

An Interview with John Rector

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0:00:05.4 James Wall: Okay, it's still May 24th, 2022, and I'm still in Denver. And this is the Sonesta Hotel. We're interviewing John Rector on behalf of the National Museum of Forest Service History. If you need to pause the interview at any time, you can do that. If you want to walk out at anytime, stop this whole thing, you can do that. Most crucially, before we archive the interview, you'll have a chance to take a look at it and cut out whatever you want. So, feel free to fire away. But with that being said, could you tell me when and where you were born?

0:00:35.9 John Rector: I was born at an early age in Chicago, Illinois, January 15, 1944.

0:00:47.4 James Wall: That's a different one. Usually, people don't start out in the big city...

0:00:51.9 John Rector: Well...

0:00:52.1 James Wall: And make their way to the Forest Service.

0:00:54.5 John Rector: Like I said, I didn't have a choice in the situation. I was too young to call it. And we moved to Michigan from Illinois and my dad worked for the auto industry. So we moved four times within a fifty-mile radius of Detroit. And when I graduated in '62, that's 1962, long time ago, I had plans of going into veterinary medicine and I applied to Michigan, Michigan State, two other schools, and kept getting responses back that, "There's no room at the inn. The register's full. Suggest you go to another college and pick up some basic courses." So, I went to Western Michigan University and took up biology, agronomy, soil science and then the mandatory social sciences you had to take. I got out after that year: "No." Applied again: "No, no, no, no." So I said, "Well, that's interesting." And I talked with my dad. I says, "What am I going to do from here?" And he said, "You always liked the out of doors. You always liked the woods. You always liked..." He said, "Why don't you talk to your Uncle Matt who's a forester in Leadville, Colorado?" So I called up my Uncle Matt and "blah, blah, blah," and he convinced me to go to forestry school at Michigan Technological University in Houghton, Michigan.

0:02:44.0 John Rector: I finished up a degree, Bachelor of Forest Management in 1966. And I had a job offer with Nekoosa-Edwards Paper Company in Wisconsin. And I was about ready to finally start making a living. \$5,672 a year was the annual salary I was offered. And I was excited, big bucks. But my advisor called me into his office. Bob Shidoc called me in his office and said, "Rector, I want you to do me a favor." I says, "What's that Bob?" He says, "I want you to apply for graduate school." I said, "More school?" He said, "Yeah." I said, "Well, I've already got a job offer." He says, "Have you accepted it?" I said, "No." He says, "Good." He says, "I want you to apply for graduate school." And I said, "Well, look, I have... I'm out of money, Bob." And he says, "No, no, no." He says, "With the Lyndon Baines Johnson's Great Society there are grants available." I said, "Grants?" He says, "Yeah, they'll pay you a stipend to go to school." I said, "Okay." So, I applied to Humboldt State in California in logging engineering. I applied to Colorado State-Fort Collins in wildlife biology.

0:04:20.2 John Rector: These are all subsets of a forestry degree. And I applied to the University of Arizona in watershed science. Humboldt State offered me 700 bucks a grant. They accepted me. I got accepted at Fort Collins in wildlife biology for a \$900 stipend. And I got accepted at the University of Arizona for \$3,000. It was not a hard decision. So, I went to the University of Arizona and enrolled in the School of Watershed Science.

0:05:00.6 James Wall: Now how old was that school at that point? Because the field of hydrology had to be in its infancy.

0:05:05.1 John Rector: Well, basically hydrology wasn't hydrology, it was watershed science. It wasn't called hydrology. It wasn't called soil physics. It was a science of... On a watershed basis. Dealing with water, soil, plant relationships, water yield, water consumption. It was a more esoteric science than the science of hydrology. Okay? So, I graduated finally, well, finally after two years and applied to... Jeez, I don't know, numbers of places, both private and federal and state. And I made up my mind that whoever was the first one to offer me a job, I was going to take it. "I'm for sale. Who's out there?"

[laughter]

0:06:06.7 John Rector: You're out of money, hello!

0:06:08.5 James Wall: It's an easy decision.

0:06:10.5 John Rector: Yeah, "I'm out here." So, I got a call from Ogden, Utah from a gentleman named [Lloyd] Deen Lundeen. And Deen Lundeen offered me a job on the Powell Ranger District of the Dixie National Forest in southern Utah as a GS-5 Watershed Forester.

0:06:36.7 John Rector: Hydrology's not around. It's a 462 series, Civil Service Commission Classification 462: Watershed Forester. Who knows what that is? So I said, "Yeah, I'll take it." And I went off to Ogden, Utah... Or Panguitch, Utah, population 500, right at the base of the Aquarius Plateau, and I was a Barometer Watershed Forester. And a Barometer Watershed is a highly instrumented watershed that you take. There's others have been in here and told you about that. But it's highly instrumented watershed for the physical hydrologic characterization of ground areas of land to aid management in future decisions for range management, for timber harvesting, for fire suppression, for all the management activity, it was hydrometeorological data. And that was my job. And I had a gentleman who was my mentor, Marv Meyer, who came down from Ogden to take me through the ropes of exactly what this job was.

0:07:55.2 John Rector: And it was basically instrument care and feeding, rain gauges, pyro heliometers, the care and feeding of instruments, data collection, data assimilation and compilation at your office. And then forwarded that to a computer lady in Ogden, Utah who took care of the data. I was hired, I think, in May or June of '68. [coughs] And I was dating a lady at the University of Arizona at that time named Alice Burke. And every weekend, I drove 532 miles one way to Tucson and 532 miles back on Sunday afternoon. And to make a... I blew an engine out of my car. I had to repair... It's a long story, but love has its funny twists. And November 8th of '68, I got married and my wife wanted to quit graduate school. She was also graduate in speech and language pathology, and she wanted to quit her program and immediately move to the wonderful town of Panguitch to live with me. And I said, "That's not going to happen. You're that close to a master's degree. You're not going to abandon your work to come to Panguitch." So I got married November 8th, and then December 12th I got a draft notice. So, 1968 was a year of a Master of Science degree, a marriage, and a drafting.

0:09:47.5 John Rector: So, I punched out of the Powell Ranger District, said, "I got this," like,

"Yeah, there'll be a job for you when you come back." "Okay, good." Sold all my stuff, gave my fishing gear, hunting gear away, went down to Tucson, picked up my wife, sold my car, and flew off to Indianapolis, Indiana where her parents lived. And they really didn't want their daughter marrying someone they didn't know. Didn't come to the wedding. There were only ten people at the wedding anyway, it wasn't... We got married on the U of A campus at the Newman Center. Is that right? I don't know what's... Yeah. And so we flew off to Indiana and we were landing and my wife then, Alice, looked at me and she says, "What if my parents don't like you?" And I said, "Well..." I said, "I didn't marry them." I said, "I've got a brother that lives up in Detroit." I said, "And that's about a four-hour drive from here." I said, "I'll call my brother Brian and he'll come take us to Michigan." I said, "He'll love anything I bring home." [laughter] Geez.

0:11:18.8 John Rector: But, and it was a very stiff time with her parents because they... I had run off with their daughter. But that worked out. And then finally I got on the plane or on a bus and bussed from Detroit to Fort Knox, Kentucky. Went through basic. And meanwhile, I'm married. My wife is living in Upper Michigan. And went from Fort Knox, Kentucky, direct. Didn't go to an advanced training. They awarded me, "bing," a military occupational specialty as a Soils Analyst because of my master's degree, which was Watershed and Soil Physics. That was what my degree was in. So, I got a direct appointment to a small engineering detachment in Killeen, Texas, supporting the Fourth Armored Division. It was an engineering detachment, and I was working in a lab as a soils analyst.

0:12:28.5 John Rector: Finally, I got enough money together. I was being paid \$120 a month, was my base military pay. I found a place in Killeen, Texas, which was basically a hovel... I mean a hovel: plastic curtains over the dishes, cockroaches everywhere, one frying pan. It was basic survival. But my wife said, "I'm coming to Killeen, Texas." So, I got authorization to live off post, off post in Killeen.

0:13:09.3 John Rector: Went to... So, I had \$90 rent, \$120 base pay, that left me \$30 a month for food, gasoline, insurance, life's necessities, toothpaste, hello... which we got by on. And lo and behold, after she was there for about a month, I got called into the brigade headquarters. Colonel Kiley wanted to see me, and I couldn't believe that I was going in to see the head man. I'm a PFC [Private First Class]. So I went in and reported to Colonel Kiley, and he asked me if I knew what an officer's overseas cap looked like? I said, "Yes." He says, "Do you know what a butter bar looks like?" "Yes." "Do you know what an officer engineer insignia looks like?" "No." "Looks like this, Rector. Castles." "Okay." He said, "I want you to show up here tomorrow morning at 0800, with an officer's cap, two butter bars, and an engineer castle emblem." "Yes, sir." He says, "That's it." I started to salute, and he says, "Don't you have any questions, Rector?" I say, "Yes sir. What's going on?" He says, "Tomorrow, I am going to make you an officer and a gentleman by an Act of Congress. You are getting a direct commission as an officer in United States Army Corps of Engineers."

0:14:53.2 John Rector: I had applied for this through my congressman eight months before... I knew I was going to eventually be drafted. And, lo and behold, it came through. And that was on the 3rd of July, and I was ordered to report to Fort Belvoir, Virginia by the 5th of July, to attend the engineer officer basic core. This is... It's a long story, James. I don't know how you... But then I went through the engineer officer basic core. My wife and I lived in Alexandria, Virginia. Then I went from Belvoir, Virginia, I went to Fort Leonard Wood, Missouri, and I was supposed to be a platoon leader for a dump truck company. I had my own dump trucks, and they had dump trucks

and bulldozers, and they had cranes and all the engineering equipment, and I was supposed to lead a truck company. I got to that company and the captain said, "Sorry Rector, we don't have any room for you. Go up to the head shed."

0:16:16.2 John Rector: So I went up to the base headquarters, Fort Leonard Wood, talked to the adjutant, the adjutant said, "Got it." He says, "Find a place to live. Well, you got a place on... You're going to be assigned to billets on Leonard Wood." He says, "Get yourself settled, get what furniture you need, and then come see me." So I went to see him. He says, "Yes, I got just the job for you." I remember that, "just the job for you." So, he sent me down to a Colonel Hendricks. And Colonel Hendricks was a battalion commander for the training battalion. Training people in heavy wheeled vehicle mechanics, training people in gun maintenance train... It was for training, that was the brigade I was in. Hendricks said, "I've got just the job for you." I says, "What is that?" He says, "You're going to be Company Commander of A Company." So, I went from mowing grass in Killeen, Texas, to engineer officer basic core, which was, what? Four weeks. To a company commander. And I had, "What? I know how to mow grass and paint rocks, but I've never had a command." "Well, you got one now."

[chuckle]

0:17:52.6 James Wall: So how do you get from there to the Forest Service?

0:17:56.8 John Rector: I'll get you there fast.

0:17:58.2 James Wall: Okay.

0:18:00.3 John Rector: From there, Fort Leonard Wood, I went to Vietnam, and in... I was on a fire base with the 101st Airborne in North Vietnam, out by the A Sâu Valley and the DMZ [Demilitarized Zone] in the middle of the monsoon rains. And my friend Herb Garn, who was the best man at my wedding, sent me a letter that said, "Rector, the Civil Service Commission is opening up the 1315 series—hydrology—to us." It's the first time they've ever opened a... You go from a watershed forester to a hydrologist, and a hydrologist was then a critical profession and was called a "two-step series," 1315. You went from a GS-5 to a GS-7 to a GS-9 and skipped everything in between. Two grade step increase program. So I filled out the forms, sent it in to DC, free postage, because I'm in a combat zone. About a month and a half later, I get back, it says, "You are one." I am a hydrologist. I got out of the army [in] May, I got back from 'Nam, May of '71, went to Michigan to pick up my wife, called my mentor, Marv Meyer, who was still in the regional office in Ogden, said, "Marv, I'm back." He says, "When did you get back?" I said, "Yesterday." He says, "Call me in a month." [chuckle]

0:19:37.1 John Rector: He says, "Get your feet on the ground. Slow down." He says, "Call me in a month." So I did. And Marv Meyer said, "Alright, I got a job for you." He says, "It's in the regional office here in Ogden." And I went back to the "Puzzle Palace" in Ogden, Utah as an On-Call Hydrologist. Hydrology was a brand-new series, and there weren't many of us in the Forest Service. So, Marv Meyer kept a cadre of three hydrologists in the regional office to do service calls on demand to eighteen national forests within Region Four. And that was an interesting job because you went from everything from water rights challenges to stream channel, stream gauge installations to water piracy, to channel degradation by miners with bulldozers. You did municipal watershed surveys.

0:20:45.6 John Rector: You did everything in the gamut of hydrology. So I really got my feet wet there in the profession. I served in the regional office for three years, '71, '72, '73. I got to the tune of GS-11, and then I got offered... Well, I applied for a GS-12 position on the Tonto National Forest, arid land hydrology, never done that. Desert, "where's water?" Let alone, "where's trees?" This is a national forest. There are no trees here. It's a forest, okay. So I did one year on the Tonto National Forest, and lo and behold, I was never promoted. [winks]

0:21:38.6 James Wall: And why was that?

0:21:41.1 John Rector: The regional office had decided it was not a GS-12 quality job and had declassified it back to a GS-11.

0:21:51.1 James Wall: Yeah. One second.

0:21:53.1 John Rector: I moved from the Tonto National Forest, back to Price, Utah, where I did get a promotion. Price, Utah was a forest hydrologist position with a hydrologic tech and a data clerk assigned to it. So I had a barometer watershed plus I had the hydrology duties. The tech handled the barometer watershed, and yet I still had more work than I could do. And the tech clerk, the hydro tech and the data clerk took care of the barometer watershed that was off my shoulders. So, I hired another hydrologist, a guy named Jim Anderson. So I had a good crew. I had a viable forest program of restoration, catastrophe, landslides and to be monitored and taken care of, erosion. All the wonderful traits of watershed science were available to us on the Manti-La Sal. Then I got, unbeknownst to me, I got a job offer I had never applied for. At that time, the Washington office kept what was called an "Eligibles List:" people eligible for a promotion from a twelve to a thirteen. They never advertised through the federal register the job of Regional Hydrologist in San Francisco.

0:23:30.6 John Rector: My boss called me in the office rather mad on the Manti and said, "I thought you and I had an agreement that if you were going to go to another job, you would let me know and I would help you get to it and yada yada." He says, "Yeah, what's wrong with that agreement?" He said, "Well, I have here an offer for a job in San Francisco as a regional hydrologist." He said, "You know Jim Boynton?" I said, "Yeah," Boynton is retired, or not retired. He moved from the regional hydrologist job to deputy forest supervisor. I said, "But I never applied for that job, or I would have talked to you about it." He says, "Well, I got here an offer for the job. Are you going to take it?" I say, "Hey, do you mind if I talk this over with my wife?" I don't know. So finally, I said, "Yes." I went to the regional office in Ogden as the Regional Hydrologist, which was responsible for program development and budget development, quality control of forest programs, inspections and hiring, establishing and hiring through the budget process, getting money to a forest to be able to hire a hydrologist.

0:24:54.1 John Rector: And I think besides developing the best management practice water quality program, and the best management practice monitoring program for Region Five, I was told by the Regional Forester, Doug Leisz, that the state of California wants to regulate national forest lands through water quality practices. He says, "If anybody's going to develop practices for national forest lands, it's going to be us. That was Doug Leisz. And he said, "And you're the guy that's going to do that." This is Clean Water Act, Public Law 92-500. You go to Section 208, it calls for development of practices. And if you develop those practices that are consistent with state water policy and capable of your implementation, then with the approval of EPA [Environmental Protection

Administration] and the state, those become the practices that you are held accountable for. And with the help of one person from eighteen national forests, one person from each of the staffs in the regional office, we put together a BMP [Best Management Practices] program.

0:26:06.9 James Wall: So, this whole time during the era that we're talking about, there's a continuum of stories where it's people either had... This is the rare part of the continuum. People either had bosses that they always liked and they knew what they were doing. They were welcomed wherever they went. On the other end of the continuum is more common, which is district rangers that hated them or were indifferent or didn't know what the hell they did...

0:26:34.7 John Rector: That's what it...

0:26:37.3 James Wall: And were just trying to get the cut out. Where were you on that?

0:26:38.5 John Rector: I was at both ends of that. When I worked on the Dixie National Forest, I was introduced to touring regional office groups as, "Watershed Forester? Yeah, I got one of those. I got one of those." That's how I was introduced, not as John Rector. With a finger point, "Yeah, I got one of those." They didn't know what the hell I did. They had no idea what we did. And then the spectrum increased as the profession became hydrologists, not watershed forester. And then we had a concurrent session of hydrologists in '74 where we got our, started getting our act together as to what... "How do we interface with foresters? How do we interface with engineers? How do we get this job of keeping water clear and watersheds stable into the management structure of the Forest Service?" And that was met with resistance.

0:27:41.8 John Rector: Foresters, loggers didn't want us telling them, "No, you can't put a logging road there. Dammit, it's right through the wetlands. You can't build a logging road 18 percent on this slope. It's a slump area." They didn't know. That was, no. So yeah, you were not accepted. You had to fight your way in, in some instances. Because you were becoming the stumbling block to clearcutting timber and building roads anywhere the hell you wanted, dragging, skidding logs anywhere they wanted. That became a problem. Engineers were, "No, you're not going to put a road right up this damn creek because you're in the wetlands. Section 404 of the Clean Water Act says you cannot dredge and fill in wetlands. You got to move this damn road." That's not acceptable to these people. The fastest, most economic way of getting logs out of the woods, of building roads was the medium.

0:28:44.0 John Rector: And we were becoming a detriment to their wonderful world of engineering and forestry. Grazing management. "No, you got to move these goddamn cows. You're eating it right down to bare dirt. Bare dirt is not good watershed." So, it was not... We were perceived early on as naysayers to management until the Clean Water Act started coming from the state of California, in my circumstance, where the regional boards and the state boards started rattling their swords. "Yes, yes, the state of California has the authority to issue you a cease and desist order." "How can they stop me from harvesting this timber through the... What's called the State's Porter-Cologne Water Quality [Control] Act?" "You are polluting streams, which is against the Porter-Cologne Act." Yeah.

0:29:46.9 James Wall: So up until that point, as far as I can tell, Ron Russell tried to explain this to me, but it made no sense. If you had a district ranger or a forest supervisor who didn't want to listen to a hydrologist, didn't care, was there any way of forcing the issue? Outside of, I guess leaking it to

the press or something like that?

0:30:09.6 John Rector: Yeah. Well, and I don't know of any hydrologists that brought in exteriors like the Purple Lue Nation Society and the tree huggers to win their case. The normal course of action was to go to the next level past them. You know, if it's a district ranger, you go to the forest supervisor and the forest hydrologist, you say, "Hey, this is going to get you in trouble. Lawsuits, you're going to... This is not good karma." And to talk to other people beyond the pigheaded individual, the pigheaded engineer, or the pigheaded district ranger, was to elevate the discussion with the threat, with the promise of litigation, cease and desist, clean up and abate. That's cease and desist and clean up and abate were the orders the state of California gave. And Joe Harn, the Forest Supervisor on the Six Rivers National Forest called me one day and he says, "Rector", he says, "I got this letter I want to read to you."

0:31:09.8 John Rector: I said, "What is it, Joe?" He says, "It's from the North Coast Regional Water Quality Control Board, State of California." I said, "Okay, what does it say?" It says, "I have been ordered by this board to cease and desist two timber sales on the Six Rivers National Forest and to clean up and abate the damage that has been caused to the creeks." He says, "What is... Who is the regional board and who the hell are they to tell me to cease and desist?" I said, "Joe, are you in the office?" He said, "Yeah". I says, "I'll be up there tomorrow". I drove from San Francisco up to the Six Rivers, said, "Joe, here is the state's Porter-Cologne Act with practices and an established legal control mechanism for water quality in the state. Here is the Clean Water Act and the Clean Water Act has turned federal agencies over to state regulation where the federal agencies do not have controls of their own in place that meet the requirements of the Clean Water Act." I says, "Right now they are the tail wagging the dog." "So this is legal?" I says, "Yes", I said, "And they can fine you up to \$10,000 a day for failure to clean up and abate".

0:32:43.1 John Rector: You had to go out. And this is the carrot and the stick. The stick is, yeah, they can... And the fines will hold up in court. I said, "We're working on a water quality program to protect you from..." He says, "So what do I do now?" I said, "You send a letter back to the North Coast board acknowledging receipt of this and tell them you will initiate clean up and abatement order. You will initiate clean up and abatement action immediately. But tell them, under contract, you are unable to terminate the sale." And that's a contract obligation between a federal agency and a private contractor. But tell them you will initiate control measures and invite them up to your forest to watch what you're doing. I said, "They're not the enemy, Joe. They've got the same land management protection and water quality as we have. Right now, they've got the teeth to enforce that until we get our practices and stuff approved." Now, what did Ronnie tell you in regard to that?

0:33:55.6 James Wall: Oh, he was trying to explain the chain of command of how hydrologists were situated within the Forest Service, and yeah, all of that was just kind of a Spaghetti Junction in terms of if you tried to get... The different ways that people overrule one another, the different sort of...

0:34:18.8 John Rector: Well Joe Harn was, in this case, a barrier. Because he didn't know what he was dealing with. So, Joe Harn was going to resist. He was ready to just throw that letter into the wastebasket. But it's not a letter that you can throw away because there's litigation involved, there's fines involved.

0:34:39.2 James Wall: So basically, the Clean Water Act was... I'm assuming this must've been

under Nixon because that was big with Nixon, his “New Federalism.” He was going to send federal programs to the states.

0:34:49.8 John Rector: 1972.

0:34:51.0 James Wall: Yeah.

0:34:51.5 John Rector: Public Law 92-500.

0:34:53.4 James Wall: Yeah. It was a very Nixonian thing to take federal programs and then say, "Okay, we're going to give these to the state. You figure out what to do with it and we'll give you a block grant."

0:35:05.1 John Rector: You've got to work with the state. And that was not... That's not bad. Because the state of California... This, my state had a viable program in place through the Porter-Cologne Act. And they were, until the Clean Water Act came out, which turned the feds over to them, they were enforcing water quality under the Porter-Cologne Act against private contractors, private landowners, and state of California lands. They were underway with protecting water quality.

0:35:38.2 John Rector: We, on the other hand, had hydrologists out on the forest attempting to do that with control measures, road drainage, staying out of wetlands, “put the road over here.” Same intent, same objectives. They had the law, we didn't have the practices. We didn't have on record a state-certified EPA-approved program that was acknowledged as, “You, Forest Service, are now responsible for implementing your program. And we will be oversight.” So they stepped back, let us use our own tools, which was a godsend. I mean, it took a lot of... And the resistance to watershed management, keeping the slopes in place. “Let's not activate a landslide with a road that's going to blow out a stream, that's going to cause a dam. Hey, come on.”

0:36:43.0 John Rector: “What... Why are we doing this? You, in your engineering manual, have got better measures and practices that you can employ in road construction, that will avoid this stuff. Use your practices.” And you just, you'd hand them back the tools that they've already... Range Cons, you know how to move cows around with a Savory System.¹ Get them from this pasture to that pasture. Use your tools. Don't let them sit in one place. Have your grazing people move the cows. And that's what it boiled down to [slaps face] was getting the Forest Service's attention through the Clean Water Act, the Endangered Species Act, the Clean Air Act, the laws to manage the land with common... With what you already know. You're a trained engineer. I mean, come on.

0:37:41.1 James Wall: So, you were right there between all these different entities. What would you say is the biggest project looking back, if you had to pick one project that you're most proud of in your career?

0:37:52.2 John Rector: Project?

0:37:53.6 James Wall: Or accomplishment.

¹ Refers to Allan Savory, a Zimbabwean scientist, livestock farmer, and president and co-founder of the Savory Institute. He originated holistic management, a systems thinking approach to managing resources.

0:37:55.7 John Rector: Oh, I think the biggest accomplishment that I could claim fame to is, besides the Clean Water BMP and BMP Monitoring Program, the biggest thing I could claim is being in a position where I'm doling out budgets, programs, policy and hiring people.

0:38:21.0 James Wall: And when did you get to that point?

0:38:22.7 John Rector: That was when I was in Ogden, or in San Francisco. I was managing the watershed budget. I was managing the program development. And I had through funding, the capability to get hydrologists hired on the various forests. I had, when I retired, I had fifty-five hydrologists on the national forests in California. And you know, that takes the load off of me having to drive to Eureka, California, and sit down across from Joe Harn and tell him how the cow is eating the cabbage. Now I've got people that are of a same mindset: hydrology. They know, they know how to deal with gullies, they know how to deal with road location. They know how to deal with design of timber sale. So, it... You get the... To get the program infused into the Forest Service, that's my biggest accomplishment, I think.

0:39:33.7 James Wall: So, what was the biggest change from the beginning to the end of your career in how this job is done and how hydrology is practiced, would you say?

0:39:42.3 John Rector: The biggest change was being, "Yeah, I got one of those, I don't know what he does" to "Yeah, I got one and he's saving my butt." The other... The "touchy-feely phase" of the Forest Service, we went through the consent decree. We had to hire... The mandate was to hire female hydrologists and us regional hydrologists were in direct competition, beating the hell out of the same universities. The same—University of Arizona, "How many females you got?" "None. Nobody is in the Hydrology Watershed program." "Colorado State, have you got any ladies that are graduating?" And we were nine regions, were looking for these ladies. I've got nothing against ladies, don't get me wrong. I've got some of the best... I had some of the best female hydrologists in the nation.

0:40:44.5 James Wall: But the problem is the source was...

0:40:46.8 John Rector: They weren't there.

0:40:47.6 James Wall: Small.

0:40:48.2 John Rector: They weren't there, but we had that... So, that put hiring, we got jobs...

0:40:55.6 James Wall: Right, because you couldn't fulfill the consent decree.

0:40:57.1 John Rector: We can't find the people. That was... So, going from, "Yeah, I got one of those" to "I got one that is saving my butt." And then saying, "But I got to get these." caused a lot of dysfunction in the hydrology profession of, "How are we...? Because we got jobs. I got jobs open..."

0:41:21.9 James Wall: Yeah.

0:41:23.1 John Rector: But I can't fill them. So that caused a little bit of dysfunction. But we did

wind up with some extremely competent female hydrologists. Well, once the university... We were all beating on the universities, and they started recruiting ladies into their watershed program, and then we had an opportunity.

0:41:49.3 James Wall: So, the San Francisco job, what years was that? Help me orient myself.

0:41:54.5 John Rector: Okay. The orientation is...

0:42:00.0 James Wall: In the chronology.

0:42:00.6 John Rector: '71, '72, '73, I was in Ogden in a regional office. '74 and part of '75 I was on the Tonto National Forest as a forest hydrologist. Part of '75 and all of '76, I was on the Manti-La Sal National Forest as a forest hydrologist. 1977, I went to San Francisco and I retired out of that regional hydrology position.

0:42:32.5 James Wall: Okay. Can I ask you something? We had... I won't name him, but I'm sure you could probably guess. These barometer studies that were always being done. One hydrologist said that he had always suspected that these barometer studies were being sort of put up in a lot of different national forests intentionally to hire more hydrologists. Does that sound believable?

0:43:04.4 John Rector: I don't know.

0:43:09.2 James Wall: Because he felt... He was on a project. He was like, "I didn't feel like we were doing anything."

0:43:11.7 John Rector: Yeah, there were two guys in the Washington office, [Edward J.] Dortignac and [Byron] Beattie, and I don't know their first names, who decided... And they were in watershed sciences. Who decided that these were necessary for hydro-physiographic characterization of large pieces of land to provide the forest the opportunity to know how soil, water, wind, how these interactions were occurring on the land to better facilitate management. Okay? Now, and they established these barometer watersheds. Who staffed them was not to hire... I wasn't a hydrologist when I went to one. I was a watershed forester. It wouldn't have... When those barometers were established, there were not hydrologists. You were hired as a 462, a forester, basically. So, the intent of establishing the barometers, I think the intent was pure for the hydro-climatic, physical characterization of land. Not with the intent, I don't believe, of hiring "hydrologists." Because there weren't hydrologists.

0:44:38.1 John Rector: Who managed them and who collected the data and who processed the data... I didn't have to be a hydrologist... A Master of Science in watershed and soil physics to do that job. I mean, come on. I could train you to do that job.

0:44:57.3 James Wall: I doubt it. [chuckle]

0:44:57.8 John Rector: Yes, I could. Marv Meyer came down from the regional office, spent one day with me on the mountain. Showed me where all the gauges were, I marked them on a map, showed me how to clean anemometers, showed me how to maintain the data logger in the central station and Marv did it one day. And Marv disappeared and it was mine.

0:45:21.7 James Wall: Yeah.

0:45:22.6 John Rector: I mean, I didn't need that Master of Science degree to do that job.

0:45:27.3 James Wall: Yeah.

0:45:28.2 John Rector: Matter of fact, I felt like I... "Hell, this is easy and they're going to pay me to do it." And I had the opportunity working in an elevation when coming out of there, I had to cross a creek called Antimony Creek. Some people carry a gun and a rack behind them. I carried a fly-fishing rod. Stopped at Antimony Creek, catch some pan fryers, four or five brook trout that... It was...

0:46:03.4 James Wall: It's a good way to live.

0:46:05.4 John Rector: It was what I had wanted to do. Field work, woods, you're out in the woods, you catch fish. I'd get... Leave the office at six o'clock in the morning, drive back at seven o'clock in the... I didn't want hours, I didn't ever work hours. Six to seven. I was out there. I loved it. And I loved fishing. And it was like, "Don't... Br'er Rabbit, don't throw me in the briar patch." This is what I was looking for. This is what my dad and I talked about years before about my love for the outdoors and the woods and forest and streams and hunting and fishing. And there it was. And then I got drafted, "poof!" And the next, when I came back from 'Nam, I wound up in the regional office, but I was still... The job I had was still getting me out to the forest, sixteen national forests. I have been all over. I've been into Idaho, I've been into Wyoming, I've been into Nevada, I've been through Utah, seen a lot of land, a lot of difference, but I was still doing... Getting dirt in my boots and pounding the woods. And I did that until 1975, '76 when I moved to San Francisco.

0:47:30.9 James Wall: Alright, we've got a couple minutes left, so I've got a few rapid-fire questions for you.

0:47:35.3 John Rector: Sure, hit it.

0:47:35.8 James Wall: Alright, what's the one thing about the job you miss the most?

0:47:39.1 John Rector: People, the camaraderie, the sharing of information, the response that we finally turned in the Forest Service.

0:47:51.5 James Wall: We know you've already answered the... Your best accomplishment. But what was your favorite time in your career? Not necessarily when you were accomplishing the most, but when you were having the most fun.

0:48:04.5 John Rector: I just told you about that. That would've been that barometer job where nobody knew what I was doing. I knew what I was doing, and I was doing it. And I was right on the... That was the cusp of what I had envisioned a job to be.

0:48:25.9 James Wall: A question I always ask is, if you could go back in time, talk to yourself when you were just starting out in the outfit on the Forest Service, knowing what you know now, what piece of advice would you give to yourself on how to survive in this business, how to thrive? What do you think is the best piece of advice on that front?

0:48:50.6 John Rector: Whew. I think the job became easier or more workable when we started working as a team instead of, "I'm a Hydrologist, I'm a Fish Biologist, I'm a Range Con, I'm a Timber Forester, I'm a..." And you're working down your own tunnel. I think my feel on that is when the National Environmental Policy Act planning came together in the formulation of interdisciplinary teams. Lots of heads think better than one. And I'm not thinking of things to do with this project that are contrary to what the Fish Biologist wants done. I mean, I'm dealing with water and watershed, this fish biologist is pretty interested in water too, and the Range Con is interested in watering his cows. And... Do you get my drift? So, when you get a team of people together, you got one bone, one project, and you got five, six disciplines pulling on that bone and you've got a job to come up with a program or a plan or a solution to a problem, you start negotiating, you start throwing chips on the table and things happen that are cohesive and correct.

0:50:17.5 James Wall: Yeah. Well, the last question I always have is, looking back now on the outfit, you know when you think of the Forest Service, what does it mean to you?

0:50:28.9 John Rector: When I left the Forest Service, I felt... Looking back, when I left it was a dedicated land management agency that was staffed with qualified, capable people that were doing their best within all the laws and all the irate citizens and all the congressional ripping the budget apart, was doing the best they can to meet Gifford Pinchot's, "the greatest service, to the greatest many." And what it is now, I don't know. But when I left, the agency was pulling, the timber sales were reasonable, prescribed fire was being used in a reasonable manner, timber harvesting was basically *non compos mentis*. They weren't harvesting in California because of the environment, spotted owl, and different laws and so forth. But I felt it was a very competent agency staffed with good people.

0:51:44.9 James Wall: Well, it sounds like you left it in good hands.

0:51:47.3 John Rector: I don't know what it is now.

0:51:49.5 James Wall: Well, I appreciate you sharing your memories with me. I really appreciate it.

0:51:53.7 John Rector: It's my pleasure. I'm sorry I'm so windy.

0:51:55.1 James Wall: Don't worry about it. Well, I'm going to hit this button. You'll be off the clock.