

CRS Report for Congress

Received through the CRS Web

Stewardship Contracting for the National Forests

Ross W. Gorte
Natural Resource Economist and Senior Policy Analyst
Resources, Science, and Industry Division

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 has debated authorizing these goods-for-services contracts for several years, but to date has only authorized several pilot tests. This report discusses the advantages and limitations of each of these approaches. It will be updated only if legislation is enacted to alter stewardship contracting authorities.

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.¹ 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 unnatural levels, but the nature and level of “excess” biomass differs.

¹ 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 25 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.

Considerable interest has been expressed in improving the stewardship of forests, especially the national forests.² Salvage and other timber harvesting is often identified as a means of reducing biomass in forests. However, a substantial portion of the biomass that many believe should be removed³ 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 the national forests, many have suggested stewardship contracting as a way to provide local jobs while improving national forest health by cutting and removing or burning the excess biomass. Two basic approaches have been suggested: continuing the current approach to procuring services and contracting to exchange goods for services.

Traditional Contracting to Procure Services

Procurement contracts are used by the Forest Service (and other 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, the Forest Service awards 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 by the Forest Service.⁴ 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.

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

³ 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).

⁴ 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 Forest Service currently uses 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 national 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 national forest stewardship is the potentially enormous federal expenditures on such a program. The Forest Service has identified 29 million acres of frequent-fire forest ecosystems, and 21 million acres of other forest ecosystems, as having a high risk of significant ecological damage from catastrophic wildfires due to accumulations of excess biomass.⁵ With treatment costs ranging from \$100 to \$1,000 per acre, treating these 50 million acres could cost \$5–\$50 billion in total. The General Accounting Office estimated treatment costs at more than \$12 billion over 16 years (\$725 million annually) for an earlier (lower) estimate of the acreage at high risk.⁶

Suggested modifications to traditional service procurement contracting for forest stewardship could also hamper efforts at improving national forest stewardship. 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 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 national forest stewardship.

Goods-For-Services Contracting

Observers believe that, to improve forest stewardship, it may be necessary to combine various activities (*e.g.*, salvage sales with mixed-species planting or prescribed burning after

⁵ USDA Forest Service, Fire Sciences Laboratory and Fire Modeling Institute, *Historical Fire Regimes By Current Condition Classes*, Version 2000 (Missoula, MT: Feb. 22, 2001), p. 8.

⁶ 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).

precommercial thinning).⁷ 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). Separate authorizing legislation has been introduced in several Congresses, but no action has been taken on any bills to broadly authorize Forest Service goods-for-services contracting.

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 would be authorized in the FY2002 Interior Appropriations Act (H.R. 2217) as passed by the Senate. Such an authorization might also be considered in forestry provisions in the 2002 Farm Bill.

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.

Another “advantage” proclaimed by some proponents is that goods-for-services contracting 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 Forest Service 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 is the high contracting costs. 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

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

up-front effort than if the activities were done separately.”⁸ This critic also suggested that a longer-term authorization and simpler contracting procedures were needed to realize the benefits of goods-for-services contracting.

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 Forest Service “off-budget” financing mechanisms (technically, permanent appropriations of receipts for specific purposes), such as the Knutson-Vandenberg (KV) Fund and brush disposal, have received very little congressional oversight. The Forest Service 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.

Finally, some interests have questioned the appropriateness of goods-for-services contracting generally. Observers have noted that exchanging goods for services creates an incentive for agency 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.⁹ Exchanging timber for forest stewardship activities might create similar incentives, especially when the needed stewardship activities involve cutting and removing non-commercial woody biomass on or near the ground (since timber harvesting exacerbates the problem 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 national forest lands.

Summary and Conclusions

Many forests, especially in the intermountain west, are widely thought to be in poor health, with unnaturally high accumulations of biomass that can exacerbate insect and disease infestations and wildfire threats. Salvage and other timber harvesting are often proposed for reducing forest biomass, but much of abnormal accumulation is biomass with little or no commercial value. Many have suggested stewardship contracting to employ locals to improve forest health by cutting and removing or burning the excess biomass. Various interests have suggested traditional service procurement contracting and goods-for-services contracting for forest stewardship activities.

⁸ 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, DC: USDA Forest Service, Oct. 30-31, 1996), p. 29.

⁹ Randal O’Toole, *Reforming the Forest Service* (Washington, DC: Island Press, 1988).

Traditional procurement contracting could be used for the various activities needed to improve national forest stewardship. Its principal advantage is the long experience of the agency and potential contractors with this simple, straightforward approach. Some interests have suggested that the agency contract to procure desired forest conditions, rather than specific tasks, to emphasize stewardship by focusing on the forest instead of the activities or the biomass removed, with separate agency log sales for any commercial wood removed. However, this could complicate contracting, because of the lack of standard measures of desired forest conditions and agency inexperience with log sales. Procurement contracting for forest stewardship would also likely provide opportunities for congressional oversight and control through the annual appropriations process (unlike goods-for-services contracting), in part because of the substantial funding needed to treat the area identified as at high risk of significant ecological damage from catastrophic wildfires.

Because of the substantial cost of traditional procurement contracting and because of the likely need to combine activities (*e.g.*, prescribed burning after precommercial thinning), some have proposed an alternative approach for stewardship: trading goods (commercially valuable timber) for stewardship services (other activities in the same area, such as thinning or watershed restoration). Goods-for-services contracts are “off-budget” financing (permanent appropriations of receipts) for forest stewardship; this is claimed as an advantage by proponents concerned by the high cost and limited appropriations for forest stewardship activities, but could also limit the congressional oversight and control of the decisions. Such contracts could also be more efficient (lower cost) than traditional contracts, when the activities require complementary equipment or personnel, but the Forest Service process for goods-for-services contracting has been cumbersome, with very high contracting costs. Finally, some agency critics are concerned that goods-for-services contracting would create incentives for agency managers to increase timber harvesting that would exacerbate forest health problems to generate money for forest stewardship activities that address those forest health problems.

Tests of goods-for-services contracting have been authorized for the Forest Service in several appropriations acts, including some in the early 1990s, but two proponents have noted that the success of goods-for-services contracts has been difficult to evaluate.¹⁰ Others, however, have concluded that the goods-for-services pilot projects provide “an important experimental opportunity to test alternative contracting arrangements under ‘real world’ conditions.”¹¹ Additional tests have been authorized in the FY1999 and FY2001 Interior Appropriations Acts; legislation to authorize further tests or for broad implementation has been introduced and debated in several Congresses, but no bills have been enacted. More tests would be authorized in the FY2002 Interior Appropriations Act as passed by the Senate, and additional testing or broad authorization might be considered in the forestry provisions of the 2002 Farm Bill.

¹⁰ 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.

¹¹ 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.