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Factors Influencing Multiyear Supplies from Forest Service

There are no policies within the Forest Service that keeps line officers from signing long term (up to 10 year) contracts for biomass removal. The line officer has to decide if long term contracts are best not only for their office but also for local businesses.

Long Term Contracts

Long term contracts are almost required if you lack processing infrastructure. Investors will base their decision on the ability to realize a profit by the time the contract ends. Without a long term contract you cannot guarantee material supply to one entity. Two examples of when a long term contract was necessary come from the Apache-Sitgrave and Fremont-Winema National Forests.

The A-S had no processing mills in the area. By offering a 10 year contract, the A-S attracted a handful of out of state interests. The winning bidder offered long term contracts to harvesters who in turn purchased harvest equipment. The contract guaranteed 5,000 acres of treatment each year and with an annual goal of 15,000 acres. The Forest has produced an average of 7,500 acres each year. The local infrastructure is growing and wants more acres.

The F-W had only one mill within the Lakeview Sustained Yield Unit. The designation of a sustained yield unit requires all sawlogs be processed within the Unit boundary. As part of the winning bid, the mill owner agreed to build a cogeneration plant adjacent at the mill site. The cogen plant would run on both mill waste material and logging unit biomass. Local harvesters updated their equipment to meet the needs of the mill. Anticipating having to pay more than the sawlogs generate, their contract has a cap of \$25,000,000 for 10mmbf average volume plus biomass from the same acreage. The cogen plant is permitted but construction has not started.

There are minimal drawbacks to those who are awarded long term contracts. Contract prices periodically adjusted, especially as new tasks are added to the contract. That could cause adjustments in rates they pay their suppliers.

There are numerous advantages for the Forests who issue long term contracts. Lower contact offer and administration costs will be realized as fewer contracts are issued. No time is lost for advertising the annual tasks or the reviews of proposals for each contract, resulting in shorter project timelines. The agency knows they will always have a buyer for their materials. Some integrated services contracts utilize line items that allow multiple bidders – resulting in potentially lower bids and less Forest Service angst about long contracts.

There are quite a few potential drawbacks for the Forest Service. As it is usually impossible to have all planning completed before offering a 10 year contract, there is a

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potential for higher planning costs if planning teams have to speed up their processes and begin overlapping planning steps. The Colville National Forest recognized an extra \$35,000 per year layout cost for a 30mmbf annual program when unit layout occurred before planning was completed. The A-S and F-W had two year's worth of planning completed before releasing their long term contracts. For most Forests that means not offering timber contracts for two years. Memorandum of Understanding with community or collaborative group could help timelines and reduce chances of appeals, but anyone in U.S. can appeal projects. If a contract is a negative sale (service contract), it is hard to guarantee long term funding for those services since budgets vary each year. A stewardship timber sale that generates a positive balance may have to be sold so the retained receipts can be shifted to help the service contract. The Forest will also have to work through negotiations if there is no agreement during task value discussions.

A drawback for the local economy is the lack of constant competition for contracts. If after a 10 year contract another competitor hasn't entered the market, there may be an expectation of issuing another 10 year contract to help maintain the infrastructure. If market conditions change during the contract, expected business benefits might not be realized. An example deals with biomass for biofuel. If prices for saw material are low, then merchantable standards may be set higher than usual. The A-S used 12 inches and W-F used 7 inches. There may not be enough biomass to supply a new processor if the market turns around and the purchaser wants to use the materials for dimensional lumber.

Short Term Contracts

For this discussion, a short term contract does not exceed 5 years. Short term contracts are better at locations with multiple mills.

Within 50 miles of Colville National Forest are 1 plywood, 1 newsprint, 2 cogenerators, and 7 dimensional mills. While they use federal materials, the majority of their material comes from private and State lands. All but two of the dimensional mills prefer short term contracts. Their fear with long term contracts is losing all federal volume to one mill owner for ten years. That volume could keep a mill operating minimally while private lands are not being harvested.

The benefits to mill owners are many. Short term contracts allow purchasers to bid only on the types of timber sales they prefer (example: ground based for those without skyline capabilities). If they aren't the successful bidder for one sale, maybe they can adjust their methods and come in with a stronger bid or be more creative on the next. The bid price is often fixed on short term contracts, which helps them time harvest to maximize profits.

The Forest Service really benefits from short term contracts. There is less risk to the government. Many short term contracts have been terminated due to changes in laws, policies, or newly listed endangered species have cost the government, but not to the potential degree of a long term contract. If project collaboration gets hung up, there are few repercussions. Line officers can focus new projects to take advantage of market demands for things such as pulp, chips, or specialized lumber. There is always pressure to salvage after a large fire. In general contract costs for biomass removal are dropping, so using a long term contract could cost lots more than numerous short contracts. The

first contract on the Colville National Forest that contained mandatory biomass removal cost around \$16/ton. A recent contract had biomass removal costs around 80¢/ton.

Community businesses in general benefit from short term contracts. People are more likely put to work immediately with short term contracts while market conditions can be played a bit more with a long term contract. It is still possible for new contractors to come into the community. They will need to develop long term agreements with numerous short term contract holders.

Biomass Harvesting and Existing Policies/Laws

Nothing prohibits a 10 year timber sale contract. Legislation has been passed for specific longer term contracts. An example is the 1947 Tongass Timber Act which legislated two 50 year contracts with the intention of bringing mill infrastructure to the area.

There are other laws that indirectly help make biomass removal more affordable. The Secured Rural School and Community Self-Determination Act provides money to the counties containing national forests instead of relying on 25% of receipts generated on those federal lands. We may see fewer stewardship contracts once the Act is gone since those contracts are exempt from making county payments.

The Biomass Crop Assistance Program will initially help reduce costs for biomass removal from the Forests. As we nationally get closer to the spending cap, higher bids can be expected. BCAP may entice small private landowners to haul their materials rather than burn them on site. The Colville National Forest has granted funding to Stevens County Conservation District to develop and enroll small private landowners into a special forest products cooperative. Besides finding markets for miscellaneous products, the cooperative can help negotiate biomass contracts with the two cogeneration plants in the area. Most small woodland owners do not have enough biomass to receive a contract. The cooperative can also help develop Forest Stewardship Plans so the biomass is eligible for the BCAP match.

Federal biomass removed by contractors is now eligible for the federal tax credits, which should help reduce our prices for removing the material.

Competition helps fuel innovation. A Forest Service Region 6 merchantable standard is a 5 inch log top. We have a mill with a hue saw that can mill logs down to 4 inch, thus giving them some sawlogs at biomass prices.

Help to Increase Biomass Removal

The Forest Service needs to simplify accountability of harvested materials. We need to be able to draw a circle on a map around stands using landforms or improvements for boundaries and not mark the boundaries in the ground. We need to use Designation by Description and Designation by Prescription for guiding tree removal. Designation by Prescription cannot be used for non-stewardship sales. We need allowance to not cruise for volume estimates if we are selling a scaled sale. Implementing these ideas will speed

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the sale offer process and lower costs, resulting in a potential for more projects. Layout and preparation takes 40% of the CNF timber harvest budget (planning takes 40% and sale administration takes the remaining 20%).

Since the Forest Service is funded by congress to accomplish cubic volume targets, we need to ensure biomass continues to count towards that target (American Forest Resources Council does not like this practice). If it doesn't count, there will be less effort to offer biomass.

We need an economic study to show the value of stewardship sales to the county coffers. When the Secured Rural School and Community Self-Determination Act goes away, we will need proof that the county won't suffer from continued use of stewardship sales. We get more restoration and biomass removed with stewardship sales since all timber value can be put directly into funding restoration activities. With conventional timber sales we can use Knutson-Vanderberg and Brush Disposal authorities to fund restoration work. Those trust funds come directly out of a timber sale's receipts. Each has a national overhead rate of 33.5% and 45.8% respectively. After adding these overhead rates to the 25% returned to the county, as little as 41¢ for every dollar generated by a timber sale could go into biomass removal, as compared to 100% of all timber value in a stewardship sale.

Planning for Sustainable Forest Management and Restoration

If you don't plan well, it will detract labor from getting biomass/sawlog volumes.

The Colville NF has a 10 year plan; the first 5 years are reflected in the Mater report. Our experience shows that too large a project is an easier target for NEPA appeal, usually due to the uncertainty of the cumulative affects reports. Small projects have more defensible NEPA decisions but higher cost per output. We look for projects that have higher community support. Those projects generally cover an entire drainage with lots of Wildland Urban Interface land that is within their Community Wildfire Protection Plan. The Apache-Sitgrave also found this to be true. 50% of harvested ground on A-S is within WUI. Project acreage on the CNF average >50% WUI. Failure to incorporate CWPP objectives into planning documents may give ammunition to those who may feel that "biomass removal is just another excuse for logging". Interdisciplinary teams need line officer commitment for including biomass removal in their NEPA for timber sales, otherwise costs for offering biomass will skyrocket.

Expect projects will take four years to move from idea to awarded contract. You can speed them up but at a cost to efficiency. By moving from a 3 year to a 3.5 year planning timeline, the Colville NF realized a 10% reduction in timber sale costs. By going to a four year timeline, we expect to save an additional 10%.

Budgets need to be predictable and not declining. Receiving extra funding one year does not mean extra material will be available the same year. If there is a one or two year jump in funding, the work will most likely be done by contractors since it is hard to

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quickly adjust the workforce. The extra material usually becomes available two to three years after any increased funding.

There are other things Forests can do to increase their chance at success of removing biomass for biofuel. Forests with successful long term contracts had collaborative groups in place before entering into the contracts. While it may be hard for a Forest to guarantee an adequate supply of biomass for a long term contract, adjacent Forests could bundle their opportunities into a single long term contract.

We need to keep thinking of ways to change the way we do business. Traditionally the CNF would grapple pile and burn some timber stands after harvest. The treatment cost was around \$250/acre. A recent contract to retrieve, grind and remove fuels from timber harvest units came in at \$240/acre. Not only did we save money on the project, but a business made use of the material, we did not have to wait for a burning window to clean up the fuels, and we did not put more smoke into the atmosphere.

Kris Bellini of the Colville, Okanogan, and Wenatchee Acquisition Zone developed an indefinite delivery, indefinite quantity (IDIQ) service contract with many contractors for the quick removal of logging slash and other biomass material. Once a Forest decides to have slash removed from units, the pre-approved list of contractors are given a week to prepare a proposal for how they would remove it, what they will charge for gathering the material and their bid for taking the material. A task order is offered for the best proposal. Without the IDIQ contract in 2008 the CNF sold 1,800 tons of biomass. The use of the IDIQ contract increased biomass sold in 2009 to 22,000 tons. Initial contracts cost the Forest \$12.50 per ton removed but the last cost \$1.00 per ton.

Managers need to evaluate mechanical precommercial thinning and fuels removal in their planning document. While the unit may be hand cut, hand pile, broadcast burn, they will at least have the option to treat mechanically if the market is there. Planning documents also need to evaluate 1 acre sites at junction of major roads that can be used as processing sites. Many of our landing access roads will not accommodate chip trucks. Traditional landing sites do not have enough room for decking and grinding operations plus operators will want to minimize moving biomass processors. After the timber sale closes, the sites will be perfect for staging off highway vehicles and other recreational opportunities.

Weight scale sales are the simplest for sales that have both sawlogs and biomass. We have to keep the sawlog and biomass operations separate if we use tree measurement for the sawlog material so the more expensive materials are not incorporated into the cheaper. Mixed scale sales increase costs for Forest Service administration and increases costs to the harvester. Weight scale allows the market to determine the best use of the materials.

Summary

Numerous tools are available to federal land managers for use when removing biomass. The manager first needs to review goals for the land, including down woody debris needs, and the communities. Given more tools, managers can offer even more biomass.