Forest Products Modernization

Timber Sale Accounting, Scaling, and Accountability Issue Paper

A strategic effort designed to better align our culture, policies, and procedures with current and future forest restoration needs in order increase the pace and scale of restoration, improve forest conditions, and improve efficiency of forest product delivery.

Introduction

Working with agency leaders and employees from around the country, the Forest Products Modernization team has identified several needs that must be addressed to move toward our long-term goal of aligning our practices, policies, and guidance to be more agile, flexible, and adaptable to better meet current and future forest improvement goals. The team is examining training, policy reform, technological efficiencies, systems changes, and business changes. One area of focus is timber sale accounting, scaling, and accountability.

Forest Products Modernization strives to increase flexibility and efficiency in our financial system, accountability standards, and timber measurement policies and procedures by determining which ones can be eliminated, changed, or streamlined.

Where are we now?

Timber disposal authority

The Forest Service may sell, exchange, or authorize administrative or free use of trees, portions of trees, or other forest products in accordance with applicable laws and regulations.

Current maximum sale authority is outlined in FSM 2404.28 Exhibit 01 and is delegated to contracting officers (CO's) for timber sales, Integrated Resource Timber Contracts (IRTC's), and agreements based on the CO's experience level, and to acquisition CO's based on the size of their warrant.

Timber sale accounting

Timber sale accounting, scaling, and accountability are all end-result processes that begin when a timber sale contract, agreement, or permit is sold or awarded. The objective of timber sale accounting is outlined in 2444.02 of the Forest Service Manual (FSM 2440): "Ensure that the Government receives full value for timber removed from the National Forest System through the use of a log accountability system, review of scaling, timber designation, sale administration procedures, and law enforcement." The current system for timber sale accounting is the Forest Products Financial System (FPFS). FPFS. Implementation was August 14, 2018.i

Timber sale administrators are now able to keep track of daily timber sale activities, including adding and subtracting Included Timber, using electronic notebooks. This process was previously done on printed sale inspection forms (FS-2400-0081). These tablets were distributed fall 2017 with additional purchases made in 2018.

Scaling

The objective of scaling is to measure the merchantable volume of timber that is cut and removed from a sale area and to determine the amount owed the Forest Service, as outlined in FSM 2443.02 (FSM 2440). Measurement can be done through weight or log scaling. While weight scaling is the predominant form of measurement for scaled sales, log scaling is still conducted for high-value sales in Regions 5, 6, and 10.

Log scaling can be done by the Forest Service or through approved scaling bureaus. Scaled sales reduce timber cruising costs because the final payment value is determined when the product is delivered and measured. However, it does require more in-depth timber sale accounting for load removal receipt tickets and monthly scale volume determinations for payment than do tree measurement sales. Weight scaling is being introduced and tested in areas that traditionally relied only tree measurement, such as Region 9.

The majority of Forest Service timber contracts are sold as tree measurement sales, which are measured for payment before they are advertised, and do not require scaling. (From 2014 to January 30, 2018, 74 percent of all forest products sales and contracts sold were tree measurement sales). Tree measurement sales allow sale administrators to focus on the resulting conditions of the sale area, with much less time devoted to tracking product value.

Log accountability

Current load accountability standards are primarily completed through ledgers and are not automated. Bar codes on load removal receipts are beginning to be used and are a move toward greater automation and efficiency. There currently is no differentiation in load accountability methods between low-value and high-value products; however, there are a few projects that are using load counts to determine volume for low-value products for efficiency reasons.

Currently log accountability consists of requiring load removal receipts for scaled sales in all regions to track

timber removed, as well as on all tree measurement sales in the western United States. For tree measurement sales, load removal receipts are evidence of authority to haul national forest logs. Use of load removal receipts with bar codes to assist in accounting has been increasing to gain efficiencies from electronic tracking.

Product identification (branding and painting) also is currently used throughout the western regions, but limited to scaled sales in Regions 8 and 9. Waivers to the product identification requirements may be allowed when these requirements are unnecessary for accountability or export control. On scaled sales, the routes of haul to the scaling location are required. Haul routes are documented in map form in an annual operating plan. Again, compliance with log accountability is documented by sale administrators on inspection forms (FS-2400-0081).

In addition, log accountability audits are required within each region to ensure that the government is receiving full value for national forest timber.

Where do we want to go?

The desired condition for delivering forest products in an accountable way is for our requirements and methods to be commensurate with the value of the product and the desired end result on the restored acre.

Performance metrics are necessary in order to track change through the organization. The Forest Products Modernization effort should create performance metrics to measure success, such as:

1. Timber sale accounting is adequately staffed and trained. Training should be available and commensurate with demand.

2. Connected electronic systems are integrated into daily work to allow efficient contract administration. Sale administrators should be fully trained and certified to conduct required business.

3. Modern technologies, such as unmanned aerial systems, are available and used effectively when needed.

Need for change

Timber disposal authority

Current maximum CO? authority for sale quantity may be restricting the use of larger sales and creating more sale layout and contract preparation work for multiple contracts where one contract may suffice. A unit where this issue occurs can request an expansion of the authority on a case-by-case basis; this option needs further exploration.

A thorough understanding of current market conditions is one factor necessary for determining a project's feasibility. Understanding local industry, its capacity, and the size of sales industry can handle plays an important part in understanding what local market conditions can bear for

certain sales. For example, local industry in some markets may not have the capacity for larger sales.

Sales that exceed a line officer's authority require additional delegation from the next higher level. Justification for such requests should be based on an analysis of project feasibility and industry capacity. Alternatives to larger sales should be fully explored prior to a request for additional authority.

An accelerated pace of restoration work may trigger the need to review non-timber values as a means to have products removed to meet desired conditions. Silvicultural prescriptions may need to be simplified and focus on landscape restoration needs instead of silvicultural needs at the stand or tree level. Allowing for an end-result across a broad area that is more resilient, as well as responsive to wildlife needs may require less time for timber designation and administration and allow for authorities such as DxP.

Creative uses of personal use and commercial firewood permits and contracts may reduce the need for pile burning. Expanding the authority for free use may be desirable to increase utilization.

Another option to consider as a means to meet the agency's restoration goals is to sell low-value products on a by-the-acre price, rather than by values determined on an individual tree cruise basis. We have authority to sell by the acre, but because there is often a mix of high- and low-value products and acres still need to be converted to CCF for attainment, this authority is rarely used. This option could save time and money by eliminating the need for volume determination (cruising), marking, and minimal boundary delineation, thus increasing the pace and scale of restoration by freeing up resources and capacity.

Timber sale accounting, scaling and log accountability

The Forest Service needs to implement the new Forest Products Financial System (FPFS), which will replace the current Automated Timber Sale Accounting (ATSA) system. FS personnel and timber contractors will need to be trained in the new FPFS. Training and implementation are proceeding simultaneously with more training for contract administration personnel in 2019.

Sale administrators and contracting officer representatives (COR's) need to use digital inspection forms located on computer tablets. Digital applications on a tablet (ArcGIS Collector or Two Trails) can include mapping products to document progress and compliance, inspection forms (FS-2400-0081), digital signatures, or additional volume documentation. The agency must upgrade to this technology, support the technology through app creation, and train sale administrators/COR's in the use of these digital applications.

Load accountability, especially with scaled sales, can be time consuming for the Forest Service and the purchaser/ contractor as well. Timber sale accounting is moving toward automated systems based on bar coded load receipts.

Investments in proprietary software systems may be feasible in the future, but such systems would have to be compatible with USDA security standards and platforms and will require substantial upfront cost. Often software designed for private industry does not meet the needs of a government-based management system.

The timber industry has comprehensive log and load accountability software that minimizes hand data entry and automates reporting, such as CT3 Log Management System (CT3 LMS), which can use telephone apps and cellular connectivity to track loads. The benefits that automation provides to forest products delivery include the elimination of manual tasks, duplication of effort, and discrepancies that can result from hand data entry ledgers.

For example, mills in Region 2 that use electronic file transfer of scale data with the Forest Service have eliminated manual data entry. The load tickets are used to audit the data and protects against data tampering — an added efficiency from bar codes. This process is being expanded across Regions 1, 2, 3, and 4 with a goal of 100% data sharing.

Automated technologies related to load accountability should be explored. Where weight scaling infrastructure does not exist, use of load counts should be considered. Additionally, load counts may reduce weight scale tracking and accounting workloads associated with weight scale processes. For example, Region 9 is running a pilot that releases scaled decks from the landing, eliminating the need to track log loads to the mill.

Use of GPS technology as a means to track haul routes for load accountability should be considered. GPS is used within the trucking and delivery industry to track load locations. This technology also may be useful to track haul routes that contractors are required to identify under timber sale and stewardship contracts.

Export requirements

The abundance of low-value material generated from restoration projects has the potential to create products for a new market. There is a need to review how we define product mixes and to carefully review current export restrictions to determine the potential for exporting unprocessed small-diameter products.

How do we get there?

To address the need for change and get where we want to go through modernization, the following actions should be considered. Some of these are underway now (ongoing actions) and are recommended to continue.

Ongoing actions

* Continue implementation of an updated Forest Products Financial System.

* Integrate updated technologies to increase efficiencies, including:

- Bar codes and corresponding digital load removal receipt records
- Electronic tablets for documenting timber sale activities by sale administrators, including distributing 143 purchased tablets for sale administrators by WO FRVE

* Use load counts on low-value product sales, such as what is done by the Santa Fe National Forest.

Additional recommended actions

* Create larger sale/contract areas, where appropriate, through the issuance of fewer contract packages. Review CO disposal authorities to see if they are barriers to implementing larger sale packages. This action needs to be tailored to local market conditions.

* Complete thorough sale feasibility and market assessment to see if large sales are viable.

* Explore selling timber by the acre for low-value and salvage areas (no volume determination); advertise acres with minimum specs; assign a value based on alternate appraisal methods, such as residual value appraisal or independent estimates based on average investments (36 CFR 223.60); saw timber weight scaled and paid for in units of tons at a flat rate; no tree marking (either DxP or DxD); no boundaries sale units and use discernible boundaries (roads, operable slopes, and timber edge).

* Explore free use authority and quantities allowed under free use to be able to measure total net benefit to the government for the restored acre rather than the value of the product.

* Use, develop, or integrate technologies that increase efficiencies, such as:

- Apps for phones/tablets that read bar codes and digital load removal receipts
- Apps for tablets, incorporating additional volume and digital signatures
- Training for sale administrators in use of tablets, including Arc Collector and any app development (forms) needed to document sale administration activities
- Unmanned Aerial Systems (UAS) in sale administration/contract compliance
- GPS tracking of haul routes for compliance with haul route requirements

* Where appropriate, increase use of weight scaling to reduce time and expense associated with timber sale preparation (especially on low-product-value sale areas);

* Increase use of load counts on low-value products. This includes the development of methodologies and guidance on when to use load counts.

* Explore private industry accountability software packages for log and load tracking to see if they can apply to the federal sector and its business rules.

*Export Requirements:

- Review paragraph (b) of (16 US Code § 620a), restrictions on exports of unprocessed timber originating from Federal lands, to determine if small-diameter wood from restoration projects is in surplus of domestic manufacturing needs, following proper rulemaking procedures outlined in section 553 of title 5.
- Review GAO audit of illegal log exports (expected summer 2018). Seek a higher priority for the export rule on the regulatory agenda to reflect the 1997 amendments to the Export Act and any other items necessary based on the GAO audit. Consider whether changes to the Export Act are necessary, in consultation with legislative affairs and industry, as appropriate.