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# ACCOMPLISHMENTS OF THE FY 1998 FOREST MANAGEMENT PROGRAM

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This section of the report documents FY 1998 accomplishments of the forest management program. The information is presented in four parts:

- 1) Volume Accomplishments – This section displays the volume of timber that was offered, sold, and harvested, both in total and by program component.
- 2) Stewardship Harvesting Accomplishments – This section describes the various resource management benefits that were achieved through stewardship harvesting, both in volume and acreage terms.
- 3) Other Direct Program Accomplishments – This section provides information about a broad array of forest management program outputs other than the volume of timber produced – e.g., acres regenerated, and acres of timber stand improvement treatments.
- 4) Indirect Program Accomplishments – This section documents various non-timber resource management accomplishments that were achieved using funds collected from timber purchasers.

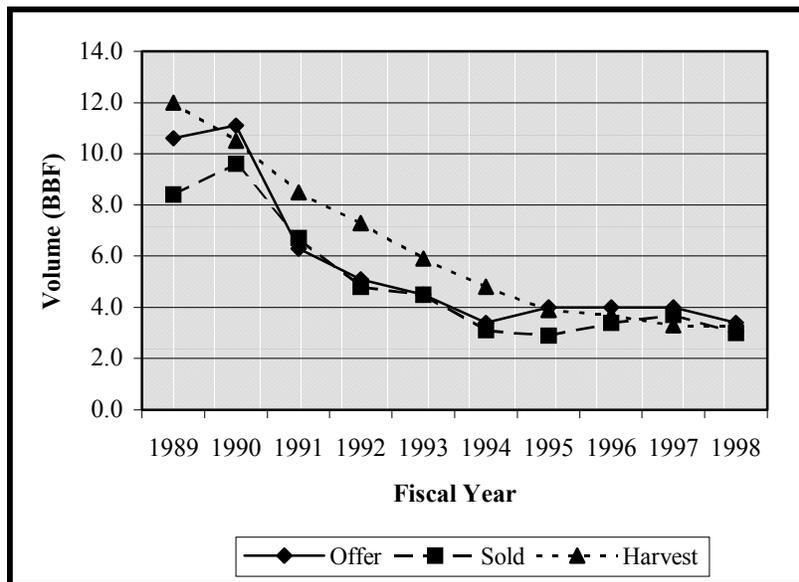
The chapter's focus is on examining national level data, but some regional-level figures are presented. More detailed information about the accomplishments of specific regions and forests is contained in Appendix A.

## Volume Accomplishments

During FY 1998, 3.42 BBF (billion board feet) of national forest timber was offered for sale, 2.96 BBF was sold, and 3.30 BBF was harvested. (Table 1) By comparison to FY 1997, the volume harvested was essentially constant while both the volume offered and the volume sold declined. The decline in offer volume was roughly .60 BBF, which represents the first notable change in this indicator in 3 years. Prior to this drop it appeared that the size of the national forest timber sales program was stabilizing at an annual output level of around 4.0 BBF. (Figure 6)

**Table (1)** – Volume of National Forest Timber Offered, Sold, and Harvested in FY 1998.

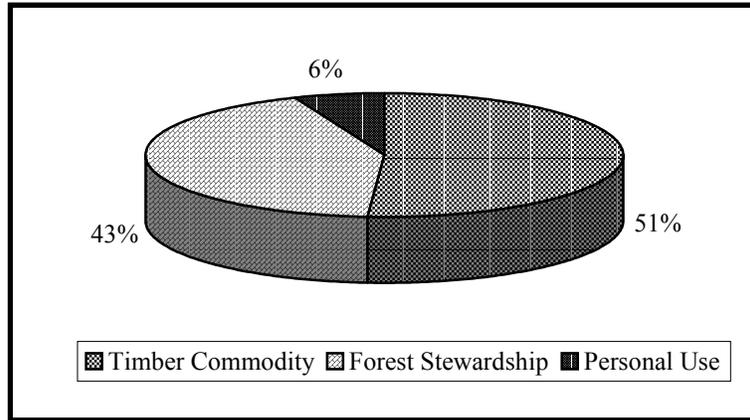
| Accomplishment Measure                 | Level<br>(MMBF) |
|--|-----------------|
| Timber Offered for Sale                | 3,415           |
| Timber Sold and Awarded                | 2,955           |
| Timber Harvested                       |                 |
| Sawtimber                              | 1,944           |
| Roundwood                              | 804             |
| Firewood (commercial and personal use) | 225             |
| Other                                  | 311             |
| Total                                  | 3,284           |



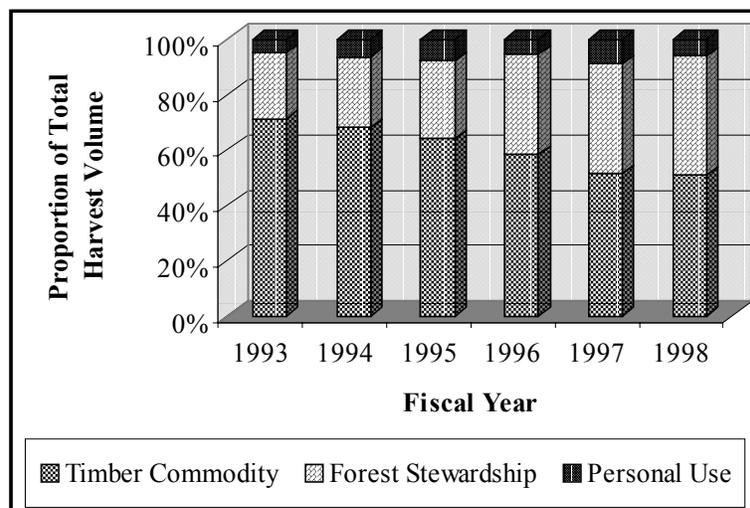
**Figure (6)** - Trend in the Volume of National Forest Timber Being Offered, Sold, and Harvested.

Of the total volume harvested during FY 1998, 51 percent (1.68 BBF) was for timber commodity purposes, 43 percent (1.41 BBF) for forest stewardship purposes, and 6 percent (.20 BBF) for personal use purposes. (Figure 7) This perpetuates the ongoing

shift from timber commodity to forest stewardship purpose sales, but suggests that the rate of change may be slowing. The size of the personal use sales program dropped slightly in FY 1998, but in general has remained relatively stable over time. (Figure 8)



**Figure (7)** - Proportion of FY 1998 Harvest Volume Associated with Different Harvest Objectives.



**Figure (8)** – Trend in Size of Various Timber Sale Program Components.

## Stewardship Harvesting Accomplishments

As noted in last year's report, stewardship purpose sales are made for a variety of reasons. For reporting purposes, these are defined as follows:

- **Forest Ecosystem Health** -- Includes projects, or parts of projects, the primary objective of which is any of the following: (1) promoting long-term forest ecosystem health through forest pest and fuels management; (2) preventing resource losses and ecosystem damage from catastrophic events, such as fire and windstorms; (3) keeping forest ecosystems within their historic range of variability; or (4) reducing reforestation and site rehabilitation costs after catastrophic events.
- **Recreation/Visual/Cultural Resource Enhancement** -- Includes projects, or parts of projects, the primary object of which is any of the following: (1) removal of hazard trees around recreation or cultural resource areas; (2) opening desired vistas; or (3) regenerating specific species (e.g., aspen) to create landscape variety.
- **Wildlife Habitat Management** -- Includes projects, or parts of projects, the primary object of which is to create and/or perpetuate habitat conditions favorable to certain species of wildlife. Illustrative would be a project that seeks to stimulate mast production by controlling competition in oak stands.
- **Fisheries Habitat Management and Watershed Improvement** -- Includes projects, or parts of projects, the primary object of which is either of the following: (1) creating and/or perpetuating desirable fisheries habitat; or (2) managing watersheds to attain specific objectives such as increased soil stability, higher water quality, or improved control over water yields. Illustrative would be a project that uses vegetative manipulation to influence rates of snow melt.
- **Threatened & Endangered Species Habitat Management** -- Includes projects, or parts of projects, the primary object of which is to create and/or maintain suitable habitat for threatened or endangered species. Illustrative would be projects undertaken to create and/or preserve vegetative patterns conducive to late successional or riparian species like the northern goshawk or Pacific fisher.
- **Range Resource Enhancement** -- Includes projects, or parts of projects, the primary object of which is to improve the range resource for use by domestic livestock. Illustrative would be a project that creates openings improving the production of forage for cattle.
- **Non-Timber Products** -- Includes projects, or parts of projects, the primary object of which is implement a stewardship objective through the commercial sale of non-timber products like posts, poles, firewood, and Christmas trees.

- **Other** -- Includes projects, or parts of projects, the primary object of which is to implement a stewardship objective that cannot be classified into any of the other stewardship purpose categories. Illustrative would be a project intended to clear right-of-way for a general purpose forest administration road.

In FY 1998, the volume of timber harvested for each of the preceding purposes was as shown in table (2). As indicated, the most important reasons for undertaking stewardship sales were:

Forest Ecosystem Health - Accounted for about 77 percent of total volume harvested.

Wildlife Habitat Management – Accounted for approximately 10 percent of total volume harvested.

T&E Species Habitat Management - Accounted for nearly 6 percent of total volume harvested.

**Table (2)** -- Volume Harvested in Connection with Various Stewardship Purpose Goals, FY 1998.

| Stewardship Purpose Goal                      | Harvest Volume (MMBF) | Proportion of Total (percent) |
|---|-----------------------|-------------------------------|
| Forest Ecosystem Health                       | 1,085.7               | 76.9                          |
| Recreation/Visual/Cult. Resource Enhancement  | 40.4                  | 2.9                           |
| Wildlife Habitat Management                   | 137.7                 | 9.8                           |
| Fisheries Habitat Mgmt./Watershed Improvement | 4.9                   | .3                            |
| T&E Species Habitat Management                | 81.5                  | 5.8                           |
| Range Resource Enhancement                    | 1.0                   | .1                            |
| Non-Timber Products                           | 18.2                  | 1.3                           |
| Other   | 41.6                  | 2.9                           |
| Totals  | 1,411                 | 100.0                         |

In attempting to evaluate how stewardship sales are contributing to the attainment of various resource management goals, it would be useful to know not only the volume that was harvested in connection with each goal – but also the number of acres that were treated. While information of this latter type is not tracked directly by TSPIRS or our Timber Sale Accounting (TSA) system, it can be estimated using data as to: (1) the number of acres that were cut in a given year; and (2) the total volume that was harvested from these acres. Dividing the total harvest volume by the number of acres cut yields an average volume removed per acre. If total volume harvested for a particular purpose is

than divided by the average volume removed per acre, the quotient provides an estimate of the number of acres treated. This has been done in Table (3).

**Table (3) – Acres Treated in Connection with Various Stewardship Purpose Goals, FY 1998.**

| Stewardship Purpose Goal                      | Acres Treated |
|---|---------------|
|   | (M acres)     |
| Forest Ecosystem Health                       | 190.8         |
| Recreation/Visual/Cult. Resource Enhancement  | 6.6           |
| Wildlife Habitat Management                   | 22.0          |
| Fisheries Habitat Mgmt./Watershed Improvement | .8            |
| T&E Species Habitat Management                | 15.7          |
| Range Resource Enhancement                    | .1            |
| Non-Timber Products                           | 3.1           |
| Other   | 6.8           |
| Totals  | 245.9         |

This table tells essentially the same story as the one displaying harvest volumes, but it reports accomplishments in a way that may be more relevant for stewardship purpose sales – i.e., acres treated. As the table shows, the most important reasons for engaging in stewardship sales were:

Forest Ecosystem Health – An estimated 190,800 acres were treated for this purpose.

Wildlife Habitat Management – An estimated 22,000 acres were treated for this purpose.

T&E Species Habitat Management – An estimated 15,700 acres were treated for this purpose.

## Other Direct Program Accomplishments

Other direct accomplishments of the forest management program during FY 1998 were as shown in Table (4). Each of these accomplishments is briefly discussed below.

**Acres Harvested:** - In FY 1998, harvesting operations were conducted on 524,785 acres of national forest land. (See table 4) This includes areas harvested using various partial cutting systems that remove relatively few trees per acre. The acreage impacted

represents about 1 percent of the 49.4 million acres of national forest land currently designated as being “suitable” for timber production. During the year, clearcutting was employed on 49,560 acres, and selection harvesting on 52,450 acres.

The total number of acres being harvested rose somewhat during each of the last two years (i.e., FY 1997 and FY 1998), but over the last several years the trend in total harvesting has been distinctly downward. (See Figure 9) The most dramatic reduction has occurred in the use of clearcutting. Application of this silvicultural system has dropped from 31 percent of total harvest acres in FY 1989 to only 10 percent in FY 1998. (See Figure 9)

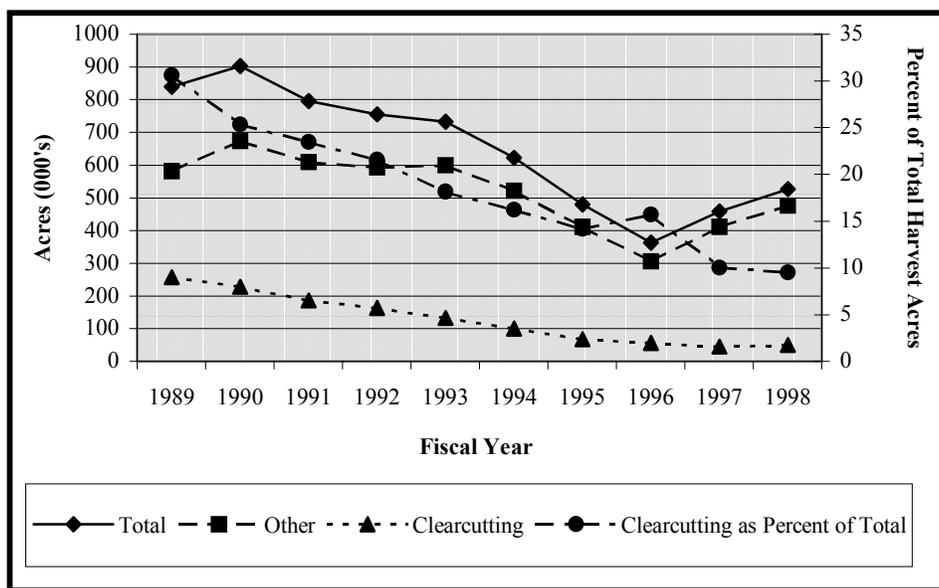
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**Table (4)** – Selected Direct Accomplishments of the Forest Management Program in FY 1998.

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| Accomplishment Measure                            | Level      |
|---|------------|
| <b>Timber Information</b>                         |            |
| Total Area Harvested, Including Thinnings (acres) | 524,785    |
| Free Use Firewood Provided (MMBF)                 | 15.67      |
| Non-Convertible Forest Products Removed           |            |
| Christmas Trees (number of trees)                 | 216,467    |
| Value of All Products (thousands of dollars)      | 2,978      |
| Families Assisted (number)                        | 145,077    |
| Regeneration Treatments (acres)                   | 292,902    |
| Timber Stand Improvement Treatments (acres)       | 300,202    |
| Seedlings Produced (number of seedlings)          | 66,000,000 |
| Seed Produced (pounds)                            | 12,000     |
| <b>Forest Road Information</b>                    |            |
| Road Construction (miles)                         |            |
| Appropriated Construction                         | 33.3       |
| Purchaser Credit Construction                     | 188.0      |
| Total Construction                                | 221.3      |
| Road Reconstruction (miles)                       |            |
| Appropriated Reconstruction                       | 302.8      |
| Purchaser Credit Reconstruction                   | 2,254.6    |
| Total Reconstruction                              | 2,557.4    |
| Road Decommissioning (miles)                      | 2,098      |

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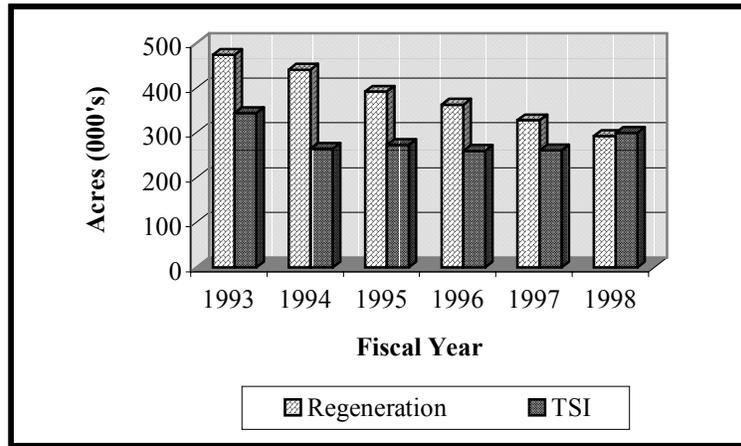


**Figure (9)** – Trend in Number of Acres Harvested Using Clearcutting as Opposed to Other Harvest Methods.

**Acres Regenerated and Improved:** - A total of 292,902 acres were regenerated in FY 1998, and 300,202 acres received some type of timber stand improvement (TSI) treatment. (See Table 4) Regeneration activities, such as spreading seeds and planting seedlings, are intended to reestablish stands of trees following harvest. Timber stand improvement activities, such as thinning and pruning, are intended to increase growth and improve the quality of residual trees.

The number of acres regenerated declined slightly between FY 1997 and FY 1998, thereby continuing a downward trend extending back several years. (See Figure 10) The acreage receiving some type of TSI treatment increased in FY 1998 after having been relatively stable for several years. (See Figure 10)

**Free Use Firewood:** - In FY 1998, approximately 16 MMBF of “free use” firewood was provided from the national forests. (See Table 4) Free use firewood, as its name implies, is firewood that is given away without charge to individuals for their personal use. Firewood is provided at no charge only when it has been determined that this action is in the Federal Government’s best interest. To illustrate, there may be a pocket of insect- or disease-infested timber on a remote section of some national forest that is too small to justify making a salvage sale – and yet managers want to remove the material before the infection spreads. In this case, making the wood available without charge provides an incentive for people to carry it away at little direct cost to the government.

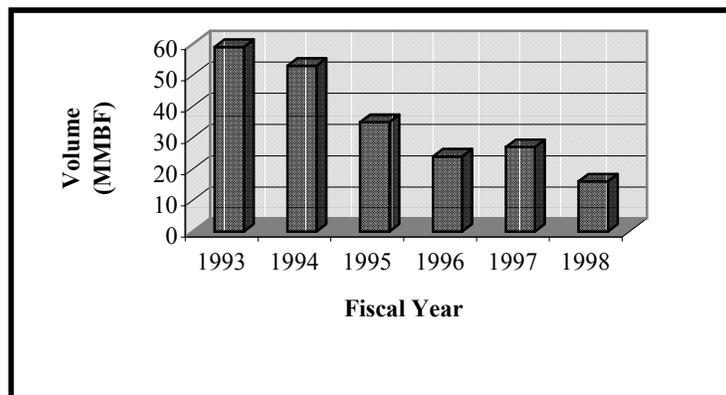



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**Figure (10)** – Trend in Number of Acres Being Impacted by Regeneration and TSI Activities.

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The volume of free use firewood being provided off the national forests dropped between FY 1997 and 1998 – from roughly 27 to 16 MMBF. This decline is consistent with what has been the general trend in the output of this product for the last several years. (See Figure 11)



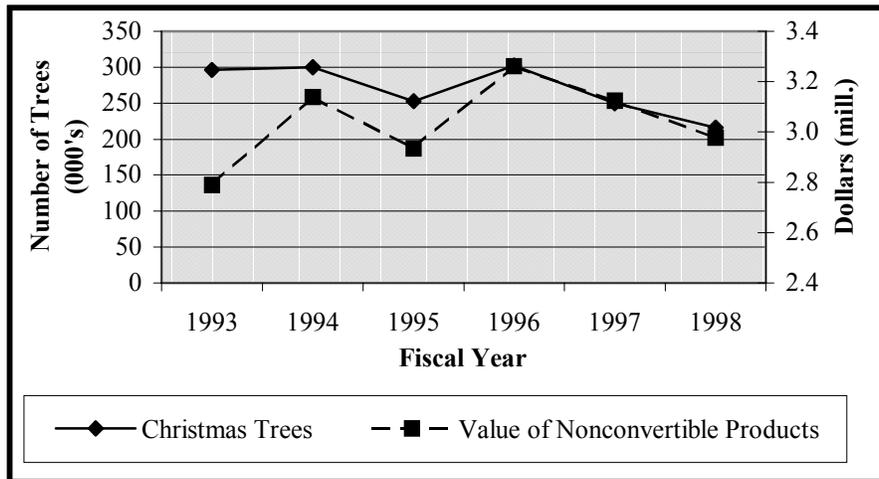

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**Figure (11)** -- Trend in the Amount of Free Use Firewood Being Provided from National Forest Lands.

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**Christmas Trees and Other Non-Convertible Products:** - In FY 1998, a total of 216,467 Christmas trees were provided from the national forests. The value of all “non-convertible” products sold – including Christmas trees, firewood, boughs, cones, nuts, mushrooms, and various other special forest products – was approximately \$3.0 million. (See Table 4)<sup>1</sup>

The number of Christmas trees provided in FY 1998 was down as compared to FY 1997. Over the last several years, the output of this product has fluctuated between 200 and 300 thousand trees, but for the last few years the trend has been consistently downward. (See Figure 12) The value of all non-convertible products being sold was also down in FY 1998 as compared to FY 1997. This value has fluctuated over time, tending to follow the same pattern as the number of Christmas trees being sold. (See Figure 12) This relationship is to be expected since Christmas trees account for a major part of the total value of all non-convertible products.



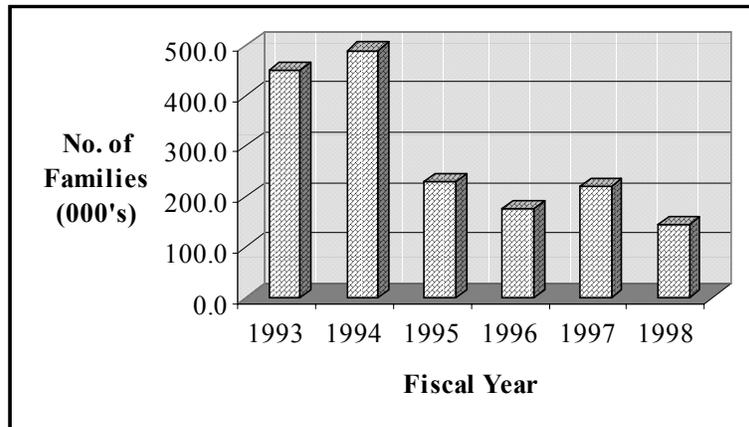
**Figure (12)** – Trend in Number of Christmas Trees and Value of Other Nonconvertible Products Being Provided from National Forest lands

**Families Assisted through Personal Use Sales:** - The Forest Service’s personal use sales program provides small quantities of fuelwood, posts, and other miscellaneous forest products to individuals for their own consumption. The program’s roots trace back to the origins of the national forests. It is perpetuated today not to produce a profit, but

<sup>1</sup> As one might expect, non-convertible products are those products whose outputs cannot be readily expressed in terms of volume – i.e., in terms of board feet or cubic feet. Starting in FY 1998 the agency has made a concerted effort to improve its reporting of such outputs. Specifically, its Annual Cut & Sold Report has been expanded to recognize outputs of the following special forest products: bee trees, transplants, limbs/boughs, foliage, cones-green, cones-dry, seed, nuts/seed, fruits/berries, tree sap, roots, mushrooms, fungi, mosses, herbs, ferns, wildflowers, grass, aquatic plants, and other plants.

because it is needed to help clean-up dead and dying trees and is considered part of being a “good neighbor.”

In FY 1998, an estimated 145,077 families were helped through personal use sales.<sup>2</sup> (See Table 4) The number of families helped has been relatively stable over the last four years, but is down substantially from the early 1990’s. (See figure 13)



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**Figure (13)** – Trend in the Number of Families Assisted Through Personal Use Sales.

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**Seedling Production:** - In FY 1998, Forest Service nurseries, considering both bareroot and container stock, produced approximately 66 million seedlings – up about 19 percent from FY 1997.<sup>3</sup> This represents a modest departure from the sharp declines that have been experienced in recent years as a result of such factors as reduced timber harvests, shifting emphasis towards intermediate treatments, and increased reliance on natural regeneration as a means of achieving reforestation objectives. The changes that have been occurring in the Forest Service’s forest management program over the last several years prompted the agency, in FY 1995, to conduct a review of its nursery operations. The results of this review led the Chief to call for closure of three nurseries by the end of FY 2000. All present all three of the targeted nurseries have been closed, as has another unit in Region 8 (Southern). These closures have left the agency with six functioning nursery facilities.

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<sup>2</sup> The number of families assisted is estimated from knowledge of: 1) the number of sales made for under \$300, and 2) the volume of free use firewood provided.

<sup>3</sup> USDA Forest Service; 1999; *Reforestation and Timber Stand Improvement Report: National Summary for FY 1998*; Reports 2400-D and 2400-M; 45p.

**Seed Production:** - In FY 1998, Forest Service seed extractories produced a total of around 12,000 pounds of seed – up slightly from FY 1997 when 11,100 pounds of seed were generated.<sup>4</sup> Seed production levels can vary widely from year-to-year, depending upon the unique characteristics of individual plant species and the periodicity of good seed crops in each species.

**Road Construction/Reconstruction:** - In FY 1998, 221 miles of new timber-related roads were constructed and 2,557 miles of existing timber-related roads were reconstructed (See Table 4). In terms of financing, the bulk of this construction and reconstruction activity was accomplished using purchaser credits. Indeed, approximately 85 percent of all new construction, and just over 88 percent of all reconstruction, was financed in this manner. As part of the President’s FY 1998 Budget Request, the Administration proposed phasing-out the use of purchaser road credits. Congress subsequently concurred with this request, and as a consequence, starting in FY 1999, purchaser credits will no longer be used. However, since purchasers with unused credits will be allowed to redeem them, some level of road construction and reconstruction work will continue to be financed in this way – at least for a short period of time.

As Figure (14) shows, construction of new timber-related roads has been steadily declining for several years; but reconstruction of existing roads has varied over time. Periodic reconstruction is important in terms of providing safe access for timber harvesting and other activities and also as a means of helping to prevent some of the environmental problems that can materialize if roads are allowed to deteriorate – e.g., accelerated erosion and an increased risk of mudslides.

To help put the amount of road construction and reconstruction into perspective, it is interesting to note that 2,098 miles of national forest system roads were decommissioned in FY 1998. Decommissioning entails removing a classified road from the system, or taking action to eliminate the use of an unclassified road. In some instances, decommissioning only necessitates treating the entrance to a road so as to exclude traffic. Over time vegetation will reclaim the area and the road will become unusable. In other cases, decommissioning may involve ripping the roadbed, removing drainage structures, reestablishing natural drainage patterns, and seeding. When activities of the latter type are performed, the road is said to be obliterated.

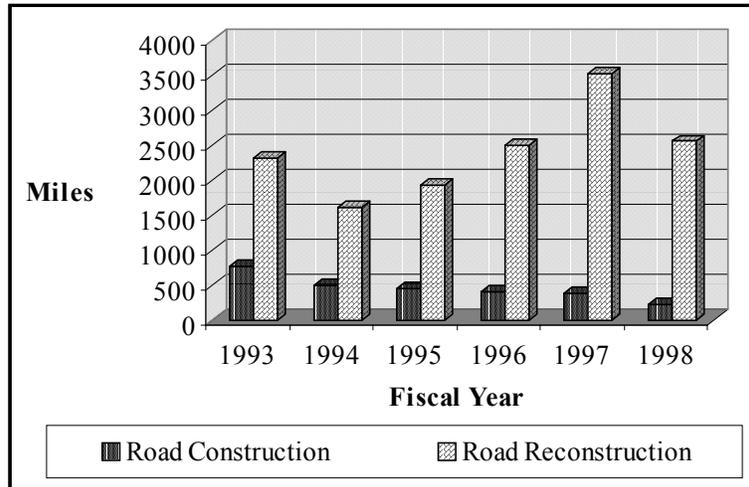
## Indirect Program Accomplishments

In FY 1998, a variety of other resource management accomplishments were indirectly attributable to the agency’s forest management program in that they were funded using

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<sup>4</sup> USDA Forest Service; 1999; *Reforestation and Timber Stand Improvement Report: National Summary for FY 1998*; Reports 2400-D and 2400-M; 45p.

either Knutson-Vandenberg (K-V) or Brush Disposal (BD) funds collected from timber purchasers.




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**Figure (14)** - Trend in the Mileage of Timber-Related Roads Being Constructed or Reconstructed Annually

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The collection of K-V funds is authorized by the Knutson-Vandenberg Act of 1930 (PL 71-319). Originally these funds were intended to be used to reforest cutover lands, but in 1976 the National Forest Management Act (PL 94-588) provided that they could also be used for “protecting and improving the future productivity of the renewable resources” on sale areas, including “sale area improvement operations, maintenance and construction, reforestation, and wildlife habitat management.”

The collection of BD funds is authorized by the Brush Disposal Act of 1916 (PL 64-190). BD funds can be used to cover the costs of doing actual brush disposal work, to rent or purchase equipment needed for brush disposal purposes, to do supplemental fire protection in lieu of actual disposal, and to fight fires that result from brush disposal activities.

In FY 1998, important resource management accomplishments funded through the preceding mechanisms included the following:<sup>5</sup>

- **Wildlife and Fish:**

Acres of TES terrestrial habitat restored or enhanced = 25,434

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<sup>5</sup> The figures presented here were taken from the *Report of the Forest Service for FY 1998* (Appendix table 7), or were provided by the Budget Coordinators for the relevant program staffs.

Number of TES habitat improvement structures built = 957

- **Range:**

Acres of range non-structural improvements = 8,641

Number of range structural improvement structures built = 169

Acres of rangeland monitored and evaluated = 10,339

Acres of noxious weed treatment = 36,502

- **Soil and Water:**

Acres of resource improvements = 18,153

- **Recreation:**

Miles of trail construction or reconstruction = 17

- **Fuels Management:**

Acres treated = 116,252

In recent years, the various timber trust funds have become highly controversial. There have been concerns that these funds, by providing a mechanism for financing certain Forest Service activities outside the normal appropriations process, provide an incentive for the agency to harvest more national forest trees. Partly in response to these concerns, the Administration, in the President's Budget Request for FY 2001, proposed eliminating four of the existing trust fund accounts – i.e., the Knutson-Vandenberg, Salvage Sale, Reforestation, and Timber Sale Pipeline Restoration funds. Under the proposal, the timber sale revenues that currently go into these various special accounts would be returned to the General Fund of the U.S. Treasury. To help ensure that needed ecosystem restoration and maintenance activities are still addressed, and to provide enhanced employment opportunities for rural workers, a permanent annual appropriation of \$300 million would be provided to the Forest Service. These funds would be targeted to high priority projects around the nation, or to areas where rural jobs are needed.