

**Transcript of Andrews History Project Workshop, August 7, 1996, at the Corvallis Forest Science Laboratory. Participants: Art McKee, Ted Dyrness, Cindy Miner, Max Geier, and Fred Swanson.**

*This planning discussion was held in the Forestry Sciences Laboratory in Corvallis to scope out and plan the history project which was to unfold in the context of the 50<sup>th</sup> anniversary of establishment of the experimental forest (1998). We were planning 2 years in advance of the anniversary date, but the resulting book (Max Geier's Necessary Work) did not appear until 2007! Participants in this group interview represent a variety of disciplines and roles: Forest Service soil scientist Dyrness, University of Western Oregon historian Geier, Andrews Forest Director and OSU employee McKee, Forest Service Research Station director of communications Miner, Forest Service geologist Swanson.*

**Fred Swanson:** We could probably start, and each introduce ourselves and say a little bit about where we each first started with the Andrews. So why don't we do that? Ted, do you want to start out?

**Ted Dyrness:** My experience in the Andrews goes back to 1955, and I was on a field trip with the Pacific Northwest Forest Soils Council, or Association, whatever you want to call it. I distinctly remember that we went out in one of the yearly clear-cuts, and at that time, the whole stress [in HJA program] was on converting old-growth to thrifty stands of second-growth. The person that led our field trip on the Andrews was Roy Silen, who was at that time doing his Ph.D. research on mortality factors of natural seedlings of Douglas-fir, how high a temperature they could tolerate, and so on. I didn't really start working there myself until, well, I'd had trips there in '61. But in '62, summer of '62, I started working on the Andrews, virtually all that summer, and that was the summer before they started logging on the two experimental watersheds (Watersheds 1 & 2). So, from then on, I was on the Andrews every summer until I went to Alaska in '74, and then I came back in '80, '90. (Laughs)

**Swanson:** The reasons for asking Ted to take part at this initial juncture are: 1) early history of research there, 2) having participated in a similar large enterprise in Alaska, and 3) being familiar with the Alaska history project. So, we can bring some sort of history project experience into this discussion as well. That's why Ted is here. Art McKee, and his title is [Site] Director of the Andrews, at the moment. He's been working at the Andrews since --

**Art McKee:** -- the winter of '70-'71. Met Ted, and went out with Ted and Jerry one of my first days out there, so I had a great day! That, I think, was the beginning for the model of my engagement and involvement in the early years.

**Dyrness:** That was the beginning of the IBP?

**McKee:** Yeah, it was interesting.

**Dyrness:** Did you like it there at first?

**McKee:** Well, it is funny, when I came out here, I had a very definite agenda, to be out here for two years, to get the Northwest experience, and then hoof it back to New England. (Laughter) And I discovered I really loved all the public lands out here, and I loved the research community and the group I was working with. It seemed to be a real nice mix, so I decided to stay. It was never a serious

question after that. At any rate, to begin, the program was growing. It changed about the time I arrived, from a largely Forest Service science program to a university-oriented program, which continues to the present time. But I think many of the themes set during the '60s, with Ted and Jerry working out there, were certainly interesting during the Biome [Coniferous Forest Biome – IBP] years, and continue to the present time. They recognize the value of long-term, permanent plots, and those kinds of things.

**Swanson:** Art's particularly critical here. I view Art as the person who has certainly the most comprehensive overview of how both the science programs and the administrative aspects of the infrastructure have developed through time, including the IBP to LTER transition, and all that kind of stuff. Art's a major repository of that information. So, I'm Fred Swanson, and I got involved, first as a post-doc in 1972 during the International Biological Programme, and I felt like Ted was instrumental in helping me find a place in IBP and at the Andrews, because I came in as a geologist, marginal topically, and maybe, otherwise. I was living in Eugene, and everybody else was living here or in Blue River. But people like Ted and Jim Sedell helped me find a way into the science program.

**McKee:** Wait a minute. Jim Sedell took you under his wing? (Laughter)

**Swanson:** Well, yes. He was pretty good at collecting a following in his particular way. I don't have a real good memory for dates and things like that. I'm more interested in the broader, sweeping things.

**Geier:** That might be something to focus on here. If you haven't read these preliminary organizing themes, this is something I just pulled together from things that Fred and I have been talking about over the last several weeks. It's kind of a preliminary organizing theme, not a cast-in-concrete idea. What I'm really looking forward to is the response to ideas generated from this beginning point. What we are talking about here is a project that's going to really focus more on the processes, as Fred was just saying, as opposed to "Eureka" discoveries. We're looking at it as sort of an ongoing process of building a community and the kinds of people that are involved in research on the Andrews, and the development of networks, and frameworks of communication, both within the group of scientists working there, and from them, linking outwards with other kinds of organizations, other researchers.

**Swanson:** The general scheme is that we'd like to have a book on the history for the 50<sup>th</sup> Anniversary [of HJA's 1948 founding] two years from right now. We can have a celebration that summer. And this book is part of a collection of things; activities, updated brochures, updated publication lists, t-shirts, etc.

**McKee:** Coffee mugs? (Laughter)

**Swanson:** Coffee mugs, yeah. I'd like to have a science book, but we're not going to have that, but I would like to have it fairly well underway by that point. So, that's the target. And we're launching the history project, which I've been referring to as the Andrews Forest History Project. We're launching it today with Max, and having talked with a number of people, including Bill Robbins and others involved in the history of the Northwest. Max and I went and spoke to - -

**Dyrness:** -- Who's Bill Robbins?

**Swanson:** He's a history prof [at OSU; noted historian of Oregon, U.S. West, and environment].

**Dyrness:** History prof around here [group in agreement].

**Swanson:** Yeah. Max and I also visited with Bill Lang, a history prof at Portland State and the series editor for "Culture and Environment in the Pacific Northwest," from the OSU Press, which seems very well-suited for us. At the present, this activity is the kick-off activity in a contract with the station [PNW] through funding from Cindy Miner's shop. We'll have Max do summer work, which includes conducting this workshop, which will get us a lead on the items on this list, and beginning to compile information on what information is available, preparing a formal prospectus to try to lead to a contract, and to have a book as part of the series. And then, to conduct three or so initial interviews, with some key people that we identify here today. Those interviews will be focused in part, on how we approach the whole book. Those people will probably be subjected to further interviews, when we get down to the nitty gritty of collecting data. So that was the general plan for today, as I interpret it.

**Geier:** These initial interviews, again, they're intended to be preliminary probings to get feedback from people who've been directly involved in shaping the Andrews, on areas they think would be productive to get into the book, and to do that in some depth, individually. I hope this workshop will also accomplish some of that. Especially, to identify follow-up topics to pursue, either with persons being interviewed at a later date, or with other people that person is closely connected with.

**Swanson:** So, the purpose today is to not begin to answer the interesting questions that might come up relating to the history of the Andrews, but rather, to formulate the questions.

**Dyrness:** Well, right.

**Geier:** Which is why I boldfaced "e" down here on the bottom, number "3e." What questions would you like to see this study answer? This is a good time to pose that question. Actually, maybe "answer" is not quite the right word there, but what questions would we like to address in this study?

**Dyrness:** More an attack strategy?

**Geier:** Yes. And I'm not sure there's going to be an answer to all these, but what's really fascinating to me is the ongoing process of discovery at the Andrews. That's kind of what this project is also about.

**Swanson:** One thing I'd like to suggest, and I don't know if it's really odd here, is a topic that you all might chew over a little bit, and some of this has to do with trying to get this little workshop together, and then having people like Martha be sick, or some other people that we'd like to have here, who aren't here, is using this project as part of the process of discovery. Some reflection is going to go on. And my take on the general question here is, "How is the project conducted in terms of opportunities for pulse-taking?" I'm thinking about that in two ways; first, I take the Alaska history to be one of primarily one-on-one interviews, and second, I'm wondering about some small gatherings for you to tell us how you see things developing. We could have some group discussions around that.

**Geier:** That's a good idea.

**Swanson:** Let's include some small groups.

**Dyrness:** As well as the individual. I think that's a good idea.

**Swanson:** Right. I'm thinking about small group venues of two sorts. One is sort of a pulse-taking on how the project is developing, and the other is sort of group interviews, or group "not-interviews." So, we talked about that a little bit. I'd like to see it in a field setting, for example, "What about IBP," with some IBPers in a group. You know, roll it back there 20 years, and discuss what was going on there

relative to our themes? Another is, I'd like to get you all, Roy and Jerry, out at Carpenter Mountain Lookout, watching the sun go down, watching the sun come up, and just let you guys roll.

**Dyrness:** Because, that'll be more than one at a time. You all play off each other.

**Swanson:** Yeah.

**Dyrness:** Jerry says, "Do you remember that time when Ted said such and such, you know." It might not be true, but I'll be there (laughing), and it's a good story.

**Swanson:** Another one I'd like to do is have the stream guys sitting along Mack Creek.

**Dyrness:** Yeah, and being out in that area, is an important thing. Plus, especially with your idea, Fred, with making a theme of community, that it's a community of people. That's what makes the Andrews kind of unique. It's always been a community.

**Swanson:** Well, that really comes from Max, who has studied communities, and I haven't asked him this question yet, I want to, but I'm not going to do it right now. But that is, what are the attributes of community, and how does that bear on us, from a community scientist's point-of-view? And I think it will be good for us to get some feedback. One reason for thinking along these general terms, is I think it's going to be very stimulating, and generally a positive, maybe thoroughly positive experience for us all, and it will lead to a lot of self-reflection, which I hope, launches us into our next half-century.

**Dyrness:** Yeah, yeah.

**Swanson:** Our science is changing, and it's changed a lot. I think this may be a useful juncture.

**Geier:** Along those lines, one of these group feedback opportunities or "pulse-taking" you were talking about earlier, might be a good opportunity for me to do that, do some initial preliminary interviews with people, and get a clearer sense of the community development I see working at the Andrews, and put that in the context of my understanding of this working concept, where I can get feedback setting with a small group of people.

**Swanson:** Yeah, like the next critical juncture is probably what you draft as a prospectus. We should see if our key people are on board with it before we put it on Bill Lang's [editor-OSU Press] desk.

**Geier:** That's probably a good idea. And that would be a good opportunity, by that time, I should be able to develop, fairly systematically, my working concept of community as it's applying to this project, because that's what he's really asking for in that prospectus. I could present what I'm working with, and we could get some feedback from him at that time.

**Dyrness:** That's a good idea. Is Jerry on board with this, and is he willing to contribute? Because he is so key.

**Swanson:** Oh, yes. He's jazzed.

**Dyrness:** Is that right? Oh, good.

**Swanson:** Yeah.

**Dyrness:** Because, you know, he's going to have to spend a lot of time with this.

**Swanson:** We talked about it when we went up a few weeks ago. So, I could mention some things I thought were critical in conducting the day. One is the central theme, I'd like us to discuss a little bit.

It seemed to me that the questions to the interviewees could start out by dealing with elements of the central theme, and that's a way to start structuring the questions. And then, this item here, "structured listing exercise," number 3. The idea there was, as just a start, to try to define what the positions have been, the relevant positions, and then, who sat in those positions over time, in the different major institutions that are involved. And then, there'll be other categories, too, that need to be listed. Allies, political, antagonists, and friends, and so forth. For example, who have the deans [OSU-COF] been, and who have the station directors [PNW] been? Who have the forest supervisors [Willamette NF] been?

**Dyrness:** How have their attitude towards the Andrews changed over time? I remember that district rangers, when I started working on the Andrews, barely tolerated what we were doing. I remember, one or two times, the district ranger [Blue River R.D.] happened to drive by when we were measuring plots or something, and stopped and talked. Maybe we talked about the weather, but he wasn't real interested. They tolerated us. I can remember Jack [Rothacher] fighting battles with the district ranger about how, "The Andrews has to contribute their fair share of timber for our allowable cut this year."

**McKee:** Yeah, right. Even though it's not part of the land base.

**Dyrness:** Yeah, yeah. And he'd [Rothacher] come back wrung out from fighting the good fight to preserve the Andrews for experimental purposes.

**Swanson:** Yeah, so –

**Dyrness:** These guys [Jerry Franklin, Jack Rothacher] really had the vision back then, but we didn't have the manpower. We'd go around saying, "Gee, I wish we had more people to do all these kinds of things that we were interested in." Then, of course, what came along to provide that was the IBP.

**Geier:** Which is an interesting point here. One thing we might want to focus on would be differences, personal conflicts, and institutional conflicts. What kinds of institutional frameworks in place at what point-in-time led to this kind of friction you're talking about, and what kinds of institutional frameworks led to a dissipation of that, or was it more personality? It's a question that you'd probably have to ask a number of people to get at, and it's probably a combination of both.

**Dyrness:** Yeah, yeah.

**Swanson:** And so, I see this structured listing exercise. The first thing is to take something of a comprehensive view, although I don't feel like we need to fill in all the boxes.

**McKee:** I was just groaning about filling in all those students. (Laughter)

**Swanson:** No, but we do need to do a listing of all the friends of the Andrews, because we're gonna want to send them that letter, and we're gonna want them know about this book, and about the 50<sup>th</sup>. [Anniversary in 1998 of the H.J. Andrews Experimental Forest/originally named Blue River E.F.]

**McKee:** Well, that's something that Carol [Wood, HJA-LTER admin. asst.] was just talking about?

**Swanson:** Carol started working on that. This is initially to identify three or four initial interviewees, then, the next cadre. They'll be following this, and Max will follow his nose. Things will lead to different places. [Strategy for oral histories, their order, and history project as a whole.]

**Dyrness:** Yeah, because they'll say, "You should talk to so and so, because they were there."

**Swanson:** Yeah, but I think it's important for us to develop some sort of an overview.

**Geier:** One thing I'd like to say here is that if we identify three to four initial interview people, it would be really helpful to have a list, as you're suggesting, and about 10 to 15 secondary level interviews that we identify at this point, as real significant to get into early. That way, when I'm talking to those first four people, I can ask them for feedback on those other people, their priorities, and what kinds of things I should talk to them about. [Almost forty people were eventually interviewed.]

**Swanson:** We can try to achieve an appropriate level of institutional balance, things like that, and so we have a broad framework. Otherwise, we might have slid over one of those.

**Dyrness:** Yes. We don't want to get down to one bent.

**Swanson:** Even in this meeting, I realize, we really should have had an NFS [National Forest System] person here, Lynn [Burditt] or [Mike] Kerrick, or somebody like that.

**McKee:** Yeah, Mike Kerrick. Jot Mike's name down as a person who probably has as good an NFS grasp as anyone.

**Swanson:** Mike Kerrick helped build the stone monument at the entrance to the Andrews. I think he was there in '53. [Career Forest Service; Blue River R.D., Chief Ranger, Willamette NF Supervisor.]

**McKee:** He was the one that insisted on the aerial seeding of Watershed 1.

**Dyrness:** Yeah.

**McKee:** That turned out to be such a fiasco. (Laughter) He was then a major player in providing what was initially a silviculturist position, one that evolved into John Cissel's position of Research Liasion between the HJA and the National Forest System [position has continued to present – 2019.]

**Dyrness:** But, that was much later.

**McKee:** Yeah, that was much later.

**Dyrness:** But he was there. Yeah.

**McKee:** So, it was three different times, different roles. I think he [Kerrick] actually did some cruising [timber] as an undergraduate up in the Andrews.

**Swanson:** Then he let Steve Eubanks run amok. [Eubanks was enthusiastic supporter of research and technology transfer.]

**McKee:** Yeah, he did. That was great. (Laughs) He let that happen.

**Swanson:** So, I now want to go back to our basic theme, which seemed something like, and Max has it in here, the key phrases seem to be in the latter four lines. That is, a focus on the community of scientists, which were joined by land managers in the last 20 years. This community, in combination with the property, ecosystem, long-term databases and other things, became this fertile seedbed for science discovery, and for learning implications for management and policy. Is that a useful theme? Is that a useful theme to you as a writer? Is that a useful theme to us as scientists and participants?

**Dyrness:** Yeah. I think that's putting it in context, what's going on nationally, with the advent of Earth Day, and, you know, that [environmental "revolution"] had a real role to play.

**Swanson:** That's why I was going to bring that timeline [history] we prepared for the LTER 4 Proposal, because, to me, that was a critical temporal structure, which included things like the Clean Water Act. We had legislative mileposts, and then, the research themes, which had continuity, but then the key issues were constantly evolving. They were written in the timeline. Should I go get a copy of that?

**McKee:** Sure. I've been trying to distill this into three or four key words or phrases. It helps me when I think about themes. That's just the way I think, I guess. So, I tried to do that. The things I've come up with so far, and not necessarily in any priority are: community commitment, and, I might re-order that, because the next one is long-term. I think there has been a long-term view of the people working out there, both in terms of science and management. The idea of what is now called sustainability, at least from the management perspective, that's been there from day one of my association, and this desire to have science-based management. So, the managers want to have a justification for doing what they do, and the scientists want to be able to provide them with that justification, or play an interest in doing that. I don't know, that probably doesn't encompass – (Footsteps entering room]

**Swanson:** -- Hi. [to Cindy Miner]

**Cindy Miner:** Hi. (Person just arriving)

**Dyrness:** Hi, Cindy.

**McKee:** All of what you two have been talking about, but those are the things that swelled up when I think about what is embedded in that central theme.

**Swanson:** Art, what was the last point about? Science?

**McKee:** Science-based management.

**Geier:** One thing that struck me while Ted was talking earlier, and Fred, is the idea that this is kind of a psychobabble term, about taking ownership for something, as a concept, and then, the more concrete issue of property ownership of the Andrews. Who is responsible for that piece of land, ultimately, and then at a different level, who takes responsibility for what happens to that piece of land, and at what institutional level. That's something I think we might want to incorporate into the study a little bit here.

**Dyrness:** Yeah.

**Geier:** Because that sense of place is more than just a physical reality.

**Dyrness:** That sense of place is really a reality.

**Geier:** Yeah.

**Swanson:** And it had an interesting evolution through time. I remember being concerned about the standing timber value, and Jerry talking about that. I think it was one reason he encouraged some cutting in the ecosystem research period. If it looked like there were plans to lock it up, we might risk losing it, because there was a half-billion dollars of standing timber there. That was what I'd heard.

**McKee:** Yeah, well, it was in the late '70s, and by stumpage rates, that's what it was worth at that point. It's worth three times that now.

**Swanson:** Cindy, this is Kelley Allen. And Kelley, this is Cindy Miner, who is in charge of communications for the Pacific Northwest Research Station, Forest Service Research. She's based in

Portland, and she's been very interested in seeing histories of experimental forests developed, and has been one of the perpetuators of the Alaska history, as well as having overall responsibility for a large group of editors and publication managers and public affairs people.

**Geier:** I should probably introduce Kelley here, too, since everybody else has been introduced. Kelley is a post-graduate from Western Oregon State College who has done several internships there with me and with other faculty, and has worked down here with the Benton County Historical Society, most recently in an internship project, so she's got a lot of experience in community history in this area, and brings a lot of good organizational skills that I really need, to the project. So, I wanted to get her involved at this stage, so she's right on top of the project as it's progressing from here on out.

**Miner:** I apologize for being late. It was a combination of things, including a car in the shop this morning.

**McKee:** Any commute from Portland is dicey business.

**Swanson:** The next thing I wanted to comment on in the list that you had, Art, has to do with basic science. That's why I was thinking of this community and the ecosystem, which, you know, is a beautiful place that keeps taking us back, and when we've been beat up by the bureaucracy, we'll go back out in the forest and it'll remind us why we're doing this. So, there's that [essential] stuff, the community and the ecosystem. They're the seedbeds for scientific discovery. That was where I was thinking about the basic science, learning how the ecosystem ticks, and then the implications for land management policy. In other words, try to have them distinguishable, though linked.

**McKee:** Now, I just realized, when you started talking, that when I was talking commitment, I was really saying, quality-science commitment.

**Swanson:** Yeah.

**McKee:** And the basic science there. So, that's what I was thinking, but that sure wasn't what I said.

**Swanson:** Yeah, because I had that link with community, where there were people who were committed to both basic science and to the policy management implications. I think there are some neat examples, where like Lynn and John Cissel, I feel, have shown big commitments to basic science.

**Geier:** I like the theme you brought out here, that the Andrews is this ecosystem that serves as a refuge and source of inspiration, rejuvenation, and recovery. The physical presence of that landscape, is something that's going to have to come in here. I talked before about the idea that a strong viable community like this one is often one that breaks free of place-bounded geography, and demonstrates an agility at branching out and developing a support network that goes out beyond that locality. But still, it's a place to return to. There's a real interesting book about that concept called *No Separate Refuge*, Sarah Deutsch's study of Hispanic communities in the American Southwest, that the village is a place to turn to when all else fails. There's a lot of that in what you just said. And a place for scientific retreat. Everybody's known to you, and a place to go back and get restarted, recommitted, refocused on what you're trying to accomplish.

**Dyrness:** Yeah.

**Geier:** And especially, when you start dealing with problems in the Forest Service, that I've noticed, issues like bureaucracy, I can see where those may be a little [problematic].



**Dyrness:** And the Andrews, early on, started out as a place when people would get tired of trying to write a paper, just because there were so much interruptions, they'd go down there and write his papers. And all we had was an 8-foot-wide by 35-foot trailer. Jerry used to always do that.

**Swanson:** But, it [trailer] was a "beaut." (Laughter)

**Dyrness:** Yeah. We'd go down there to write, and kind of "rough it," you know.

**McKee:** Yeah, and we don't really have that quiet spot right now. Well, I suppose we do, in the sense that some of the cabins that are out there. But I don't see much of that happening, the last couple of years, at least during the summer, because of the onslaught of the - [researchers, students, workers].

**Dyrness:** Yeah.

**McKee:** We're maxed out this week, we're over 85 people per night.

**Dyrness:** Is that right?

**McKee:** We should go back to that idea, banishing procrastinators to the lookout. You can't come down 'till your manuscript is done. (Laughter)

**Swanson:** Max, how are you going to work this theme out from your information collecting and writing roles?

**Geier:** One thing I talked with Fred about before, and to some extent Ted has already been exposed to this, is my sense of getting a grasp on community. You need to get a grasp on where the individuals involved in that community come from. What's their personal background? What is the baggage that they bring to the community? What attracts them there? What pushes them away from some other opportunity, and what's the opportunity cost of joining this group? In other words, what they might be doing instead of coming here? What academic traditions do they come from? Why didn't they find a home elsewhere, and why did they find a home here? So, one of the ways I would most likely be approaching this, especially the initial interviews, is just trying to get people to start talking a little bit about that aspect. Once we've gotten that out of the way, there's a certain understanding between the interviewer and interviewee, where in subsequent interviews, you can address substantive issues without the person feeling that they have to back up and cover that whole thing all over again. That's one of the benefits of having the ability to sit here and do several different layers of interviews at this point, at this locality. It's real helpful. I don't know if I answered your question, but in terms of broad strategy, that's the general approach I'm going to take. Get some people here who begin to identify how their pathway into this community links with others, and then follow those pathways a little bit. Follow some of those personal pathways and see how people began to coalesce together, and then you can backtrack, go back along those pathways.

**Dyrness:** Why do some people mesh? I'll always remember when Fred started, I was just amazed. Here's a guy with geology training from the University of Oregon, and he just latched on to this multi-disciplinary approach. It just excited him tremendously. And yet, other people don't mesh. Why is that? You know? Why do some people fit into this scientific community, and others don't?

**Swanson:** Uh-huh.

**Dyrness:** What is it about their background? Fred was from day one, he just caught the vision about these guys coming from these different disciplines, and pooling their interests and knowledge in this cooperative research effort. It's an interesting dynamic.

**Geier:** Then, another aspect is what kinds of bureaucratic frameworks make that possible, or make that difficult? What kinds of institutional frameworks really build barriers to that kind of thing, once you have that mentality and kind of community coming together, and how do they get past those barriers?

**Swanson:** It's a tricky issue, because it's a current personnel issue, too. There're guys in our group who have their roots in a discipline, there's a certain macho in that discipline, and they have a hard time loosening up. Others went through a loosening process by disentangling ourselves from the intricacies and traditions of disciplines we came from. One thing important to keep in mind, is one we tussled with it in our discussion about the central theme, and Bill Lang [editor, OSU Press] brought up to us in terms of what he looks for in books proposed for the series; the issue is balancing culture and science.

**McKee:** Yeah, yeah.

**Swanson:** He said he sees books where people come in with gobs of science, with a little culture as "icing" around the edges. That's why I was using the language and idea of community being the seed-bed for scientific discovery and the lessons for management and policy. That way, the science comes forth, and the technology and the application come forth. I think that way of structuring provides the opportunity for that balance. Then there are the tricky issues about how the community evolved through time. How are we gonna slice this thing? Because we've got a timeline, we have community evolution, with managers coming in and changing research themes and composition of the group - disciplinarily, personality, and so forth - and then we have science themes that go through it. How do we tell it? Do we cut it by time segment and look at those interactions, or do we run the community out and develop the old-growth theme and the watershed theme, vegetation dynamics, or whatever? Anyway, that's a tricky thing we need to keep in front of ourselves; culture and environment or culture and science?

**Geier:** One thing that might be productive that just struck me as you were talking here, is to develop some comparative, parallel themes. For example, if you can identify some initiative that was adapted, that was begun and ultimately failed, and track that from it's beginnings to its conclusion. And do that in parallel with an initiative that is believed to be successful at this point, and track that, so within the group at the Andrews, what has worked and what hasn't worked, and try to track what went differently in the two projects. Was it just simply the idea? Was it the mix of people involved, or was it some institutional barriers that prevented one from really accomplishing something?

**McKee:** I can give you examples of all of that, including regional policies that became, suddenly, a tremendous barrier.

**Miner:** I find maybe, another point of tension is an issue that has application, and there's this interest in the current issues versus the long-term, some of the long-term research is affected by that. How do you balance that? Those are some things that can see being important.

**Swanson:** Why don't I go get a copy of this timeline, if I can find it?

**McKee:** Because, we've had projects that started in which we invested a lot of time and energy, and something didn't materialize. One time, it was because the basic biology didn't go as we thought.

Another time, it was a case of where the land we were going to manipulate was tossed into a road-less area, the RARE II process, whatever that meant, I can't remember what the acronym stands for now. [Connected to Wilderness Act, 1964; Roadless Area Review and Evaluation, RARE I, 1972, RARE II, 1977] Another time, we got caulked up with some internal people who wanted to show how powerful they were by stopping a large program, using the spotted owl as a lever, and letting us know they were in control. That brought us to a halt. And we have cases of where cartographic errors blocked us out of doing something, a technician's mistake in a map room, drawing a boundary in the wrong place, but the regional office [Forest Service] didn't have the courage to say this was a mistake, and a spotted owl reserve isn't supposed to be here, but over there. That blew us into a little ball, then the Dwyer court decision [spotted owl injunction] was another thing that tossed us in. We've got those kinds of things.

**Geier:** That's good. If we could identify some good examples, and then pair them up into groups in terms of either chronology, or topically, as he was suggesting, so that there's one thing that gets kind of tough, any time you try to do a comparative study. That's one of my areas, as my research is in comparative history, and one of the problems you run into is trying to control the variables, and to try to get something that is comparable. There are different ways of doing that. You can look at the same kind of an effort in 1950 as compared with a similar effort in 1970; a chronology, or date, or mentality, of what's going on. An idea floated in 1950 wouldn't go anywhere, but an idea floated in 1970 will attract a critical mass of scholars interested in what you're working on.

**McKee:** It's also the evolution of science, which wouldn't allow us to do certain kinds of things.

**Geier:** Yeah, and the technological.

**McKee:** Technological changes or conceptual changes in the way you view systems, the IBP effort, for example, trying to build a huge supermodel to cover all bases in the system. That sort of ground to a halt, to its own halt. Trying to achieve this balance between the science and cultural aspects, I think, is going to be pretty easy. I don't see that's going to be a difficult problem at all with this situation, because so much of the science has led to policy and management changes, or strong implications for change at regional, national, even global scale, for that matter. We had a visiting scientist from China [Zhao Shidong] who spent one week at the Andrews in '85, and when Fred and I happened to be touring China in '88, this fellow had risen up through the Chinese hierarchy to a position of some authority, and in a totalitarian state, one person can change policy (laughter) dramatically, and the concept of ecosystem management and sustainability was on the verge then of becoming a national policy on publicly-administered lands in China, or things that we would call national parks. This guy is visible.

**Dyrness:** A one-week visit?

**McKee:** Yeah, a one-week visit.

**Geier:** Huh.

**Dyrness:** These guys really adopted it?

**McKee:** Well, it was right. He was of that philosophical bent, for whatever reason, to not view forest systems as simply systems to be exploited, but rather as part of a larger system, things to be considered besides timber production, and biological diversity was something that resonated with him. So, he was an international example.

**Geier:** So, you're saying he was in a position to affect a policy change at the national level?

**McKee:** Yeah, he changed it at high levels and the policy was changed in '90 in northeastern China, and then, in '92, '93, to the rest of the country. The semi-autonomous regions are pretty autonomous over there, so they did their thing, so it's not as clean as it sounds, and a totalitarian society can put it back the other way very quickly. The Chinese Academy of Sciences has a program much like our Long-Term Ecological Research program in this country. It's called the Chinese Ecological Research Network, and this fellow is a major player in that system now, as a science administrator. He's been very effective, not only in China, but in adjacent countries as well, to basically think in larger terms.

**Swanson:** I'm gonna take off to do this thing, lead these visitors to the Andrews. And as I mentioned, Cindy, Martha Brookes had offered to feed us, and then let us meet in her house this afternoon, but she just came back from a trip to Alaska and has a terrible cold, and felt very bad about not being here, very bad about not giving us lunch, and she's not going to try to do the lunch thing. She didn't want to give us all germs. So, I think we should all free-for-all for lunch. Also, I realized now, that I hadn't scheduled a room for this afternoon, so I'll go check on that.

**McKee:** Why don't you make some concluding remarks here and I'll go check on that.

**Swanson:** Okay. And then, if you need an emcee, you can ask Art to do that, but it's such a small group, you'll do fine. Overall, this just keeps getting more stimulating, interesting, to me.

**Dyrness:** Yeah. It's exciting.

**Swanson:** I will ask some of these folks, did I tell you about my experience with Jerry Franklin out on Carpenter Lookout? Because of this, I've had my eye out for things that seemed like pivotal little events that represent stuff. And so, we were at Carpenter Mountain Lookout. He [Franklin] points at Carpenter Saddle, and he tells this story of the first time he slept out on the Andrews by himself. First summer he was there, he hiked in there, and there wasn't any road, and he walks out a mile, and then he knew his point of no return, when he knew he was going to have to spend the night alone, and he was scared. There wasn't enough time to make it back before dark. (Laughter) But, he forced himself to go on.

**Miner:** (Laughing) Uh-huh.

**Swanson:** He said he did that a number of times over the summer, and by the end of the summer, he felt comfortable spending the night alone out in the forest.

**Dyrness:** And this was '57, right?

**Swanson:** 1957.

**Miner:** Huh.

**Swanson:** My reaction was, "You've done that to all of us!" (Loud laughter) "As the leader of this community, you've led us out on limbs. And there was no going back, we just had to go with it. We were all sort of scared."

**Dyrness:** Starting with IBP.

**Swanson:** Yeah.

**Dyrness:** He was the guy that got the vision. He said, this is “big science,” we’ve gotta get aboard. We talked about systems ecology. We didn’t even know what the term meant, you know.

**Swanson:** Yeah.

**Dyrness:** And so, we’ve gotta get aboard.

**McKee:** I’ve got some good news, and I’ve got some bad news. This room was reserved for Ron Nielson starting at 10:00 this morning. You had reserved the large conference room. We can move in there where there are windows.

**Geier:** That’s the good news? (Laughter)

**McKee:** That’s the good news. We can have it until 2:00 this afternoon, if we want it.

**Swanson:** Sounds good. I’d just as soon stay here, until somebody --

**Miner:** -- Until somebody kicks us out?

**Swanson:** Because a lot of people are signing-out rooms and never showing up. (Prolonged laughter)

**McKee:** It’s up to you folks, whether you want to move into the large conference room. Well, Spies [Tom Spies, noted Forest Service forest scientist] has this reserved for this afternoon.

**Geier:** So, it might be that this is a good breaking point, so we won’t get disturbed.

**McKee:** Yeah. And we could show you where the coffee and tea is.

**Geier:** I could use some, actually.

**Swanson:** A couple things I was interested in, documentation of the findings from this gathering, and are you two [Geier and Allen] prepared to document that?

**Geier:** Yeah.

**Swanson:** The one thing I wanted to mention for you to pursue in your thoughts, is the disposition of data. Max and I talked about this; the use of the Forest Science Databank [FSDB], many of the protocols that we have for proprietary rights and public access, and various categories of accessibility. If we could just use our existing archives and approaches, that would be nice. We’d also like to get social science databases more engaged with our geophysical database.

**Geier:** Are there some operational guidelines for that?

**Swanson:** We have a couple-page list of proprietary rights, what’s corporate data, and what’s individual-investigator data. It’s never been formally adopted, but it’s functional.

**McKee:** Yeah, everybody said at one of the meetings, “sure, this is cool,” so maybe in one sense it has been formally adopted. (Laughter).

**End of Side A, Tape 1 (of 2)**

**Begin of Side B, Tape 1 (of 2)**

**Dyrness:** Yeah, we had a good crew up there. Very good.

**Miner:** Yes.

**McKee:** When running around figuring out what conference rooms were available, I was thinking whether Fred had a chance to walk you folks through this thing [HJA timeline/chart] from our LTER renewal proposal, and each of the synthesis areas, A,B,C, and D, which represented research or topical areas, and attempts to present to reviewers, some idea, visually and graphically, how it was we ended up with these different synthesis areas and studies, a history of that, and which studies would be providing data for these areas of research. At the bottom was a general timeline for events at the experimental forest, and an attempt to show the sharp break from what had been mission-oriented research, about 1970, to what is a continuing program of ecosystem-scale research, and then, the major funding blocks. There is a bit of an error in those funding blocks. The IBP was not continuous into LTER 1, but, rather, ran from early '69 to '78.

**Geier:** Hmm.

**Miner:** So, you had a gap in there?

**McKee:** There was gap bridged by another funding mechanism that ran from, actually, it overlapped somewhat, but it ran from spring of '77 into 1983, which we referred to as the EER grant. That stands for Experimental Ecological Reserve, but that's not the way it's actually labelled by the National Science Foundation. It's a horrendously long title for that series of awards and renewals.

**Dyrness:** So that overlapped with the start of the LTER 1?

**McKee:** Right. It did. Maybe just a very little bit more on this, as a tangential explanation. IBP had been an attempt at inter-disciplinary ecosystem research, which, despite a lot of negative press, I thought was extremely successful in getting people to learn how to work together. And while we didn't build the grand, unifying model of Pacific Northwest forests, which was really --

**Dyrness:** -- It was the "holy grail."

**McKee:** Yes, it was the "holy grail," and still is the "holy grail." We learned a tremendous amount about different components of the system, and responses of the system to different kinds of manipulation, during the IBP years. But that ended, and there was a great deal of interest by the people still here that hadn't run off to Alaska and other places (laughter), to continue those kinds of ecosystems studies. There was a window of opportunity present within the National Science Foundation Jerry Franklin was aware of, and Jerry and I, we turned in a proposal with this tremendously long title, which abridged is: "Establishment of the Andrews as a National Field Research Facility." At the time, "National Field Research Facility" was the preferred term of the National Science Foundation, not EER, for Experimental Ecological Reserve. I don't know if the history of that term is worth going into, but there were political reasons why the NSF would not use the EER label, and preferred the National Field Research Facility label. In reality, the Andrews was the prototypic LTER site, because the proposal Jerry and I turned in, which didn't have either of our names on it for campus political reasons, as well as the fact that Jerry was fresh back from the National Science Foundation, and couldn't turn in a proposal for two years after his return [from Washington D.C.], the concepts in terms of areas of research interests and organization we included in that proposal, had spun out of discussions Jerry had with people back at the National Science Foundation, as to where things ought to go, how they ought to be structured, if you're going to put together a nationally-funded, long-term ecological research program.

So, Jerry had all this sort of pre-programming he received while back at NSF that we incorporated, gave it our own spin, certainly. It would be hard to sort out how much of that proposal came from our own decisions around here versus what he had gleaned from his decisions back there, but it established the Andrews as this national field research facility with an emphasis on initiating or continuing long-term measurements programs in a variety of areas of interest to ecosystem studies. When the request for proposals went out for the first of the LTER funds, many of the administrative structures that we had proposed, had tested in that EER period, were incorporated in the LTER program. So, we had roughly from 1970 to the 1980, a period to demonstrate that one could, in fact, put together an interdisciplinary program in a half-a-dozen different topical areas, under the general umbrella of ecosystems studies, or ecological studies. The utility of having both a local management or advisory committee, as well as a national advisory committee, were key ingredients administratively, to the success of selling those proposals early on, and detailing those administrative structures. Well, it took me about fifteen minutes to go through that. That's why we didn't bother to put it in. (Laughter) But, it would be a whole lot simpler just to put it in this way, rather than – (Laughter).

**Geier:** So it goes from about '77 to --

**McKee:** (interrupting) --'77 to '83.

**Geier:** So it kind of overlaps the LTER?

**McKee:** Yes. Because we were getting about \$200,000 a year for that EER grant, and LTER sites were being funded about \$500,000 a year, so we had a bit of a shortfall to match the other sites, so our first LTER proposal had us at this lower level of funding thorough LTER to match the EER funding, to bring us up to about half a million. Then that was chopped off, so we had this weird blip in our budget as we converted from EER to totally LTER funding, for the same set of activities. There was an overlap there.

**Geier:** Since we're on budgets, I was talking the other day with.....what's her name?

**McKee:** Linda Yung? [PNW Station administrative assistant long stationed in Corvallis]

**Geier:** Yes, Linda Yung. About records and things like that, and we're kind of getting down a little on stuff on our agenda here, but –

**McKee:** That's okay.

**Geier:** Especially on the issue of budgets, I know it would be helpful. I know in Alaska, I'd say, this is what people kept going back to, is that if we had those records to go back to, it would be helpful, if we could start out here with some access to those.

**McKee:** I'm sure we can easily track some core funding that covers a substantial fraction of the total program. Because all the ancillary grants, or initial grants, that could be kind of awkward to do with any degree of precision. For many years, actually since the late '70s, periodically, we try to update a table of current research projects on the Andrews. The reason for that isn't because I like to do this, but rather, before one particular competition in the National Science Foundation, when you turn in a proposal, you have to show research activity at the field station, in order to justify the expense and the funding. And they asked through this activity, for a record of the previous five years of activity. So, these tables are broken up to show five years of activity at one point-in-time, and there are a half-dozen of those that go up to the current time that are available, and in that process, I tried to get the total research budget for those different programs. Sometimes those are pretty wild guesses on the

part of the investigators. They'll say, "Well, we get NSF funds for \$40,000 a year for three years, plus the university contributes about X." So, it's that kind of degree of precision. We could sit down with a copy of one of those and show you how much of it is "strings and mirrors," and how much of it was, you know, reality.

**Geier:** That's a good idea. If we could just get an idea, kind of a general consensus, of what the proportion of funding is represented by the formal budget, and what are ancillary sources for each. That would be helpful.

**McKee:** Yeah, we can do that. It has changed. The ratio of total research dollars to the Andrews program as a whole, which in the last 25 years has been provided by the National Science Foundation, has dropped the last five years. It was far and away the lion's share from 1970 to about 1990: 70 percent, 75 percent, of the research dollars, were coming from NSF. With the ecosystem management dollars, and dollars through the President's report that had come in under ecosystem management, and other labels, the amount of Forest Service dollars has gone up considerably, probably to about 55 to 60 percent now. We haven't done an update the last two years. The last time it was about 60 percent. It's probably slightly less than that now, the NSF dollars. So, that's a huge fraction. It's an unusual kind of situation to have that much funding coming from NSF to an experimental forest. There are two other experimental forests that have similar kinds of mixes of funding; Hubbard Brook Experimental Forest in New Hampshire, and Coweeta Hydrological Laboratory in North Carolina. Both are also LTER sites. They have about the same ratio of Forest Service scientists and university scientists as we have at the Andrews. The huge difference in those programs and the Andrews program, is that there's lip service given at both sites to integration with land managers, but the reality is, there isn't much at the other sites.

**Geier:** Hmm.

**McKee:** In fact, there's something just short of open warfare between the two at Hubbard Brook and Coweeta. The last couple of years, things have gotten a lot better, but there wasn't the attempt or intent to get land managers on board the way we have tried at the Andrews Forest. There's a big difference.

**Geier:** Now, the NSF, as a bureaucratic agency, might be something to identify here at this point in the study, and that these three LTER programs are receiving an unusually high-degree of funding. Were there some kinds of personnel changes taking place at that point in the NSF?

**McKee:** No. There was sort of an evolution in programs and a realization within the agency, that there were many options that required team efforts, interdisciplinary efforts, and that the long tradition of individual investigator-funded projects was inappropriate.

**Geier:** So it was more a gradual evolution, than someone coming in and saying, "We're gonna change this."?

**McKee:** Well, there were people in the agency who were, of course, necessary to make that change, and a fellow by the name of John Brooks, who happened to overlap with Jerry Franklin in the early '70s, was very instrumental in seeing that concepts of the IBP years didn't die with the international program, but rather, provided a basis for justifying a new set of ecosystem projects and programs. It's really hard to overestimate the effect that Jerry Franklin probably had in the formulation of that



attitude during his tenure as a rotator at the National Science Foundation. From everything I understand, he played an enormously large role in getting the agency to realize the value of this, and so, set the stage for the evolution of the LTER program. It's one of these things that you probably can't ever document. But he was certainly a major player there, and, of course, when he returned here, he was a major player in getting the group together. The timing was good, but Jerry is a pretty remarkable leader in getting people to pull in harness and work together. He really is. And so, he's played some pretty critical roles.

**Geier:** It sounds like what you're saying, he had both an internal impact and an external impact at NSF?

**McKee:** Yup, and he made friends that were in very critical places within that agency during his time there. What was that, in '72, '74? Had he gone to NSF before you went to Alaska?

**Dyrness:** Oh, yeah.

**McKee:** That's what I thought. So, maybe it was '73 to '75, I'm not exactly sure what years.

**Dyrness:** Yeah, '73 to '75. I think that's right.

**McKee:** That sounds right. Yeah. And while he was there, the International Biological Program was struggling, but was well-supported and well-funded. There was a lot of internal analysis and reevaluation of that effort within the agency, and they talked about what was really good in that program, and if they were to restructure something like that, what shape it might have, and that evolved into the LTER. So, Jerry was present in those discussions, and he helped fund the first of a series of planning workshops that were scattered around the country at places like Woods Hole, Atlanta, Denver, and some place in Indiana at a university. I can't think which university it was.

**Dyrness:** Butler?

**McKee:** Butler, yeah. People from our group here were always heavily represented there, from the Andrews program. So, in some sense, I guess you could say it was sort of incestuous. We helped design the request for proposals.

**Dyrness:** One thing that I think bothered Jerry at that time, was that there were so few proposals coming in. He said, "We gotta have more proposals, you know? Or else, this program's gonna die." And now, there are so many proposals, you're lucky if even 10 percent get funded.

**McKee:** Right. There are a variety of reasons, but that's correct, it certainly is. This is sort of counting coup, and I don't mean it to sound like that. But the group working here, I was talking about central themes earlier, and the word "commitment" I mentioned, really meant quality science, contributing to quality science. The group here had an extraordinary success record with NSF reports from the mid-'70s to the late-'80s. We had people at other experimental forests call and say, "What are you guys doing?" (Laughter) "You manage to get every one of your proposals funded. Why?" Some of us were batting a thousand, for several years. A lot of the reason wasn't just the fact that there was good, high quality science being done here, and you don't get pure grants without the science being high quality, but this connection that Jerry Franklin, Jim Sedell, and Dick Waring had with their colleagues at the National Science Foundation. It told us early on, which way the winds were blowing, and which words to use, and not use, at certain times. When the Reagan administration comes into office, the words "evolution" or "ecology" are the kiss of death to a proposal. In fact, NSF had to re-name their programs, to drop certain loaded words, during the early Reagan years. And so, we had kind of an

inside line that helped us a great deal, that doesn't really involve the quality of science component. At any rate, Jerry's had a tremendous role. And, clearly, he's one of the three or four that you've interviewed. (Laughter)

**Dyrness:** You know, you could spend four weeks with Jerry. (Laughter)

**McKee:** Yeah, he's a master story-teller. You'll be entertained. (Laughter)

**Geier:** Let's see, these LTER proposals. Is there a master file of the proposals themselves?

**McKee:** Oh, yes. We can bury you with proposals. Literally.

**Dyrness:** There's a stack this high.

**McKee:** And there are annual progress reports, or continuation proposals, the term that NSF uses for their progress reports.

**Dyrness:** And supplemental proposals.

**McKee:** Lots of supplemental proposals.

**Dyrness:** We were batting a thousand on those.

**McKee:** We are batting a thousand on the supplemental proposals. Yeah.

**Geier:** What's the story of that success?

**Dyrness:** Huh?

**Geier:** What's the story of that success? I mean, why is that?

**McKee:** Well, for one thing, we don't just turn in proposals without a lot of consideration as to whether they are really marketable or not. We've had times when we had opportunities to submit proposals to the group, and they said, "Well, if we do, it's going to be a weak proposal." Then we get turned down. But there are certain categories that we've been very successful at, and supplemental proposals is one of them, because what often happens with a supplemental proposal, is that the agency will tell you that there is a small list of items to be addressed in that proposal, and rule one is, don't suggest other things. We don't, and others do. (Laughter) And, so, it's a no-brainer, that part of it. Well, the group here is just real strong. And this last supplemental we turned in had some shrub-cutting proposed in it, and we weren't proposing that this be the grant that was really answering this question, but rather, in this case, it was an exploratory grant, to see whether or not this technology really did have the promise it seemed to have. Another secret to success is to not hype too much. To be real candid as to what the probable value you think the proposal has, and the budget. Some hype's necessary, but the review process is so rigorous now, that most times, if it's hyped much, that's going to get smoked out real fast.

**Geier:** Maybe for the purposes of identifying resources here, if you could be thinking, I guess sometime I will have to go through that stack of proposals and look at what's going on, but if you could think about some example proposals that would demonstrate a certain kind of a breakthrough or problem being resolved, that could be content-oriented path-breaking, or a shift in the paradigms taking place. Or it could be a cost-shifting in one way, where different kinds of structures are being created.

**McKee:** Sure. One example I am thinking of is a good one regarding methodology, that will actually be a breakthrough in terms of our ability to rapidly measure leaf area and biomass over large landscapes.

It involves analyzing the return signal from a laser that's on an aircraft, that scans a narrow bands along that run, and the return signal contains a lot of information. So, that might be a good example of that. Another proposal that seemed a sure bet at the outset, was the first of the riparian proposals in the early '80s. I'll give you a copy of that. It examined riparian zones from a conceptually new perspective, and that is, what are the linkages between the streamside systems and the aquatic systems, and the direction and strength of those linkages in how disturbances, man-caused or natural, alter those linkages. And we, the group as a whole, got several publications out of that, which I think were big pieces of research in helping people re-think terrestrial-aquatic linkages in ecosystems. I'm not sure we have a grant, per se, for that, but we have examples of really long-term data sets that now have extremely high value and utility, one of which Ted started on Watersheds 1 and 3, back in '62, '63, '64. And that continues to the present time. And those are being used in ways that, certainly Ted never anticipated, I'm sure.

**Dyrness:** No.

**McKee:** And they're important in aspects of the Northwest Forest Plan, the drafting of that, and they're being used in hydrological research and biological diversity research. Some of that data-set has wide application. And management practices have been spun out of that, changes in management practices.

**Dyrness:** And in some of the early proposals that were IBP, where we came up with this concept of the reference stands, that responded to the goals and efforts found in permanent plots.

**McKee:** Right.

**Dyrness:** And stem-mapping. That continues to this day, and other people are copying that.

**McKee:** Yeah, and this plays directly to the component of the research themes that deal with taking a long-term perspective, professionally and as a community, to be willing to invest, on a continuing basis, the resources necessary to maintain and re-measure this network of permanent sample plots. The vegetation plots are a good example of that, but we have many [HJA/surrounding region], once they get sampled in certain ways. There are patches of ground and soils that get re-sampled periodically, for changes in soil properties, and then, of course, we have the symbolic centerpiece of the LTER program out there, which is the long-term log decomposition study of Mark Harmon.

**Dyrness:** The 200-year study.

**McKee:** Yeah, a 200-year study of log decomposition.

**Dyrness:** This is a real departure. We were always schooled when I started in research for the PNW Station, that our studies should be short in duration, that you should be able to finish it up in a year, have a publication, and then go on to bigger and better things. This business of long-term, and I got flack when I planned this study for permanent plots to be put in before logging, and then followed after logging, on Watersheds 1 and 3, because they didn't believe in long-term studies. And we were talking about the influence. A lot of it depends on who you worked for, how tolerant they were for departures from the norm, and to a large extent, Jerry and I worked for project leaders that were tolerant of us going in different directions, because back then, our projects were strictly a disciplinary thing. I was supposed to be working on soil stability problems in a watershed management research project, and Jerry was supposed to be working on the care and feeding of sub-alpine forests in a timber

management research project, and these were our primary research assignments. Both of us were just research scientists, not project leaders, we had no real line authority at all, and yet we were allowed, for example, when we started the study on vegetation-community classification on the Andrews, we just bootlegged that.

We set aside a few days in the field season to go out on the Andrews and collect data on reconnaissance plots, and I remember the project leaders saying, "Where's the study plan for this study?" Back then, you had to have really formal study plans that should have been a part of our problem analysis for the particular, and we didn't have it, and so, I remember, once the study had been going on for two or three years, then we had to write a study plan to have it in the files. We were always part of these Washington Office inspections, where people from Washington would come and inspect different projects, and so everyone's worried about having documentation for this. And then, "horrors to Betsy," we decided to write a book on the vegetation of Oregon and Washington. How did that fit in? And so, we really were fortunate. I had a project leader, a guy by the name of Jack Rothacher, who was very tolerant.

**McKee:** Jack was great.

**Dyrness:** Yeah, Jack was great, and Jerry's project leader was a guy by the name of Bob Ruth. Unfortunately, both these guys have passed away. But, Jerry reached an accommodation with Bob. Bob was not on board, but Jerry and Bob decided they would let each go their separate ways. And Bob didn't mess with that, as I think he realized, at the same time, we were working on establishment of "Research Natural Areas." I think that was the kind of the mind set that led into permanent plots, and which would be re-measured and so on. Jerry had this vision, "We need a good network of Research Natural Areas in the Pacific Northwest, not for us, but maybe for our grandchildren." This was really the long-term vision. So, early on, Jerry got involved in the the committee that would meet in Portland, 2 or 3 times a year, to go over the status of Forest Service's Research Natural Areas, which ones were needed to add. That led into a scientist summer program [at HJA]. Remember?

**McKee:** Yeah, I was one.

**Dyrness:** You were one? And then, it led into eventually, Sarah Green's full-time position, but I think that was the thing that got us in that mindset of a long-term viewpoint.

**McKee:** This is not a new concept. It's an old concept being revisited. And it had fallen into disrepute in recent years for reasons I don't fully understand, but it sure has.

**Dyrness:** Yeah, yeah.

**McKee:** And not just the Forest Service as a funding agency for research, but the National Science Foundation as well, were really targeting short, bite-sized pieces of research that had short-term funding. In fact, when the first of the long-term research-LTER proposals came out, it announced that there was going to be a major change in funding perspectives for the National Science Foundation, and they were going to go from 3-year awards to 5-year awards.

**Dyrness:** Long-term. (Laughter) But that was the real stuff, though.

**McKee:** That was it, yeah, to just give you some flavor of why it was a major extension in policy.

**Miner:** And that's what they are now. Is that right?

**McKee:** Actually, it's for six years now, but that was because NSF had some monies in shop to do that sort of administrative thing. And so, for reasons of economy, they extended the period of funding from five to six years. But there is a perspective from some that continuing a long-term measurements program is not universally-accepted. There are still more people who think it's silly, and within the National Science Foundation, there's a frequent call for justification in continuing LTER funding, because it's the single biggest piece in the Division of Environmental Biology, the single biggest ticket item for them as a program. But they're a small peanuts part of the whole agency. So, there are roughly a half-million dollars at 18 sites, that's a little over \$10 million a year. That's a big piece of change for that particular agency. That buys half of the radio-navigational electronics for a B-1 bomber, but I don't want to get started on that. (Laughter) But, Ted's point's a really good one. The time was right here from the beginning of the '70s, for a resurgence of this interest in using long-term measurements again, and LTER is sort of a manifestation of that.

One thing I should mention is that, often, even before projects get installed, in the literature review phase of these projects, you get things coming out that are immediately applicable, to management, or have tremendous value, just to the knowledge base. I think the book Ted and Jerry put together on the vegetation of Oregon and Washington, which is essentially a literature review and search of libraries for unpublished masters' theses and things like that, provided a basis for that. It's a wonderful example of how a literature review, turns out to be a major scientific work. A little flattery here. They had a visitor at the Andrews last Sunday, Peter Grout, a Professor of Vegetation Sciences at Cambridge University, England, who came carrying the most dog-eared copy of *Natural Vegetation of Oregon and Washington* that I've ever seen in my life. This thing looked like it'd been run over by a truck! (Laughter) There were notes in the margins, references scribbled in it, like a bible. I asked if he was just focusing on the Northwest, and he said, "Oh, no. I'm writing a book on world vegetation." He added, "Do you know how few places around the world have anything like this?" It was really a poignant compliment.

**Dyrness:** Yeah, yeah.

**McKee:** The other thing we could mention along this line is that when Mark Harmon was putting together the literature review for his long-term log decomposition study, and I don't think there's anything that in the title, has a more, sort of mind-dulling quality to it, than "log decomposition," (Laughter). Mark engaged 10 or 12 people to work with him on that literature review. He had a 180 or so page monograph on that, and even before that was in print, there were early drafts of that floating around with our land manager colleagues in the Willamette National Forest. The district ranger and the Forest Supervisor both said, "Hey, we're doing stuff that we shouldn't be doing out there."

**Dyrness:** Based on that?

**McKee:** Yeah, based on the literature review. So, they stopped the practice of piling of un-utilizable material, the acronym is "PUMing," on the Willamette National Forest. They saved the Willamette \$18 million a year, the national treasury \$18 million a year, on that forest alone, and that became in a year or two, policy for west-side forests. They stopped yarding this material that couldn't be taken to the mill, because it was too poor quality, and they'd burn it on the landing. Instead, they just left it in the woods.

**Geier:** That's a good example of the idea of the theme of shared commitment for managers and science, and the obvious follow-up to that would be to explore how implementation of ideas from that literature review influenced the science that was done, and ways in which the science done influenced their revisions, or the extent to which it was implemented in their revised national plans. It would be interesting to follow-up on that.

**Miner:** And then, there would be a sort of diffusion there too, within the Forest Service, how it comes into policy, and then you see it showing up in major reports like the FEMAT report.

**McKee:** Right.

**Miner:** And then, it's just a bubbly kind of diffusion.

**Geier:** In fact, that would be interesting.

**Miner:** And kind of innovations, really.

**Geier:** We can't do this with everything that's done, but for the study, if we do identify a few significant shifts like that, and track those diffusions, and, how this information is disseminated out into a broader management sphere.

**McKee:** I think that's one of the best examples.

**Miner:** And even from the public to private sector, too, because there's some of that. That would be very interesting, too.

**McKee:** Sort of a larger set of issues, but still spinning out of a single piece of research. I mentioned the riparian work funded by NSF in the early '80s, and we had a renewal on that which lasted until early '89 or so, for 7 or 8 years-worth of funding. At the end of that, Stan Gregory was approached by the Willamette National Forest, asking if he would be willing to put together a riparian management guide, spinning out of the work and research that Stan had led and that Gordon and I and a bunch of others had been doing. Stan did that with his assistant, Linda Ashkenas, and it came out in 1990, something like that, as the Willamette National Forest's "Riparian Management Guide." It was snapped up by all west-side Forests, and it became policy on west-side forests, within a year or two. And I happened to be visiting a colleague/friend who had transferred to become Supervisor of the Chippewa National Forest, a fellow who had worked with us, Steve Eubanks, through the Willamette [National Forest].

**Geier:** That was Steve Eubanks?

**McKee:** Yeah. We were sitting around in his living room, nursing a beer, and I was telling him how successful Stan's thing was, the Riparian Management Guide, and I said it wouldn't take very much to re-draft something like that for the Chippewa and Superior [national forests]. He said, "Why don't you do it?" So, we did. That hit some interesting politics that I don't fully understand, but the many elements of the modifications, tailoring it for the lake states, has been accepted by lake states' forests, and is the core of their revised riparian management plans. Both Stan and I have also been approached by people out of the Forest Service's Washington office, to do something at the national level, and there were other regions that also approached us. So, there's dissemination that went from Willamette, to region, to another region, to a national interest. I think that would be another good story-line to develop.

**Geier:** Uh-huh.

**McKee:** And it has elements about the value of coarse woody debris, and log decomposition as part of it. So, it has many more facets to it.

**Geier:** It would be a good example of some of the intersections, some of the different threads that we're following. Fred and I talked about this, the tendency to say, like this would be, to divert into some of these side-routes, and that the real benefit of this Andrews study, he said, keeps coming back to the Andrews and these re-connecting themes, these positive feedback loops, back into the group here. And this might be an example of that?

**McKee:** Yeah, that's a good example. Both cases are especially instructional, because they involve group efforts to organize and synthesize information in topical areas. They both were dealing with real "basic science" issues, both log decomposition and woody debris. Wow! It was like watching mud puddles dry up. (Laughter) But it really isn't, when you look at what's really being studied. The first reaction is, "Wow! Is that all there is?" But, because of the social dynamic this group has, where we have very close contact, through our monthly meetings, field trips, and where our land manager colleagues are seated in the same room, or riding in the same van, or standing on the same landing, or pointing down the same stream, talking and using the same language; these people are often times the ones making the linkages to management for us. Or, they're very approachable with suggestions, and sometimes those suggestions just get them to laughing, because the reality of putting some of these things into practice would be so prohibitively costly, or "Society isn't ready for that yet. It just isn't, the politics would be lethal to that concept." So they provide a reality check, in the sense of economics and politics, and we provide ideas, well, I wouldn't say the ideas were exclusively ours, by any means, because these people are able to pull a lot of ideas out of what they're reading and so on.

**Geier:** Hmm.

**McKee:** It's an exciting kind of an environment to be in. I would contrast it with the situation I experienced when I had a job interview with the University of Colorado about 10 years ago, and this was going to involve a bunch of research in outlying systems. I was meeting a bunch of graduate assistants, and I was talking with them about the kinds of projects our graduate students were working on here, and I had mentioned, just casually, how many of the students here were really gratified to see how their research was applied, was used, by society, or one way or another. And the noses went up in the air, and it was, sort of, you know, "That's kind of pedestrian, isn't it?" It was like, "We don't worry about that kind of thing here. We're into pure, pure science."

**Geier:** Uh-huh.

**McKee:** I thought, well, you're really missing some excitement here. So, that was sort of the afternoon session with the graduate students. When I got with a few of the scientists and faculty that evening, I could see where the students got it. (Laughter) It was real clear where it came from, that "We won't stoop to applied research." Well, most of our people aren't doing applied research, but the applications can run out of it. And you don't have to be a rocket scientist to see a lot of it, either. But, it's pretty clear, and I think that many of us have a sense of satisfaction, a real strong sense of satisfaction, at seeing it happen, when it seems to be benefiting society. I think for many people, that's the reason they're here. They see that tight linkage. That's the glue that holds them in place. There's

others that are here for the pure science, and it's is fun to do the other thing, but it's not the major stroke.

**Geier:** That gets back to when we were talking about the things that draw people into this program, the academic and personal traditions they come from, what their goals are as scientists, what their goals are in policy, things like that. Those are some of the things I have to track down and study. Maybe we should back up here and take a look at some of these agenda items, get some of these taken care of, so I know where to go after this.

**McKee:** Okay.

**Geier:** We've done a lot of general brainstorming here, have some pretty good ideas with two case study possibilities. In terms of broad, continuing themes which Fred talked about a little bit, if you were going to run off a list of continuing threads of research that should be a main focus - some of it was at the Andrews, and some in that brochure the Andrews puts out - but additionally, is there anything that you want to see addressed in this? Are there any topics of research, any particular areas of exploration?

**McKee:** Boy, I'm not sure how exhaustive that is.

**Geier:** Fred and I were brainstorming the other day, talking about watershed studies, old growth, forest-stream interactions, and stand management. I've got something here that looks like [unintelligible], and I have no idea what that means. [Trouble reading notes] I'll talk to Fred about that. But anyway, other things like that. Broad overarching themes and maybe more specific sub-themes underneath those.

**McKee:** The aquatic ecology, separate from the watershed studies, should be in there.

**Geier:** Okay.

**Dyrness:** Yeah. And that's one thing that's really not on here.

**Miner:** No.

**McKee:** There wasn't a synthesis area in that. We tried to, well, actually, it should show up as part of "Synthesis Area D" under riparian-forest-stream interactions. [Part of LTER planning]

**Dyrness:** Oh, yeah.

**McKee:** Here it says it was kind of spread around, and involved elements of hydrology and small watersheds. But we were trying to put together a landscape-scale synthesis area that really integrated a lot of the stream research, because the streams are a network on the landscape. And an awful lot of our viewpoints about uplands, is that they weren't just in a patchwork, as opposed to a network. There are network elements to them, and they migrate through landscapes, different patches and through-migration routes, from many different corridors that would be part of a network. But, we tried to make a distinction, for heuristic reasons more than anything else, that between stream networks and forest patchworks, and it just wasn't jelling. Whenever you read the text, it just didn't sell. So for marketing reasons, we just kind of put a line through that. So what you see here, as Ted pointed out, doesn't really pull that together. It was a result of an inability on our part to put together a persuasive set of texts and documents that you could look at these as a network, versus a patchwork.



**Geier:** That's an important element in this book, which is to identify some of those elements that didn't quite come off the way you had anticipated or hoped, and the ways in which, as Art was saying here, the marketing which you're trying to do, involves a certain amount of self-editing.

**McKee:** I'm not sure I can give good reasons why we couldn't put that together. You know, I think we sit around the campfires during our short courses, and what I hear being said makes perfect sense, that's very lucid, and when we try to put that down on paper, it just doesn't come together for some reason. It will, one of these days. We struggled with a similar thing, on this functional perspective for riparian zones, took us about a year, before we could work that down to get it to where people could read it to grasp the concept, and now it seems pretty straightforward. And that's what this patchwork struggle was, in part, because it's not a real binary system. Both streams have patchwork-like elements in them, and out in the forest I mentioned elk corridors have networks in them, and so we're struggling with that.

**Geier:** There is something I should mention that Fred and I talked about this last week, this paradox where you sit around a campfire and all these ideas are flowing, and creativity is really being sparked, things are coming together, and then, there's some kind of a breakdown between trying to get that stuff down in writing. It's a different kind of process. One moment you're talking about, scientific thought and inspiration, and then, the translation of that into methodology and performance.

**McKee:** Right.

**Geier:** And product. That's part of this process we can deal with here. What makes the Andrews unique in comparison with other projects like this, is that, as you suggested, it perhaps had a higher level of success at making that transition than other programs. That's key to figure out why that happened.

**McKee:** I think there's some operational reasons, in that people in our group are willing to invest in the meetings, the time necessary to make these things jell. I took a year sabbatical at Hubbard Brook and worked at Coweeta in my graduate program, and have revisited there many times since then, and those are examples of places where people will not invest that amount of time. They simply say, "It's wall-to-wall meetings, I ain't gonna be part of it." (Laughter) And they walk away from you. Other people say, "We've had people come here, in post-doctoral positions for two years, and they get out, because they can't stand the amount of time, just sitting around and talking, that's necessary to make these things jell. They're really pretty programmed in the more traditional, individual-investigator kinds of studies. There was a person in our group for many years, Dick Waring, who went off to sabbatical in Sweden, where he could really focus on one particular topic, and he came back and said, "You know, I really learned that this group thing drives me nuts!" (Laughter) He said, "No offense, but I basically want out." We said, "Okay, Dick, we understand." He was then able to focus on those things that worked for him. So there is that commitment, and you have to have people willing to make that commitment, who are not afraid of that investment jeopardizing their promotion, and tenure possibilities.

**Dyrness:** That's right.

**McKee:** This campus has been quite good at recognizing the value of group research. Campuses such as UC-Berkeley and University of Washington, are not management climates where you can get away with that, or where you can do that and get recognition, while the colleges at this university have given

more leeway here. That's maybe the reason our group has been so successful on proposals. People willing to invest the amount of time necessary for this group effort are able to do that, and publish, because they're very good. If they weren't, they couldn't do both, and they would perish.

**Geier:** So, it's not entirely the institution. It sounds like an unusual personality type that can manage these kind of time demands.

**McKee:** Yeah, and not feel powerless, and to just say, "Look, I don't want to go to another meeting!" But they are just sort of clearing their lungs, because we know it's gotta be done.

**Dyrness:** Well, at the same time, I think it's partly a reflection on how the meetings are run, too.

**McKee:** Yeah, that's true.

**Dyrness:** Since I've been back from Alaska, I've been real impressed with how Fred runs the monthly LTER. He has the set agenda that he's going to go through at each point, and most often, people see the agenda before the meeting, and know who's going to say or report on what, etc.

**McKee:** Organizational skills, certainly.

**Dyrness:** Yeah. It really is important, because otherwise, the meeting becomes frustrating to a lot of people. There's no order, it just sort of wanders around, and it seems, there's a fine line between a productive meeting and a meeting that degenerates into a waste of time.

**McKee:** Well, we were trying to list some topics in addition to ones you and Fred had developed the other day. You mentioned aquatic research, and there is a less cohesive, but nevertheless very important set of soils-related research, that Ted was involved in early on, Phil Sollins more recently. One aspect of that soils research is the below-ground biology, in terms of critters that are down there on the ground, and the fungi, microbiology as well as the plant macrobiology. We can get some good stories to spin out of that. An example is Andy Moldenke's work, and I won't make this too long, I hope. Andy and colleagues would go in the woods and scrape back the litter layer, sometimes not scrape back the litter layer too much, but they'd just pour in liquid resins that would infuse into the soil, filling up the pore spaces, and harden. Take that lump back to the laboratory and bust it up, start slicing it up, and then, looking at it under a microscope for what was in the soil, in terms of bugs and other stuff.

He's got a pretty convincing argument that the soil structure in the top is made largely by the result of processing a lot of organic material by soil arthropods - the insect-like critters down there. The soil is largely a collection of fecal material from bugs. So on occasion Andy put on a T-shirt for one of our short courses that says "bug poop grows trees." (Laughter) That makes the point that these things are critical parts of the system, following their importance in nutrient cycling and soil formation processes, but also the fact that soil is incredibly species-rich. From what Andy and others have told me, our soils in the Northwest have a richer soil fauna than any place that's been examined in the world. Much richer than the tropics, and you think of the tropics as being the "Garden of Eden" for biological diversity. So, the soils here are really rich. But that aspect of soil biology, soil science, was taught in a very general, broad-brush pattern, about basic soils. I can remember getting the basic importance of soil organisms and so on, but to have some real hard-core examples of that, Andy's work has been really great.

**Dyrness:** Plus Jack Lattin's work.

**McKee:** Well, you've got a tremendous amount of information on the insects and insect-like critters. To first approximation, all the organisms out there, all the arthropods, 95 percent of biological diversity, is made up of insects and insect-like critters. Kiss off all the plant species and animals with backbones. If all those go extinct, and you keep the rest of it going, you'd have most of your biological diversity. You'd get a somewhat different world. (Laughter) But we've digressed again.

**Geier:** We were talking about categories on this chart, and this would be under soils, but a sub-category you think really needs close attention is below-ground biology? Is that what you've been talking about?

**McKee:** Well, to start out, there are mycorrhizal mats, biological diversity, arthropods, litter soil, leaf decomposition, trace gases; these are all below ground and soil-related. Bob Griffith's been looking at seasonality of the respiration of soils, including the evolution of trace gases by carbon blocks, so we can trace the exchange of greenhouse gasses.

**End of Side B, Tape 1 (of 2)**

**Begin Side A, Tape 2 (of 2)**

**Geier:** (Introduction) This is the beginning of tape two of the Andrews [History] Workshop, August 7, 1996, starting at 1:15 p.m. While we were gone, it occurred to me that we haven't talked about some of the things on here [project list], but maybe we could take care of them before we get to the secondary level interviews. Most importantly, what I see in the interview list, actually, maybe we should clear it up before we continue this any further. Each person that is part of the initial interview phase, and then, secondary and follow-up interviews, will be signing a form, a release form before beginning the interview. Fred and I talked about the possibility of having two levels of authorization. The first level would be essentially an authorization for use of this study, with access after this study on the basis of prior approval from each interviewee. The preferred authorization would be open access, but my concern about that would be, I don't want people to feel like they can't talk frankly during these interviews, and I want them to feel like they have some control at the end of how the authorization that I envision being drafted, would be an authorization for use of that interview for the purpose of this study only. Then, beyond that, what Fred said earlier, to make this part of the Forest Science Database, and that's where the question of open access comes in. I think it's best if it's open access, and my anticipation is that after the interview, unless there's something unusual about the interview, most people would be willing to do that.

**McKee:** I think that's right.

**Geier:** So maybe we should just start with that request first, and then, if any person has any reservations we could have a follow-up, a back-up plan.

**McKee:** That's a different perspective than I've come at these things before, having friends who are reporters or journalists, and so on. This kind of information resides with the interviewer, and remains privy. Do you have any heartburn, from this perspective?

**Geier:** Any what?

**McKee:** Any heartburn, with these being open?

**Geier:** No. I come at it less from a journalist's standpoint, than a historian's standpoint. I envisioned this as an oral history project, where the tapes themselves are part of the product being generated. The Alaska project was different, where the agreement there was that the notes and everything else would remain mine. It was the product [report] I was delivering there. But in this case, at least partially, what is going on is this community re-evaluation Fred was talking about, where people are taking another look at what they did. I think that's a valuable thing that will come out of this and be useful, and interviewees should have access to it, so I don't have any problem with it, as long as people are aware when they're talking, that this is what's going to be done with it, and that that's not a concern for them.

**Miner:** With the Alaska history, we had some people who didn't want their interview to be used, so this is a good way to clarify it right up in front as to what the expectations are.

**Geier:** Yes. That problem there came up because of, you know, "burned fingers," after the project had already gotten underway. This is a different kettle of fish, if you start out with this at the beginning, things will probably go a lot smoother, I think.

**Miner:** Right.

**Dyrness:** Uh-huh.

**McKee:** [Discussing data management for group] Well, we've got the local Forest Science Databank, and Fred's team also has their own separate, but pretty well-integrated data management system, and since this is being paid for largely or entirely out of Forest Service dollars, it probably is appropriate, from that standpoint, for it to reside with the team's data. So, if Fred wants to make it open, then it's not clear to me the mechanism for how that is to be handled. Probably, they would be accessible through the Forest Science Databank, rather than the College of Forestry [OSU], the OSU library, or something like that, and that these would reside here with the team databank and Forest Science Databank.

**Geier:** [Talking about focus groups/need for third-party coordinator to pull together theme-centered discussion groups] Fred's already reeled some of these off and identified some possible groups, and he was telling me yesterday that he'd come up with, Ted and Jerry and Roy Silen at the Carpenter Mountain Lookout, Gregory [Stan] on river continuum, stream profiles and types, and Al Levno, Gordon Grant, Jerry [Franklin] and Ted [Dyrness], on watersheds.

**Dyrness:** Yeah, we did mention that.

**Geier:** And then, what he called an "IBP time, 1970s-period" group, and maybe you could give me some names of who should be in on that?

**McKee:** Jerry, Ted, Dick Waring.

**Geier:** Dick Waring?

**McKee:** Yeah.

**Dyrness:** Glenn Hawk? Where's he?

**McKee:** He's in New Mexico. (Laughter) Do you want to keep your groups to two or three? Because there's a lot of players around here.

**Geier:** Yeah, an optimal group for something like that is in the neighborhood of 3 to 5 people.

**McKee:** Yeah, if you want sparks flying. (Laughter)

**Geier:** Which of these groups would you put him in?

**Dyrness:** IBP.

**Geier:** Okay. What's his last name?

**McKee:** Scott [Overton], well, Scott tended to be disruptive. (Laughter)

**Dyrness:** Well, that was a funny issue. Yeah. He and Jerry were just at it, constantly.

**McKee:** I don't fully understand why that happened, other than unrealizable expectations, and basic personality. What Scott did during that time still stands as tremendously important, groundbreaking effort, in terms of hierarchical models, with his flex-reflex operators. When we revisit it today, 20 years later, it's state-of-the-art. Of course, there were people like James Hall, in fisheries science. He's around Corvallis and might be appropriate to toss in, and Jim brings a very good perspective on aquatic research. You get, let's see, who'd we get for that? Ted, Jerry -

**Geier:** Ted, Jerry, Dick Waring, Glenn Hawk, Jim Hall.

**McKee:** Then, a whole bunch of people are still here. Like Kermit Cromack, Fred Swanson, Art McKee, Jim Sedell, Bill Dennison, George Carroll; there's literally a cast of hundreds still around.

**Geier:** Could we pick some people who would be sort of representative of the diversity of the groups involved, and different levels of involvement?

**McKee:** Well, what we've got so far, Jerry, Ted, Jim Hall, Dick Waring.

**Geier:** Glenn Hawk?

**McKee:** Well, Glenn won't be able to make it. (Laughter) He's living hand-to-mouth in New Mexico.

**Geier:** Is that right?

**McKee:** Yeah.

**Dyrness:** Hand-to-mouth?

**McKee:** He can't get a teaching position that lasts more than a year. Teaching at military bases. Circuit rider, I think would be a good analogy.

**Dyrness:** How about Don [Dilbot]

**McKee:** Yeah, Don's still around.

**Geier:** Who?

**McKee:** Don Dilbot. That's probably enough.

**Geier:** We would need somebody to coordinate that.

**McKee:** If you give them a time and date to be there, and a location, is that something you'd want to do this year, for this particular thing?

**Geier:** I think that this would be something that would be in the next, the second phase, but if we were going to do it, we should probably start planning now. It would be good to get a site, if there was someplace where people could go, and get the invitations out.

**Dyrness:** And you were thinking we could do some of these in the field?

**Geier:** Yeah, that's the idea.

**McKee:** Watershed 10 for the IBP?

**Dyrness:** Yeah. Watershed 10 and 2, something like that? Reference stands?

**Geier:** How about priorities? These were groups that Fred came up with. Do you have any more to add? These things tend to be a little time-consuming, so we probably don't want too many of them, but if we come up with some good representative themes that follow up on some of the themes we talked about earlier, some of the intersecting themes, programs –

**Dyrness:** -- and stream people.

**McKee:** With streams, you've got Stan Gregory and Jim Sedell. We mentioned that in another group.

**Geier:** Yeah.

**McKee:** Jim Hall probably ought to be there.

**Geier:** Who's this Stan?

**McKee:** Stan Gregory.

**Geier:** Oh, okay.

**Dyrness:** And maybe he might be able to suggest some others that would?

**McKee:** Jim Hall hired Jim Sedell to be his post-doc, and he was the major professor of Stan Gregory, who was a graduate student at the time, and they all, two or three of them, belong in there.

**Geier:** Okay. That's probably good. I'm kind of interested in what you said earlier about getting somebody in there who could make the sparks fly. I can see several kinds of these things developing. One would be a group that worked really well together on something that was successful. Or, maybe we could find a project or an issue that was tried, but that didn't work too well, and get some of the people involved to talk about what went wrong. It might be helpful to have a few sparks flying here and there.

**McKee:** You'll get some sparks flying in the general IBP discussion groups you have. It's just that, when Jerry and Scott meet at national meetings, they chill, they don't talk.

**Geier:** Okay, well that's probably not a good idea, then.

**McKee:** Sparks is probably the wrong word. (Laughter) You would have strong differences of opinion about what IBP was all about with the mix you've got there. You've got Dick Waring, Jim Hall, but they'll be able to talk to each other, without getting too hung up on it. And Jerry, certainly, you'll have some sparks flying there, and any group that you toss Jim Sedell into is bound to have some sparks flying around. (Laughter) You can count on Jim for that.

**Dyrness:** How about a watershed-hydrology group?

**McKee:** Well, who would it be? Dennis Harr?

**Dyrness:** Dennis Harr.

**McKee:** Would be one. Let's see, Dick Fredrickson is gone, and Jack's gone.

**Miner:** Ros Mersereau might.

**Dyrness:** Ros is around, and Al [Levno]. In that crew, there's a lot of them deceased.

**Geier:** Hmm. Ros, you said?

**McKee:** Ros Mersereau.

**Dyrness:** He's around.

**Geier:** Dennis Harr, Ros Mersereau?

**Dyrness:** Dennis Harr, Ros Mersereau, and Al Levno.

**Geier:** Okay.

**McKee:** They're ones with the extensive history of involvement, a long period of involvement.

**Dyrness:** Where's Dennis Harr?

**McKee:** Must have retired. Would he still be in the Seattle area, do you think?

**Miner:** Last couple of years, he was going around the country, peddling an invention.

**Dyrness:** That card washing deal he was doing? (Laughter)

**McKee:** Yeah, that was his "card washing" deal. (Laughter)

**Miner:** I never knew if that was really true or not. (Laughter)

**McKee:** Oh, yeah. (Laughter)

**Miner:** He told that to Sherri Richardson, who interviewed him for his retirement, but I thought he was kidding. (Laughter)

**McKee:** No, he did it, and he was serious. (Laughter)

**Dyrness:** He was involved, he started out --

**McKee:** -- he came on as a post-doc in the IBP.

**Dyrness:** Yeah, and then, he was a faculty member in forestry [OSU-COF], and then he switched to the PNW Station, and so, he's got a long history.

**Miner:** You might be able to track him down.

**Dyrness:** I think if we wrote him, I bet you he'd do it.

**Miner:** Oh, I think he would.

**Dyrness:** And he'd be a good person to interview.

**Miner:** Oh yeah.

**McKee:** I can't believe that this is a big money-maker for him. But he insists it is. (Laughter)

**Geier:** A card-washer?

**Miner:** To wash playing cards, you know, poker cards. (Laughter)

**Dyrness:** They all break out packs, you know. How come, what sort of -- ? [Clientele and uses]

**Miner:** -- Casinos, you know.

**Dyrness:** Yeah? (Laughter)

**McKee:** It kind of looks like a rolodex kind of thing.

**Dyrness:** Oh, you've seen it, huh?

**McKee:** Yeah, I've seen it. (Laughter) It's enough of a money-maker that he can't get the feet for the base. Well, maybe he can now. But for a while, he couldn't get the feet for the base of this thing, directly from the manufacturer that makes little rubber things. They wouldn't sell it to him, because they had a previous agreement to sell this particular thing only to somebody who makes an item that has four feet with these little rubber gizmos on the bottom of it. So you had to buy the gizmos, take the feet off, put them on his own thing, and so he had a big stack of these. I don't know what they were, but he didn't know what to do with them, because they were useless to his card washer. He was paying like six bucks a pop for these little rubber feet that go on the bottom of this thing to hold it stable while you do something with it, turn the crank on it or something like that. (Laughter)

**Geier:** It must go to the second-tier casinos. The first-tier casinos get new packs all the time. (Laughter)

**McKee:** I don't understand it, but he professes that it's going real well. He's got a Winnebago they go around in, selling these things. (Laughter) Yes, Dennis is marching to the beat of a different drummer.

**Dyrness:** And the hydrology, more of a contemporary view, would be Gordon Grant.

**Geier:** What would be the point-of-contact to get these things organized?

**McKee:** If you can wait a couple of weeks, we can start the process, using our clerical administrative assistant, Carol Wood. She can start phoning about availability and interest, and we can, either Fred or I, could put some muscle on some of our own reluctant types to try and play games with us.

**Geier:** So in terms of strategizing for these initial interviews, I want to have some themes, and you've already talked about some of the themes we're dealing with, but more importantly, for the second tier of interviews, that would actually kind of be there, what their interest was?

**McKee:** It just occurred to me we have at least one conspicuous oversight, in that the Andrews Program has a national reputation, through LTER, for its data management, and Susan Stafford, professor in Forest Science, has played a lead role in upgrading our old data management system, making it state-of-the-art, and actually providing an example or model for other sites to follow. We might want to think about replacing one of your currently-stated interviewees, in this first round, with Susan.

**Geier:** Hmm.

**Dyrness:** Or just add her.

**McKee:** Of course, Max and I were thinking about time and so on. We were thinking about 6 or so people, and we've got over 6 already.



**Geier:** Yeah. Let's see on the list here.

**Dyrness:** When did Susan come here?

**McKee:** When did she come?

**Dyrness:** Yeah. '76?

**McKee:** No, it was after that, a little bit later, around 1980, as she's been here about 15 years. But we were limping along with, what the hell was his name, something Brown, or – [George Brown]

**Geier:** Okay, so I've got Jerry Franklin, Fred Swanson, Roy Silen, Mike Kerrick, and Bob Tarrant. I think I put Carl Bernstein in the second group. I've got five people here now.

**McKee:** I think Susan should be in there. If I go to a site where I'm solo rep from the Andrews Group, a lot of times, I'm asked about two things; data management and how people can get information on how to model our data management plan, and the other is the stream team research, aquatic research.

**Geier:** Of those six, how would you rank her in terms of priority?

**McKee:** It's maybe ahead of Tarrant.

**Geier:** Because once we get past four, it's a question of whether we do it this summer or not.

**Miner:** Who is second?

**McKee:** Franklin, Swanson, or Silen.

**Geier:** I had Kerrick or Tarrant for the 4<sup>th</sup> one. So, that would be Susan and Bob Tarrant. She's in Forest Science here at OSU?

**McKee:** Correct.

**Geier:** Planning these interviews, what I want to do is have a preliminary list of people that might be key figures in their different fields, in working with them on various projects, especially the issue of science-management-research cooperation. And again, what I'd like to do is get a profile of the cooperative community from a three-dimensional perspective. Not just leadership, but also people at lower levels. I thought I had that list of people. Maybe if we look at these people and think who their contacts might be, who they might be more likely be able to talk about or relate their work to, the people we are dealing with. Jerry Franklin, my guess is he's going to be pretty much in everything. (Laughter)

**McKee:** Yes, he covers an awful lot of bases for us. (Laughter) If you're interested in this research-management partnership, certainly the IBP years, we invested some energy talking to management. But, when Jerry and I wrote the proposal for the EER [Experimental Ecological Reserve] and National Field Research Facility, contained in that was a concept we wanted. We came at it from different directions, but both had the same idea; we wanted to work hard at getting managers engaged on a regular basis in some kind of formal interactions. We felt if we had them participating in monthly meetings, annual reviews, and so on, there would eventually be a lot of informal cooperation as well, which is the way it worked out. Jerry was a key player in making and helping sell the concept to the forest supervisor [Will. N.F.], that he would designate someone to be his proxy, to attend the monthly meetings, and he was comfortable with the district ranger [Blue River R.D.] taking one morning of one

day a month off to attend a monthly science meeting. Jerry played a big role in that. My role at that time was sort of softening up the opposition, and Jerry would come in and deliver the *coup-de-grace*. So, we worked as a team in that respect, but he's got that perspective, the science perspective, and he covers a lot of bases.

**Miner:** Would you fit into any of these groups?

**McKee:** A lot of them, sure.

**Geier:** That's a good point.

**McKee:** I'd like to see this evolve, because Fred and I are in pretty frequent contact with Max, and rather than just the list, Fred and I will be involved here and there, and it's important that these other people, very significant players, get a fair amount of your time.

**Geier:** Definitely a first interview should be with Jerry. Is he in town? Oh, I'm sorry, he's up in Washington, isn't he?

**Miner:** Yeah, but he comes down to Portland fairly often.

**McKee:** He hasn't called a lot, but he probably averages three or four days a month here in Corvallis.

**Dyrness:** What?!

**McKee:** He goes through a lot. I don't see him but about once every two months or so.

**Dyrness:** Yeah. That's about when I see him.

**McKee:** I see him across the parking lot or talking to some group, things like that, so actually, he's here quite a lot.

**Geier:** Maybe I should just give him a call sometime?

**Miner:** How do we get a hold of him? He might need some help with that.

**McKee:** I'll give you a number. The way to do it is to contact his handler, and try to make sure he gets with you. Here we go. [Provides phone numbers for Franklin and LTER network office]. Explain what you're up to, and explain that it's important. Then, they'll rag on Jerry to give you a response.

**Miner:** I think it's important to try several different angles to reach him.

**McKee:** You can call him at home at night. That's not a big issue with Jerry.

**Geier:** Okay.

**McKee:** Not an issue, he just may not be there. But if he is, he'll be happy to talk with you. He won't use the answering machines there, at least, he hasn't started doing that yet. His office is a joke. (Laughs)

**Geier:** Sounds like it's mainly because he's never there.

**McKee:** Well, if he's there, he doesn't always answer the phone. He uses the answering machine as a buffer, selectively, takes the "crisis calls," and responds. Until someone else tells him it's a crisis. That's what Adrian's role is. (Laughter).

**Geier:** When I'm talking with Jerry, what particularly would you suggest I get started on, initially?

**McKee:** There's so many facets, roles, he's played. He's been instrumental in the science being high quality. He's been instrumental in making sure that the management-research partnership existed. So, maybe science-vision, going to science-management partnership.

**Geier:** Okay.

**McKee:** And along the way, he'll take you on the side-roads. Probably.

**Geier:** I don't think there's much to worry about, finding something to talk about with him.

**McKee:** No. (Laughter)

**Geier:** Actually, it might not be a bad idea for you to give me some pointers with Fred. I've talked to him quite a bit and have a general idea, but --

**McKee:** -- Fred has a different spin on the situation than Jerry, by virtue of coming in later. Fred's strength is what he sees happening recently and currently, between the Forest Service and management, management of public lands in general, and the role science plays in helping shape those policies and management practices. You'll hear some of the same things from Jerry, too, but there'll be some differences as well.

**Geier:** In terms of these different areas of cooperation, I think this might be a misperception, but my perception is that Jerry worked with almost all these people. What about Fred?

**McKee:** Yeah. Anybody that occupies those niches is going to be engaged with people across the board.

**Geier:** Okay.

**McKee:** And in activities that follow those different areas.

**Geier:** Yeah. You know, Roy Silen has got more of a historical perspective.

**McKee:** Yeah. He was the first scientist assigned down there. [H.J. Andrews EF, 1948-54]

**Dyrness:** Huh?

**McKee:** Is Roy the first scientist assigned to the Andrews? He was one of the first. Whether he was the very first, I don't know. [He was first person assigned to the Andrews (called Blue River EF initially)]

**Dyrness:** Yeah, I think he was the first.

**Miner:** What year was it in, '50?

**McKee:** '50 or '51.

**Miner:** What are we going to be celebrating in '98?

**McKee:** The 50<sup>th</sup>.

**Miner:** 50<sup>th</sup>. And that's kind of a --

**McKee:** It was established in '48, and I don't believe that much happened before Spring of '50. Roy was the first one out there.

**Geier:** So, he was assigned there in the Spring of '50?

**McKee:** I think so. That's my best guess on that.

**Miner:** He's involved in a couple of other things, still.

**McKee:** Oh, he's still active. He's great. I called him about some --

**Dyrness:** [interrupting] -- He's not in the office much.

**McKee:** Yeah, he hasn't been in the office too much. He's just coming in 2 or 3 days a week, he says. That's what he's been doing.

**Dyrness:** Still active then?

**McKee:** Yeah. As a measure of this guy, when the genetics program took some big hits a few years ago, there were some entry-level geneticists waiting in the wings to find jobs. Roy said, "Well, I'll resign, take the salary savings, and hire some of these guys." But he continued to work for no salary after that.

**Miner:** That's amazing. Yeah, that's amazing, isn't it?

**Dyrness:** It's also amazing that his educational background wasn't genetics. He was in regeneration silviculture, as I had mentioned, prior to his species work and so on. He just kind of came into genetics after he started, after he finished his Ph.D.

**McKee:** And I guess because of his silvicultural background, one of the first things I remember hearing from Roy, sort of tangentially. He got a copy of old plot or stem maps, how he could talk about really long rotations: 200-year, 300-year, rotations, because of the genetics aspect as well as cutting reserves or old-growth set-asides, and diversity of organisms. Yeah, he was saying it all.

**Dyrness:** Way before his time.

**McKee:** Yeah. I was fighting something about two years ago, and I called him about "that conversation we had many years ago, about such and such, and did you ever publish that?" He said no, that it came out in a couple of newspaper articles, but it was never published [in peer-reviewed journal].

**Dyrness:** No, no.

**McKee:** But he gave it to me, he was able to give me the dates, for his interviews with *The Oregonian* 20 years earlier, so we chased it down, and so we made reference to Roy Silen, Forest Service geneticist, 1973 to 77, or such.

**Dyrness:** You chased down that clipping?

**McKee:** Yeah, we chased it down. *The Oregonian* actually helped us on that.

**Dyrness:** Well, Roy expressed almost a reluctance to go back to the Andrews now. I've heard him say on several occasions, "I want to remember it the way it was."

**McKee:** Yeah, he said the same thing to me.

**Dyrness:** Yeah. So, you can expect that kind of an attitude, I don't think it's because he disapproves. But it was just such an idyllic place when he was there.

**Geier:** Hmm.

**Dyrness:** As I say, they had to walk, there were no roads to speak of, and for provisional road locations and landings, they had triangles of aluminum. They were so frugal, they didn't use the whole thing that comes in square sheets, and you staple it on the tree. They were so frugal, they only used half.

**Miner:** Really?

**McKee:** Yeah. They cut the squares in half.

**Dyrness:** Yeah. To this day, you can't go anyplace in the Andrews without seeing, "There's a triangle." It was just Roy, a lot of times, or it was Hank [Gratkowski] and Roy. They would go out for a week or ten days at a time, with packs, and he really looks back on those times, and says, "Back then, I didn't even need my paycheck. I let them stack up in the drawer, you know." (Laughs). So they [Forest Service] called him up and said, "Why aren't you cashing your paychecks?"

**Miner:** Ask him if that's true, if that happened.

**Dyrness:** Yeah. (Laughs)

**McKee:** He's quite a character.

**Dyrness:** Yeah, and a good guy. It's very fortunate he's still around, with a good memory.

**Miner:** Yeah.

**McKee:** Yeah.

**Dyrness:** Because it would be tragic to lose out on that story.

**Miner:** Wow, but he's done a history, himself, I think.

**Dyrness:** Has he? Did he?

**McKee:** I don't know.

**Geier:** A memoir?

**Miner:** What was that? Did he do something on the Wind River? Did he do work on the Wind River?

**Dyrness:** Yeah, about four years ago, he published a paper on the Wind River Arboretum, a trial of exotic species, but that was Wind River. So, he's interested in that sort of thing.

**Miner:** Yeah.

**Dyrness:** Recapture the past and so on. So, I think that with a few questions, you could really --

**McKee:** -- have a great time. There's no question about it.

**Dyrness:** Yeah. That would be fun for him.

**Geier:** That's an interesting point. Has anyone done any memoir-kind of work that you know of?

**McKee:** We've talked about having people record all their experiences, but it's something that never happened until this year.

**Dyrness:** Who was that guy at the dedication of the lab? [U.S. Forest Service, Forestry Sciences Laboratory, Corvallis, Oregon] There was some guy, I think he was from the district or the supervisor's office [Willamette NF], going around and talking to some old-timers.

**McKee:** I think that was Vince Puleo. He was a silviculturist on the Andrews at the time, and he was interested in trying to record many of these kinds of things. So, he had his own initiative, and he was walking around, talking to people with his tape recorder, but I don't know where those tapes reside. Vince is up at the Detroit Ranger District, and he's going to be --

**Dyrness:** So that was Vince Puleo?

**McKee:** I think it was.

**Dyrness:** He was a Forest Service guy.

**McKee:** Yeah. A very tall fellow? Vince is about 6'6".

**Geier:** What's his last name?

**McKee:** Puleo. P-U-L-E-O.

**Dyrness:** You might ask him about what he has.

**Miner:** Jerry Williams is historian for the region [USFS, Region 6]. He has a history that he did of the Andrews, not much, just five or six pages. I sent that to Fred and he was going to pass it on to you.

**Geier:** I think I've got that right here.

**Miner:** Yeah, and when we start beating on the bushes, who knows what might --

**Dyrness:** -- Who's gonna come out.

**Geier:** That's right. What was interesting about this [Williams' short history], I was reading it over before we came in here, it has this section that goes from about 1954 or 1955, and then the next thing is 1972. So, 1955 to 1972, is just hopped right over.

**Dyrness:** Is that right? '55 to '72 is just -- ?

**Miner:** Yeah, I think he, I don't think he knows.

**Geier:** So after that, it's more or less publications.

**Dyrness:** Who did that?

**Miner:** Jerry Williams.

**Dyrness:** Who's that?

**Miner:** Historian for the region [Region 6, U.S. Forest Service].

**Dyrness:** What prompted him to do this?

**Miner:** That's what I couldn't figure out. And I don't think he finished it. He knows he left it kind of hanging. He almost reluctantly kind of gave it to me, because he said it wasn't much. He didn't finish it. But, for whatever it's worth, here it is.

**Geier:** It's actually helpful. He's got a list of citations here at the end of the reports, 1948 through 1986. He's got a list of them here, and he's got a summary by topic or by amount: 148 reports.

**Miner:** There are some, there used to be, a bibliography, I think?

**McKee:** There is a list of publications, and there are three of those.

**Dyrness:** What's the most recent one?

**McKee:** Most recent is this mimeo, no, photocopied thing, that we haven't put into a hard cover.

**Dyrness:** It's pretty complete up until that date, isn't it?

**McKee:** Well, up to March of this year, '96, or no, April of '96. We've got the one that goes up to '86, then an '86 to '88 supplement, then an '88 to the present, '96.

**Dyrness:** So about how many citations are there?

**McKee:** 2,000.

**Dyrness:** 2,000? Whoa! (Laughs)

**Miner:** I was just documenting, really, and we've got photographs, old photographs that Franklin took, and others took, including Roy Silen, up at the Andrews. So we do have historical photos. They are all old photos we would have. We have quite a few. We have a book on H.J. Andrews that somebody kept, that hasn't been kept up for years and years, but it might be worth looking at.

**McKee:** Oh, sure.

**Geier:** That would be in the historical records up there?

**Miner:** Yeah. And the nice thing, is that it's all organized.

**Dyrness:** There are good captions with them, so you know what you're looking at.

**Miner:** Yeah.

**Geier:** That's good. I'm a little surprised that more people haven't gotten some of this down, why more people haven't sat down and written down reminiscences of their involvement with this project. It sounds like you've been awful busy, though.

**McKee:** I don't know anybody who has. (Laughter)

**Miner:** I don't know if it would show up, in the book by Cowlins, or Collins? What is his name? He wrote a history of the Station [PNW].

**Geier:** Oh, yeah. Cowlin. [Robert C. Cowlin, PNW Chief in 1950s].

**Miner:** I don't know if this shows up in that or not.

**Geier:** I'd have to go look at it, because that wasn't what I was looking for on the Alaska project.

**Miner:** That's really all, and you might be surprised, as it might say something.

**McKee:** Well, it's been kind of surprising, we haven't had a historian/writer, or somebody like those people, in addition to writing science, that loved to write other things. We just haven't had anybody like that who's been involved.

**Miner:** It's probably because it's "that kind" of a project.

**Geier:** The other thing that's kind of interesting is the amount of writing about the Andrews from outside. That's something else I wanted to ask you, too, as this group is kind of a planning meeting. How much of that kind of literature do you want me to get into for this study? Do you want this to be more of an inside-looking-out, or do you want me to be balancing that?

**McKee:** My personal feeling, when Fred and I were talking about this thing initially, is that somebody may not spend a whole lot of time looking at the outside looking in, but it would be folly to exclude that kind of thing, because we shouldn't be just talking to and about ourselves, that such an effort would benefit society. I was reminded of this by Alston Chase's book, in which some stuff was distorted and heavily-filtered, that it might take time to sort through the disinformation and misinformation. That's a hard one for me to answer. I feel we'd just about have to shoot ourselves in the foot if we don't do some of that, and when I look at Alston's book, I just go nuts, because the guy selectively ignores things.

**Dyrness:** What book is that?

**McKee:** *In a Dark Wood*, and it's on my desk. I keep it there to get the blood pressure up every morning. (Laughter)

**Dyrness:** So, at least if your blood pressure is getting a little low, you can – (Laughter)

**McKee:** Yeah.

**Miner:** What's his story-line?

**McKee:** The scary thing about this book, he's a pretty clever writer, and is very persuasive that he is carefully weighing all the evidence, all the information and issues, and is giving a balanced perspective. Some of the book is just top-notch, first-rate, with which I have no qualms, no heartburn at all. Then he accuses us of not learning any lessons from natural disturbances. Maybe as much as 15-20 percent of our research budget is involved in understanding the effects of natural disturbances on our system. He says we ignored that and view the forest as static. Where does he get that? I sent the guy reprints of our disturbance work and talked to him for hours on the phone, but some very selective quoting is going on, and he views us as not being in tune with the natural rhythms of nature, whereas some saw-log silviculturists he views very credibly, are. I hooted at the people he thinks are doing quality research. Talk about people putting out books and selectively quoting your stuff! It was just terrible. At any rate.

**Geier:** Fred and I talked about this a little bit, with Bill Lang too, and a couple of ideas he had. One was about how outside criticisms might influence the response of scientists in the public eye. You know, the urge to publicize what's being done here, and so, some of it may be important to deal with from that standpoint, as this kind of an interior response, or as an outside challenge as an impetus for, going public with research that might not have been in the past. The other possibility was to take a look at more subtle responses, for example, some comment that Alston Chase might make in the book, introduce that as kind of a chapter, a quote at the beginning of the chapter, and then have that chapter be an analysis of that argument, from the standpoint of what scientific research has been done.

**McKee:** I'd have mixed feelings about that. There was a review of this book, recently, in the *Journal of Forestry*, which Bill Ferrell [OSU forestry professor] brought to my attention, which, it basically forces us to write an article for that journal, which points out the problems inherent in that book. The things that have been intentionally left out. Bill said it was very favorably reviewed.

**Dyrness:** Is that right?

**McKee:** Yeah.



**Geier:** Who reviewed it?

**Miner:** What kind of journal?

**McKee:** In the *Journal of Forestry*. And, I forgot the person's name. It was somebody who was pretty influential in the society.

**Miner:** Not [unintelligible name on tape]?

**McKee:** No. Look at the latest issue. Came out a month ago, and "it finally pointed out the tyranny of ecology in a very conclusive way." (Laughter) The book is subtitled, *The Rising Tyranny of Ecology*.

**Miner:** Well, this book thing, it's interesting that this history will come on the heels of that.

**Geier:** Well, I guess the other question is, do we want this history to grapple with the outside criticisms, or, like you said, I don't think we want to be rolling around in the gutter.

**McKee:** Yeah, no I don't see it as that, and I would not want it to focus on that.

**Miner:** What's going to be driving it? It seems like more of a reflection on it than --

**McKee:** The idea is that's a separate issue. This thing needs a very direct rebuttal, and I was groaning and not wanting to do it, but it's real clear that somebody has got to do it. I may not end up being that.

**Miner:** What might be more interesting is having some of the things that happened in the past, and maybe have that, not really as a theme, but maybe a reflection on those things.

**Geier:** We talked a little bit earlier, this theme of the feeling, the conversation we were having that Fred was talking about, and it strikes me this is one of those issues where the goal is, like you were saying, the idea of doing something that has some impact on policy, at what level is policy a result of public opinion, and at what level is there a need to proselytize, in other words, convince the public? I forget the term, but the larger public and managers, at what level are they involved in Andrews research?

**McKee:** Well, that's a touchy issue, and I think you'll find a lot of pretty wide range of philosophical positions on that in our research community, from those that feel it's perfectly appropriate for out-and-out advocacy, to other scientists that say their role is to relay and offer information for consideration by policy-makers and managers, and to not get involved in those policy decisions.

**Geier:** Hmm.

**McKee:** So, you have --

**End of Side A, Tape 2 (of 2)**

**Begin Side B, Tape 2 (of 2)**

**McKee:** We also had to have somebody to sort of take up this other burden too, so Pam's [Druliner – public information person, Blue River R.D.] sort of spread between the latter two, almost none in the science arena, but between tech-transfer and the general public. This other category of elected officials and policy-makers, to try and inform them, and we haven't aggressively pursued that very much. There have been a few invitations offered to members of the Northwest delegation, elected officials. The Willamette's contacted us several times as to whether or not we wanted to have a slot in their annual elected officials tour, which almost always runs heavy to county commissioners from O &

C counties, and we participate in that. But more often, we've been contacted by congressional staffers, or by advocacy groups that have a lever on a congressman or a senator, and they want to bring them by, so we've been contacted more times than we've made contacts, so that's an arena where we've been more reactive than pro-active, in how to handle information transfer to elected officials. That seems to me, appropriate, the kind of thing that we do, although Jerry would be very quick to point out that if you want to affect change quickly, get the ear of a senator or congressman.

**Miner:** It's kind of interesting, to get the different perspectives on that. I think there's two things. One is the relevancy of what you do. It makes you come, like for floods, and you realize that, and you get something done at the Andrews, and that it's continuous, just continuous. The other thing, is it's a place where things got organized. It's not that there isn't other research in some of these areas that isn't happening in the Pacific Northwest, but sometimes it has a national perspective, for whatever reason, and probably it's worthwhile, then the recognition of the Andrews is so substantial.

**McKee:** Some of that spun out of, sort of inadvertently, almost serendipitous kinds of linkages. For instance, when we picked our study sites during the IBP years, we went to sites where there already was a history of research, which happened to have old-growth forests on them. We also had mature forests, not old-growth forests. We went to where we could do the kinds of research we wanted to do, but it wasn't because we wanted to study old-growth forests. And yet, from the mid- to the late-'80s, when the old-growth controversy was erupting, one of the few places that had really detailed information on old growth, the character of old growth and its structure, and differences between old-growth stands and young stands, came out of work at the Andrews, and people were saying, "Oh, God, you guys were so prescient. You knew this was going to be an issue." Well, give us a break, the information was there, and there were times when we were criticized as only studying old growth. And, that was nonsense.

Even during the IBP years, about half of our budget went into the study of young stands, but we did happen to be investing some energy in studying patches of ground that contained old growth. So, we didn't react to the criticism of wasting money on old growth. We stayed on those sites and continued doing research. The former dean of our college [College of Forestry, OSU] believed it was a waste of time, a waste of money. But then, there were other people who felt it inappropriate to study nutrient-cycling in old growth, because soon there wasn't going to be any old growth. It was all going to be logged off anyway, so what's the point? Yet we did. So all that was prelude to the Northwest Forest Plan, which I think, because of that and having information in certain areas, there's an assumption that probably buried in the Andrews research, was information on other things that emerged, like biological diversity, long-term productivity or sustainability, and sure, we did have things germane, as other places did too. When I got calls from reporters, I would give them our story, but then I'd say, "You also have to talk to so-and-so, who works in these other parts of the Northwest, because they're working in this area, too." It wasn't as if we were the only store you could come to, to get these things.

**Geier:** That was something else that Fred and I were talking about as something that we wanted to do. We talked with Bill Lang about this also, how we want to bring that into the story a little bit. My view of a viable community, which I've talked about with Fred quite a bit, is this idea of a non-isolated group of people that come together around a common goal. The tendency is, precisely what you are talking about, that willingness to go out and make the link with someone at a different program.

**McKee:** Yeah.

**Geier:** Direct people to it, or draw them into stuff. I think maybe we need to get into that in this study. Are there some examples of that?

**McKee:** Yes, I think anybody in the group could give you examples.

**Geier:** So, on the agenda here is, “other academic institutions.” You touched on this, and then, we went past it to political supporters. I forget the names of initial contact people who were politically helpful in backing this kind of research, not necessarily just the Andrews, but that general concept, is something.

**McKee:** If we’re talking about the national level, we’ve had people, most recently and then many years ago, Hatfield [Mark, Senate, R-OR], both times, and Les AuCoin [Congress, D-OR] was a sugar-daddy for us for a while, and Peter DeFazio [Congress, D-OR] has been a supporter who has found himself voting against research a couple of times, for political reasons, but assures me he knew they were going to fail anyway, so it didn’t matter. So Peter would be a supporter. Gosh, at the state level, I am not sure.

**Geier:** Well with Peter, his district includes the Blue River area, doesn’t it?

**McKee:** Excuse me?

**Geier:** That area would fall within his district, wouldn’t it?

**McKee:** Peter’s? Yeah, it does. We’re in Peter’s district. But we’ve had a diversity of support from people at the state level and county level, as Ted was mentioning. But recently, it’s been pretty neutral.

**Geier:** Do any people stand out at the state and county levels?

**McKee:** I can’t remember, as the state district keeps changing its boundaries. They call it the helicopter district, because it’s a bunch of the west-slope valleys running north and south. But whoever it was, that state representative from the district including the Andrews, in the early ’80s, was very critical. I can’t think of the person’s name. I had to write a letter in defense of the program many years ago, to the person in question, as to why state money was being “wasted” on the study of old growth. My response was that we don’t study just old growth.

**Geier:** I talked to Fred a little bit about this, and we didn’t get that far, but regarding the issue of community within a broader community, the Andrews is a locality that attracts people that have these particular research interests and financial goals. The reality is, the Andrews is in a region surrounded by towns and loggers and groups like that, and I asked Fred a few times about people that were, might have been hired from the community, to help in some of these treatments, and things like that.

**McKee:** There hasn’t been much. In fact, a lot of the locals don’t even know we exist.

**Geier:** Uh-huh.

**McKee:** There’s no sign on the main road that says Andrews Experimental Forest, and so, we’re “out of sight and out of mind.” (Laughter). We’ve hired locals, but a small number, and it hasn’t been a strong interaction. I tried in the late ’70s to work with the local school district, to use the Andrews as at least a one-day stop for their outdoor program, their environmental education program. What I learned, not directly from instructors involved, but from spouses and friends, was that they didn’t think the “ivory-tower” committed staff could talk to kids. So, we were just chilled out, and at the high school

level, we've had very little involvement with students over the years. The teacher was not terribly interested in using the Andrews as a laboratory. He wanted to keep things close to school, to reduce travel time, he didn't have to fight to get the bus, and so on. And so we're not really a very conspicuous part of the local community.

**Geier:** The state legislature's opposition to the --

**McKee:** Pardon?

**Geier:** -- Questioning of the project, the dean [OSU-COF] over here, was that something that was initiated locally, or that was something that was?

**McKee:** Early '80s was when we were in the depths of the timber recession; double-digit inflation and housing starts were down. It was just a whole lot of anger going off in a "jillion" different directions. Here was a bunch of people from the state that were studying old growth, so that the environmentalists could have some ammunition to protect old growth, and I think it was spinning out of that.

**Geier:** Okay. It could be anything from corporate concerns to local?

**McKee:** I have no idea, but we never did get any direct contact with locals there.

**Geier:** It sounds like what you're saying, though, is the local community is not completely aware of the existence? [of the Andrews Forest]

**McKee:** They're not aware we're here at all. We had an open house two years ago, widely-advertised, in the Eugene paper, the Springfield paper, and the local paper, but we only had 12 people show up.

**Geier:** Hmm.

**McKee:** And six of them had been there through their membership in the Audubon Society or Sierra Club, where we'd offered tours to these groups in the past. I mean, they just know it's a great place, and they come up and hike around on their own a lot anyway, so it was like talking to the choir.

**Miner:** There is some kind of thing at the campground?

**McKee:** There is a campfire talk.

**Miner:** Wasn't there some kind of forum or something?

**McKee:** Oh yeah, we had an -- [Unintelligible -- likely seminar or class]

**Miner:** So, it seems like there's community ties.

**McKee:** Well, yeah, if the community would include Eugene. We're pretty well-known in Eugene.

**Miner:** Yeah.

**McKee:** But the communities of the upper McKenzie, about once every two or three years, I call up the McKenzie Community Center and reserve the center for some kind of function, and say, "Hi, this is Art McKee at the Andrews Experimental Forest," and they say, "Where?" I say, "Andrews Experimental Forest." Same person! I've been talking to this person for 25 years, and they still don't know, they still can't pick up on what's going on here, what's it all about. (Laughter) So, no, we don't have a very high profile. Here's an example of how low it is. We had "Neighborhood Watch" troops cruise by, I guess

this would be four summers ago. Two retired gentlemen, well past retirement, they were octogenarians, probably, came driving in to the headquarters site, just as I was leaving the office, and asked to use the phone? They had to report some funny behavior. I said, "Sure. What's up?" They said, "We're coming back from such-and-such a spot, and we could see headlights up in the woods. Ain't no loggers working up there now. Something's up." (Laughter) I said, "Well, where'd you see this?" They answered, "On such-and-such a road." I said, "I'd be willing to bet a 6-pack of beer that what you saw were the headlights of people studying the spotted owl, there on that particular spot in the road, because they can use their radio directional finders to cover a lot of ground. I'll bet that's exactly what you saw. And they said, "What?! People working this hour of night?! Don't give me that!" (Laughter) He said, "What are these scientists doing?" It was kind of like, "I don't believe anything that you're saying." They said, "We're going to call the district ranger, to see if they know what's going on up here." And so, I was talking to them, and one of them was a person I used to live two houses away from, and I said, "What are you doing? What are you upset about? Don't you think that this - ?" And he said, "Yeah, I don't know. I never knew what you did." I said, "Well, I talked to you about it a few times in the back yard." Well, apparently, it just never registered. (Laughter)

**Miner:** Doesn't sink in.

**Geier:** Hmm.

**McKee:** I've got a 3 o'clock that I might just walk off for 10 or 15 minutes, it won't be a very long departure, but that's why I keep glancing over my shoulder at the clock, to make sure I'm not late.

**Geier:** Well, actually, we can almost wrap this up here in a few minutes. If I can get some feedback from people here. Let's see, I had Kerrick or Burditt for the management perspective. Do you have an idea of which of those would be preferable here?

**McKee:** Well, it'd be two different things, they would provide different insights.

**Miner:** They didn't cross?

**McKee:** Excuse me?

**Miner:** They didn't cross in time, did they?

**McKee:** They overlapped a little bit. Lynn's been there for six years, and Mike's been retired for three, I believe, so Mike would have been her supervisor for two years, maybe three.

**Miner:** I think Mike Kerrick has probably the broadest perspective. But at the same time, Lynn likes how it now is, what's happening in the agency now, and Lynn might have the most current view, so I'd say it's a toss of the coin, which way you go. My thoughts; my order would be Mike first, and he'll probably defer to Lynn, and then Steve Eubanks, who is a former ranger.

**Dyrness:** You said secondary people. I think, the primary people would refer you to the secondary, and they'd have ideas of who you should talk to, too, and propose some people we wouldn't think of.

**Miner:** Yeah.

**McKee:** We're giving you names of people who've been involved, and I think all had real positive attitudes, and there are people you could talk to that might have some pretty negative spins on it, too. I don't know whether you want those names as secondary references, but people like Herb Wick, who

was former district ranger at Oakridge, and is now in the supervisor's office with the Willamette, has some pretty strongly-held opinions on the value of this research, overall. He'd say, "It isn't bad, but what does it do for me on a day-to-day basis? And why are we paying so much for it?"

**Dyrness:** Yeah. That's the old-fashioned viewpoint.

**McKee:** Yeah, it is.

**Geier:** That's probably something you want to --

**Miner:** It's getting more, it's coming back in style. (Laughter)

**McKee:** And I view him as a worthy opponent, because he says, "Hey look, you guys are studying this. I'm a practicing ecologist. I'm making the choices out here." And he's pretty articulate.

**Geier:** Well, it's probably important to get some perspectives like that in this thing, so it doesn't leave itself open for re-interpretation by *In a Dark Wood* kind of way. You know, if you incorporate into the discussion, criticisms of the program, and not try to sugarcoat it, in the long run, it will come out better. At least introduce the criticisms and grapple with them, have scientists responding to those concerns.

**McKee:** Well, I don't have any trouble sitting down and matching Herb, his criticisms for instance, every one of them can be matched. He isn't afraid to mix it up with you, and I respect him for that. A former district ranger at the McKenzie District, a fellow named Randy Dunbar, is a person I also respect a great deal, and I think Randy felt that we were kind of elitist.

**Dyrness:** Hmm.

**McKee:** Because his district abutted the Blue River District and the Andrews, and some of the most heavily used research natural areas were on his district, including the Wildcat Natural Area. And it seemed like I never could find time to talk with him very much, and I think -

**Dyrness:** He felt neglected.

**McKee:** He felt neglected, and justifiably so, probably because so many balls were up in the air. Picking the one that came up for Randy just didn't happen very often. So he might have a perspective of the group as more aloof and more detached than I and others would offer, like Lynn Burditt. And the current ranger there, John Allen, might feel the same way, I don't know. Herb Wick, is kind of, well, he is not a carefully-considered person, sort of a loose cannon, but Randy's pretty carefully-considered. But they're both people that I don't personally have any problems talking with, or debating things with. They're pretty up-front, straightforward people. One that was devious and obstructionary in the past, Bob Burns [Blue River Ranger District], is retired. I don't know where you'd find him yet, but he would be a person that would have a real negative spin on it.

**Miner:** Some basis of the comment you were mentioning, how the Andrews was sort of a money hole.

**McKee:** A what?

**Miner:** Money hole. Word at the station [PNW], is a high percentage of the station's budget goes to the Andrews relative to other groups, and I think there's some kind of jealousy thing, "The Andrews gets more than their share." I don't know.

**McKee:** That's interesting. From our perspective, when we see monies earmarked by Congress shunted off to other areas, we get a little testy, because where the hell is this concept of meritocracy that we earned those bucks? How come they aren't coming our way?

**Miner:** Well, it's not the earmarked funds, I think it's just in the general fund.

**McKee:** There was one case where funds earmarked went off to –

**Miner:** Yeah, there was some painful earmarks.

**McKee:** Well, I think that those ought to be listed as well. We as a group ought to be hearing those, and having an opportunity to respond. As a site director, chasing monies, a lot, I find we're often viewed as neither fish nor fowl. The university [OSU] doesn't want to talk to us, because we're kind of a Forest Service show, and the Forest Service doesn't like to talk to us, because it's mainly a university show. Every once in awhile, we fall through the cracks.

**Dyrness:** Yeah. (Laughs)

**McKee:** And the National Science Foundation, the last, one of the most wacko reviews we had in our last proposal was --

**Dyrness:** --"You don't need the money!" (Laughs)

**McKee:** Yeah, because we were doing it, you know.

**Miner:** Yeah, right, that's the other.

**McKee:** We don't need the money.

**Miner:** I think that's where the statements come in. "They already have so much money. Why do you want to give them more money?" Or, "They'll take care of themselves. They know how to do it."

**McKee:** That reminds me of an anecdote regarding the Dean's Award [OSU-COF]. The new dean wanted as a precedent to cast his personality on the college, and he established a thing called the Dean's Award to recognize outstanding contributions to Oregon forestry. The Andrews Group was one of the first, and shared that award with another group on campus. I was expected to attend the awards banquet, one of the few times I'd go to those things, and bumped into the former Dean of the College of Forestry, Carl Stoltenberg, who's always gregarious, a guy who always smiles. He was telling me how pleased he was, how proud he was at the success of the Andrews Group, because his strategy had worked. I went, "What?" (Laughter) "Say that again?" I listened, and he said, "I knew what you and Jerry and the others got going down there, there's no way the College of Forestry could afford the kind of program you wanted to put together, and the only way to succeed was if you did it on your own." (Laughter)

**Dyrness:** That was my strategy, huh? (Laughter)

**McKee:** That was his strategy. "So," I said, "It was the 'Boy Named Sue' approach to management. I hadn't heard that one before." (Laughter). And he said, "The what?" And I say, "Johnny Cash's old song, *A Boy Named Sue*." And he said, "I've never heard of that before." I said, "Too bad Carl, because you and Johnny could – (laughter)" I couldn't believe that. I said, "I'm glad you really had our best interests at heart." (Laughter) Geez. I couldn't believe that.

**Dyrness:** "My strategy paid off." Ooohhh. (Laughter) That's a good one. Should be in the book.

**McKee:** Yeah. Carl Stoltenberg said, "Oh, God."

**Geier:** If I remember, the way you characterized that earlier, was that he was guilty of benign neglect.

**McKee:** Yeah.

**Geier:** He wasn't opposed to it, but he just wasn't supportive, is that right?

**McKee:** He would occasionally be opposed to it, but by-and-large, he let it have a life of its own. I think to a large extent, the kind of thing that Ted was talking about earlier today, that the project leaders, that he and Jerry had early on, allowed them this flexibility. And then, when the final years began, the amalgamation of scientists, faculty members from all the different colleges on campus, along with the University of Oregon, they were acting as free agents. It was a grass-roots --

**Dyrness:** Grass-roots, uh-huh.

**McKee:** -- Effort, and not top-down by any means. This occurred in an atmosphere of a lot of freedom. The officer-in-charge of the Andrews then was Jack Rothacher, who was very flexible and very tolerant of university types being there. There was no sense of a turf war at all, which is not true of other places. We're able to define ourselves and grow as the group wanted to grow, without a lot of constraints.

**Dyrness:** Yes, that grass-roots thing is really characteristic of the Andrews. There's not much meddling by the higher echelons [OSU reference]. The same with the station directors [PNW Station, Forest Service]. They just say, "Go out and do your thing."

**McKee:** So long as you don't embarrass us, it's okay.

**Dyrness:** Yeah, yeah.

**McKee:** And there were times like when this person wrote a letter, a representative, who wrote a letter about studying old growth. Carl Stoltenberg was dean at the time, and he said, I know the kind of response you're going to make to this, and I want you to write the letter for my signature. And I said, why don't you and I co-sign, and he said, "Okay. Fine." So, I think benign neglect is a more accurate term than hostility. Although there were times when he would be outspoken, critical in certain venues. Many times he was responding to cheap shots people had made at him from our group, that were inappropriate, so he was reacting to that. I don't think, well, probably were times when they were offered "gratis," but most of the time, he was "returning a compliment."

**Geier:** Hmm.

**McKee:** His strategy sure worked. (Laughter)

**Geier:** It sounds like one of the issues to get into here would be, possibly, the perception of resources from the outside, versus the availability of resources from the inside. This was kind of a touchy issue with the Alaska project [history/science project by Geier] if I recall, and there's a little bit of that here, where the perception from the outside is that the Andrews has more than its share, but from what you were saying earlier, that much of that share is earned from outside grants, money coming in?

**McKee:** Right. At the National Science Foundation, you succeed by having a recognition from your peers that what you are proposing is cutting-edge.

**Dyrness:** And a track record of productivity.



**McKee:** Right. Right.

**Dyrness:** If you don't produce the papers and reports, you're in trouble, too.

**McKee:** And while the system doesn't work perfectly, it's getting kind of strange with all the congressional spins put on the monies that go to NSF. And it's increasingly common, at least you can challenge decisions, you have an opportunity, if you feel they're bogus, and there's some other agenda being played out at the National Science Foundation. Things aren't so clean at the university level or at the station [PNW] level for how funds are distributed. The campus politics, station politics, can play a pretty significant role in how monies are spread out. So there's an element of needing to be a street fighter for state [Oregon-OSU] and station resources. We've been lucky to have, at least in my department, the last two department heads, people who were pretty strong advocates for the program. Within my department, we provide all of the computers and the hardware and software for our initial local area network, which included nearly all the computers for the teaching facilities here, and all hardware for the multi-area network to patch in the computers for the individual faculty members outside of the Andrews program. That came as a package. The next departmental meeting, I'm told we're parasites on the department, you know, sucking the department dry. We bring in a whole lot of indirect costs and overheads, and where is this coming from? Plus these, we just barely finished, or got this multi-area network up, which these guys haven't put a dime into, and I just couldn't deal with that. That was pure bullshit. So we have that kind of thing here on campus.

**Dyrness:** But Logan's [Norris – former Forest Service team leader, then OSU COF].

**McKee:** As a department head, he really has.

**Geier:** Logan Norris?

**McKee:** Logan Norris, yeah.

**Dyrness:** He was a Forest Service employee who worked with Bob Tarrant early on, so you know, he's got a built-in history of knowing what was going on in the Andrews, and accepted that.

**McKee:** A feeling I've had over the last few years is that at the Station [PNW] level, I hear these guys' criticisms, that if we have an opportunity to sit and present a case, it's almost always successful.

**Miner:** Oh, I would concur.

**McKee:** Yeah. And it frustrates me that these things happen, because everybody's frustrated. Money's becoming harder and harder to get, so it's a constant struggle to stay even, and the program was well- poised to grow, and continue growing for a while, but the resources are shrinking, so it's cutting into it.

**Miner:** Yeah, on money, people get frustrated. They just lash out.

**McKee:** Yeah. Well, the last year we've had some weird things again happen within our department that, to me, made no sense whatsoever, that were easily interpretable as reactions to budget strictures, that otherwise, we wouldn't be hearing this kind of nonsense. We have several people in post-doctoral positions, researcher positions, professor positions, that are totally on soft money. Bringing in everything, including a lot of indirect cost to the department, and here are people talking about how we've got to make sure that these indirect costs don't go to support these people on soft

money. But anyway, they're the ones that bring it in, but it's gotta go to the tenured faculty. It's just a money issue.

**Geier:** Well, you said you had to leave.

**End of Side B, Tape 2 (of 2)**

**End of Interview**