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"JUST DO IT"

Abstract

The Blue River Ranger District, Willamette National Forest, is using stand level harvest prescriptions to provide structurally diverse harvest units. It has been using such prescriptions for the past two years. To make the change from older to new harvest prescriptions requires several key steps. First was tech transfer. All involved in the timber sale planning and execution, including Forest Service employees and loggers, needed to receive new information. Second was the determination of base line levels for investments in the stand's future, such as the establishment of coarse woody debris levels. Third, was planning for the safety of the loggers, particularly with green tree and snag retention planning. Fourth, flexibility is extremely important, both with safety matters and implementation of the prescription. Fifth, continue to think site specific. Prescriptions will not have universal application. Prescriptions are a key ingredient. They should be carefully written and have clearly defined objectives especially since they are a document that will be used by numerous people for years after the prescription is made.

These steps are illustrated in the changes in the Blue River District stand level prescriptions for green tree/snag retention, coarse woody debris, and stream side buffers.

I've worked the last six years on the H.J. Andrews Experimental Forest. The Andrews Experimental Forest is located in the Blue River District which is on the Willamette National Forest.

One of our famous United States citizens, David Crockett, had a motto: "Know you're right, then go ahead." If he was living today, he might say, "Know you're right, then just do it." And hence, I've shortened that a little bit for the title of my talk, "Just do it." A Portland, Oregon shoe manufacturer uses this motto, too. I believe that on the forests that I'm from we know we're right and we're starting to do it.

My purpose today is to explain how we're implementing some of the ideas of New Forestry into our timber sales on the Blue River Ranger District and also on the Willamette National Forest. And these new ideas are being implemented throughout Region 6 to varying degrees.

What I'll do is begin by presenting a list of six steps or characteristics or phases of getting into this New Forestry. This is violating a principle that one of my speech instructors said, "Don't make your list longer than three." So rather than make two lists of three, you'll have to put up with one list of six.

I'll digress two times from that list, once to explain a process we used to arrive at a base level of coarse woody debris on our harvest units, and then talk a little bit about our prescriptions that we write for timber sales.

The Willamette National Forest is known in Region 6 as the home of the timber beast. We on the Forest provide six percent of the volume harvested on the National Forest system each year in the United States, and that in the past has amounted to perhaps 630 million board feet a year.

Even in this context, the Willamette National Forest is changing its harvest habits. We're leaving more coarse woody debris on our units, we're leaving more timber standing along our Class 3 riparian zones. We have been leaving timber along Class 1 and 2 riparian zones. In the Class 3 riparian zones, our current forest plan calls for 17,000 acres to be removed from what's available to be harvested in the next ten-year period. And we're leaving vertical structure, green retention trees. On some of our timber sales on the Blue River District we're leaving even more than what's required for wildlife trees.

Let me begin with this list of six. The first phase or step that I've identified is tech transfer. Tech transfer, of course, takes many forms. It can be in the form of publications or field trips or courses or sessions, not unlike what we're having today. Today's course is one that I put in the category of researchers coming to a group of people and passing onto them what they have learned about the value of the structure and the processes that occur in our ecosystems.

Another form of tech transfer might be where the land managers ask for researchers to come into the field, and perhaps critique what they're doing in the field in the way of trying to achieve these various objectives.

I'd like to say, too, that some people believe that the researchers may be kind of hard to reach or hard to get in touch with, but I think you'll all agree with me that of all the scientists you've heard talk today, I don't think you'd hesitate to ask any of them to come and speak to you or to give you some advice. They're all willing to do it. And we found on the Blue River District that this is true. Being close to the Andrews of course made it a little bit easier for us.

The tech transfer process is important and has been important on our district, and it's not only important for the people doing the sale planning, but it's important for all the levels of the people that have come in contact with the timber sale. This includes the soil scientists, the pre-sale people that lay out the sales, people doing the appraisals, the people that administer the sales. And, of course, the silviculturists, the fuels people, logging system specialists, right down the line. It's important that all these people understand why we're doing what we're doing.

In addition to the people on the ranger district, we found that the loggers themselves are very interested in why we're doing what we're doing. Sales administrators have told me that just

about anytime they sit and talk to a choker setter or a logger at a pre-sale meeting, these people are immediately interested in what we're doing.

So, the first phase is tech transfer. The second step that I saw occurring on our district was determining base levels, what levels of coarse woody debris do we want to leave; how do we want to leave riparian zones; what do we want to do with the vertical structure on the different stands.

Let me just go briefly into the process we use on the Blue River District to determine what level we want as a base level for coarse woody debris to be left on our units. A long standing management objective of the Forest Service has been to maintain long-term productivity of the sites. People realize that removing the amount of wood fibre we were from the various harvest units was not lending itself to this objective.

In 1986 the Blue River Ranger District assembled an interdisciplinary team consisting of all Oregon State University researchers, Pacific Northwest Research Station researchers, Willamette National Forest staff people, and the Blue River Ranger District staff people, to try to determine what would be a good level of coarse woody debris to leave following harvest.

The first thing this group did was look at the existing situation, and I would say that one of the main purposes was to bring the researchers up to scoop where we were on the district; was the coarse woody debris we were leaving meeting our management objectives; what animals we are managing for; what types of regeneration success were we having. And we discussed also the amounts of coarse woody debris we would get in our mature stands versus our old-growth, which of course is different.

The next thing the team did was to go into the field and look at a number of units that had been harvested and looked at the coarse woody debris on these units. Their objective was to try and come up with a single unit that they felt intuitively had the level of coarse woody debris that would be a base-line level. Once they found this base-line unit, the district measured what we had out there, determined the numbers of stems, sticks that were of certain lengths and diameters and they arrived at this base level. That's just one way of determining at a base line.

The third step is to involve safety specialists, and this is, of course, critical with our wildlife trees and leaving vertical structure. I wasn't involved with this, but the feeling I get was that we perhaps did not involve the state safety people or the industry trade organizations soon enough. The Forest Service, the Blue River District, came to a determination of what we wanted to leave on the units. We'd go out and mark those units' wildlife trees, and then sell it, and expect the people to

go out and log it. In some instances it was a hazard to the people that were falling timber or doing the logging.

Discussions became heated at times when the safety people did become involved. Finally both states, Washington and Oregon, got their safety people together with the regional office of the Forest Service. Trade organizations became involved, and a consensus was reached so that we could continue with our plans to leave this vertical structure. I don't think that all of the issues in safety are resolved, so this is an ongoing phase. As a matter of fact, all these steps I think are ongoing; the tech transfer, adjusting your base levels and so on, they're ongoing.

The fourth step is to remain flexible. I think we all feel that we're flexible to a degree, but being flexible is important. And we need to allow for adjustments, especially where safety is involved. One of the things we did initially, as I said, was to mark the stems we wanted to leave. Now we have guidelines that we give to the purchaser describing how many stems we want to have left, a description of the various types of trees, what condition they have to be in, and then it's up to the purchaser to see that objective is achieved. And we found that when we leave two or fewer trees, the fallers can pretty much go out and make the selection as they're falling. But if we're leaving more than two, these trees need to be marked in advance so the markers can take into consideration logging, yarding and the falling safety.

The flexibility also includes the acceptance of new information. I mentioned the tech transfer involving all the people on the district. As the sale proceeds after the NEPA (National Environment Policy Act) document is signed and we go into sale lay-out and sale administration, there may be times when these people will come across something that they see isn't meeting an objective, and we have to have the flexibility to adjust where possible.

Another important step, and it's been mentioned before, is to continue to think site specific. Prescriptions do not have universal application, and they must be adjusted from site to site.

A key in this step and through the whole process is the prescriptions that we're writing. The Forest Service is placing a lot of emphasis on the prescriptions. As many of you know, we have the silvicultural certification process. A lot of money is put into sending people to these various schools to get them trained to make a good silvicultural prescription.

The silvicultural prescription is going to be used for many years following its writing. If we ever get caught up with our timber sale process, it may be six months or a year before the pre-sale people get a hold of that prescription and start laying the unit out on the ground, do the cruising,

and do the appraisal. And it may be another six months before the sale administrator takes a look at the sale while he's administering it and looks at the prescriptions and tries to determine what our objectives were and to make sure those objectives are being met.

So that prescription is going to be in existence for quite a few years after its written. The people that were involved in the writing may transfer so they're not going to be able to be talked with. It's important that it's clear, that the land is described, the objectives are described clearly. It's important that where possible the specialist records the methods of measuring success in the prescription!

On the Blue River District and on the Willamette National Forest we're now writing what we call an integrated prescription. In the past, the specialists would write their own individual prescriptions. Now we put all of the information in a single document. In that way there's fewer conflicts; everyone knows what the others are doing. It's an interdisciplinary process.



Figure 1 - This is a unit that is not achieving the levels of green tree/vertical structure that we'd like to see in one of our harvest units. We're going through a learning process, learning to walk before we run. This is the walking phase. You can see that we do have some snags left, and there's some green retention in the draw.

What we'd like to see in our units, of course, is more green retention throughout the unit where possible. And this draw today, if it were a Class 3 stream, we'd have a 30 to 50-foot buffer on either side of the stream.



Figure 2 - This is one of our earlier attempts at leaving some vertical structure or green retention. And you can see in the background where the operator left some trees and what it would look like if we'd continue with our current practice of just yarding most of what we had. This unit was not burned, and the photo was taken this past summer. This unit has been planted and the stock is doing real well.



Figure 3 - Just another quick example of a unit where we have some green retention but not exactly what we would like to see. We're looking for more material.



Figure 4 - This is an example of where you'd have a site specific prescription, the lay of the land will influence what you're doing. In the upper left-hand corner is a landing and you have

converging yarding roads, so you wouldn't want or expect the loggers to leave your green retention in that location.

Down at the bottom of this unit where it's more logical to leave this green retention, that's where we have it. Initially, we wanted to have a uniform distribution of green retention trees, but that didn't always work because of safety and logging considerations. Now we have the trees clumped or, where possible, dispersed; this meets our objectives and it will meet the objectives of the loggers.



Figure 5 - This is a cable yarded unit. A number of years ago the timber sale contract required in most of our sales that all material be cut down to four inches. So we ended up with a fairly clean harvest unit afterwards; a few whips left, but not too much.

What we're doing now on some of our units is removing that provision requiring the logger to cut everything down to four inches. This is an illustration of a clear-cut unit with our wildlife trees, which would be the larger ones, plus some more remaining structure from removing that provision to cut everything to four inch DBH.

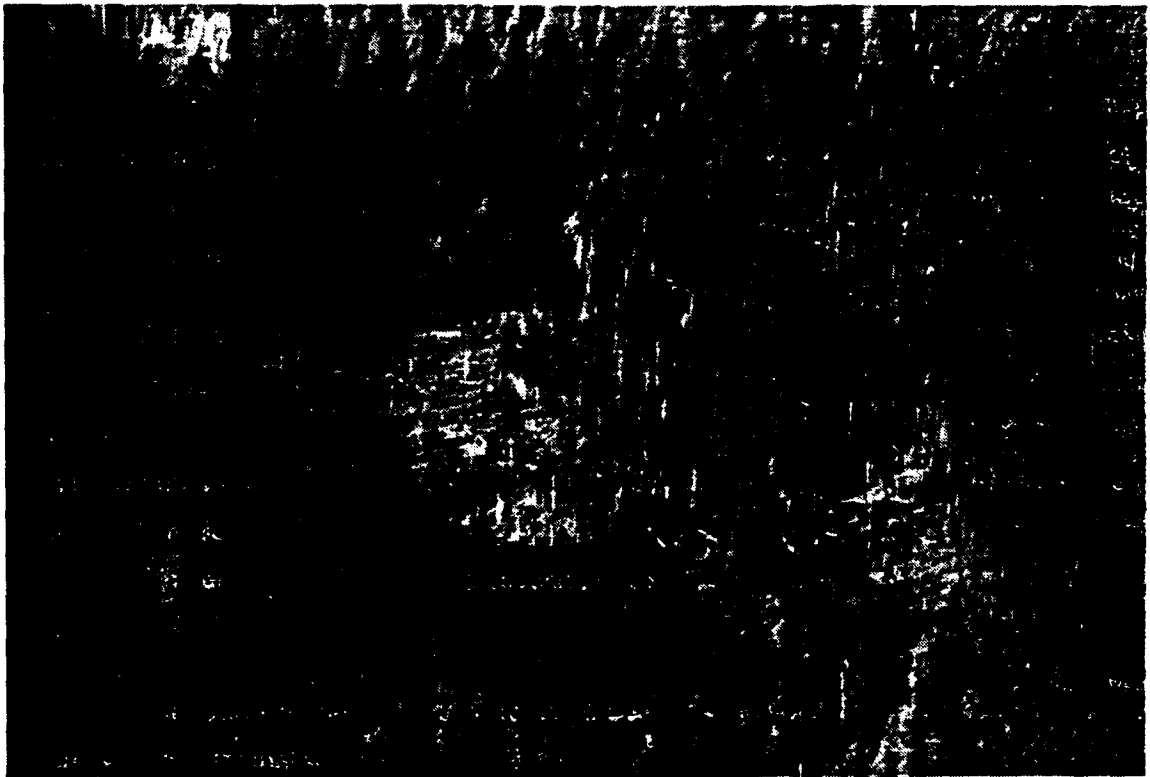


Figure 6 - This is a helicopter unit that was logged this past summer. The provision to remove or cut all trees down to four inch DBH was not included. You can see the amount of vertical structure on this unit. This is approaching what we'd like to see. Of course in the helicopter unit we're not going to have the cable knocking down a lot of the material. I'm not certain if it's going to be burned or not, but if we burn it we will lose some of that structure.

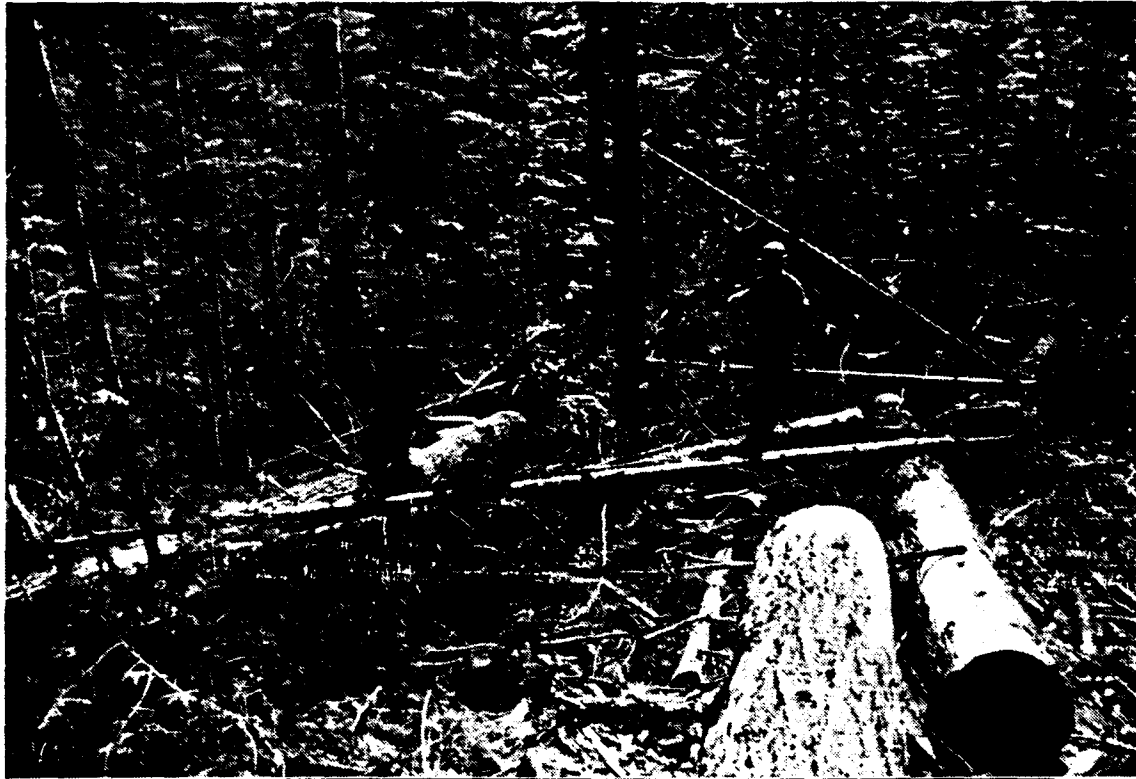


Figure 7 - There's another helicopter unit that was completed this past summer, and it's another illustration of doing away with the C clause requiring the cut down to four inches. We're going to get more vertical structure in the unit. This unit may be burned, and of course again will lose some of that structure. And you can see some of the larger coarse woody debris that's left. In a helicopter unit we're not going to have as much marginal material removed.



Figure 8 - Again, the same unit. This slide is to illustrate the response the timber sale officer made when he found an objective wasn't being met. There's a Class 3 stream that runs in through here. The prescription for that Class 3 was what we call an overstorey removal, 25 inches. The intention was to remove all the trees over 25 inches DBH, and then what was remaining would be providing shade and cover around that stream. What happened during the falling and the yarding was most of what was left in the understory was destroyed, and it looked pretty much like what we see up there. It was not what we'd wanted.



Figure 9 - The timber sale officer recognized this, spoke to people on the district to see how they felt about it, and they changed the prescription on the following unit. And this slide illustrates the buffer zone that was left when they changed the prescription to instead of an overstorey removal, to one which required leaving everything 30 feet either side of the stream. So we're getting the shade and the covering of the ground along the stream.

In conclusion, what have we learned? Harvest habits can be changed. If the home of the timber beast in Region 6 can change, others can change; other forests have changed. Just do it! It takes time, planning, and patience. I hope that what I've discussed will help you in your planning.