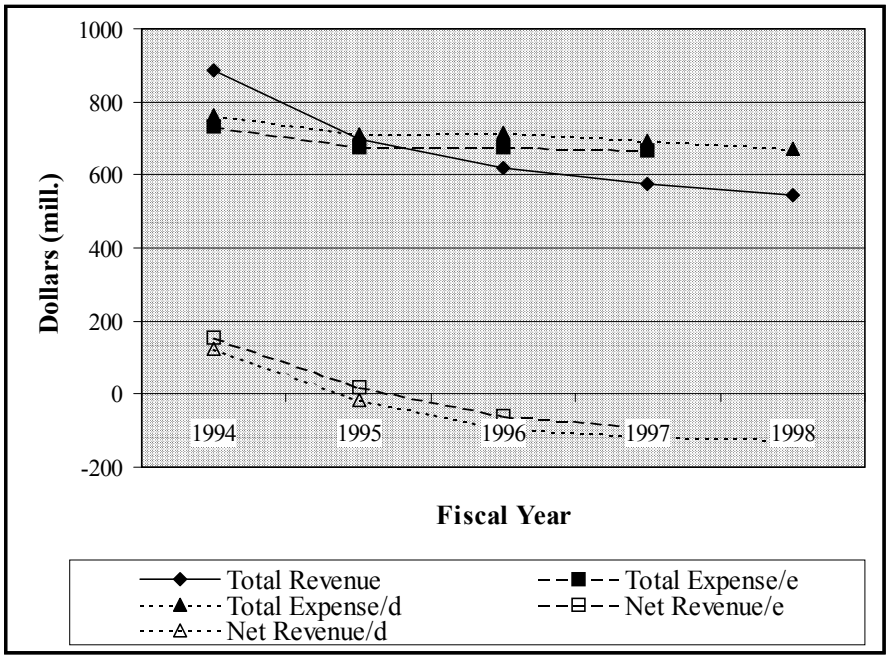

Figure (18) – Trend in Timber Sale Revenues, Expenses, and Net Revenues Given Different Methods of Accounting for Road Prism Costs

Figure (19) shows how timber-related payments to states, and payments as a percent of total timber revenues, have changed over time. As indicted, the actual payments have been declining in amount as the timber sales program has fallen in size, but the payments as a percent of timber revenues, because of the impact of the special spotted owl provisions, have tended to increase. The percentage figures may be interpreted to represent the proportion of each dollar of timber revenue that is returned to the states and counties.

In recognition of the fact that some counties have been adversely affected by the decline in commercial harvesting and the resultant fall-off in receipt-share payments, and to ensure that all counties can depend upon predictable and stable Federal payments, the Forest Service has, for some years, been advocating that the linkage between payment amounts and national forest receipts be severed. As this report was being prepared, this goal was finally achieved. Congress recently passed, and the President signed, H.R. 2389 – the "Secure Rural Schools and Community Self-Determination Act of 2000." The objectives of this act go beyond reforming the existing procedures for making payments to states, but this is one of the things the legislation does. Specifically, the new law allows qualifying counties to elect the greater of: 1) the 25 percent payment they would have been entitled to under prior law, and 2) the average of the three highest 25 percent payments they received during the period FY 1986 through FY 1999. Under the terms of the legislation, future payments will be partially indexed for inflation.

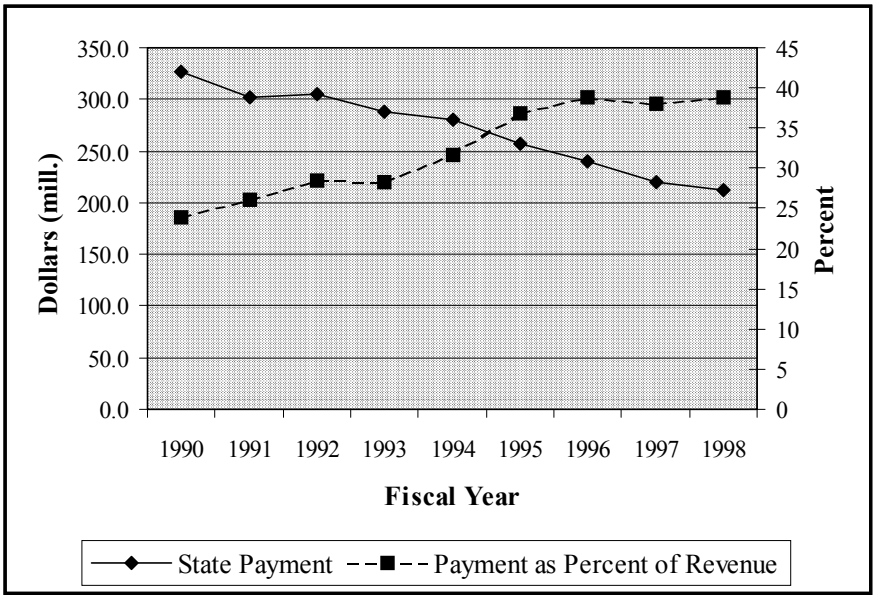

Figure (19) – Trends in Total Payments to States and Payments as a Percent of Total Timber Revenues.

Revenues and Expenses by Program Component

The revenues and expenses that were associated with the different components of the Forest Service's overall forest management program in FY 1998 are summarized in Table (10). This table shows the following:

- **Timber Commodity Program Component:** – The harvest of 1,683 MMBF produced a gross revenue of just under $351.6 million. The combined direct and indirect cost of making timber commodity purpose sales was $338.9 million, resulting in a profit of just under $12.7 million.

- **Forest Stewardship Program Component:** – The harvest of 1,411 MMBF produced a gross revenue of just over $189.6 million. The combined direct and indirect cost of making forest stewardship purpose sales was $300.3 million, resulting in a net loss of just over -$110.6 million.

- **Personal Use Program Component:** – The harvest of 204 MMBF produced a gross revenue of just under $4.9 million. The combined direct and indirect cost of making personal use purpose sales was about $32.8 million, resulting in a net revenue of just over -$27.9 million.

As was true for the program as a whole, because of the change in our procedures for recognizing road prism costs, the preceding total expenditure and net revenue figures cannot be validly compared to the figures reported in prior years. In this instance, however, because of the substantial amount of work that would have been required to develop the restated amounts, and because development of such restatements is not required by the relevant federal accounting standards, restated financial accounts were not prepared by program component.

Table (10) -- Statement of Revenues and Expenses associated with Different Components of the Forest Management Program in FY 1998

Account Description	Timber Commodity	Forest Stewardship	Personal Use
	--- (000's of dollars) ---		
Volume Harvested (MMBF)	**1,683**	**1,411**	**204**
Revenues			
Timber Sale Receipts	294,031	153,447	4,277
Purchaser Road Credits	26,958	16,169	0
Associated Charges	23,161	19,796	603
Interest and Penalties	7,427	212	1
Total Revenues	**351,577**	**189,624**	**4,881**
Expenses			
Direct Expenses			
Timber Sale	266,143	234,372	26,242
Timber Program	38,210	32,276	0
Total Direct Expenses	**304,353**	**266,648**	**26,242**
Indirect Expenses			
Timber Sale	1,396	991	195
Timber Program	33,153	32,626	6,384
Total Indirect Expenses	**34,549**	**33,617**	**6,579**
Total Expenses	**338,902**	**300,265**	**32,821**
Net Rev. (before extraord. losses)	**12,675**	**-110,641**	**-27,940**
Extraordinary Losses	**0**	**0**	**0**
Net Rev. (after extraord. losses)	**12,675**	**-110,641**	**-27,940**

Traditionally, timber commodity purpose sales have been the focus of the so-called "below-cost" controversy. The data in Appendix D shows that in FY 1998 four Regions had negative financial account balances for this program component: R01 – Northern; R03 – Southwestern; R04 – Intermountain; and R10 – Alaska. Below the regional level, 66 forests had negative financial account balances for timber commodity purpose sales.[6] These forests

[6] Twenty of these forests had timber commodity purpose harvests of less than 1.0 MMBF during the year. Experience has shown that unit costs tend be relatively high for such small-scale programs.

accounted for roughly 36 percent of the total volume harvested for timber commodity purposes (See Appendix D).

When considering the financial performance of the different forest management program components, it is important to remember the basic reasons why each type of sale is undertaken. These reasons influence how the various classes of sales are designed, including the types of timber marked for cutting. Since timber commodity purpose sales are intended to help meet the nation's demand for wood, they typically include a significant amount of commercially valuable timber. This is not necessarily the case, however, for forest stewardship and personal use purpose sales. Stewardship sales are undertaken to help achieve a multitude of land management objectives that require manipulating the existing vegetation. While these sales are designed to yield a profit whenever circumstances allow, in the last analysis, most of the timber they contain is dictated by the management objectives to be achieved. Similarly, personal use purpose sales are undertaken to provide Christmas trees, firewood, and small quantities of other forest products to individuals for their own consumption; in other words, they are offered mainly as a public service, and as part of being a "good neighbor" – not to secure a profit.

Interpreting the Financial Results

Key factors impacting the revenues and costs associated with national forest timber sales, and thereby the program's profitability, have been discussed at length in prior TSPIRS reports as well as in two comprehensive timber cost efficiency reports published by the Forest Service.[7] While no attempt will be made here to thoroughly review this information, some key findings merit brief review since they will help readers to better understand why the profitability of the agency's timber sales program has been declining over time.

Factors Affecting Timber Program Revenues

Prior reports and studies indicate that, in recent years, timber program revenues have been adversely affected (i.e., forced downward) by the following factors:

Decline in Program Size: – Over the last decade, the volume of national forest timber being harvested has dropped from nearly 12.0 BBF to about 3.3 BBF annually. Other things being equal, as output declines so does sales revenue.

Shift to Stewardship Purpose Sales: – The amount of timber being harvested for stewardship as opposed to timber commodity purposes has been increasing over time. This shift has affected program profitability. As decisions about sale design are made less-and-

[7] See the FY 1996 and FY 1997 TSPIRS reports. The study reports being referred to are: (1) USDA Forest Service, 1993, *Timber Cost Efficiency Study-Final Report*, Washington, DC, 140 p.; and (2) Liggett C. et al., 1995; *Timber Program Issues: A Technical Examination of Policy Options*; USDA Forest Service, Washington, DC, 301p.

less on the basis of financial considerations (e.g., what timber to remove in light of current market needs), and more-and-more on the basis of ecological considerations (e.g., what timber to remove to create desired habitat conditions), program profitability has tended to decline.

Changing Nature of Products Being Sold: -- As compared to the past, dead and dying trees, and small trees (i.e., trees of less than sawtimber size) now account for a greater proportion of annual offer volume. Salvage timber tends to be less valuable than green timber because it has often been damaged or suffered deterioration. Non-sawtimber sized material tends to be less valuable than sawtimber; because it cannot be manufactured into as wide an array of products, and oftentimes it contains smaller amounts of clear, high-grade wood.

Factors Affecting Timber Program Costs

Prior reports and studies indicate that, in recent years, timber program costs have been adversely affected (i.e., forced upward) by the following factors:

Increasing Importance of Fixed Costs: – Certain costs associated with conducting the national forest timber sale program – e.g., the expenses associated with the depreciation on existing facilities and roads, and with general program administration – are relatively fixed. As program size has declined, these costs have not dropped commensurably and have become a more important part of the total cost mix.

Diseconomies of Small Scale Operations: -- Experience indicates that the costs of some timber-related activities – e.g., sale preparation, harvest administration, reforestation, and timber stand improvement – tend to decrease as the scale at which they are conducted is increased. In recent years, of course, just the opposite has been true – i.e., the size of the timber program has been shrinking. Because of this situation, the unit costs of performing such activities have tended to increase over time.

Open Process and High Environmental Standards: – The General Accounting Office (GAO), in comparing the timber sale programs of the Forest Service and Bureau of Land Management (BLM) in the Pacific Northwest to state timber sale programs in Oregon and Washington, observed:

> "The federal agencies have a much longer and more complex planning process that involves the public at every stage of the process for timber sales. ... In addition, the state agencies do not provide for administrative appeals, whereas the federal agencies do." [8]

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[8] General Accounting Office; 1996; *PUBLIC TIMBER--Federal and State Programs Differ Significantly in the Pacific Northwest*; GAO/RCED-96-108; 16 p (See p.2).

Similarly, Keegan et al., after conducting a study that compared timber management costs on eight national forests in Montana and Idaho to the costs experienced by a broad range of other forest owners and managers (private industry, the Idaho Department of Lands, the Montana Department of Natural Resources and Conservation, and the Confederated Salish and Kootenai Tribes) concluded that:

> "… where organizational goals are complex, emphasizing non-commercial values as well as commercial harvests, then the costs of timber management increase. … Even more important are the mandates and methods affecting various timber management operations. Agencies that operate within explicit legal and/or administrative directives and undertake formal environmental review and monitoring … find these activities add substantial costs to their programs for managing timber resources." [9]

Disappearance of the Pipeline: – Pipeline volume represents advanced sale preparation for future years. For a period of time, as the national forest timber sales program became increasingly controversial, the Forest Service was able to maintain output levels and keep unit costs relatively low by drawing upon such volume. However, this cushion eventually disappeared. When this happened, the impact of various factors on timber program costs – e.g., administrative appeals and lawsuits – could no longer be avoided.

Shrinking Volume Under Contract: -- A key factor in determining the rate at which the "sale activity pool" of TSPIRS is written-off is the "volume under contract." Volume under contract represents the amount of national forest timber purchasers have acquired but not yet harvested. In recent years, volume under contract has been declining. This trend has caused an increasing proportion of the sale activity pool's balance to be expensed each year.

Some Closing Points

Because the national forest timber sales program now loses money, some stakeholder groups have argued that it should be halted. While few government programs operate at a profit (this is why we use tax revenues to support them), it is nonetheless appropriate to ask – does this recommendation make sense?

Data in this and prior TSPIRS reports indicate that national forest timber sales made primarily for commodity purposes are generally profitable. Of the total loss reported in FY 1998 – i.e., $125.9 million – almost 90 percent was due to stewardship purpose sales – i.e., sales undertaken mainly to achieve objectives such as improving forest health, reducing forest fuels, and creating desired habitat conditions for wildlife. Eliminating these unprofitable sales would not eliminate the need to address various stewardship objectives, it would only limit the ability of national forest managers to use timber sales as a tool for accomplishing them. Our experience suggests that oftentimes the end result would be higher,

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[9] Keegan, Charles E. III et al. 1996. "Timber Management Costs: A Comparison Among Major Landowners in Idaho and Montana." *Montana Business Quarterly* Vol. 34, no. 2: 9-14 (See p. 14).

not lower, net operating costs for national forest management.[10] This outcome is explained by the fact that the alternatives to timber sales – e.g., prescribed burning, use of chemical herbicides and pesticides, and various mechanical treatments such as cut-&-leave – typically do not generate any revenue to help offset their costs of application.

The FY 1997 TSPIRS Report mentioned several other points that should be kept in mind when attempting to assess the wisdom of proposals to eliminate "below cost" timber sales. Very briefly, these were as follows:

- **The National Forests Have a Different Mandate than a Private Timber Growing Business: --** The forest management program on the national forests is not run like a private timber growing business. Significant differences exist in terms of such things as the longer growing periods (i.e., rotations) and higher timber stocking levels commonly employed; the greater emphasis placed on natural and uneven-aged management as opposed to plantation and even-aged management; the greater emphasis placed on the non-timber benefits obtainable from forest lands; the greater emphasis placed on thoroughly analyzing all the potential environmental effects of proposed timber sale projects; and the more open administrative processes and procedures that are employed. Abandoning these differences would likely improve the profitability of national forest timber sales, but in all likelihood would also belie the multiple-use mission of the Forest Service.

- **Timber Sales Provide Many Benefits Beyond the Revenues Earned --** Returns to the U.S. Treasury are only one of the benefits derived from national forest timber sales. Other important benefits documented by TSPIRS include the employment opportunities that are generated, the additional income that accrues to individuals and businesses, the incremental tax receipts that various levels of government receive, and the receipt-share payments that go to benefit local schools and roads. In a somewhat different vein, as the case studies highlighted in this report demonstrate, timber sales can also improve forest health, create desired habitat conditions for certain species of wildlife, address safety concerns in and around National Forest campgrounds, and even help protect the integrity of historically significant earthworks. The economic account of TSPIRS, to the extent that it has been able to express these various resource effects in monetary terms, suggests their present net value is positive.

- **National Forest Timber is Sold at Fair Market Value --** Existing regulations mandate adherence to several practices designed to ensure the public is justly compensated whenever national forest timber is sold. First, timber must be appraised before being offered for sale – and the objective of this appraisal is to estimate fair market value.[11] Secondly, timber cannot be sold for less than appraised value.[12]

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[10] See: Reyna, Nick and Prausa, Rick. 1994. *Evaluating the Use of Timber Harvest on 19 National Forests: An Exploratory Study of Below-Cost Timber Sale Issues and Changing Management Conditions*. USDA Forest Service. Washington, DC. 16p.
[11] 36 CFR 223.60
[12] 36 CFR 223.61

Lastly, timber sale contracts are normally to be awarded competitively to the prospective purchaser offering the highest bid.[13] Despite these requirements, sometimes national forest timber is sold for less than the government's full costs of sale preparation and administration. When this occurs, the benefit is to the government itself, not the forest products industries. National forest timber sales tend to be relatively expensive to prepare because of the costs associated with such things as providing for public involvement and conducting comprehensive environmental analyses. At the same time, the Forest Service has no choice but to sell its timber in open markets where most purchasers have a choice of buying either public or private stumpage. If the agency sought to price its timber high enough to consistently cover its full costs, in many instances it will only succeed in pricing itself out of the market and compromising its ability to use timber sales as a management tool.

The issues surrounding management of our national forests are complex. While the Forest Service is committed to implementing the will of the people as concerns management of these lands, it also wants to ensure that public opinions are formed on the basis of balanced knowledge and understanding.

[13] 36 CFR 223.100