

ENVIRONMENTAL DATA GOVERNANCE INITIATIVE

**ETM SBU 013**

Transcript of an Interview

Conducted by

Christopher Sellers

(With Subsequent Corrections and Additions)

INTERVIEWEE: Angela Nugent

INTERVIEWER: Christopher Sellers

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**ETM-SBU-013**

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INTERVIEWER: So let's launch into it. The first set of questions are basically background just to get me a sense of what your overall – where you were coming from, coming to work for the EPA.

INTERVIEWEE: Coming to work for the EPA. So – so I'm 63 now.

INTERVIEWER: Oh, okay. You can just – yeah, follow along.

INTERVIEWEE: Yeah. White, 63, female. I got my Ph.D. from Brown in '82 and then did a post-doc at Johns Hopkins in the history of medicine. And then taught, you know, I taught just for a year as a visiting assistant professor at the University of Maryland-College Park. And then history jobs were so, you know, so hard to get and so I looked around and I did other things. So but I guess before Ph.D. I—

**<T: 10 min>**

—have a Bachelor's from Georgetown where I had a degree in Foreign Service. And so that was interesting. It was interdisciplinary, but at that stage I didn't – I wasn't – didn't at the end feel called to go into Foreign Service. So I actually went to Brown first in economics, then drifted into economic history and then went sort of into the history of science with Hunter Dupree who was my dissertation advisor there. So I don't know. Is that the kind of?

INTERVIEWER: Yes. That's exactly the kind of thing because I was going to ask you what is your – what was your Ph.D. in and you just answered it. So we're trying to get what part of the academy did you?

INTERVIEWEE: Yeah, history. So I have a Ph.D. in history, but Dupree taught history of science and so he was my advisor. And it turned out to be a pretty amazingly good preparation for coming to work at the agency. It was kind of surprising how well it worked. I mean for a year I worked as a consultant in DC. I got a job as a management consultant at Arthur Anderson. And so I came in as kind of a journeyman kind of person learning about business consulting, trying to see whether that was a possible fit.

I needed the money and I wasn't sure what else I wanted to do, but that year there convinced me that I either – that I should shoot for kind of a public policy. And because I had – my focus was on Alice Hamilton, I mean I never thought it would transfer to working at the agency. I looked around at jobs in DC. I looked at the Library of Congress. I looked that Congressional Research Service. And then I applied for a job as a regulation writer at EPA. So I came here in May of '85.

INTERVIEWER: So, okay. Regulation writer. I mean I'll ask more about what that means. Could you just tell me about how that job search went and what your expectations were going in? Why did you choose EPA of these other...?

INTERVIEWEE: Oh – oh, I was interested in public health. I was interested. I was – here, I have sort of a timeline. I was interested in public health. I was interested in public health and medicine. I was really interested in how people, mostly because of the Hamilton work, how – and it's such a pleasure to talk to somebody like you in this context – how people bring different kinds of information to help address an environmental issue. So how does technical information get combined with other information and turned into policy?

I wasn't a public policy graduate. I never took any of those courses. The poly-sci courses I took at Georgetown and the international studies degree I did really didn't transfer very well to this, but – so I know other people came in with a lot more technical training and policy analysis than I did. But I was comfortable with studying technical issues and understanding them quickly. And I thought I would have something to offer EPA putting the policy and the science and the social context together. And I came and I worked in the office of toxic substances, which is now part of the office of pollution prevention and toxics. And so under the – to implement the Toxic Substances Control Act of 19 – what is it – 1980 – 1975. So TSCA had a new chemical program that they're still shaking out and they're trying to figure out how to regulate existing chemicals, the ones that weren't new to commerce. There's different kinds of regulatory authorities and processes for regulating existing chemicals that were already out in commerce, but any new chemical that was introduced to commerce that's intended for commercial purpose outside of food, outside of pesticides – but anything else falls under TSCA. And so there's a lot of interesting issues. So I came in kind of really in journeyman status. And I did this –

INTERVIEWER: What year was that again?

INTERVIEWEE: '75.

INTERVIEWER: '75 you came into –

INTERVIEWEE: Is that right? '85.

INTERVIEWER: '85. '85 into EPA.

INTERVIEWEE: Yeah. So – so I thought I had fixed these. Sorry, this last column bleeds off a little. I took the presidential –

INTERVIEWER: Oh, look. You've got – yeah, cool.

INTERVIEWEE: So it's in reverse chron. order so if you go to the last page.

INTERVIEWER: Right.

INTERVIEWEE: So this is sort of what you're looking at.

INTERVIEWER: That's right. Exactly.

INTERVIEWEE: So, yeah. I worked – I worked – you know, I worked – this is after the Gorsuch era and so – and I wasn't with the agency when Ruckelshaus had sort of resuscitated the agency. But there was – people were still reeling when I came in in '85. They were still reeling. People – there was a lot of enthusiasm. There was a lot of esprit décor. We had good managers, actually. I mean it was still the Reagan era, but you did have the sense that people – the agency had tripped up because it had been so embarrassed and science had been so disgraced. But with – under Gorsuch – that these

managers were really trying to do the right thing as far as I could tell. That was my sense coming in. And it was an interesting place to work, the Office of Toxic Substances, and that authority, TSCA, because of the multi-disciplinary focus. Because it's a risk/benefit statute, so you need the risk assessors on the one hand and then you need the economic analysis to do this weighing process. That's what you – did the risk exceed the benefits of regulation.

And in some ways it's multimedia, we say at the agency. So you have – you're not like in the air office or in the water office. When I first came in everything was very segregated. In the Office of Toxic Substances, it was the question of what's the risk? What's the risk to public health and the environment? So you had to look both at the health and eco side and you had to look at exposures no matter what media it went into – the water, land, air, whatever.

And you had to really, if you're on a regulatory team you had to get people from all these different scientific disciplines together; the exposure analysts who specialize in these different media and the health people and the eco people. So it had – I mean, the TSCA, as you may know, has a lot of limitations as a statute and it was very difficult to regulate existing chemicals. And I and others bashed our heads against the wall trying to – with the asbestos ban and phase out, you know, we were frustrated with like –

INTERVIEWER: That was in the later '80's, right?

INTERVIEWEE: Yeah, that was in the later '80's. So there were particular things you could and couldn't do with TSCA. In some ways TSCA was a great vision, but it was very hard to implement. My job was to work on different policy matters. You know, how about chemicals that were in the research phase in industry. When does the research phase end? Companies have to reveal to the agency all the information that's in their possession. Well, but they don't have to do new health and safety research. It's not like a pesticide program where there's requirements for a new pesticide to do health and safety studies. But on the other hand – under TSCA –if there's information in the possession of these companies that relate to health and safety they have to provide it to the EPA. But how does that operate in the research phase? So I worked on a variety –

INTERVIEWER: That is chemicals that are being researched for possible use in commerce.

INTERVIEWEE: Use in commerce, yeah. So I worked on that and I worked on my—

<T: 20 min>

—big, big, big project there was on genetically-modified microorganisms which are chemical substances under TSCA.

INTERVIEWER: Oh, I didn't realize that.

INTERVIEWEE: Yeah. So microorganisms that are engineered to make a product -- it could be for a food product or it could be a cosmetic product or it could be for breaking down hazardous waste. Those are related substances under

TSCA. So what kinds of genetic engineering would trigger the TSCA review? So it was exciting. It was exciting to be in on this new – these new technical issues. They were important. And so I came into EPA knowing that it is difficult, actually, to implement a really meaningful regulation and it's difficult to do good. And to implement a regulation that will do more good than harm. It takes a lot of people putting their heads together in an honest way. And I knew I didn't have all the answers, but I was good at bringing people together to talk about them; these kinds of things.

INTERVIEWER: You say you were initially a regulation writer.

INTERVIEWEE: Right.

INTERVIEWER: And so is this – are we talking about – what stage of rulemaking? Writing the rules?

INTERVIEWEE: Yeah, yeah. Writing rules and managing the rulemaking process within the agency.

INTERVIEWER: And then managing the whole – all the way through or were you just a portion of it?

INTERVIEWEE: Yeah. I mean I've done different things. I think I had some little biotech rules with my name on it, but I was part of a team that was doing this one big biotech rule that came out and I was part of that team. I don't know – I don't think I was the lead analyst on that.

INTERVIEWER: But this team would be mostly all EPA employees?

INTERVIEWEE: Well, the lead was the Office of Toxic Substances. The way most of the rulemaking works, there's a – the part of the agency that has the authority for the regulation proposes – develops a concept for this regulation where there's a statutory trigger or something prompts you to do it. And you have to get approval from your own office director and your own AA-ship. You know what that means? Administrator assistantships.

INTERVIEWER: Right. Assistant administrator.

INTERVIEWEE: Right. So right now there's a slightly different agency-wide regulatory process, but it's not so different from what I did as a journeyman regulation writer. Basically there's a regulatory development process within different parts of the agency who are interested in this because they're affected by it. It's a precedent for them. A statute to perhaps coordinate with them. Obviously the Office of Research and Development is a science-y kind of rule. The Office of General Counsel because they have to make sure the law is interpreted or implemented correctly.

And OCG has to sign off on it because they have to defend it. And then you have the policy office who's interested in the overall impact of your regulation on the whole agency. And they're the interface with the Office of Management and Budget.

INTERVIEWER: Oh, yeah.

INTERVIEWEE: So anyway, so you come in and you manage the process. You get the workgroups together. You run the workgroup meetings. You write the minutes from the workgroup meetings. You develop the draft rules. You circulate them. You revise them. You work and get them to the stage where

everybody can live with it. You go to the senior management meetings so there's management buy-in and understanding of the technical issues that rise up from your team and then you, as a project lead, you understand what the managers are worried about.

INTERVIEWER: Okay.

INTERVIEWEE: And then so you have this rule and then you write it so it will be published as a draft in the Federal Register. You do all those things. You stay up all night. You get all that stuff.

INTERVIEWER: Meeting those deadlines and this and that. Yeah.

INTERVIEWEE: And then you get the public comments and you read them. You make a compilation. You do your response to comments and then you have to kind of – there's this really interesting arc. You have to craft the proposed regulation so it includes all the options that you would include in a final rule. So you have to actually think about what is your Plan A and then what are your possible alternative plans. So the public gets to comment on your alternatives, too.

INTERVIEWER: Alternatives in case...?

INTERVIEWEE: In case what you proposed in the rule – you know, we say I'm going to –

INTERVIEWER: Oh, like I'm going to – I want to do this, but if this doesn't work for you guys then we'll do this.

INTERVIEWEE: Yeah. Another option may be such-and-such, the pros on that are this, the cons of that are that. Yeah.

INTERVIEWER: Right. Right. Okay.

INTERVIEWEE: And the other people who have to buy off on this are the enforcement people, you know, who is the office of – They have to be on your team so it has to be enforceable.

And then the other thing you have to do before it's published – I should have mentioned this – you have to work as part of your team with your economists and they have to do, under certain statutes, like TSCA that you have to do a risk/benefit analysis. So they have to analyze. The scientists are giving you the risks. The economists are talking about the benefits to society and the costs.

You know, the costs of regulation and other costs. And so they have this – they have this regulatory analysis in the form of risk benefit analysis so that is part of the rule-making packaging, too. So people get to comment on that. And so then you stew over all that stuff and then you revise the regulation and it –

INTERVIEWER: Right. You make everybody happy.

INTERVIEWEE: Oh, yeah. And you know, success at EPA is maybe never making everyone happy. Having enough people on both sides mad at you.

INTERVIEWER: Yeah, yeah. Yeah, I can imagine. Yeah. Okay, so we're talking really the last part of the Reagan administration. And I guess also are we still talking into the Bush I administration?

INTERVIEWEE: No. I mean look here. I –

INTERVIEWER: Or did you make a division there in terms of how that process with – I mean the questions I guess I have for that are the kinds of support outside your own office for what you were doing and then things like the role of science, scientists as well as the political influence.

INTERVIEWEE: Well, you know, for the first 15 years I was at the agency I was moved around quite a lot.

INTERVIEWER: Oh, okay. So speak to that.

INTERVIEWEE: So I spent about three years in the Office of Toxic Substances and then I moved over to the pesticide program.

INTERVIEWER: Oh, okay. That's right. You said – yeah.

INTERVIEWEE: So I was there into the Bush administration and then I went on and I did some other things in the Bush administration. But I was really drawn into this kind of science vortex having to do with risk assessment. Before I came to EPA the National Academy of Sciences had published the Red Book on risk assessment. So the agency was focused on risk, because it had a lot of risk-related statutes. It had TSCA and then it had the pesticide program that requires – it's sort of funny – a benefit-cost analysis and the benefit is the risk and the cost is the cost to the pesticide registrants. So it's sort of –

INTERVIEWER: Framed in relation to industry? Yeah.

INTERVIEWEE: Yeah. So is that – I'm not sure I got that right. I'd have to maybe look at my notes here. But a key piece of that was what are the risks that are going to be averted by this pesticide regulation, whether it's registration or reregistration or special review, what are the risks? And so I went to the pesticide program and I worked on kind of the big-ticket pesticides that had been on the books for a while. There had been the FIFRA-88 statute amendments to FIFRA.

The amendments said that existing pesticides had to be regulated with the same stringency as new pesticides. You couldn't have existing pesticides claiming a—

**<T: 30 min>**

benefit from just sheerly existing out there in the market. They had – registrants had to go out and demonstrate that they weren't any – there were – demonstrate that they weren't causing harm to human health and the environment. So I got swept up into all of the technical issues surrounding pesticide reregistration. So I was a special assistant in the division that dealt with special review and reregistration.

And the sense I had there as well as in the Office of Toxic Substances was that there was a really strong interest in science. The acting administrator for a while was Jack Moore and he was a – John Moore – and he, I guess that's on the second page. And he was also a deputy administrator, I think, afterwards. He had a Ph.D. in veterinary toxicology and he was an esteemed toxicologist.



So he was the manager who got kind of swept up in the whole alar debates. There was a lot of respect for Jack Moore. Decisions that Jack Moore made that affected your program you understood whether I was in the Office of Toxic Substances or whether I was in the pesticide program. I'm sure there were some things that happened behind closed doors, but for the most part, there was open discussion of the regulatory issues and the science that was coming forward and the regular process for discussing the merits, the pros and the cons.

And lowly people got a chance to see the senior managers discuss this and engage in it. And I think it was a very, very healthy environment. And so that's what I saw. And I worked as a special assistant to this powerful division director. The pesticide program is like a fiefdom. It's over there in Crystal City and it is much more powerful than the Office of Toxic Substances.

The person who runs the pesticide program they have the authority to decide on new pesticides; go/no go. Reregistration; go/no go. I think some special reviews issues are elevated to the administrator, but the pesticide program, it is like a mini EPA. Again, it's multimedia because pesticides go in the water and the air and the soil. It affects workers' health. It affects consumers' health. Health, eco, it's very tricky science.

They have the largest cadre of scientist outside of ORD in the pesticide program, and they work for the pesticide program. They do their thing. They have their process. And again, there's the whole regulatory processing kind of thing as over in OTS, Office of Toxic Substance. But the pesticide program, when they have a big rule they have to involve other people in the agency, but most of their stuff isn't rule making. It's decisions on these chemicals and they can just make them.

So you got to see – when you're there you got to see a healthy respect for science and you got to see senior managers', the OPP office directors' engagement. And then if things got elevated you got to see and understand what happened with that. So to me all that was healthy. Coming into the Bush administration with Bill Reilly, I played some different roles. Because of my experience and being a special assistant to this kind of influential division director, you know, a special review and reregistration division in the Office of Pesticide Programs, I got to be part of a management development program in the agency and so I basically took a year off from the agency and floated around. It was a – I guess it was a – was it an OPM program? Different people from different federal agencies participated. And you got a lot of training and you could shadow people in the agency and get to know them and hang around with senior managers. And then you got to do different details across the agency.

INTERVIEWER: All within EPA.

INTERVIEWEE: You could choose to go outside of EPA, but I was so captivated by EPA risk issues – yeah, a lot of people did choose to go outside EPA. There were about maybe 10, maybe 50 people in the program. I don't know, maybe eight people from EPA? There was a lot of support for management development at that point. So this was to help you be a manager at EPA. So

I was very interested in the implementation of this red book and how do new ideas get instituted across the agency. How could the agency better collaborate on risk issues, learn from each other? How do you build up best practices? So I went and I worked in the Office of Water, in their science division over there, for about eight months, something like that.

That's on the bottom of the second page. That was sort of into, you know, a little bit more into Bill Reilly's tenure. And that had a lot of interesting technical issues because the Office of Water has two main statutes it implements. It has the Clean Water Act and it has the Safe Drinking Water Act.

INTERVIEWER: Right. Right. That's more – yeah.

INTERVIEWEE: And they operate in their own little worlds, really. And they have different regulatory triggers and their science isn't necessarily aligned. But there was one science division that was feeding into both. So I came in to work with a division director who was interested in getting those two different programs to collaborate. And I got more drawn in at that point to work on eco issues. Up to then I mostly focused on human health stuff.

And I really got interested in sort of ecological risks and sediment contamination and how do you develop criteria that would be effective, scientifically justifiable and practical in their regulatory situation to prompt requirements to take action having to do with ecological contamination from sediment. So there's a lot of things like that in the Clean Water Act; problems with metals, organic materials in water, which was really different from the toxics that I was dealing with so I was interested in that.

So I spent some time there and then I spent some time in the Office of Air and Radiation after working again – I did have this special assistant gig down pretty well, you know. It had all the joys of working on these high-level issues and special projects and working with people in an office to get things done, but you didn't have to supervise anyone.

INTERVIEWER: Special assistant, that means you were sort of in the office of – an AA or a different level?

INTERVIEWEE: They had different levels. So to be a special assistant like in the Office of Pesticide Program, in the particular division I was at, that division was very big. I don't know how many people it had; a few hundred? It was bigger than some offices in the agency and it was very, very – it had huge scope and very influential. It had a lot of interesting science issues. So you can have Special Assistants at – I've never seen it at branch level, but large divisions like that have that or, you know, and the next level up at the agency's hierarchy's office and then there's the AA-ship.

INTERVIEWER: That's right, yeah.

INTERVIEWEE: And then you can be a special assistant to the administrator.

INTERVIEWER: Okay.

INTERVIEWEE: So I was a special assistant to Mike Shapiro who was the Assistant Administrator in the Office of Air and Radiation. After the Clean Air Act amendments of 1992 were passed, which really infused the agency with

resources, new mandates and things to be done. So I was working on a variety of science issues that were priorities for Mike. And so I was working on kind of science advice and with the Science Advisory Board and how that science advice could raise the level of scientific excellence in the Office of Air and Radiation across its different programs.

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Because lot of different things were going on. You have air toxics. You have criteria pollutants like ozone and particulate matter and carbon monoxide. And you've got – we had the beginnings of the climate change program. And you had the radiation program. So how do you raise the level of science across all those different programs? So I worked on that and then I worked for Mike and then indirectly for the actual, the Deputy Administrator, Hank Habicht, who was Bill Reilly's deputy administrator.

Hank Habicht was a very, very hands-on manager in a good way. He set up – I mean he sat in on all the regulatory development meetings. He was very interested in the rules across the agency where they were supported by the best science. Where there were no unintended impacts on other parts of the agency so you weren't caught up – you weren't solving a problem in one media program or one media and causing another one in another media.

INTERVIEWER: Right.

INTERVIEWEE: So I had a lot of respect for him. He had this risk assessment council that operated across the agency. So once a month, I think it was once a month, senior managers from the agency would come and talk about risk assessment and risk management issues across the agency that were not rule-specific. So he was very involved with the regulatory development. He set high standards. He expected people to come and have really done their homework. No late hits. You come to this meeting, everybody is informed. You can really have an informed discussion.

Senior managers would come and they would talk about risk related science issues that needed attention across the agency building the science to support risk assessment. And then the one project that I was involved with for him and then also started while I was working for Mike was a project looking at the – you heard about the IRIS Program, the integrated risk information system?

INTERVIEWER: I have, yes.

INTERVIEWEE: So when I started in –

INTERVIEWER: A little bit, but you'll have to sort of –

INTERVIEWEE: Yeah. It's very, very interesting. When I worked in the – when I came in in 1985 I think IRIS was just getting started or predate – I should have done this homework – predated that maybe by a year or two. Up until that time each different part of the agency would do its risk assessment of a chemical. They'd keep their own file. They'd have their own risk assessment. They'd

have their own number. They maybe even had their own chemical name for the chemical.

So this really sharp guy, Steve Young, in the Office of Toxic Substances who had an information kind of bent, suggested that this information be pooled in a database. And along with that there came to be an agency work group that – and it was toxicologists from different parts of the agencies that had science interests; water, air, pesticides, toxics, ORD—agreed on the information for each chemical.

And then there are toxicologists in EPA's regions too and risk assessors in EPA's regions. They participated and it was very much driven from the grassroots kind of thing where scientists found time, or if they were lucky enough their managers gave them a good amount of time, to participate in these work groups where an agency document that would actually lay out the – and it's kind of a funny – and a bit of a misnomer, integrated risk information, because it's really only the hazard component of risk -- what is the hazard association either with dermal exposure or ingestion or inhalation.

INTERVIEWER: So you're just talking the health, you mean, by hazard? The health hazard?

INTERVIEWEE: Health. Only health. Only human health.

INTERVIEWER: Okay.

INTERVIEWEE: But before that, each of the agencies – each part of the agency, they're doing their own thing. They had their own numbers. So with the new IRIS system, there was this collaborative effort and it was such an esprit de corps. People really identified with the excellence of this and were proud that they participated in it. And so it developed – we developed RFD's, which were the inhalation component, and the RFC's.

INTERVIEWER: What does that stand for – R, F...?

INTERVIEWEE: Reference dose and reference concentration. So with air bounds around those. So that had been perking along, I guess, for, you know, 8-10 years. And so – I guess eight years. And I was asked to look at peer review and public involvement in this process. And so I worked with an agency work group to look at peer review and public involvement in this process. And that was like radioactive. The people who – it's surprising given at where we are now with the internet, and this is pre-internet of course.

INTERVIEWER: Yeah.

INTERVIEWEE: You know, no, no, no we're not going to let the public comment on this.

INTERVIEWER: So peer review was like outside scientists.

INTERVIEWEE: Well, okay. I mean at that point EPA did not have a peer review policy. Well, I don't think it did. I don't think it did. I don't think it had – gee, is that correct? I mean I don't think it had an agency peer review policy.

INTERVIEWER: That's something we can probably figure out.

INTERVIEWEE: That's something we can look up, yeah. I mean I can easily find that.

INTERVIEWER: There must be documents on that.

INTERVIEWEE: Oh, I mean I have a lot of stuff on that. But the – no, I don't think so. EPA's peer review policy, by the way, says there's different levels of peer review and you can – it has to be appropriate to the thing that's being peer reviewed and the use it's going to be put to. So you can have peer review – everything supposedly has to be peer-reviewed. Every agency document. You have to keep a record of your – for the science you do you have to keep a record of what you – a peer review record.

So if you – it's legit to have a peer review that's internal, okay? But for something that is going to have big impacts – I mean these IRIS numbers trigger Superfund cleanups. They're used in rulemaking. They're big deal things. Very, very big deal things. But up to then, outside peer review or outside public involvement, you know, having the public?

INTERVIEWER: That was probably the big fear, I guess, was about getting the public in there as opposed to just outside scientists.

INTERVIEWEE: Yeah, except in the Washington regulatory game I think some part smart people and, I mean – I have to say I'm very, very earnest and I'm not all that suspicious. I'm not a very suspicious – not a very skeptical person. Ultimately there is a peer review policy for IRIS and outside public – outside peer review interested groups game it like crazy. So it has to – that has to be factored in.

INTERVIEWER: Right.

INTERVIEWEE: So people might have feared the Monsantos and the chemical manufacturer associations coming in with their big guns. And it's really hard to get environmental groups to ante up to participate.

INTERVIEWER: Right. Yeah.

INTERVIEWEE: But anyway, so anyway, in the – I have to say in the George W. Bush administration with Reilly and Habicht, the sense you got with the beginning of the interest in the climate program and with – and Reilly was the outside guy. He was the one out giving speeches. And I mean lowly people like me got to meet him. I did get to meet him and to be in his office at decision meetings. But Hank Habicht, I mean he was engaging in asking questions. And he was a total quality management guru. So he was really interested in regular process, equity, fairness, bringing everybody to the table, making sure not that you do just the right things, but you do the right things right. That was the mantra. And that you really thought things through and brought all the information you –

**<T: 50 min>**

—had to the table and you planned for things and you evaluated things. So I mean I guess the sense I had was that obviously not every decision went the way the most ardent environmentalist might have – in the agency or outside might have wanted it. But you got a good hearing, a good hearing on all legitimate points of view and that the managers were honest. That's what I – that's really what I thought. So basically I went from there for different for

professional and personal reasons I decided to go out and get some regional experience, which is a great thing to have in the agency because you can get caught in the Washington bubble.

INTERVIEWER: Okay.

INTERVIEWEE: So I got a detail after that out in region 10 out in the Seattle Region and I worked on air enforcement issues there as special assistant to the division director. And you know, that sort of doesn't fit into the overall narrative except to say that it gave me a real respect for hearing what the people on the ground have to say. Here in DC you think you know what's going on, but you really, really don't know. And I was out in region 10. I was in the Seattle office. And sometimes in the Seattle office didn't know what was going on. But it was the people in the state and the state people even talked to their county people, could actually tell them what was going on. So it reinforced my serious interest in trying to – how can you engaged people at different levels in this science that's going on? How do you get their input? How do you get their support? You're ultimately going to need them to make this work. So I got a deeper understanding about what enforcement and compliance means. I mean most effective programs involve compliance, you know?

INTERVIEWER: Right.

INTERVIEWEE: And you're digging yourself into a hole if you think you're going to rely on enforcement. You just can't do it. People have to understand and want the regulation and you have to make a case for it.

INTERVIEWER: So what did you – I mean could you just give me a for instance of how that worked from your experience? How did you learn that kind of importance of these agreements? This is really the local level, right, you're saying is so key? The county level? Anything stand out in terms of examples of that?

INTERVIEWEE: You know, I mean I was working with the database. It was a database on air toxics and sort of looking at the compliance statistics. And this database was maintained by OAQPS, the Office of Air Quality – OAQ – Air Quality Standards – OAQ – Air Quality Protection and Standards down in RTP. And the people in region 10 said you know, this data is not very good data. And so you call the up, call up the people down in RTP and they say we're three months backed up in updating these data.

And then so you talk to the people in the regional office and they say if you're going to update it we have these numbers, but why don't you talk to the people at the state level? Why don't you – the people doing the enforcement delegated to the state. You talked to the people in Olympia and the people in Olympia say well, if you really want the right data we'll talk to our county inspector. I mean that's a graphic example.

INTERVIEWER: That's kind of what I mean. Yeah, right.

INTERVIEWEE: Yeah. So – also a lot of what I – the benefit I got out of working there was understanding how the programs actually work. That air division director who was just a, you know, a really smart guy and sort of a good organization person, very honest person, but just a – kind of a compelling person to work with. He had to go and he would have to really work out these – he'd have to

negotiate. He'd have to work with the people in his region. The head of DEQ in Oregon or Washington or Idaho, Alaska. What are you going to agree to here? How are we going to work this? And you could see that on-the-ground stuff happened in the human interactions between these folks.

INTERVIEWER: Right, right.

INTERVIEWEE: And then those folks had to work with their organizations.

INTERVIEWER: So where did the industry or the sort of other – I mean the sort of citizen groups or whatever, where do they come in in this negotiation? I mean it sounds like from what you said it was mostly all these different people within the different federal or regional – federal, regional and then the state and then the local inspector person. But where would, in your regional experience, where would the non-governmental people come in in industry or...?

INTERVIEWEE: If you're looking for a broader answer to that question, there's something I definitely want to show you, but it comes on later in the story. This actually could be – in some ways it's deadly, but this was the subject a report. So I worked for the Science Advisory Board for 15 years and one of the strangest projects I ever did – and I did a lot of oddball things for them – is I did this humongous project which resulted in a report in 2012. And we had 72 interviews with 450 individuals across the agency. So –

INTERVIEWER: You mentioned something about this, I think.

INTERVIEWEE: Did I? On the phone?

INTERVIEWER: Yeah. Maybe it was another person, but I think it was you. Yeah, this is the study, yeah.

INTERVIEWEE: So we asked – so there is this very high level of conclusions in this study basically—how did you plan for science to be integrated into your decision. How did it ultimately work out? Now I did not conceive of this project so I was sort of stuck with it in some ways. (the conclusions were that) The managers should be involved from the beginning to the end, you know, in their organization and outside and strengthen science across the agency. Not just in ORD, but in the programs and regions.

INTERVIEWER: Right.

INTERVIEWEE: And then, I mean –

INTERVIEWER: Wow, that's a great document.

INTERVIEWEE: Yeah. It's on the SAB web site and the important thing are the interviews we did. We did all 10 regions and we did the major program offices and we did a lot of different ORD offices. And then we did some boutique offices. But Steve Johnson began the project and it began with one Administrator, but Lisa Jackson received it, so it wasn't her baby.

But there are some very, I think, more useful recommendations. But the interesting thing, and all the – I transcribed all of these. I was at all of these interviews. I was at all of them. Here are all the transcripts. So they're not very –

INTERVIEWER: Oh, cool.

INTERVIEWEE: This is for you. So there's a hot link on the SAB web site, or if you put this in and Google this you might be able to find it. But you can find it on the SAB web site. So there it talks in some detail across the different regions about public involvement. So I think one of our collections is about public involvement.

INTERVIEWER: Let me mark that. Well, I guess you're going to get to that too.

INTERVIEWEE: Yeah. You know, I was not – I mean people in the regions are, depending on their programs, they do a lot of public meetings. So they are the ones who do the Superfund meetings or hazardous wastes meetings. They have different watershed – water program and the Clean Water Act has these water programs, watershed organizations. I didn't know how we were going to do this interview timewise, but I can continue on.

INTERVIEWER: No, no, no. Go ahead. I mean I'm sure if you have time I have time basically.

**<T: 60 min>**

INTERVIEWEE: All right.

INTERVIEWER: Where are we? We're at 6:00? Yeah, yeah. I mean I could go on until 7:00.

INTERVIEWEE: Okay. But in the air program I don't think my division director actually had regularly those kinds of meetings. I don't think so. I think those – I mean the EPA region also, it had like satellite offices in Olympia, Salem and Boise and Juneau. There was a few region 10 people there. But their job primarily is to be liaison with the state people. And I think it's the state people who actually come up with the – work with the public on state implementation plans and then they bring it to the agency.

So I don't think that's something we do in the air program, if that's what you're asking. But there's a lot of discussion. These (the interview summaries) are not beautiful write-ups, I have to say. This was such a backbreaking project, so I'm kind of embarrassed for you to see these write-ups here. But it will give you a flavor, especially the regional ones. The kinds of experience of people at the regional offices. And they talk a lot about politics, with a big P and a little P, in these interviews. So – so did that answer your question?

INTERVIEWER: No, it did. And it also suggests to me that the full answer is going to come when we get a little further along in your own sort of biographical discussion.

INTERVIEWEE: So then after I left that I was lucky and I got my – I guess my three management jobs, one after another.

INTERVIEWER: Oh, I had one more question about – before we move on. This is also – this is 1993 that you moved out to the region. And that's also the transition right around there from the Bush I to Clinton.

INTERVIEWEE: That's right. Yeah, I had a little trouble with this table.



INTERVIEWER: Yeah. So is that – I mean just to – just to ask and sort of flag that transition question. I mean I've not hear a lot of sort of transitional sort of impacts in all we've been talking about up to now.

INTERVIEWEE: Right.

INTERVIEWER: And it's basically – but I guess this is baseline for what we're going to see further on.

INTERVIEWEE: Yes.

INTERVIEWER: But anyway, just to flag the question and transition for when you were out in the air office in Seattle, were there impacts that you saw in that work while you were out there in terms of the change of administrations?

INTERVIEWEE: You know, I mean the thing in the agency, I mean with any transition there's – the political change. The political people change. And so then the managers who are either really excellent or in somebody's good graces then move up into the vacant position – it's a game of musical chairs as people move around in the agency. People act in different positions and other people act in those people's positions. So people are shifting around.

So there is a lot of – there's a certain amount of nervousness. Who will my boss be? What will the environment be like? I have to say from a human resources point of view, the republicans were really good managers, I think. That was my personal experience. Most people were enthusiastic about Bill Clinton coming in in the agency, but there's always uncertainty. Who's going to be my boss? Will my program shift? That kind of stuff.

INTERVIEWER: Right.

INTERVIEWEE: And for me it was true, too, because I was in this executive potential program and I could have gone back to the pesticide program. I still had my FTE there. But I didn't really want to do that and then where was I going to go? And I didn't know what was happening in the agency. But I did get this other job. So I went – but I guess my general feeling through most transitions other than this one, this current one that we're in now, is that for a dedicated civil servant transitions are good times – good times to actually get ready to brief the new people, study up. You can push the programs that you really think are important, advocate for them maybe to a fresh set of ears. And then you don't have a manager maybe breathing down your neck who knows the program in and out. You can actually advance the things that you think are important. So for an ambitious, kind of thoughtful person, it's a time where you can actually distinguish yourself but also get a lot of things done without... you know?

INTERVIEWER: Uh-huh.

INTERVIEWEE: So that was always my M.O.

INTERVIEWER: Oh, interesting. Yeah.

INTERVIEWEE: So coming into the Clinton administration, that was really interesting because now I was closer to the administrator's office. I was in the Office of Policy. I had this little job with a little staff called the science policy staff. In some ways it was a dream job for me. This job was to look at science and risk issues across the agency and see what the policy office could do to kind

of advance high standards, harmonizing. So it was really a fun, if short-lived, job.

INTERVIEWER: Short-lived? Two years?

INTERVIEWEE: Yeah. It was like a year and a half. And because like a lot of small offices, you know, if you don't actually have a mandate of your own and you're not – a legislative mandate or a mandate that's the pet of the manager who's coming in, you could really...

INTERVIEWER: Right.

INTERVIEWEE: You could really be reorganized, which is what we were. I was reorganized into this – I mean I had a ball there. We did a lot of exciting things.

INTERVIEWER: The next one.

INTERVIEWEE: Yeah, yeah. I was reorganized into this Office of Sustainable Ecosystems and Communities which was – so Carol Browner was really, she had these initiatives over climate, community-based environmental protection and information.

INTERVIEWER: Okay.

INTERVIEWEE: The EPA web site had been created under the Reilly administration. She took a personal interest in that. And you had the impact of Vice President Gore. You really felt his impact in the agency with his emphasis on information and transparency in the agency – you know, government responsiveness. So anyway, Carol Browner gathered some senior managers on the eastern shore of Maryland and they had a meeting about – the meeting had a name after some town on the eastern shore. Now that's escaping me, but what came out of that was an agency-wide initiative on community-based environmental protection.

So how can you deliver environmental programs to communities in ways that make sense to them, that integrate EPA programs to deliver them in a more accessible way, be more responsive to people. And to a certain extent regions have been doing that, but they also have their own firewalls.

INTERVIEWER: Explain that a little more. Firewalls.

INTERVIEWEE: Firewalls, oh my gosh. That's a big thing at EPA. Every AA-ship defends its own turf. It's about money. It's about programs. It defines success in terms of implementing my programs, getting my rules out. That's what the GPRA goals, the Government Performance Results Act – it's all in terms of my programs. We – WE – we review this and that. WE do. It's all about our programs. I mean even before GPRA that's the way people thought.

INTERVIEWER: I imagine, yeah.

INTERVIEWEE: It's bureaucratic.

INTERVIEWER: Right. Justifying your part of the agency's work.

INTERVIEWEE: So yeah.

**<T: 70 min>**

INTERVIEWER: So the meeting there. Carol Browner, eastern shore, new initiative.

INTERVIEWEE: Focusing on community-based environmental protection. And so my office, which existed for maybe another two years, this Office of Sustainable Ecosystems and Communities, its job was to try and find the pressure points in the agency to kind of make that happen. So it was co-led by two dynamic managers: my boss, Wendy Cleland-Hammett, and Louise Wise.

INTERVIEWER: Okay.

INTERVIEWEE: So there was meetings with people across EPA. What can we do? And so my little office – this OSEC was cobbled together from a water policy branch and my science policy branch, and I think an economics branch, I think. One little economics branch. And it in some ways, you know, it was doomed to fail. The vision for it was so grandiose, but it was so vague. Some people pushed the ecosystems part. Some people pushed the communities' part. And my group had more of the more science-y people in my group, but not all eco people. So I focused on how do you get social science engaged in trying to make this happen? So we had cooperative agreements with the Society for Applied Anthropology and we came up with a kind of a handbook for dealing with communities. And we did a couple of – we had a couple of cooperative agreements with counties and cities to see what they needed. And then we had a very interesting project that was a cooperative agreement with the Nature Conservancy and the Society for Applied Anthropology to do case studies to see how communities can be engaged in protecting the areas around Nature Conservancy conservation sites to increase the impact.

So I had a ball working with the people in my group, but with my fellow managers, because we were searching around for a mission, and we didn't completely agree on what our mission was –

INTERVIEWER: That's not just your piece, but the other parts of this program?

INTERVIEWEE: Eco and, you know, a lot of people in our group were very, very, very critical of the economists in the policy office. And my perspective on that was that we should work with them even if they weren't in OSEC. I was not – I think there were limitations to what benefit cost analysis was doing on the eco side, but I thought there was potential there. It was too antagonistic a relationship for me.

But in any case, because we didn't have a regulatory mandate, this sort of burbled up from the administrators' senior management effort. And because there wasn't any systematic management kind of follow-up on the success of this or ongoing nurturing of it.

We were reorganized again and most of the people in OSEC were – basically our FTE's were used to create the Office of Environmental Information. So that's where those FTE's for that new AA-ship came from, OSEC. A huge chunk of them came.

INTERVIEWER: And is this at the point at which you say you went to work on the inter-agency Clean Water Act

INTERVIEWEE: Yes, yes.

INTERVIEWER: So you left that.

INTERVIEWEE: I left. I –

INTERVIEWER: That's a conscious decision on your part because of these – you saw this was not going to work?

INTERVIEWEE: Right. Right. It wasn't going to work. This reorganization was coming. I didn't want to work in the Office Environmental Information. As I saw it unfolding I didn't see a place for me. I thought it was a good thing for the agency to have, but it wasn't the right place for me.

INTERVIEWER: Why? Just explain that a little bit, yeah.

INTERVIEWEE: Why? Well, I was interested in risk assessment and science. The Office of Environmental Information was interested in the hardware. How do you get the right computers to people and how do you build an agency computer infrastructure? There were questions about what software – standardizing software across the agency, software standards, computer security. And I don't think – I think they built the platform for the web site, but most of the – sort of the more information-related decisions about the web site-- were not happening in the Office of Environmental Information. It was happening in the press office or the Office of Public Affairs. And in individual AA-ships who are still doing their own thing. So –

INTERVIEWER: And that was [...] Okay, so the logic of putting this OSEC there was – it doesn't sound like –

INTERVIEWEE: You're putting OSEC there. Basically OSEC, it dissolved OSEC and took all our FTE's. They basically said we don't want OSEC anymore, but we need 60 FTE's for the Office of Environmental Information and more FTE's. We were desperate for these FTE's. Where are we going to find these FTE's?

INTERVIEWER: Oh, okay. This is kind of not necessarily in terms of the mission or anything.

INTERVIEWEE: No. The mission disappeared.

INTERVIEWER: Yeah. Okay.

INTERVIEWEE: So I – what was striking for me, being a lowly analyst and special assistant and then coming in as a very, very junior manager, up to then I had met with every single EPA – I mean to – every single deputy AA. I had met with every single deputy administrator and many administrators, but I never met with Carol Browner. I was never in any meeting with Carol Browner. Her engagement with people in the agency and actually trying to make things happen for people in the agency wasn't part of my reality. I didn't experience that. I just didn't see that. She was – her background was on the Hill. She did a lot of good things for the agency on the Hill. She kept support for the agency on the Hill and was a great spokesman. Maybe people in the Climate program had a different experience, but that sort of openness where decisions are being made, you actually saw the decisions, the pros and cons discussed and you saw the manager engaged. That kind of healthy interaction, I didn't see it.

INTERVIEWER: I mean do you have a further sort of sense about – I mean besides her, other people in this administration who might have been an influence on that? That is, the Clinton administration. I mean I guess we're talking about

the Clinton administration. I also hear you saying there's a lot of reshuffling maybe to not clear ends, at least in terms of your career there.

INTERVIEWEE: Right. Right.

INTERVIEWER: You bounced around because of all the reshuffling. And so does that make sense or am I hearing that right?

INTERVIEWEE: The deputy administrator was Bob Sussman, who was a really nice guy. And the – and in the AA-ship the deputy AA in the policy office, Karl Hausker – you know, his wife ran for governor of Pennsylvania this last election, Katie McGinty.

INTERVIEWER: Oh, yeah, that is Katie McGinty's husband. I remember that.

INTERVIEWEE: Karl was in the front office in the Office of Policy and as a deputy he was really a good person to work with. But I did have the feeling that – I did have the feeling that the policy—

**<T: 80 min>**

office was often searching for its mission. It doesn't have a mandate like clean air or water. The job of the Policy Office to raise the standards of the agency, help the agency work together, be the interface, do the special projects of the administrator. That's its mission. Regulatory development, that's its mission.

But in terms of the – yeah, I do have the feeling that there was a lot of wandering around in the leadership of the AA's office and the Office of Policy. It was reorganized while I was there. And the kind of thing that drove me in the agency, which is to see where policy – how policy can be informed by analysis and how different kinds of science can be brought together and placed before the decision maker.

You know the decision maker is going to have to work in a political arena, but I was interested in the analysis, how the analysis informs the decision. To me, that didn't come across. I went into the policy office thinking that's what I was going to be working with, but it was a very unstable situation that didn't turn out to be what my experience was like there.

INTERVIEWER: Okay. Huh.

INTERVIEWEE: So I left there and I went to work in the Office of Water. I had – gosh, I forget how I got that, the offer of that job. I think it was from a friend of a friend said Al Gore's Clean Water Action Plan was a multiagency effort to get the agencies to address some priorities for clean water – USDA, Army Corps of Engineers, Department of Interior, EPA. They have all sorts of implementation demands and needs folks.

So I was part of a three-person team working on that in the Office of Water. So that was a real kick. It was a great experience with teamwork. It got me to revisit this question of how to get the Clean Water Act and the Safe Drinking Water Act more aligned. It had a lot of these themes about public involvement. How do you get the public interested and involved in water

programs? Outreach to EPA regions. Outreach through the USDA system, the ag extension services.

How do you get different federal agencies to understand each others' programs and to build on each other's programs and to collaborate towards common ends? Like an estuary program, you know, you have to get all these...

INTERVIEWER: Yeah. Mm-hmm.

INTERVIEWEE: So that – I did that for – I guess I did that for like a long year, maybe a little over – maybe it was a long year or maybe a little bit more than a year. And that was just great and it was, in some ways it gave me faith in community-based environmental protection. It brought me close to the actual mission. And I did some – I helped build a computer system to track things across these different agencies. I got people to collaborate on that and other programs. I did outreach, that kind of stuff. I wrote – I helped write their annual report and that kind of stuff. So I did that. And then in 1988 someone that I really admired since I had worked in the Office of Air and Radiation came to me and said, "Angela, do you know somebody like you who'd like to work for me?" And I said, "Yes, I do." So that's when I came to work for the Science Advisory Board and I was there for 15 years.

INTERVIEWER: Okay, so that's the advent of that. Who was that person, do you mind?

INTERVIEWEE: Don Barnes [Donald J. Barnes]

INTERVIEWER: Don Barnes.

INTERVIEWEE: Don Barnes. He'd be a great person for you to interview.

INTERVIEWER: Oh, cool. Okay.

INTERVIEWEE: And so I don't know how much you know about the Science Advisory Board.

INTERVIEWER: Just a bit. I mean I've seen lots of mention of it, but I haven't really put that together in terms of a story.

INTERVIEWEE: So the Science Advisory Board – oh, my God. I used to know this like I know the back of my hand. The Science Advisory Board was established by Congress. I think it was in 1978. The Federal Advisory Committee Act I think was passed in 1973 or '74 so there was a lot of interest in outside advisory committees and bringing them into the sunshine. That's what the Federal Advisory Act is.

And so what the Federal Advisory Act basically says is that if you're going to get a bunch of people to provide advice that the agency plans to utilize, that's the term the statute uses, especially on an ongoing basis. You have to follow a process. You have to announce those meetings to the public. You have to allow the public access to those meetings. You have to allow the public access to the information that the advisors get and you have to allow for public comment.

And so –there has to be someone called a designated federal officer who makes sure all that happens. So EPA had a Science Advisory Board in the Office of Research and Development. I think in like '75, '76, but it was established by Congress in 1978 as part of the Environmental Research, Development and Demonstration Act of 1988.

INTERVIEWER: 1988 or '78?

INTERVIEWEE: '78. '78.

INTERVIEWER: The Carter administration.

INTERVIEWEE: Yeah. And so this ERDDA also established ORD and provides ORD its marching orders and authorities to do different things; giving grants and different things. But it has several important passages related to the Science Advisory Board. And so it establishes the Science Advisory Board to give advice to the EPA administrator in response to requests and also requests from certain committees in Congress. And the board is supposed to look at EPA's plans for research and it's supposed to – it's also supposed to look at EPA's proposed regulations at the time that they're shared with other federal agencies and to advise whether there's anything the administrator needs to know about the science supporting those regulations – the adequacy of the science supporting those regulations.

So anyway, so the SAB has been around and it really has had a strong history in the agency since then. There was bipartisan support in Congress. The House Science – well, it's had different names, but what's now called the House Science Space and Technology Committee has oversight authority over the SAB. And for the longest time that committee was bipartisan in its support for the SAB. In fact, the committee would invite the SAB to come annually and give a report; what they thought the strengths and the deficiencies were in the President's budget for science for the agency.

So there was like an annual visit that the chair of the Science Advisory Board would make. So the Science Advisory Board was an outside advisory board, so it was composed of non-federal employees. I mean non-EPA employees. That's what the law says, but by convention the SAB has been non-federal employees. So it's outside the academics, industry people. I think other federal advisory committees can have feds on them, but this one has no feds. It has no EPA people. It's independent.

It's independent. People are – but like every federal advisory committee its members are appointed by the administrator. I'm getting a little tired here, so let me make sure I'm saying it.

INTERVIEWER: That's all right.

INTERVIEWEE: Like any – federal advisory committees are appointed by the agency. The SAB happens to be appointed by an administrator.

INTERVIEWER: Okay, so the administrator of the EPA is the person who appoints it.

**<T: 90 min>**

INTERVIEWEE: Yeah.

INTERVIEWER: And it also has a designated federal officer, which was you, right?

INTERVIEWEE: Right. Right. So the Science Advisory Board is a – there's a Science Advisory Board staff office and it's a little boutique office in the office of the administrator. Now it has about 20 people in it. It has an office director,

deputy office director. Like every bureaucratic thing. it gets more complicated than it needs to be. So the Science Advisory Board Staff Office now supports two advisory committees, the SAB and the Clean Air Scientific Advisory Committee. Did you ever hear of CASAC?

INTERVIEWER: No, I'm not familiar with that one.

INTERVIEWEE: It's very important.

INTERVIEWER: I guess particularly for the climate. Or I don't know, why would you say – okay, so introduce me and just why is it important?

INTERVIEWEE: CASAC is very powerful and it is totally integrated by law with the Clean Air Act, but the Clean Air Act says CASAC has to review all of the science supporting the national ambient air quality standards.

INTERVIEWER: We haven't talked with anybody – nobody, really, from the air office.

INTERVIEWEE: Oh, my God. Oh, this is a whole story.

INTERVIEWER: I know. Yeah.

INTERVIEWEE: So ozone, PM...

INTERVIEWER: Yeah, I know this from my studies before, but...

INTERVIEWEE: But those are big, big, big, big bucks and CASAC has a lot of power because it not only reviews the science, it advises the administrator on the implications of the science for the policy. That is in the statute. That is in there. I was involved with three different federal advisory committees, CASAC, another air advisory committee and the SAB.

The SAB has the broadest purview. Anything related to science, it could be social science, it could be economics, it could be anything. It could be exposure science or toxicology or ecology – anything could come to the SAB. And the SAB hits every program in the agency and it's involved with research and it's involved with how the research can be used in decision making. So it's got this huge umbrella.

So Don Barnes was the director. When I came, he was the Staff Director. He also served as the designated federal officer for the SAB. To do its work the SAB has, I don't know how many it is now, but it's 10 – when I left it was eight or nine. Eight or nine standing subcommittees; Clean Water Committee, Health Committee, Drinking Water Committee, Radiation Advisory Committee. I could name them.

In some ways it's a victory of history over logic. There's no real reason why there's these committees. There's an environmental economics advisory committee. It's bureaucratic. Some are disciplinarian or orientation, some are statutory. Some are kind of EPA subject matter like health. So I came to the SAB and Don Barnes – I came in as a special assistant and I did a grab bag of special projects. All different kinds of special projects. These were mostly interdisciplinary, the stuff that I did.

And I set up the SAB web site, which is a great resource, actually. You can see the history with any SAB project. You can see the public comments and the development of different documents, They're all there. If you need the



nickel tour someday I'll give you the nickel tour. But to get at the underbelly of a lot of things in the agency you can see it through the SAB web site.

INTERVIEWER: Yeah, it sounds like it really is – sort of gives a nice perspective on the overview as well as the different pieces, the different programs, what they're doing over this. And you were there a long time.

INTERVIEWEE: Fifteen years, yeah. In some ways it was a dream job. I was a mom. I didn't have to travel. The scientists came to Washington. I didn't have to go to them. It had a marvelous kind of headhunting feel. You get a project. Some people in the agency come because the statute requires them. Other people come because they want the feedback and the insights from peer review/peer involvement.

So you get to work with very interesting people in the agency. You have to make sure you don't get caught in their games, what they want the SAB to do. I mean so I really wanted the SAB to advise on the most important issues related to the documents or the programs they were bringing. That may not have been what everybody wanted. So you have a dynamic relationship with these interesting people in the agency.

Meanwhile you have to figure out what the agency wants and then you have to go out and get the experts from outside who can gather together as a group and get smart quickly about the agency's need for the science, do a timely review and collaborate and write a report and behave well in public at these public meetings. So while I was there a lot of interesting things happened.

There was a controversy about conflict of interest and SAB panels. That came up out of an SAB review. It could have been several reviews, but the focus of it was on the EPA's reassessment of dioxin that resulted in an SAB report in 2001. And so I got involved with developing a new kind of panel formation process which allowed for public nomination of scientists and public comment on the scientists we were considering for panel so the public could provide information or analysis that could better inform the agency's decisions about potential conflict of interest in these people. And then I developed a new federal form.

INTERVIEWER: Just back on that, the public was environmental groups mostly, industry groups or –

INTERVIEWEE: People who actually did it. Anybody could do it.

INTERVIEWER: Anybody could do it?

INTERVIEWEE: Yes. It was web-site driven. So the EPA SAB Office would publish a notice in the Federal Register and say we're forming this panel. We need expertise in toxicology, ecotoxicology, whatever. Please provide names of scientists. We're searching for diversity. So a member of the public could fill out a form on our web site and we would look at those names and we could also add names of our own. And (afterwards) we would publish a list of suggested panelists for public comment on the panel.

INTERVIEWER: Okay.

INTERVIEWEE: So I developed that and then I developed a conflict of interest form. We never had a conflict of interest form specific for special government employees. You have to be a special government employee which means –

INTERVIEWER: To serve on the panel?

INTERVIEWEE: To serve on the panel, which means you're subject for these conflict of interest regulations. We developed this federal form and so that sort of pulled me into thinking about public involvement in a very practical way. With all the brouhaha over this panel formation issue, Don Barnes resigned in 2003 or something like that, but he's still in the DC area. My next boss was a toxicologist who had been around the agency a few years longer than I.

Her name is Vanessa Vu. She and Don were both of them brilliant and both of them great scientists driven in different ways. She was a very sophisticated thinker. Both she and Don are incredibly hard workers. She didn't want to be the designated federal officer for the board. She wanted to be more of a manager. And so another colleague was DFO for the board and I did special projects. The way the board works is there's so many – there's 50-60 projects that get nominated for the board in any given year. Maybe we only do, if we're lucky in a given year, we'll come out with 20 reports. But sometimes you have to form all these special, special panels on...

INTERVIEWER: Each one is a different panel?

INTERVIEWEE: Yeah, but these panels, they meet and they initially deliberate and they develop a draft report, but it has to be approved by the charter SAB and the charter SAB gets into the nitty-gritty of these reports. So you may read in the paper the SAB reports on this, the SAB reports on that. A lot of that is incorrect because it's just what the panels are saying and the report is not finalized. It doesn't go to the administrator and the SAB reviews and approves it.

**<T: 100 min>**

So there's a lot in the paper recently about the hydraulic fracking and the SAB.

INTERVIEWER: Oh yeah. I've seen that.

INTERVIEWEE: So the Waters of the United States rule and the SAB. I don't know where they –

INTERVIEWER: I've been following that, yeah. I mean I didn't connect that to SAB, but you know. How are we doing on time?

INTERVIEWEE: The time is 10 to 7:00. So I mean – so I what I guess I have to say is I guess I became DFO in – did I write it down? I was actually DFO per se for the board.

INTERVIEWER: You had it in there.

INTERVIEWEE: 2008? Yeah, yeah, I did different things so that was my title when I left. At first I was a DFO for a lot of different special projects. I did tons of special

projects. I give you this with some pride. This list, this came after I retired and it lists the things that I did.

INTERVIEWER: Oh, cool. Okay. Nice.

INTERVIEWEE: So that sort of backs up – it hits on some of the things I’ve talked about here. But I have to say in the last administration, it could have been because my job had increasing responsibilities so I got to see the underbelly of a lot more decisions, but I don’t think it’s only that.

After the last congressional elections with republicans in the House, the House Science, Space and Technology committee really drastically changed how the SAB interacted with Congress. I mean there was no bipartisan collaboration. The SAB wasn’t invited to give a report on the budget. And the SAB staff office and especially me as Designated Federal Officer, got caught in this incredibly painful political confrontation.

I think I mentioned before that our enabling legislation said that the SAB reported both to House committees and to the administrator.

INTERVIEWER: Right and originally.

INTERVIEWEE: Right. That was the original legislation. That’s the legislation that’s out there.

INTERVIEWER: Right.

INTERVIEWEE: OGC, ever since that law was enacted, saw it as problematic. They thought it was problematic from a division of powers, a constitutional issue, a separation of powers issue, for a federal advisory committee to answer both to the executive branch and to the legislative branch. So OGC wanted the SAB only to respond to the administrator. And there may have been a gentleman’s agreement or I don’t know what, but never before the Obama administration was there any direct explicit request from Congress to the SAB to provide advice.

And so what happened was while I was DFO, the chair of the House Science committee – and this all is on the SAB web site--in some arcane places, but I can point it to you. When the SAB was considering the agency’s science related to hydraulic fracturing, the chair of the SAB and the chair of the hydraulic fracturing panel received a letter from Congress saying we want you – you can see the letter – we want you to respond to these science questions. But a lot of them were oddly phrased with implicit assumptions that were critical of the agency science embedded in them. So our office and me in particular, got caught between the house and the administration. We were initially – our office was forbidden by Gina McCarthy’s Office of Public Affairs, forbidden from even allowing our chairs, our outside chairs, to even acknowledge the receipt of these letters. So the congress people were banging on my door. They’re calling me. They’re asking –

INTERVIEWER: The staff people were?

INTERVIEWEE: Staff people. Staff people. So why hasn’t there been a response to the senator’s – the chairman’s – letter? Where is the response? All I could say is I can’t tell you. Talk to the Office of Public Affairs. And the administrator’s

office was highly distrustful of our office for even talking to the people on the Hill.

INTERVIEWER: You mean sort of answering their request for where is this?

INTERVIEWEE: Yes. Yes. So I mean there were –

INTERVIEWER: That's interesting. I hadn't heard it from that angle.

INTERVIEWEE: Oh, it was really bizarre. It was really bizarre. It was a really good inducement for retirement.

INTERVIEWER: Okay.

INTERVIEWEE: So it was paralyzing. It was paralyzing. And so the House Science Space and Technology committee, originated legislation to change the enabling legislation for the SAB to make it more of a representative FACA [Federal Advisory Committee Act]. So you'd have different representatives of industry and states.

INTERVIEWER: Oh.

INTERVIEWEE: So right now there's no sectoral stipulation. It's just a science committee.

INTERVIEWER: Right now there's no sense that you need to balance – have a scientist that's aligned with industry, a scientist that aligns with environmental. Is that what you mean by sectoral?

INTERVIEWEE: Well, I mean there's representative federal advisory committees in the agency. So if you have a stakeholder FACA.

INTERVIEWER: FACA is...?

INTERVIEWEE: Federal Advisory Committee. So if you have a state and local federal advisory committee and an agricultural advisory committee, those are representative FACAs. But many FACAs are scientific FACAs where what all is required is the expertise and that's been the history of this. Now the Federal Advisory Committee act requires that you have the committee be balanced in terms of the work that's assigned to it.

So we have a – I think in the Science Advisory Board we've always looked at it as our duty to have all the disciplines necessary to address the question and all the necessary scientific points of view, major scientific points of view, represented.

INTERVIEWER: Within the scientific debates.

INTERVIEWEE: Yeah, right. So our job is a science job. So there has been legislation on the Hill to turn the SAB into a scientific FACA – into a representative FACA. And so we burned a lot of hours on issue papers and responding to comments from people about that.

And then the other piece of this is – and like I say, another important piece that's been new with the SAB and an important part of my work there, is that our enabling legislation says that the SAB is to see the rules and to advise prior to proposal, advise the administrator on the adequacy of the science supporting the proposed rule. We had never implemented that. We had never implemented that.

And as part of one of the clean diesel rules there was a suit brought against the agency. And one of the rationales behind the suit was that the agency hadn't asked the SAB for advice on the science of supporting it as another energy-related controversial issue.

<T: 110 min>

So now the SAB has adopted a procedure and it was hard to develop a workable procedure that's somewhat workable. But the public could engage more. This is a pressure point for the public to really engage. The agency now comes to the board at the time it publishes its semi-annual regulatory agenda and it points to the upcoming rules that are in the works.

And it provides the SAB with a thumbnail sketch of that science and the SAB can do additional finding to identify what that science is and whether they think it's adequate for the purposes of this rule. And they send a letter to the administrator saying we think the science is adequate or we think it's not. So the SAB actually did this for the Waters of the United States rule and they had some interesting things to say that ultimately influenced the rule. But it sort of throws the SAB kind of into this very close – explicitly into this close boundary between science and policy. And it provides a way for the public to engage in these kinds of discussions in ways that are often hidden from the public.

The SAB offers a lot of opportunities for public involvement that I think are important at the time of a transition. The administrator appoints the members. I don't know what the new membership will be like. I just don't know.

INTERVIEWER: Right. You've got to wonder.

INTERVIEWEE: And so the whole process of making sure esteemed scientists are named to the board and can lead it, and that the process is an open one, and to comment on the proposed list of people being considered at this stage too is really important. So we've got that for the SAB at the top and we've got that for all the panels and all the standing committees. It's cumbersome. It's a lot of administrative work, but that allows for public participation in the process. I think people need to watch what the new Congress will do to the enabling legislation for the SAB. And I think the third thing is that these semiannual reg screening activities, that's a really important thing for people to engage in and they have a –

INTERVIEWER: What was that again?

INTERVIEWEE: The semiannual regulatory science screening. It's a time where people can look and say hey, there's science there supporting a proposed rule or there's not. And make comments to the SAB to consider in a public meeting. You can go to those public meetings, they can provide public comments, and the SAB can be a voice for that.

INTERVIEWER: Right. Huh.

INTERVIEWEE: So the SAB, it's really had a lot of projects that touched on this air climate and energy nexus that was very important to the administration's agenda over the past eight years, you know, the Obama administration. And it can be a power for pushing for good science in those arenas too. So I think that in the past, the EPA and the SAB have dealt more with human health or some more conventional eco issues, but now the agency is trying to get into broader environmental issues. We'll see where it goes, but public – the public speaking up saying this is an area where we need more light, we need more public involvement or civil discourse, the SAB meetings are the place where that happens.

INTERVIEWER: Okay, something to put on our radar screen clearly. So I appreciate that. I mean can I just – let's see, where are we in terms of time? We're just about – yeah, so let me just ask you about – wow, you've talked about a lot of this. I mean just a quick question about the timing within the Obama administration and some of these changes you were talking about more recently with the SAB. Was it 2014, was it 2010? When was the

INTERVIEWEE: Oh, I think it was more 2014.

INTERVIEWER: 2014. That was the big change we were talking about with the Congress – the committee approaching you guys.

INTERVIEWEE: Yeah.

INTERVIEWER: And that was new. I mean before the Science Advisory Board, had it gone to Congress and congressional committees, but it was more in a sort of a standard format of hearings and that kind of thing.

INTERVIEWEE: Yeah, right.

INTERVIEWER: Yeah, okay, but this was a new sort of approach.

INTERVIEWEE: Right.

INTERVIEWER: It was fracking that was really a trigger.

INTERVIEWEE: Right.

INTERVIEWER: Okay, let me just – I think we can all with your sort of word on this we can come back to you with a lot of things that sort of – that we haven't fleshed out or we have further questions. I think a lot of this is documented that we can check up on as you said. What about any data collection, public dissemination of info you think is at risk?

INTERVIEWEE: Yeah, well I mean –

INTERVIEWER: Or, the other A, too or anything else. We've talked about these pieces of the Science Advisory Board and so on and the energy nexus of issues the administration pushed. I mean I guess that's what all the news reports are saying. But somebody who has special, really inside insight and understanding of any other pieces of that that you think are particularly vulnerable.

INTERVIEWEE: I mean it's been a while and as you can see from the science integration report where people in the region think programs have been hollowed out, the science for programs have been hollowed out – grants and contracts replacing what FTE's in the agency did. I mean that's a general kind of...

INTERVIEWER: That's one of your conclusions in this report.

INTERVIEWEE: Right.

INTERVIEWER: Cool. Not that it's cool, but it's good that that's documented.

INTERVIEWEE: Yeah. And it's so frightening with this administration, the potential impacts of what you hear about cuts in resources. But the basic mandates for the agency to issue regulations, there are requirements and they can't be – they're not going away. So I mean I think one needs to look at what those basic regulatory requirements are and then you need some sort of analysis of some basic staffing to support that.

Even if you ditched voluntary programs – pollution prevention or all these other great things – still even bare bones to run these programs in the regions, what would it take? Actually I don't know. To me the power of the Office of Environmental Information, all that information that's put out for people to actually use for compliance and inspections and understanding emissions in their areas, I mean that's really necessary information. I would never want to see that jeopardized because it keeps us all honest about what's going on in the environment.

The agency's recordkeeping, you said it's good that there's sort of a historian kicking in here. It's good that EPA's records are in place. But I think it's important for managers to held accountable for decisions that they make. So the administrative – the internal administrative records, what did the briefings that go forward, what did they say? When were decisions made? The people who—

**<T: 120 min>**

—are managers are supposed to keep public records of their meetings. It's important that all those records be available. The Obama administration was on record saying you could FOIA every record that's not going to cause harm to a decision. So I would hope that people would FOIA records that could better help the public understand how decision are made. I think there were mistakes made in the previous administration about emails, people using private emails. I think we should hold everybody to a very high standard on that. And especially the incoming administration. I think that's really important. So is that the kind of thing you're looking for?

INTERVIEWER: Yeah. I mean data collection, personally – yeah, I mean having that be available, FOIA, you actually might, just as a parenthetical, you might be in a position to help us to develop FOIA requests if it comes to it. So that's just sort of a head's up because you really know the terrain I think you apparently have to know the terrain.

INTERVIEWEE: Okay.

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[END OF INTERVIEW]