

LEVITAN, Jack  
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John Fiske

**U.S. Department of Agriculture  
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Region Five History Project**

**Interview with:** Jack Levitan  
**Interviewed by:** John Fiske  
**Location:** Mr. Levitan's home  
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[Begin CD File 1.]

JOHN FISKE: This is John Fiske, F-i-s-k-e. I'm sitting in Jack Levitan's home. It's June 4<sup>th</sup>, 2007, and we're going to do Jack's oral history interview commencing now.

Jack, welcome, and thanks for agreeing to do this, and please spell your name, to start out with.

JACK LEVITAN: Obviously, Jack is easy. Levitan: L-e-v-i--t-a-n.

FISKE: Okay, Jack. And please, for the record, just give us a brief synopsis of your Forest Service career, but before that, where did you get educated, so to speak, at least in forestry ways, and why and when did you join the Forest Service?

LEVITAN: I got my education at Pennsylvania State University. Graduated in 1955 with a degree in forest management. I subsequently went to work for the Forest Service on the Cherokee National Forest.

FISKE: Located?

LEVITAN: Located in east Tennessee, and I spent I think about six months and decided I really wanted to go back to school. I had been marking timber and surveying roads while I was on the

Cherokee, but at that time I thought I would rather have a job in research, so I went back to Penn State for a master's degree in forest management, which I obtained in 1957 and was subsequently drafted into the Army.

FISKE: Jack, what was the emphasis for your master's degree, and did you do it by thesis or by examination?

LEVITAN: I wrote a thesis. My thrust of my education there was largely statistics. I had a minor in botany. And I did a thesis on the effects of red pine and black locusts on the infiltration of water in an abandoned field.

FISKE: Okay. Don't block the microphone when you're talking, please, by putting your hands like this. [Demonstrates.]

LEVITAN: Oh, am I blocking it?

FISKE: Not anymore. You're doing fine now.

LEVITAN: Okay.

FISKE: Okay, and so you wanted to go back to the Forest Service and work in research?

LEVITAN: I wanted to go back to the Forest Service and work in research. However, the Army interfered with that.

FISKE: Okay.

LEVITAN: In the Army, I was sent to a surveying platoon with the Corps of Engineers in Germany. When I arrived, I was actually assigned to a terrain intelligence organization. There were six of us, and our job was to make maps of the terrain of northern Germany. We were foresters, geologists and soil scientists. But after the Army, I came home and was applying for jobs, but my wife decided she was going to do a master's degree in speech therapy. She was enrolled at Penn State, so we were going to stay at Penn State until she got her degree, so I got a

job with the Soil Conservation Service at Montgomery County, Pennsylvania, mapping soils, as a soil scientist. I didn't like that.

In any case, as soon as she got her degree, I started applying for jobs with the Forest Service. I wasn't really concerned whether it was research or not. I finally got an offer as a forester on the Covelo District of the Mendocino National Forest, which I accepted.

FISKE: Jack, why the Forest Service as opposed to, say, private industry?

LEVITAN: I don't have a good answer for that. I might have just as well gone to private industry. I did apply to several companies.

FISKE: Okay, so you ended up on Covelo.

LEVITAN: At the Eel River Ranger Station.

FISKE: And what jobs did you have there?

LEVITAN: At the Eel River Station, I was in charge of what was called the KV Camp at Beaver Glade. I was supposedly a silviculturist type. I graduated to be a timber sale officer, and into my third year—oh, I spent a lot of time my second year there remeasuring inventory plots and then installing new ones. I think it was in August of '63 I was offered a job in the Supervisor's Office in Willows to replace the Forest Silviculturist on a detail basis while he did some work on impact statements around Upper Lake. I don't know if you know—this is the precursor of environmental impact statements.

In any case, I was at Willows for ten months, and I was offered a job as a Timber Management Officer on the Corning District, which I took. I was at Corning, administering timber sales and such things for two years, and I somehow ran across a request for a job in research in Portland, timber quality research. I applied for the job, and I took it.

FISKE: This is at the Pacific Northwest Station?

LEVITAN: Pacific Northwest Station, right. I worked there for a year and decided I really didn't like it that well. [Chuckles.]

FISKE: What was timber quality—

LEVITAN: Log grading.

FISKE: Oh, log grading, okay.

LEVITAN: What we did was collect data on trees through the mill and translate that back into log grades.

FISKE: What were you specifically testing there, the ability of the log graders to accurately determine log quality or some model that was being used by the regular log graders?

LEVITAN: Mainly what we were doing was developing a new log grading system for Douglas-fir.

FISKE: Okay.

LEVITAN: That was our main involvement. I had some involvement later with developing log grades for Sitka spruce, but that was toward the end of my time there. Anyway, I decided I'd rather be out in the woods more, so I reapplied—[Chuckles.] And it just happened that Region Five was looking for somebody who had knowledge of log grading to translate that work into something that will be used in the field in Region Five, so I came down to San Francisco and I spent about a year collecting data, running mill studies with logs through the mill, through trees that we'd identified, and producing a set of tables that correspond to the log grades that would be used.

FISKE: And so you were assigned to the Timber Staff in the Regional Office at that time?

LEVITAN: In the Regional Office, right. There came an opportunity to move to Timber Management Plans and Inventories. They were looking for somebody who could analyze their

data, and I managed to get that job. That was in 1970. And I spent something like six years as a data analyst. At the same time, I became the person in charge of the WRIS Project, Wildland Resource Inventory System, which was a mapping system to map the stands of vegetation on the ground. There was a thrust at the time for what was called in-place information, and that was sort of pioneering thing that we more or less accomplished. Anyway, in 1976 I became the head of that section on management plans and inventories.

Then it was not long after that I ran into some people from the geography department at UC, Santa Barbara, who were using, or attempting to use, satellite imagery to map forest vegetation. So we began cooperating to adopt their methodology to perhaps making timber inventories and replacing aerial photo interpretation as a source of type maps from which we would collect the inventory data.

Our first project was on the Klamath National Forest.

FISKE: Okay. Could we come back to this?

LEVITAN: Yes.

FISKE: [unintelligible] going into a little more detail right on the thumbnail sketch of your career.

LEVITAN: Right. Let's do that.

FISKE: Did you have any other positions other than the head of Timber Management Plans on the Timber Staff in the Regional Office?

LEVITAN: No.

FISKE: No. And so you held that position until you retired in?

LEVITAN: I retired in December of 1988.

FISKE: Okay, 1988. So when did you arrive in the Regional Office?

LEVITAN: In 1967.

FISKE: Sixty-seven, so the regional office for twenty-one years.

LEVITAN: Yes.

FISKE: Okay, during a pretty interesting period in Forest Service history.

LEVITAN: Yes, there were some interesting episodes, yes.

FISKE: [Laughs.] Okay. Well, let's go into a little bit of that right now. I think first what I'd like for you to do, Jack, is to give your overall assessment of the capability of the Forest Service to conduct quality timber management operations, say, just before the National Forest Management Act was passed in 1976; that is, when you were on the Timber Staff as chief of Plans and Inventory. Let's start there.

LEVITAN: By "operations" you mean?

FISKE: Conducting a timber program in the magnitude in which it was being conducted at that time.

LEVITAN: I would think over all, the Forest Service ability was very good. There was, of course, a lot of variation from one Forest to another, but the potential was good at that point. I think it was probably easier then because the land base was not known to be so constrained by other uses, and there was an incentive up until, say, 1970 or so to get a lot of timber out because the housing boom was still in effect.

FISKE: Okay. What was your understanding of the expectations by others in the State of California—the State, the counties and so forth; again, this is prior to 1976—as to what the scale of the Forest Service harvesting levels ought to be?

LEVITAN: My perception was the Forest Service had a duty to produce at least a certain amount of timber to maintain the local industries and keep the counties' coffers full.

FISKE: And what level was that, at the Regional level?

LEVITAN: It was somewhere between 1.8 and 2 billion board feet a year.

FISKE: And so that's what the harvest levels were at that time?

LEVITAN: That's what the harvest levels were.

FISKE: Levels were. And how was this perception conveyed to you? Did your immediate supervisor or the Timber Staff Director or the Regional Forester or someone like that come in and say, "Jack, this is what the expectations are"?

LEVITAN: All of the above, yes.

FISKE: All of the above. So it was fairly explicit.

LEVITAN: It was explicit. It was a goal.

FISKE: Okay. And then was it your perception that it was fairly well understood throughout the Region, that this was a driving goal or really an objective?

LEVITAN: It was an objective that was well understood but not necessarily enjoyed.

FISKE: [Chuckles.] Okay. And can you talk about the kinds of harvesting that were being done at that time in order to get out the 2 billion per year?

LEVITAN: All right. This was a period of transition. Early, in the sixties, there was essentially a "let's cut the trees that look like they're going to die" sort of program. Associated with that—never could quite figure it out—was this concept called Unit Area Control,—

FISKE: Yes.

LEVITAN: —which was very explicitly different from one place to the next. [Chuckles.] I could never figure out what it meant. It seemed to be a precursor of what later became in-place information, but there was no map associated with the unit areas. This was followed by a

concept that was meant apparently to hide the fact that we were cutting trees, called overstory removal.

FISKE: Okay, would you describe that, please?

LEVITAN: I'm going to describe it. The idea was you would find areas that had an understory with a stand of larger trees overtopping it and cut off the larger trees, and the understory was supposed to then take over the site and grow and be the next crop. That didn't seem to work very well.

FISKE: And why not?

LEVITAN: The result of removing the overstory also removed most of the understory.

FISKE: There was excessive damage to the understory as a result of the—

LEVITAN: Right, there was excessive damage to the understory.

FISKE: And that was a result of the falling and the yarding up operations?

LEVITAN: The result of—probably mostly from the falling and yarding, yes. What we discovered from the inventories when we started mapping the stands, and then selecting stands to sample from the maps, was that the areas that we ostensibly released by removing the overstory, were the ones that were growing the least amount of wood. What we discovered was the obvious, that wood grows on wood, and if you reduce the stocking, the growth, as an absolute, diminishes.

FISKE: Okay. Please define “stocking.”

LEVITAN: Stocking is the number of trees you've got on an area, the number of trees per acre and the amount of—you're going to ask me to define basal area, and then there's—[chuckles]—on the site. Anyway, having seen that, we decided that what we needed to do was go back to these areas that we'd put under management, so to speak, by removing the



overstory, and start over. So we started a program essentially of clear-cutting these pre-cut areas and planting them. That's under the terminology of even-aged management. That was just prior to National Forest Management Act.

FISKE: Somewhere in that time period—it may have been a little bit later—I remember seeing a pamphlet that came out of the Regional Office, I think out of the public affairs shop, that talked about patience and patch cuts.

LEVITAN: Yes.

FISKE: Apparently the purpose of this was try to communicate to the public that there's clear-cutting going on in the woods and that one had to have patience because of the patches that were created. Was the need for this kind of document—was it because of the clear-cuts that were being put in on the understocked areas that you were referring to?

LEVITAN: I believe they were associated. That pamphlet came out of the Silviculture Section, as I recall. And, yes, it must have been associated.

FISKE: Well, there was clear-cutting going on in the Douglas-fir region on the north coast, I recall.

LEVITAN: That's right.

FISKE: And then the clear-cutting to clear up or put in plantations to replace the understocked areas. Was that largely in the mixed conifer in the Sierra Nevada?

LEVITAN: That was, right, in the mixed conifer in the Sierra Nevada, the Mendocino—

FISKE: And the interior coast range, okay.

LEVITAN: And the interior coast range, right.

FISKE: Okay, now I got it.

LEVITAN: Right, the clear-cutting in the north coast was associated with the steep terrain before that.

FISKE: Yes.

LEVITAN: And the clear-cutting elsewhere was associated with tractor logging.

FISKE: Yes. Okay. All right, so we talked about harvesting practices prior to 1976 and that generally the outfit, the Forest Service, had the capability of implementing the Timber Management Plans that were in place at that time, or the Multiple-Use Plans, and that you had, if I could put some words in your mouth, at least the capability, the quality of education and skill levels amongst the foresters, with probably some exceptions, to carry all that out.

LEVITAN: Yes, that's true.

FISKE: Okay,

LEVITAN: Yes.

FISKE: Were there any other, call them major controversies prior to 1976 that affected your job?

LEVITAN: I can't think of any major ones, no.

FISKE: Okay.

LEVITAN: Actually, I can't think of any minor ones at this point.

FISKE: [Laughs.] Okay, [unintelligible].

LEVITAN: There were always controversies,—

FISKE: Sure.

LEVITAN: —but they weren't so widespread.

FISKE: [Laughs.] Okay. Now, in 1976, of course, was the passage of the National Forest Management Act, and in other histories, of course, we know that some of the background why

the National Forest Management Act came about, and this had to do with silviculture practices elsewhere.

LEVITAN: Yes.

FISKE: Were there any particular, call them problems with silviculture practices or harvesting practices in Region Five at that time, which helped push the passage of the National Forest Management Act?

LEVITAN: Of course, clear-cutting.

FISKE: Clear-cutting, but were there any specific clear-cut projects, like the Monongahela in West Virginia that really pushed the passage of the National Forest Management Act?

LEVITAN: If there were, I wasn't aware of them.

FISKE: Okay, thanks. I couldn't remember any, either. I was in grad school at Berkeley at the time. All we heard about pushing National Forest Management Act was Monongahela and then, earlier, the Bitterroot controversies in the Bitterroot National Forest in western Montana.

LEVITAN: There was ongoing criticism from the Sierra Club, but that was more like a little background noise at that point.

FISKE: Okay.

Let's go on to the National Forest Management Act, itself, and since it had many provisions which directly affected timber management planning in particular but timber management as a whole, let's talk a little bit about the National Forest Management Act. First of all, did you have any hand in giving advice or even helping write any of the implementing regulations?

LEVITAN: I had a hand in giving some advice, which was totally ignored.

FISKE: [Chuckles.] For the record, would you care to share with us what that advice was?

LEVITAN: It had to do with clear-cutting and land base delineation and things like that, but I'm very much out of date now.

FISKE: One of the provisions in the National Forest Management Act, or at least the implementing regulations, was some prescribed limits, area limits for clear-cuts or openings, if you will, in the forest, which were specified by timber type.

LEVITAN: Yes.

FISKE: If I remember right, forty acres for us, the Sierra Nevada mixed conifer, and sixty acres for Douglas-fir.

LEVITAN: Douglas-fir, right.

FISKE: Did you have any hand or [were you] dispensing any advice on those acres [sic; acreage] limitations?

LEVITAN: No, we never really contemplated making clear-cuts any larger than that. In the interior, in the tractor-logging areas, clear-cuts were usually much less than forty acres. It was not a problem.

FISKE: Yes, my understanding was that there was no scientific basis for establishing what those area limitations were, but instead it was simply a recognition—call it a political recognition—that there had to be some limits in there, and so those numbers were sort of arbitrary.

LEVITAN: I think they're historical.

FISKE: Yes, okay. But in any event, the sixty-acre limitation for Douglas-fir and the forty-acre limitation for mixed conifer—really the rest of the species that we worked with in Region Five—didn't present any major obstacles to implementing the timber management—

LEVITAN: None whatever that I recall.

FISKE: Good. Okay. Any other problems that you can think of that came about as a result of the National Forest Management Act in terms of technical problems having to do with timber management operations?

LEVITAN: I don't know if it was strictly a matter of the National Forest Management Act, but what we were discovering was that there were some contradictory expectations. Part of the National Forest Management Act indicates that the Allowable Sale Quantity, as it was called, formerly the "Allowable Cut", could be increased by certain silvicultural practices. What it didn't deal with was that if you're going to increase that harvest, you have to have a place to harvest it from, and when you apply the constraints brought about by other uses of the forest, we were discovering in Region Five that there was no place to go to get that extra harvest if you could increase the growth rate. That didn't seem to impress the other Regions, apparently, because they weren't attempting to map their constraints.

It became very obvious to us that what we had to do to maintain another requirement of the National Forest Management Act, the Non-declining Yield, was to get the lands that we had previously cut over back into production at a much higher rate. This follows from what we did prior to 1976, but it became even more apparently urgent.

FISKE: What did "non-declining yield" mean to you, in your position?

LEVITAN: I'm sorry, I missed that.

FISKE: What did "non-declining yield" mean to you?

LEVITAN: What it meant to me was that the current level of harvest had to be maintained in perpetuity, and the current level of harvest at that point, as I mentioned earlier, was between 1.8 and 2 billion board feet.

FISKE: In other words, your perception was that the role of the Forest Service, at least in timber management, in providing timber and associated benefits within California, was to be maintained, even with the implementation of the new forest land management plans under NMFA.

LEVITAN: That was my impression.

FISKE: Yes. And—

LEVITAN: And nobody told me differently.

FISKE: Nobody told you differently, but did anybody, either your boss or the Timber Staff Director or the Regional Forester say so explicitly?

LEVITAN: No.

FISKE: No. Okay. But no one said, “Okay, we’re going leave [sic; let] the levels float and see where they come up after the Land Management Planning Process is completed.”

LEVITAN: It seemed to me it was implicit if not explicit that our customers didn’t want to change. That includes the county governments, the State government, the timber industry, the people that had jobs.

FISKE: Yes. Where did the non-declining yields policy come from?

LEVITAN: Where did it come from? I’m not exactly sure.

FISKE: Didn’t it come from the Multiple-Use Sustained-Yield Act?

LEVITAN: No.

FISKE: Okay.

LEVITAN: I don’t think so.

FISKE: Okay.

LEVITAN: No, it came sometime after that. It came—I recall a speech by Chief [Edward P.] Cliff, where he mentioned that, I think, I’m not sure for the first time. And I don’t recall exactly when he was Chief, but it was some time ago.

FISKE: Yes.

LEVITAN: And he said something about, “We won’t increase the cut until we’ve earned it.” That was a euphemism for non-declining yield.

FISKE: Okay, so “non-declining yield” was a policy, but it sounds like if it was generated internally, then it was a Forest Service policy rather than something which flowed from existing legislation.

LEVITAN: That’s right, it was a Forest Service policy that found its way into existing legislation. It is in the law.

FISKE: In where?

LEVITAN: In the National Forest Management Act.

FISKE: Okay. I didn’t quite understand that.

LEVITAN: Yes.

FISKE: Okay. But with the passage of NMFA, wouldn’t the base level for non-declining yield be, for the Region, the summation of the allowable sale quantities of the existing forest plans?

LEVITAN: That’s what we understood it to be.

FISKE: Yes, but that wouldn’t necessarily be the same as—and you have to add up to the approximate 2 billion that we had before.

LEVITAN: Well, it did add up, as I recall.

FISKE: It did. Okay.

LEVITAN: Yes. We managed somehow to essentially meet the sum of those plans.

FISKE: Mm-hm. Okay. Let's stick for a few minutes more with the National Forest Management Act. I think you mentioned before we started taping that there was a problem in the NMFA language having to do with when harvest levels were permitted, which was the culmination of mean annual increment. What kind of problems did that language cause you?

LEVITAN: As a problem, I don't think it was a real problem. The way around the problem is that you can manipulate the stands so that you can make them culminate just about any time you want to. If you want to define "culmination" to mean annual increment, it's when the average growth over a period is the same as the growth over a year. That's as simplified as I can make it.

FISKE: Okay.

LEVITAN: Now, if you have a very densely-packed stand of trees, it will culminate very early in its life. If they are widely spread, the culmination will be later. The reason underlying this is the fact that the trees start dying when they occupy the site, so if you have widely-spaced trees, they can grow a long time before they occupy the site; if you have them close together, it doesn't take very long before they start dying, and that's when your annual increment culminates.

FISKE: Okay. For the record, what kind of time periods are we talking about, say, for Ponderosa pine?

LEVITAN: Well, what we were using, from what I could discern from our inventories, is we could have the trees culminate at age forty-five or so at twenty inches in diameter and fifty feet tall, which would make them saw-log size trees. So in our planning, we would use that as a starting point to start cutting our stands that would be generated from the low-stocked areas that we'd clear-cut, and we'd put in a series of rotations that started at age forty-five. That way, we could have cuts coming off at forty-five years, fifty years, sixty, seventy, eighty, up to two hundred.



FISKE: And if an acre were poorly stocked with Ponderosa pine, what might culmination of annual increment occur? When would it occur?

LEVITAN: You're talking about the culmination of that mean annual increment of a single tree, which would probably be about two hundred years.

FISKE: Okay, so variation from forty-five up to two hundred years, then, for Ponderosa pine.

LEVITAN: Yes.

FISKE: Okay, got it. Now, if you go into an area and you've got a wild stand consisting of multiple ages—that is, a multi-age stand—is there such a thing as a culmination of mean annual increment?

LEVITAN: Not if such a stand existed, no. The answer is no.

FISKE: Okay.

LEVITAN: I might want to clarify that a little bit. What we seem to have or had in much of California was what you might call a bimodal stand. You had an overstory—it was rather sparse—of very old trees, and a younger stand underneath, and the age differences were great between the overstory and the understory but not within each of those stories.

FISKE: Okay, the common prescription at that point for harvest method, as you were describing earlier, would be overstory removal.

LEVITAN: That's right, that's what was intended.

FISKE: Yes, okay. Well, was shelterwood system in use at that time? Did you see much shelterwood cutting going on in 1976 and before?

LEVITAN: Only by accident.

FISKE: Okay.

LEVITAN: We saw some on the Sequoia. That was almost a perfect shelterwood, but it was overstory removal that actually worked. It had a lot of seedlings [that] came in voluntarily.

FISKE: How about single-tree selection? Did you see any of that?

LEVITAN: Nothing. No. What we were doing when I first came to the Region might have resembled it because we were looking for declining trees to harvest, but that had nothing to do with the single-tree selection system.

FISKE: How about group selection? Did you see group selection being practiced?

LEVITAN: Yes.

FISKE: And that's what—

LEVITAN: That's what I did when I had a chance.

FISKE: Oh. [Laughter.] And was that what was called "Unit Area Control" at the time?

LEVITAN: Ostensibly it was Unit Area Control.

FISKE: Okay. I once talked with Ken Estes, whom you may remember—

LEVITAN: Yes, I remember him.

FISKE: Ken, of course, is long since gone, dead now.

LEVITAN: Oh, I didn't know that.

FISKE: Yes. Ken died in retirement [in the] early eighties, I think, maybe middle eighties. Yes, middle eighties. Anyway, Ken described some of the early Unit Area Control work that was done. At the time, he was at Hayfork [Ranger District on the Shasta-Trinity National Forest] and talked about the difficulties of trying to apply something called Unit Area Control, and what it really amounted to was group selection openings, wherein you were trying to find or create openings in a stand which more or less indicated to you what they ought to be based upon the natural configuration of the vegetation at the time.

LEVITAN: Yes.

FISKE: But the more you got out towards the coast and Douglas-fir country, the bigger the units became, and so in effect they became stands or classic clear-cutting rather than group selection, what we would now call group selection.

LEVITAN: Yes.

FISKE: Did you see any attempts at [what] I call classic single-tree selection going on in 1976 and earlier?

LEVITAN: Not that I'm aware of, no.

FISKE: Yes, I never saw it. Again, I was in grad school at Berkeley at the time, but the only attempts that I knew of were on the Blodgett Experimental Forest [Georgetown Divide, California].

LEVITAN: Right, right.

FISKE: The University of California.

LEVITAN: And that's not Forest Service.

FISKE: It's not Forest Service at all, but there were some attempts and still are some attempts there to do classic single-tree selection, where you had every age class or really size class present in all the species you wanted on every acre.

LEVITAN: That presented a very significant problem with, as they call it, uneven-age management because you don't have good species control. You get one species [that] replaces another.

FISKE: Yes, and at least historically in California it was really successional species, that amounted to the bigger trees, the overstory, which were the valuable ones.

LEVITAN: Yes.

FISKE: And the understory was largely the true firs, which had lesser values.

LEVITAN: We very successfully converted the mixed conifer forest to white fir and incense-cedar, as opposed to its past pine dominance. That's very obvious if you look back through the inventories from one decade to the next.

FISKE: Yes. We've mentioned inventories. Maybe this is a good time to talk about the inventory process. You mentioned, before I stopped you, the use of satellite imagery for inventories, but just for the record, Jack, could you describe the inventory process, say, for a given national forest, how often it would be done and the kind of inventory information that would be collected?

LEVITAN: Prior to, what is it, the Resource Planning Act of 1974 we had rather a tradition to do a forest inventory every ten years; whether it happened or not—it was intended to happen every ten years, and most of the time it did. The data collected had to do with tree diameters, height of trees, what the species were, of course, essentially that and later some other things, like what was on the forest floor and that sort of thing, but it was done by putting in plots of a delineated area and measuring all the trees inside the plots.

FISKE: So it was large a timber-oriented inventory.

LEVITAN: It was essentially, totally a timber-oriented inventory. [Short pause.] You'll have to prompt me if you want more.

FISKE: [Laughs.] Well, we don't have to go into the statistical design, but—

LEVITAN: That's what I was afraid I [unintelligible].

FISKE: [Laughs.]. You were recording sizes and species of trees in plots.

LEVITAN: Right.

FISKE: And these were not permanent plots, as I remember.

LEVITAN: Yes, they were.

FISKE: Oh, they were.

LEVITAN: They were originally permanent plots, and they were to be remeasured. I actually participated in a remeasurement of some on the Mendocino National Forest. They made the remarkable discovery that these old-growth stands, as they were called, were still growing, which they didn't expect. I don't know why that was remarkable, but it was. Of course, these stands resulted from sheep grazing and fire depleting them, so they were still growing.

FISKE: Okay. And so an inventory was a timber inventory. Species and sizes of trees were recorded. What was the approximate fraction of the total trees measured? Is it a 1 percent inventory, something like that?

LEVITAN: I doubt if it was that high.

FISKE: Okay.

LEVITAN: I don't know. I don't remember. There were a number of plots put on ostensibly at section corners.

FISKE: And were the inventory plots concentrated in any particular timber type, or was it just a random distribution across a forested portion of a National Forest?

LEVITAN: Generally that varied. I saw some—the older inventories in the Sierra Nevada forests that simply put in what they already harvested.

FISKE: I see.

LEVITAN: Now, the one I remeasured on the Mendocino was simply distributed over the forest, because there was almost no harvest on the Forest prior to that.

FISKE: Yes. Who did the inventory work? Was that all out of your shop in the Regional Office, or was it done by Forests, with Regional Office quality control?

LEVITAN: The latter. It was done by the Forests, with Regional Office quality control. Or it was done by a contractor.

FISKE: Okay.

LEVITAN: Mostly it was done by the Forest.

FISKE: Okay, but the primary quality control role was done by you at the regional level.

LEVITAN: Right.

FISKE: Okay. Did the Washington office have any role in quality control over inventories?

LEVITAN: No. Okay, that's the way I remembered it.

LEVITAN: No.

FISKE: Let's pause here.

LEVITAN: If they did, I wasn't aware of it.

FISKE: I just hit the pause button. [Transcriber's note: No, he did not.]

LEVITAN: Okay, good.

FISKE: Let's get up.

LEVITAN: Do you want a drink of water and maybe a stretch. I think we're going pretty well.

Is this going comfortably for you?

LEVITAN: Yes.

FISKE: All right. [They move away from the recorder, and conversation from ET 44: 55 to ET 67:37 (end of CD file) is not transcribed.]

[End CD File 1. Begin CD File 2.]

FISKE: Okay, this is John Fiske. We are now on Track 4, and we're picking up again after a break. I wanted to ask Jack about something we skipped over too lightly in the first session, and that is: Describe in general how timber harvest levels were established under the old plans, if you will, pre-Jack Levitan coming into the Regional Office. You had inventory information by I guess National Forest, which established the total timber volume that was present, and presumably in some sort of a land classification that harvesting was permitted. Take us from there as to way the timber management process would develop an allowable sale—a harvest level.

LEVITAN: As it was known in those days, it was Allowable Cut. It was arrived at by applying a formula to the volume and growth rate of the inventory. As formerly used, it was known as the "Austrian formula". The reality was there was [sic; delete "there was"] something like 1.5 to 2 percent of the inventory would be harvested over a year.

FISKE: And was the 1.5 to 2 percent assumed to be or measured to be the equivalent of the physical growth rate of the timber inventory?

LEVITAN: Yes, it was assumed to be equivalent to the physical growth rate minus mortality, as I recall.

FISKE: Okay, so this was a way of estimating, then, of [sic; delete "of"] the harvest levels which would be sustained in perpetuity, all other things being equal.

LEVITAN: All other things being equal, right, and the inventory applying to where you're going to harvest.

FISKE: [Coughs.] Excuse me. I've got something in my throat. [Clears throat.]

LEVITAN: Anthracnose, sycamore disease.

FISKE: [Laughs.] [unintelligible] could be. [Speaks softly, hoarsely.] Okay, then, how did that process change after you got into the position of chief timber planner for the Region?

LEVITAN: The process changed—

FISKE: [Coughs]

LEVITAN: —in that we started to—

FISKE: [Moves away from recorder.]

LEVITAN: —map—[Pause.]

FISKE: [from a distance] Go ahead.

LEVITAN: We started to map the individual stands of vegetation, timber and other vegetation, and then began to sample, by the various forest types—by species types, by size classes—and then we used a linear program—

FISKE: [Coughs.]

LEVITAN: —coupled with the inventories and growth rates by those types—as we called them, “strata”—to project a harvest into perpetuity.

FISKE: [Coughs.] [Whispers.] What’s a linear program?

[Recording interruption.]

FISKE: [Still whispers.] What’s a linear program?

LEVITAN: A linear program—

FISKE: [Coughs, from a distance, then laughs.]

LEVITAN: —is a means of arranging classes of timber or whatever, and then projecting operations on them, in this case timber harvest and thinnings—



FISKE: [Coughs.]

LEVITAN: —and regrowing the timber in cycles to see what comes out, so to speak.

FISKE: [Coughs.]

LEVITAN: We ought to turn it off.

FISKE: [Whispers.] Okay, let's—

LEVITAN: That's what that stuff out there does when I mow the grass.,

FISKE: Oh, boy! [Coughs.] Boy, that's really something. Mmm.

LEVITAN: You getting any better?

FISKE: [Speaks in strained voice.] Yeah, a little better. Ah. Sorry.

LEVITAN: We shouldn't have gone outside.

FISKE: Geez, boy, I really got—

LEVITAN: It doesn't generally bother me unless you stir it up.

FISKE: Yes.

LEVITAN: The Piedmont is just covered with those sycamore trees, and all the anthracnose.

FISKE: [Clears throat, then speaks softly.] I can't really talk.

LEVITAN: I suspect that's the cause, but I'm not sure.

FISKE: Ah, it's all right. Sorry about that.

LEVITAN: Mmm. When you get your voice back—

FISKE: Yes, what I was trying to do is—I got—

LEVITAN: You asked me what a linear program is. Man, we could go on forever.

FISKE: Well,—

LEVITAN: [Laughs.]

FISKE: I tried to—I talked a little bit about it in my interview [unintelligible] called RAM-PREP.

LEVITAN: RAM-PREP was—

FISKE: Wasn't that [Navon's?] [pronounced NAY-vahn's].

LEVITAN: No, that was mine.

FISKE: Oh, okay.

LEVITAN: RAM-PREP simply structured the data to go into RAM.

FISKE: The Timber RAM.

LEVITAN: Right.

FISKE: And Timber RAM was Navon's?

LEVITAN: Right.

FISKE: Okay.

LEVITAN: Then it was replaced by FORPLAN.

FISKE: Right. Okay. Let's cover that point, because that'll tie in with what I remember talking about. Mmm. Excuse me. [Pause.] [Clears throat.]

[Recording interruption.]

LEVITAN: I should mention we're back after an episode of coughing.

FISKE: [Laughs.]

LEVITAN: What I didn't mention while you were coughing was that the linear program was supposed to produce an optimum,—

FISKE: Yes. Okay.

LEVITAN: — a maximum that could be cut under the circumstances.

[Recording interruption.]

FISKE: [Voice sounds normal.] Okay, we're back after a fit of coughing. I've been exposed to some fungus on the sycamore leaves out in Jack's front yard. My voice is back [laughs], and we can continue with this interview. Okay, Jack, we're talking about linear programming, and to tie it back into the interview that I gave, there was something called "Timber RAM". Was that invented by Daniel Navon (N-a-v-o-n) at PSW [Pacific Southwest Station]?

LEVITAN: That was a project under Daniel Navon as project leader. RAM stands for "Resource Allocation Model". What it's intended to do is find an optimum value, either economic or in terms of timber volume, from continuous harvesting and regrowth of the forest.

FISKE: Okay, so a linear—

LEVITAN: It would be the maximum you could cut under the circumstances, under the constraints that have to be applied, such as the constraints from the National Forest Management Act.

FISKE: Okay, so [in] a linear program, you put data into the computer, which includes—well, let's see, acres, includes volume, probably something about growth rates?

LEVITAN: It includes area, volume, growth rates, potentially economic values and all the constraints that would apply, such as you can't cut timber along a stream and that sort of thing.

FISKE: All right, and then the purpose of the program is to seek an optimal solution, where optimality would be, what, a maximum economic return, or would it be the highest level of timber harvest?

LEVITAN: In our case, it was the maximum level of timber harvest.

FISKE: Maximum level, okay, and then you adapted that for timber management planning in the Region.

LEVITAN: Yes.

FISKE: Okay. And then with that, would you run the timber RAM model for the Region as a whole or on a National Forest basis?

LEVITAN: The RAM would be run for each National Forest independently.

FISKE: Okay. This, again, would be pre-1976 National Forest Management Act.

LEVITAN: Yes, we started doing it about 1970, '69 or '70.

FISKE: Okay. And as I remember, the first National Forest where that was done was the Stanislaus?

LEVITAN: No, and I don't remember which one it was.

FISKE: Okay.

LEVITAN: The Stanislaus was the first one for which we had all the stands mapped.

FISKE: Okay.

LEVITAN: I think it was Six Rivers [that] was the first one, but I'm not sure.

FISKE: Okay. What I wanted to ask is: You changed methodologies from the old method, which was based upon the Austrian formula over to a computerized model which had a linear programming feature. Was there any significant change in the harvest levels changing between the two methodologies for the same National Forest?

LEVITAN: By design, there wasn't.

FISKE: Okay.

LEVITAN: Using the land base that we had used previously with the Austrian formula, we could raise the cut considerably, which we discovered, but once we started applying constraints, taking out those lands that you couldn't really cut at the maximum rate, then we could drop back to what we had been cutting.

FISKE: Okay.

LEVITAN: That's my recollection.

FISKE: Okay, got it. The National Forest Management Act, then, when it came in, we were then told very specifically how to plan for all kinds of resources on a National Forest basis, besides timber and a few other things that we had under the old Multiple-Use Plans, and so what happened to the timber planning process under the new Land Management Plans?

LEVITAN: I think what happened is significant. Rather than simply looking for an inventory to project, the emphasis became that of looking for the constraints, seeing how much land would be left over to actually cut timber from, as opposed to essentially thinking it was all available.

FISKE: Okay. One Land Management Planner told me that the chief function of the Land Management Plans was basically to allocate the land base to principal or primary uses, and if that's the chief function of what really happened [sic; if that's what really happened], then were there examples of where the land base that had been assigned timber priority became a priority for something else?

LEVITAN: Yes, I think so. The assignment of the land base to primary uses was essentially a *de facto* effect, not an intentional one.

FISKE: Okay.

Let's talk about the land use classifications. Pre-1976 you had different Components. They were called Components. What were the labels, and what did they mean and how did that change after 1976 and the implementation of the National Forest Management Act?

LEVITAN: As far as I recall, they didn't change.

FISKE: I thought they—we talked about, was it “Primary” and “Secondary” components before, and then afterwards the terminology changed—

LEVITAN: I don't recall—

FISKE: —to “Capable”, “Available” and “Suitable”.

LEVITAN: Well, no—yes, right, Capable, Available and Suitable, I think. But as far as operations go, I don't think they changed.

FISKE: Okay. The names may have changed, but—

LEVITAN: The names changed, right. That's my recollection.

FISKE: Okay, but no change in function.

LEVITAN: Right.

FISKE: Okay. And at the time of the passage of the National Forest Management Act, as I recall, what we called at the time, in a general sense, the timber land base was about 5 million acres. Is that your recollection?

LEVITAN: Yes.

FISKE: Okay. And the Suitable land base, for timber production at the end of the first phase—I'm sorry, after the first batch of Land Management Plans were completed in the Region, did that number decrease, stay the same?

LEVITAN: The Suitable land stayed the same.

FISKE: So at the end of the first phase, call it, of the Land Management Plans, the Suitable land base stayed about 5 million acres.

LEVITAN: That's right. That stayed about 5 million acres.

FISKE: Okay. So—

LEVITAN: Go ahead. I'm sorry.

FISKE: I was going to say that if you simply looked at that, then the logical conclusion would be then that the timber harvest level should have stayed about the same, again roughly 2 billion per year.

LEVITAN: If that's all you take into account, yes.

FISKE: Yes, but what happened?

LEVITAN: Well, what happened is there were further constraints applied in the Suitable land base, as you call it. It's my terminology. We defined three categories called "Regulation Classes": "One", "Two" and "Three". "One" was as unrestrained as possible; that's where we can use a forty-five-year rotation. "Two" was an area you didn't want to bare too much of the ground at any one time, intended to [sic; for?] rotations of no less than 100 years. And "Three" were areas that you might just want to take incidental harvest from to get rid of dead trees or things like that.

FISKE: Now,—

LEVITAN: Go ahead.

FISKE: I was going to ask if the nomenclature that you just introduced—was this something that used in a general way for timber planning or is this something that was put out as direction to the National Forests for the implementation of their Land Management Plans?

LEVITAN: It's something that I did for the land management planning people, and I believe they put it out as direction to the National Forests.

FISKE: I see.

LEVITAN: I'm almost sure they did.

FISKE: Okay.

Can we talk a little bit about the imposition, call it that, of constraints on fractions of the suitable land base? That is, in the implementation of the plans, although ostensibly for timber harvesting purposes we still had 5 million acres, in fact we had something significantly less.

LEVITAN: Effectively it was less.

FISKE: Yes, effectively less because of constraints. Where did these constraints come from?

Can you give some examples?

LEVITAN: Mostly from scenic considerations, landscape architects.

FISKE: Who made the decisions, then, to put additional constraints on the suitable land base of existing and approved Plans?

LEVITAN: Near as I can tell, the interdisciplinary teams.

FISKE: At the National Forest level?

LEVITAN: At the National Forest level.

FISKE: Or at the project implementation level?

LEVITAN: Well, that's another matter.

FISKE: [Laughs.] Okay. Both?

LEVITAN: I suspect both, but I can't tell you much about what happens on the project implementation level. [Chuckles.] One example is that on the Tahoe National Forest it became



forbidden to drag logs across the old ditches, and that was not a constraint in the Plan. You know, the old water ditches that the miners used.

FISKE: Oh, yes, yes.

LEVITAN: It was to protect their historical integrity, I guess.

FISKE: Huh. Okay. And what was the consequence of that particular provision?

LEVITAN: I don't know.

FISKE: Okay.

LEVITAN: It makes logging more difficult. That's for sure.

FISKE: [Laughs.] Yes, it was.

You mentioned imposition of scenic corridors. This was done presumably on a project-by-project basis, largely a decision made, then, at the District, probably from input from specialists, landscape architect specialists at the Supervisor's Office level.

LEVITAN: If we're talking about the planning level, yes. Beyond that, I don't know. I suppose that would be the case.

FISKE: Yes. What was the process by which you had some feedback once constraints had been established, to the Forest Plan so that the constraints had an acreage figure and a specific location identified. Was this something that was sort of an instantaneous feedback or was this something that accumulated over a planning period and then whenever the Forest Plan was scheduled to be redone, presumably ten years later, then you'd take the land base changes into account?

LEVITAN: I can't answer that except to say that I was involved with the first round of this, and so it was an instantaneous, so to speak, thing at that point. Now, whether they accumulated ideas and constraints over the next period—it's possible, but I don't know. It was intended that they would do something like that, yes. That was our intent, but I don't know what happened.

FISKE: Yes, I'm sure it would be formalized, taking into advantage [sic; into account?], but what I'm trying to get at is if there were, call it significant changes to the land base because of a scenic corridor or some other factor than—would there be rerunning of, say, the linear program?

LEVITAN: Oh, yes.

FISKE: So you'd have an effective change in the Allowable Sale Quantity.

LEVITAN: What would happen is [sic; was] that we would get a set of maps that would correspond to an alternative, and the maps would have been made by the specialists on the Forest from our stand maps, indicating which stands were under which constraints or no constraints or whatnot. And this was done by overlaying one person's map over the other, using that Wildland Resource Inventory System. And we'd have a collection of maps for each of these alternatives, and then run them through RAM, run the data that came from the maps they were in, that is, and essentially pick a final Plan from that and then test it, again in RAM.

FISKE: Jack, one of the themes in some of the other interviews that we've done as part of the oral history project has been, call it complaints on the part of some of the former district rangers, who said that they had a very hard time meeting the ASQ, the cut, if you will, because the land base was shrinking but the changes in the base were not being reflected in the Plans.

LEVITAN: My response to that is everyone's shrinking the land base.

FISKE: But what I'm getting at is apparently there's some, call it disagreement about the speed to [sic; with] which changes in the land base then would be reflected in what the cut could be.

LEVITAN: That's right. I'm sure that's what was happening, yes.

FISKE: Apparently in some cases the changes were being made, and in other cases, apparently not so.

LEVITAN: Right.

FISKE: Whatever.

LEVITAN: Well, people on the ground were constantly changing the land base, and then they have to pay the price.

FISKE: [Chuckles.] Okay. So that over all seemed to be one weakness in the Land Management Planning process, that changes in the land base apparently couldn't be reflected quickly into at least what the Forest Plan said the harvest levels ought to be and translated into what the harvested levels were going to be, say, over the next few years.

LEVITAN: Well, there was a device to more or less get around that, while it lasted. It was called "Compartment Examination", where the potential areas where operations were going to take place would have their own inventory, their own constraints applied to see how close they could come to what the plan called for or what changes needed to be made in supposedly those—if you couldn't meet the plan projections, you got as close to it as possible with your compartment analysis. Then you saved the information to use the next time a Plan was revised.

FISKE: Okay. For the record, what's a "compartment"?

LEVITAN: The compartment was an area of the forest that you delineate because it's handy to analyze. It could turn into a timber sale or a number of timber sales.

FISKE: I see. So approximate size of a compartment might be what?

LEVITAN: It might be 1,000 acres; it might be 10,000 acres.

FISKE: Okay. And so there was a formal procedure for assessing the timber in a compartment?

LEVITAN: There was a formal procedure for assessing the timber in a compartment and challenging what the Plan said, if you wanted to challenge what the Plan said.

FISKE: So there was a formal inventory process, which would assess species, sizes of trees, how fast they were growing?

LEVITAN: That, plus whatever else might be growing there that was of importance.

FISKE: Okay.

LEVITAN: Go ahead.

FISKE: I was going to ask, in terms of process, when did that process start, and is it still going on?

LEVITAN: The process started on the Stanislaus, and it was developed by Klaus Barber and I [sic; me] somewhere between 1970 and 1975. Whether it's still going on, I don't know. It was largely discontinued in favor of what were known as stand exams by a number of Forests. I thought that was rather strange because the stands that got examined were the ones they were going to cut anyway, [unintelligible] assigning priorities through a compartment. But anyway, that's what it came to, as far as I know.

FISKE: Yes, so a compartment exam was sort of an intermediate process between a Land Management Plan or real Timber Plans pre-1976 and stand exams, which were done for the purpose of developing a silviculture prescription.

LEVITAN: Right.

FISKE: Okay.

LEVITAN: Right. Perfect.

FISKE: Did the compartment exam have any other benefits in terms of developing support for the timber management program on the respective Forests?

LEVITAN: Try that again.

FISKE: [Laughs.] Okay. I know that you had formalized training for the compartment inventory analysis, and when I took it—gosh, it was the spring of 1978 or summer of 1978—it

seemed that there were a whole lot of people taking this course with me, some of whom were timber people and some of whom were not.

LEVITAN: Yes.

FISKE: And so it seemed to me that there were potentially some ancillary benefits to develop support for the timber management program through exposure to this inventory system.

LEVITAN: That's right. To use a cliché, it was to try get people on the same page.

FISKE: [Laughs.] Okay.

LEVITAN: Right. Yes. The idea was to show people working on these projects how their input might be used, and how they could be heard, and what effects they might have, and what data were collected, and all that sort of thing.

FISKE: Okay, so let's go ahead or think about a typical timber sale. The sale is in a particular compartment, and it would seem that one of the key sources of information for the prospective sale and information about resources in the compartment would be in the compartment inventory analysis exam, the data collected.

LEVITAN: Yes.

FISKE: And so the timber planner or whomever [sic; whoever] is on the interdisciplinary team would have that data at his or her elbow, so to speak.

LEVITAN: Yes.

FISKE: And then would other resources on the interdisciplinary team—would they have something comparable?

LEVITAN: Yes, they could all go out and look.

FISKE: [Chuckles.] But what I'm getting at is, were there comparable programs for, say—I'm just going to pick one here—fisheries or soils or landscape architecture?

LEVITAN: You'd have to ask the people on the individual Forests. I don't know.

FISKE: Okay.

LEVITAN: Everybody was invited to collect whatever data they wanted. The objective was to get everybody together and decide what they actually could do.

FISKE: Yes.

LEVITAN: And some people of course might have to give way to get something else done.

FISKE: Yes. My general impression, from having talked to a lot of people who were involved with these IDT meetings, was that the compartment inventory exam system was dominant because it was very well funded and, as a consequence, the timber people going into the interdisciplinary team meeting to plan a timber sale—they had the lion's share of the data.

LEVITAN: Of course.

FISKE: And this put the other resources at a competitive disadvantage because they didn't have anything like the data system that the timber people had, and that this caused some grief. But it also, I think—what I've heard was [it] spawned some efforts to try to come up with some alternative inventory systems for some of the other resources.

LEVITAN: Yes. How much that occurred, I don't know.

FISKE: Okay.

Well, let's talk a little bit about funding. What kind of dollars were used for the compartment inventory analysis system? Were these appropriated timber dollars?

LEVITAN: Yes.

FISKE: Were they the same dollars that came out of the timber sale planning process, or were these other dollars?

LEVITAN: Timber sale preparation.

FISKE: Okay, timber sale prep?

LEVITAN: Yes.

FISKE: Okay.

LEVITAN: That's my recollection.

FISKE: Okay. So call it the investment of taxpayers' dollars through appropriated dollars for this purpose, then, was expected to be regained, I guess, through the sale of the timber.

LEVITAN: Yes.

FISKE: Okay. The dollars, then, which went into soil inventories or fisheries inventories—those would have been other appropriated dollars.

LEVITAN: I don't know.

FISKE: It wouldn't be part of the same—

LEVITAN: Probably not, but I don't know.

FISKE: Yes. Okay. All right, thank you.

Let's move on. Where was I going to go next?

LEVITAN: Do you want more water?

FISKE: Yes. Let's take a break.

LEVITAN: Okay.

FISKE: I'm assuming that pauses.

LEVITAN: Yes.

FISKE: All right. I lost my train of thought.

LEVITAN: I don't know if it's worth mentioning or not, but this compartment exam idea began in Region Eight, and they've been doing it for years, and before we started that business in

Region Five, I went to the Region Eight compartment exam training session in South Carolina. It was and I guess it still is part of their program.

FISKE: It's a good process because it's something intermediate between the stand level and the Forest Plan level.

LEVITAN: Yes, I thought so too, and I think it's been mostly abandoned. Of course, there's nobody cutting anything anyway. [Chuckles.]

FISKE: Yes, the harvest can't sustain that kind of a program. But it was highly useful to get resource information available on a small, localized area—

LEVITAN: Right.

FISKE: —so that an ID team can actually chew on it.

LEVITAN: Yes, that was the intent.

FISKE: Yes. Well, as I said, my recollection was that the non-timber people felt at a very serious disadvantage because they weren't being funded.

LEVITAN: They weren't being funded, but they were just there to be potted plants anyway.

FISKE: [Laughs.]

LEVITAN: You could have [unintelligible] that. [Laughs.] There was no intention of ever funding them.

FISKE: [Laughs.]

LEVITAN: You just wanted them on--[Laughs.]

FISKE: I talked to somebody, one of the —ologists on one of the Forests, and probably the Sequoia—it doesn't matter which—and he [chuckles] talked about an ID team meeting where things were so contentious between the timber people and whoever the —ologists [and] one of the



—ologists finally pulls out his wallet, and he holds it in an open position and says, “Beam me up, Scotty, there’s no one intelligent life forms here.” [Laughs heartily.]

Okay, we’ve talked about non-declining yield, CMAI. We have talked about tensions about ASQ and LMP implementation phases.

LEVITAN: Well, we did talk about that. [Laughs.]

FISKE: In the detail you wanted?

LEVITAN: Yes, that’s fine. Yes, I don’t think I can push it any harder.

FISKE: We were pretty general. My impression was that there local decisions made which, to varying degrees, got back into the LMP process for the purpose of recalculating—

LEVITAN: Right. I can’t say much more because I can’t remember that much more about what happened—

FISKE: Okay.

LEVITAN: —and specific instances.

FISKE: Okay. Well, I sensed you didn’t want to say any more, and even when I brought in some of the former rangers, who complained about [the fact that] the cut was too high because the land base was shrinking and the information—

LEVITAN: And I said everyone’s shrinking it.

FISKE: Yes. And so at your level, unless you had knowledge and we could bring up a specific instance that happened during your tenure, there were apparently problems on some National Forests—I’m thinking of the Klamath in particular, because that’s where some of these examples came from—

LEVITAN: The Shasta-Trinity National Forest.

FISKE: Yes, where the land base—

LEVITAN: The Eldorado.

FISKE: The land base was shrinking, changes were being made in the land base, but that wasn't being reflected in the expectations.

LEVITAN: Well, it wasn't being reflected in the Regional Foresters' expectations or the Chief's expectations. They wanted that cut out.

FISKE: Yes.

LEVITAN: Then the Supervisors didn't want to cut it, and that's simple.

FISKE: Yes. We don't talk at all about that?

LEVITAN: No.

FISKE: [Laughs.] Okay. All right.

LEVITAN: [Laughs.] We could say that there was a lot of resistance to maintaining a harvest, but—

FISKE: Yes. Resistance. Ground resistance.

LEVITAN: There were two things: a lot of resistance to maintaining a harvest, and also blatant disregard of anything that was produced in the way of cutting practices. They just did what they damn pleased anyway.

FISKE: And [unintelligible]. From my side, reforestation, somewhere along the line, third-year survival dropped off of line officers' report cards. When did meeting the cut drop off the report cards? Was that during your tenure?

LEVITAN: No, later.

FISKE: Later. Okay.

LEVITAN: Later.

FISKE: All right.

LEVITAN: We were expected to produce 2 billion when I left, and having a hell of a time keeping a land base. We had the ostensible—the land base, but you know what happened on the ground.

FISKE: I think that's worth pointing out when we come back on again. Let's talk about the expectations of the 2 billion. That carried all the way through until you retired, which was at the end of 1988. And this expectation came explicitly or implicitly from [Charter, Weinmann?] [unintelligible]. We don't have to name them.

LEVITAN: No, I wouldn't. As I saw my job, it was to find enough Available, Suitable lands to produce somewhere in the neighborhood of 1.8 billion.

FISKE: I was working at that time—yes, right about the time you retired, at regional EIS [environmental impact statement], veg management, herbicides, and we used the 1.8 or 2.0—

LEVITAN: That's right.

FISKE: as—

LEVITAN: that's right.

FISKE: —this was the target. Yes, okay.

LEVITAN: That does corroborate it, yes.

FISKE: Yes. Okay.

We can talk about spotted owls.

LEVITAN: Okay.

FISKE: Do you want to talk about the change in the Region Five workforce, [the] Consent Decree and your observations on that in terms of capability—

LEVITAN: Well, that actually happened after I left, so I don't know if I should touch that one.

FISKE: Your choice. I was going to suggest that—you know, I saw effects before then.

LEVITAN: Yes.

FISKE: That's your choice. Okay.

LEVITAN: I want to get a drink.

FISKE: All rightie.

LEVITAN: You want some more water?

FISKE: Yes, please.

LEVITAN: I can arrange it.

FISKE: [Chuckles.]

[Pause from ET 39:16 to 39:34].

[The recording is whooshier now.]

LEVITAN: Okay. Thank you.

FISKE: What I know about—it was mostly hearsay—was when the other people—

LEVITAN: Yes. That's not worth—unless you want to bring it up. Well, it seems to me we don't have a whole lot more to do here.

FISKE: Good.

LEVITAN: [Laughs.]

FISKE: Talk about the 2 billion as an expectation up through the end of your tenure, because the land base was still ostensibly there,—

LEVITAN: Yes.

FISKE: —even though there was increasing resistance at the district—some districts and some forests, because things were shifting. We can go into some spotted owl stuff, and then we don't

want to drop the business about the Consent Decree. Then I think what we'll do is finish up with three more softball things; that is, what is your role in communicating the [unintelligible] management message internally and to the environmental groups. If you want to bring up Randy O'Toole and interactions there, that's fine.

LEVITAN: I just don't know.

FISKE: Okay. The way I can put it is, is [sic; is] did you have an active role, and was that really part of your job [unintelligible]?

LEVITAN: No, it was not. My role was more to respond to people like Randy.

FISKE: Okay.

LEVITAN: Not to communicate to the public in general.

FISKE: Okay, that's a good way to put it. I remember one such response. You and I did an analysis together basically. He had been hired by the Plumas or by somebody who was challenging the Plumas, as I recall.

LEVITAN: Yes. Beckwiths hired him.

FISKE: That's right. In fact, they came in one time, and we had a meeting.

LEVITAN: Yes,

FISKE: You and—

LEVITAN: I told him he was an asshole or something to that effect. [Laughs.]

FISKE: But that's an example of how you and I saw our roles.

Do you want to tackle the R5 public relations program?

LEVITAN: I don't know enough about it.

FISKE: Okay. I'm giving you an opportunity if you want to say anything. If you don't, I'll just scratch it off.

LEVITAN: Scratch it off.

FISKE: Okay.

LEVITAN: My vague impression is it wasn't much use, but I don't know. I can't analyze that.

FISKE: Do you remember Jane Westenberger?

LEVITAN: Yes.

FISKE: Her replacement was a woman named Marilyn [Hartley?], but Marilyn I think came in after you left.

LEVITAN: Yes, I don't remember her, so she must have. Jane Westenberger and [Robert] "Bob" Spivey used to traipse around together, for some reason.

FISKE: Yes. Westenberger came up with the idea that we should produce some pamphlets. I was involved with that and talked about that a little bit in my interview, but none of it really had to do with timber plans, so—

LEVITAN: No.

FISKE: Okay. Then the last is this business about Ecosystem Management, so I could ask you what your perception, or [what was it, and how was it to be implemented?

LEVITAN: But before we do that—

FISKE: Okay.

LEVITAN: Remember when we hired the forestry people at UC, Berkeley, to come up with some plan? What was that? Was that Ecosystem Management?

FISKE: I [unintelligible] come up with a plan?

LEVITAN: Yes, [they came up with] some training sessions, looking at the Forests. What did they call that? They had some terminology they invented. If you're looking at what's currently growing there and using that as a basis to determine what you're going to do silviculturally.

FISKE: Oh, you're talking about the program that I ran, the silviculture certification?

LEVITAN: No.

FISKE: We had—

LEVITAN: Yeah, yeah, yeah. It's related to that, yeah.

FISKE: We ran a whole bunch of silviculturists and timber planner through something that's called the "Advanced Course in Forest Ecology and Silviculture". The faculty, which [sic; The faculty] was drawn from PSW, UC, Berkeley—you were on the faculty because I dragged you into it.

LEVITAN: Yes, but this was some terminology associated with that that's more or less related to Ecosystem Management. It's not specific to that.

FISKE: Terminology?

LEVITAN: Yes. I don't remember now.

FISKE: [Laughs.] Okay.

LEVITAN: I was not exposed to any operational Ecosystem Management. I guess it never happened, not while I was there. [unintelligible] good.

FISKE: [Laughs.] Yes. Well, okay, just for the record, since Ecosystem Management was supposedly—okay, something else to "save" the Forest Service—then it happening in the nineties, I'll ask you about it, and you can simply say, well, it happened after.

LEVITAN: Yes.

FISKE: But if you had an idea of what would it [sic; it would] have meant to you, if you have an idea.

LEVITAN: [Makes sound.] [Laughter.] First of all, everybody's idea of an ecosystem is something different. [Laughs.] At what scale are we talking about an ecosystem? That just ruins everything.

FISKE: Yes. That reminds me of—sometime in the eighties, middle eighties, I went to a lecture by Roderick Nash.

LEVITAN: Yes.

FISKE: Remember him?

LEVITAN: Vaguely.

FISKE: Okay. Nash was a professor of wilderness philosophy at Santa Barbara—UC, Santa Barbara, I think. And he was from Brooklyn, and his background was entirely urban.

LEVITAN: Yes.

FISKE: Or the way he put it was his ecosystem [unintelligible]. [Laughs.] Anyway, Nash came to love nature, and part of his lecture was that he was delighted by the development of environmental law,—

LEVITAN: Yes.

FISKE: —because, the way he put it was that it meant that ecosystems have rights. Well, which ecosystems have the rights?

LEVITAN: Right.

FISKE: And on what scale? Nash was a very engaging personality, and he also recognized the logical contradictions by every ecosystem having a right, having some rights.

LEVITAN: Yes, no doubt.



FISKE: He told a story on himself to indicate that some of this was kind of puffery. And that was he had some extra money, and he purchased some land near Canyonlands National Park, with the intent of building a vacation cabin.

LEVITAN: Yes?

FISKE: And in laying out where the cabin was to be, he discovered that there was a particular rock that was in the way. Now, does this rock have rights which supercede his rights?

LEVITAN: Yes!

FISKE: And so he said he thought about that, and he decided his rights superceded the rock's.

LEVITAN: Yes, I can imagine that.

FISKE: He got down on one knee and begged forgiveness to the rock, and then picked up the rock and tossed it aside, after thinking to himself, *Good God, I'm a PhD. Why am I begging forgiveness of a stupid rock?* [Laughs.]

LEVITAN: Yes.

FISKE: [Laughs.] Anyway—

LEVITAN: That's a fatal flaw of Ecosystem Management. What is an ecosystem? At what level?

FISKE: Yes.

LEVITAN: It pretty quickly degenerates into nonsense.

FISKE: Yes, it was does.

Okay, so we'll go back to—try for a grand finish here.

LEVITAN: Okay.

FISKE: Do you want to go back to the expectation that the ASQ would stay roughly 2 billion through your tenure, and that the land base was still—basically it was still there, and the inventory was still there that could sustain it?

LEVITAN: Yes.

FISKE: But we didn't. Or the expectations weren't—did we really? I don't remember what the timber harvest levels were. It seems to me it began heading down.

LEVITAN: I don't recall, honestly. My vague recollection is up until the time I left, it was more or less the same, but I can't swear by that.

FISKE: Let's not push that one, then.

[Recording interruption.]

FISKE: Okay, we're back after a short break. Jack, I want to clarify one point, and that is about the expectation of timber harvest levels during the 1980s. We talked about [the fact that] there was an expectation that the timber harvest levels of pre-1976 of roughly 2 billion board feet per year for the Region would be sustained. Now, was that true all the way through the 1980s?

LEVITAN: That's my recollection.

FISKE: I mean at least up to the time you retired at the end of 1988.

LEVITAN: That's right. Now, it may have been diminishing, but it wasn't apparent to me at the time.

FISKE: Okay. And, again, the expectations—we've used that as a generic phrase, but that was your clear understanding that that's what the harvest levels should be.

LEVITAN: That was my understanding. That was our objective, to try to meet that level.

FISKE: And, again, all the way through your tenure, then, was that explicitly stated to you on a repeated basis, or by inference based upon some other factors?

LEVITAN: I think it was mainly by inference.

FISKE: Was the nature of the inference based upon political pressures coming down from Washington or was this something that was rather explicit in the budgeting process, to where Congress was giving—

LEVITAN: The budgeting process had a lot to do with it.

FISKE: Okay, so there was specific direction, then, in the budgeting process that went to the Forest Service that said, “Forest Service, under agreement to Congress, under this appropriations act, then, this is the timber that you’re going to produce,” say, “during fiscal year 1987.”

LEVITAN: Yes.

FISKE: And then there was then direction that came out of the Washington office, where the direction to Region Five was that your share of whatever that number was that had been agreed to by Congress was roughly 2 billion a year.

LEVITAN: Something like that. At least that was my impression.

FISKE: Yes. So there was not only, then, something in writing that says [sic; said] this is what the Region is to do, but assume that then there was all kinds of pressure, then, within the Forest Service, coming down through line, to do exactly that.

LEVITAN: Oh, yes, there was. That’s obvious.

FISKE: Okay

LEVITAN: When it might have ceased, I don’t know, but when I was there, that was the picture I got.

FISKE: Okay. Sometime in I guess it was the late 1980s, [unintelligible] getting the issue of the Northern spotted owl, north of border but which also began to affect us in the four National Forests, both the Klamath, the Shasta, the Trinity and the Six Rivers.

LEVITAN: Yes, down to the Pitt River, as I recall.

FISKE: That's right.

LEVITAN: Because those owls couldn't fly across the river.

FISKE: [Laughs.] Yes. As I recall, they had findings up in the Pacific Northwest that the Northern spotted owl was an old-growth obligate; that is, had to have old growth for nesting and for foraging. Again, the Northern spotted owl influence in California was just those four Northern Forests. Do you recall when that issue began coming up and how that affected the timber harvest levels and the timber planning for those four northern Forests?

LEVITAN: I don't recall. I do recall that it happened. My earliest recollection was there was no distinction between the two subspecies, if subspecies exist.

FISKE: That's the Northern spotted owl and the California spotted owl.

LEVITAN: And the California spotted owl. But I vaguely recall the distinction being made, and I guess it wasn't all before I left. I just don't remember. I do recall its being made when I was working for the Forest Service.

FISKE: Okay. In the late 1980s, though, did the Northern spotted owl and the issues that came up about habitat, saving habitat for the Northern spotted owl, which was either threatened or endangered—did that significantly affect the processes going on our so-called four northern Forests—again, the Klamath, the Shasta, the Trinity and the Six Rivers?

LEVITAN: Yes. At least it significantly affected the discourse among the interdisciplinary teams when I had some exposure to their arguments. Whether it had any effect on what came out of the Plans, I don't know.

FISKE: Okay. And we've mentioned the California spotted owl, which, at least by geographic distribution, according to the zoologists, was really [in] the rest of California—that may have come up after you left in terms of effects on the harvest levels, but were you involved at all with the California spotted owl issues?

LEVITAN: I was involved with the spotted owl issue before the distinction was made. Since there was no distinction, it was determined that we should find the spotted owls in old-growth, so to speak, regardless of where we were in California, and I was instructed to take a look around the Eldorado National Forest. I had a map that showed spotted owl nest sites, and I visited them, and every one of them was in stands of timber eighty to ninety years old, not old growth at all. That was my only contact in that regard.

FISKE: Did you do anything similar in the way of your own investigations into habitat for the Northern spotted owl?

LEVITAN: No.

FISKE: No. So from your perspective, then, you didn't think that the California spotted owl was an old-growth obligate.

LEVITAN: Hardly. It was obviously not.

FISKE: [Chuckles.] And was this contrary to the advice that we were being told [sic; given]—

LEVITAN: Yes.

FISKE: —by the owl biologists?

LEVITAN: It was. Completely at variance.

FISKE: Did you transmit your findings to the California spotted owl biologists either internally or externally?

LEVITAN: I transmitted my findings to whomever was asking me.

FISKE: [Laughs.]

LEVITAN: I don't recall. That was the [deputy?] Regional Forester.

FISKE: Okay. And to your recollection, were there other investigations or similar findings, that the California spotted owl was not an old-growth obligate?

LEVITAN: At the same time, my colleague, Klaus Barber, was investigating what correlations might exist, and he found that the Eldorado National Forest had the highest incidence of responses to hooting, and by further investigation he came up with the idea that spotted owl populations were highly correlated with the amount of roads on a national forest, positively correlated. The obvious conclusion was that people who could get around more and hoot more could get more owls.

FISKE: More intensive sampling,—

LEVITAN: Right.

FISKE: —in other words.

LEVITAN: Right.

FISKE: After you retired, did you stay involved with the spotted owl issues at all?

LEVITAN: After I retired, I did not stay involved with spotted owl issues. I did a lot of consulting work for universities and the Forest Service and [the] timber industry, but I had no direct connection to spotted owls.

FISKE: Okay.

Jack, let's finish up by talking a little bit about some Forest Service initiatives that happened either right at the end of your tenure or maybe just a little bit beyond. When was an initiative that came out of the Washington office called New Perspectives—did you overlap with New Perspectives at all?

LEVITAN: I overlapped with the terminology. I don't remember much about it.

FISKE: [Laughs.] I was going to ask you what New Perspectives meant to you.

LEVITAN: Nothing.

FISKE: Okay.

LEVITAN: Next question.

FISKE: [Laughs.] Next question, all right. New Perspectives, over some period, a year or two, evolved into what became an official Forest Service, call it program, not exactly a program but call it a management initiative called "Ecosystem Management". Of course, ecosystems have been around forever, and I remember ecosystem management back when I was a graduate student at Berkeley in the early 1970s, but the Forest Service officially didn't get around to officially endorsing the concept of ecosystem management probably until the early 1990s. But, again, during your tenure, which ended in 1988, did you come across the concept of ecosystem management?

LEVITAN: I heard the term.

FISKE: And what did the term mean to you?

LEVITAN: It's totally ambiguous to me.

FISKE: Because?

LEVITAN: It's a matter of scale: how large an ecosystem are we going to manage or how small an ecosystem, and where are the boundaries?

FISKE: Yes. In other words, they're an artifact of human discretion.

LEVITAN: That's exactly right.

FISKE: Yes. Well, that's one of the difficulties we ran into with trying to implement ecosystem management.

Jack, this ends the questions that I have for you. Is there anything else you'd like to bring up, either on the topics we've already talked about or something entirely new and different?

LEVITAN: I think I'm talked out.

FISKE: Okay. Well, Jack, thank you very much for your hospitality and participating in the Region Five oral history project.

LEVITAN: You're quite welcome.

[End of interview.]