

An hourglass-shaped graphic with a globe inside. The top bulb is dark blue, and the bottom bulb is light blue. The globe is a darker shade of blue. The hourglass is centered on the page.

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*Stewardship Contracting for Federal Forests*

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**Abstract.** Many forests, especially the national forests, are widely thought to have unnaturally high amounts of dead and dying trees, dense undergrowth, and dense stands of small trees. This biomass can exacerbate insect and disease infestations and wildfire threats. Because much of this biomass has little or no commercial value, some have proposed stewardship contracting to reduce these threats. This report discusses the advantages and limitations of two approaches that have been suggested.

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# CRS Report for Congress

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## Stewardship Contracting for Federal Forests

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### Summary

Many forests, especially the national forests, are widely thought to have unnaturally high amounts of dead and dying trees, dense undergrowth, and dense stands of small trees. This biomass can exacerbate insect and disease infestations and wildfire threats. Because much of this biomass has little or no commercial value, some have proposed stewardship contracting to reduce these threats. Two approaches have been suggested: traditional service procurement contracts and contracts that include exchanging goods (timber) for stewardship services. Congress authorized goods-for-services contracting through FY2013 by amending a previous pilot program in the FY2003 Omnibus Appropriations law. This report discusses the advantages and limitations of each of these approaches. It provides background on the issue and is unlikely to be updated.

Most U.S. forests are in better condition than they were a century ago; however, many forest ecosystems, especially the national forests in the intermountain west, are widely thought to be in poor health.<sup>1</sup> Interest groups disagree over what constitutes a healthy forest, what has caused the current problems, and what the solutions should be. Nonetheless, most accept that high biomass accumulations — dead and dying trees, dense undergrowth, and dense stands of small trees — can contribute to catastrophic wildfires, pest problems, and lower biological diversity.

The nature and severity of these accumulations vary, depending on the ecosystems and past management of the sites. In some forests (*e.g.*, spruce-fir and lodgepole pine), the problem may be widespread dead trees due to drought and/or insects and diseases. In others (*e.g.*, southern pines and western mixed conifers), the problem may be dense undergrowth of different species (palmetto in the south, firs in the west). In still others (*e.g.*, Ponderosa pine), the problem may be stand stagnation — too many small trees that are growing very slowly. In all these cases, biomass is accumulating to historically unprecedented levels, but the nature and level of “excess” biomass differs.

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<sup>1</sup> For more information, see CRS Report RS20822, *Forest Ecosystem Health: An Overview*.

The problem can best be seen and may be most ecologically threatening in forest ecosystems that evolved with frequent surface fires which burned grass, pine needles, and other small fuels every 5 to 35 years (*e.g.*, southern pines and Ponderosa pine), depending on the site and plant species. These ecosystems are adapted to the frequent surface fires, where most large trees survive; however, unnaturally high biomass levels can lead to stand replacement fires, where most trees are killed. In addition, small trees and dense undergrowth can create “fuel ladders” that can carry surface fires upward into the forest canopy, changing them to uncontrollable stand replacement fires. Such fires are thought to have been rare in these forests before the 20<sup>th</sup> Century.

Considerable interest has been expressed in improving the health of forests, especially the national forests.<sup>2</sup> Salvage and other timber harvesting is often identified as a means of reducing biomass and thereby improving forest health. However, a substantial portion of the biomass that many believe should be removed<sup>3</sup> is not of commercial value — the small diameters and low quality effectively prevent using the material profitably for producing lumber, paper, or energy. For addressing the problem in federal forests, many have suggested stewardship contracting as a way to provide local jobs while improving forest health by cutting and removing or burning the excess biomass. Two basic approaches have been suggested: (1) continuing the current approach of contracting to procure services and (2) contracting to exchange goods for services.

## Traditional Contracting to Procure Services

Procurement contracts are used by federal agencies to perform a wide variety of tasks, and could be used for many forest stewardship services. Typically, a contract proposal identifies the tasks to be performed: the unmerchantable trees or underbrush to be cut and the treatment of the cut (and possibly additional) materials — left as is, piled and burned, lopped and scattered to accelerate rotting or for prescribed burning, or even removed from the site. It is also possible, though not commonly used, to specify the desired resulting condition of the area to be treated, rather than specifying the tasks to be performed. Currently, federal agencies award contracts to the lowest bidder; however, Congress could specify other factors to consider — for example, local employment or quality of a bidder’s past performance — in directing or further authorizing procurement contracting for stewardship services.

In addition, some have suggested that any commercially valuable material could be collected under a procurement contract and sold separately, at least by the Forest Service.<sup>4</sup> This approach, commonly known as log sales, is common in Europe and has been discussed sporadically for the national forests for at least 40 years. The authorization for Forest Service timber sales also permits log sales, but the agency has not used this authority extensively.

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<sup>2</sup> Federal programs also exist to provide technical and financial assistance for improving the stewardship of nonfederal forests; see CRS Report RL31065, *Forestry Assistance Programs*.

<sup>3</sup> Rick Brown, *Thinning, Fire and Forest Restoration: A Science-Based Approach for National Forests in the Interior Northwest* (Lake Oswego, OR: Defenders of Wildlife, 2000).

<sup>4</sup> For more information, see CRS Report 95-1077 ENR, *Forest Service Timber Sale Practices and Procedures: Analysis of Alternative Systems*.

**Advantages of Traditional Procurement Contracting.** The principal advantage of using current contracting methods for forest stewardship is that it is the system the federal agencies currently use for procuring most services. It is a simple, straightforward approach, well-known to agency personnel and to the potential private contractors, and numerous private contractors exist to bid on such contract proposals.

Another advantage of using the current contracting system is the opportunity for congressional control and oversight. Annual budget justifications for forest stewardship, under the current structure or a new structure designed to enhance oversight of federal forest stewardship, could give Congress a way to assess the efficiency and effectiveness of agency efforts, while the appropriations for such efforts could be targeted to areas of greatest need.

**Limitations of Traditional Service Contracting.** One major limitation of using traditional service procurement contracting for federal forest stewardship is the potentially enormous federal expenditures on such a program. The Forest Service has identified 36 million federal acres of frequent-fire forest ecosystems, and 39 million federal acres of other forest ecosystems, as having a high risk of significant ecological damage from catastrophic wildfires due to accumulations of excess biomass.<sup>5</sup> With treatment costs averaging about \$300 per acre (ranging from \$100 to \$1,000),<sup>6</sup> treating these 75 million acres could cost more than \$20 billion — possibly less but also possibly substantially more. If the lands at moderate risk of ecological damage from catastrophic wildfires — another 90 million federal acres of frequent-fire forest ecosystems and 66 million federal acres of other forest ecosystems — are also to be treated, the total cost for all 231 million federal acres could be around \$70 billion.

Suggested modifications to traditional service procurement contracting for forest stewardship could also hamper efforts at improving federal forest health. Using resulting desired conditions (instead of tasks to be performed) would probably best improve forest stewardship, because it would focus on what's left on the site, rather than on the activities performed or on the biomass (wood) removed from the site. However, no standardized measures of desired forest conditions for contracting (or for reporting on agency stewardship efforts) have been developed, making this approach difficult to implement. In addition, proponents advocate separate log sales for any commercially valuable wood to be removed. However, log values often depend on how the log is cut (log lengths and locations of major knots); the independence of the service contractors from the potential log purchasers would be difficult to assure, but important to avoid possible conflicts-of-interest; and the agency has little experience with log sales. Thus, traditional service procurement contracting has limitations for improving federal forest health.

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<sup>5</sup> Kirsten M. Schmidt, James P. Menakis, Colin C. Hardy, Wendel J. Hann, and David L. Bunnell, *Development of Coarse-Scale Spatial Data for Wildland Fire and Fuel Management*, Gen. Tech. Rept. RMRS-87 (Fort Collins, CO: USDA Forest Service, April 2002), pp. 14-15.

<sup>6</sup> U.S. General Accounting Office, *Western National Forests: A Cohesive Strategy is Needed to Address Catastrophic Wildfire Threats*, GAO/RCED-99-65 (Washington, DC: April 1999).

## Goods-For-Services Contracting

Most observers believe that, to improve forest health, it is necessary to combine various activities (*e.g.*, salvage sales with mixed-species planting, or prescribed burning after precommercial thinning).<sup>7</sup> Because of this need and the high cost of many activities, some have proposed a different approach to contracting for forest stewardship: trading goods (commercially valuable timber) for services (other activities in the same area). Called land management service contracts, stewardship contracts, end-results contracts, and other terms, these goods-for-services contracts are essentially highly modified timber sales, where timber purchasers are required to perform other, typically related, services (*e.g.*, precommercial thinning or watershed restoration), and in return pay less for the timber harvested.

Various federal laws prohibit federal agencies from retaining and using the receipts from selling assets (*e.g.*, from timber sales) without congressional authorization. A few pilot tests of goods-for-services contracts were authorized in the FY1992 and FY1993 Interior Appropriations Acts (P.L. 102-154 and P.L. 102-381, respectively).

In 1998, Congress established a broader test of goods-for-services contracting. Section 347 of the FY1999 Interior Appropriations Act (P.L. 105-277) authorized 28 “stewardship end result contracting demonstration projects” with substantial direction on the locations and procedures to be followed. Another 28 projects were authorized in the FY2001 Interior Appropriations Act (P.L. 106-291), and 28 more in the FY2002 Interior Appropriations Act (P.L. 107-63).

Goods-for-services stewardship contracting was considered in the 2002 Farm Bill. The House-passed version of H.R. 2646 would have authorized goods-for-services contracting for the Forest Service through FY2007, without limits on numbers of such contracts (although limited by appropriations), but otherwise consistent with §347 of the FY1999 Interior Appropriations Act. The Senate-passed version would have authorized 28 contracts consistent with §347 (through FY2006), but would have required that 14 of those contracts be traditional service contracts with separate log sales, and would have required reports comparing the two approaches. The differences could not be resolved, and the final bill (P.L. 107-171) included no provision on goods-for-services contracting.

Following the severe 2002 fire season, President Bush proposed goods-for-services stewardship contracting as a way to reduce forest fuels in his Healthy Forests Initiative.<sup>8</sup> The Senate debated stewardship contracting as part of wildfire management funding in the FY2003 Interior Appropriations Act (H.R. 5093). The protracted debate over this and other provisions to enact much of the Healthy Forests Initiative eventually forestalled action on the bill, and Interior appropriations were contained in continuing resolutions without such provisions. Finally, Interior appropriations for FY2003 were enacted as Division F of P.L. 108-7, the Consolidated Appropriations Resolution. Section 323 amended §347 of the FY1999 Interior Appropriations Act in several ways:

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<sup>7</sup> See CRS Report RS20822, *Forest Ecosystem Health: An Overview*, pp. 3-5.

<sup>8</sup> Executive Office of the President, *Healthy Forests: An Initiative for Wildfire Prevention and Stronger Communities* (Washington, DC: Aug. 22, 2002).

- it authorized “stewardship end result contracting” through FY2013;
- it extended the program to BLM lands as well as to the national forests;
- it deleted “demonstration” from the provision;
- it modified one of the identified goals to remove “noncommercial” from cutting or other objectives; and
- it authorized the Secretaries of Agriculture and the Interior to select a contracting officer without constraints.<sup>9</sup>

The goods-for-services demonstration projects, and the general expectations of the approach, have been modified timber sales to allow the agencies to impose non-timber harvesting requirements on the purchasers. However, no provision in the statute directly specifies commercial timber sales and harvesting. Rather, the statute authorizes removing vegetation and applying the value of timber or other forest products removed to offset the cost of services received. It is not clear whether stewardship contracts could be used in areas where commercial timber harvesting is prohibited by statute or administrative decision.

**Advantages of Goods-For-Services Contracting.** One possible advantage of goods-for-services contracting is greater efficiency, and thus lower cost, in forest stewardship activities. The desired services may require some of the same equipment as timber harvesting and removal, and the same personnel might be used for both tasks. Relying on the same equipment and personnel for multiple tasks on a site seems likely to reduce the total cost of performing the tasks. Thus, one contractor and one contract for multiple, related tasks that encompass both sale of goods and performance of services might be more efficient than multiple, independent, traditional contracts for the tasks.

Some proponents also claim that goods-for-services contracting is beneficial because it is off-budget financing for forest stewardship. Concerns over the adequacy of appropriations for forest stewardship have led some to search for alternative funding mechanisms, and goods-for-services contracting is one approach that has been proposed. Essentially, the federal agencies would be able to buy stewardship services with timber assets, as part of modified timber sale contracts, instead of with appropriations.

**Limitations of Goods-For-Services Contracting.** One limitation of using goods-for-services contracts to improve forest stewardship may be higher contracting costs from combining several activities in one contract. One observer noted that the Forest Service procedures for the pilot tests of goods-for-services contracting were a complicated combination of traditional service contracting with standard timber sale contracting: “The result is an extremely cumbersome process which requires more up-front effort than if the activities were done separately”<sup>10</sup> — and thus higher costs than for

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<sup>9</sup> For the Forest Service, under §14(g) of the National Forest Management Act of 1976 (NFMA; P.L. 94-588, 16 U.S.C. §472a(g)), designating and supervising timber sale contracts must be done by persons employed by the Secretary, who “shall have no personal interest in the purchase or harvest ... and shall not be directly or indirectly in the employment of the purchaser ....”

<sup>10</sup> George Leonard, “Review of National Forest Timber Sale Policies,” memorandum to Assistant Secretary Jim Lyons (Washington, DC: Dec. 20, 1993), in *Improving Administrative Flexibility and Efficiency in the National Forest Timber Sale Program*, background materials (Washington, (continued...))

two separate contracts. This critic also suggested that a longer-term authorization and simpler contracting procedures were needed to realize the benefits of goods-for-services contracting; the provision as enacted at least provides the longer-term authorization.

Another possible limitation is that, in bypassing the annual appropriations process, goods-for-services contracting is likely to receive less congressional oversight and control. Other congressionally authorized federal “off-budget” financing mechanisms (technically, permanent appropriations of receipts for specific purposes), such as the Forest Service’s Knutson-Vandenberg (KV) Fund and brush disposal funds, have received very little congressional oversight. The agencies might be able to use goods-for-services contracting for many years with little or no public participation in or congressional control over its use.

Some interests have questioned the appropriateness of goods-for-services contracting generally. Observers have noted that exchanging goods for services creates an incentive for managers to increase the sale of goods (timber) to generate value to provide services (e.g., precommercial thinning). In another context, the incentive to increase timber sales to generate value to provide services — mitigating and enhancing other resource values in timber sale areas under the KV Fund — has been described as “perverse incentives,” where managers support an allegedly environmentally damaging activity (timber harvests) to generate funds to be used for environmental restoration, including to mitigate damage caused by generating the funds.<sup>11</sup> Exchanging timber for forest stewardship activities might create similar incentives, especially when the needed stewardship activities for wildfire protection involve cutting and removing non-commercial woody biomass on or near the ground (since timber harvesting exacerbates the wildfire threat in the short run by bringing combustible and quickly decaying material, such as tree limbs and tops, to ground level). In addition, dominant or exclusive use of goods-for-services contracts would emphasize stewardship on lands with commercial timber, and might limit the opportunities for stewardship on other federal forests that need treatment.

Finally, some observers have questioned whether a broad-scale, long-term program was appropriate. Two proponents have noted that the success of goods-for-services contracts has been difficult to evaluate.<sup>12</sup> Others have concluded that the goods-for-services pilot projects provide “an important experimental opportunity to test alternative contracting arrangements under ‘real world’ conditions.”<sup>13</sup> However, although there were tests in the early 1990s and in several recent years, the effectiveness and efficiency of goods-for-services stewardship contracting has not been evaluated in an independent audit.

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<sup>10</sup> (...continued)

DC: USDA Forest Service, Oct. 30-31, 1996), p. 29.

<sup>11</sup> Randal O’Toole, *Reforming the Forest Service* (Washington, DC: Island Press, 1988).

<sup>12</sup> Henry H. Carey and Theresa M. Duncan, *Development and Implementation of the Stewardship End Results Contracts*, unpublished paper (Santa Fe, NM: The Forest Trust, n.d.), 6 p.

<sup>13</sup> Pinchot Institute for Conservation, *Implementation of Multi-Party Monitoring/Evaluation: The USDA Forest Service Stewardship Contracting Pilot Projects – FY2000*, a report to the USDA Forest Service, Pursuant to the requirements of Subsection (g) of Section 347 of title III of Section 101(e) of division A of Public Law 105-277 (Washington, DC: January 2001), p. 24.