TRANSCRIPT
INTERVIEWEE: **Brandt Mannchen** (BM)
INTERVIEWERS: David Todd (DT) and David Weisman (DW)
DATE: October 22, 2003
LOCATION: Houston, Texas
TRANSCRIBERS: Melissa Balog and Robin Johnson
REELS: 2280, 2281, and 2282

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DT: My name is David Todd. I'm here for the Conservation History Association of Texas. It's October 22ND, 2003, we're in Houston, Texas and we're at the home of Brandt Mannchen who is an air quality inspector for the City of Houston as his vocation but as his avocation has been an advocate for the Sierra Club and other groups for forest protection, good air quality, better transportation policies and other environmental initiatives. And I wanted to thank him for taking the time to talk to us.
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BM: Well, thank you for—for coming.
DT: Can you pin point a time that first introduced you to the outdoors and to an interest and willingness to care for?
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BM: Well, we—where I lived, which is—was out near beyond—at the time it was beyond 610 and—and—and 610 wasn't even built then, so it was like we were kind of on the fringe, the urban fringe at the time. And so the little neighborhood that I lived in we had a ditch like maybe a block or so away and so all the kids sort of went to the ditch and—and—and my brother and I would go and we would—we would bring things back; snakes, turtles, frogs, lizards, anything we could find and bring it back home. And—and my parents were very nice because they were very tolerant about, you know, what we would bring and we'd have cages and, you know, and had a little pond in the backyard, you know, so we could put the turtles and things in the pond. We even had an alligator at one time and, you know, just—just lots of stuff. And so we—we always had some sort of, you know, animals or things like that, so—so maybe that's—that's part of—of—of why I like the outdoors and nature and that sort of thing.
DT: How does the Houston of your childhood compare with the Houston of your adult years?
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BM: Well, I guess partly it's just, you know, a lot of open spaces, a lot of green spaces, a lot of things where you would, you know, you'd drive by and—and say oh, there's a field, you know, and there's some grasses or wildflowers or stuff. They're gone, you know, everything has been paved or roaded or, you know, shopping centers or office buildings or all that stuff. You know like on—on the 610 loop it used to be the Pin Oak Stables over there and they used to have the Pin Oak Charity Horse Show, well you know that's been gone for—for quite a few years now, but that was all open and green space and now it's—oh, its got a

Home Depot, its got a new middle school called Pin Oak Middle School and, you know, just all kinds of development that has occurred. So you know basically I've seen sort of these little green spaces wink out, you know, at—at—in
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front of my eyes. There's a ditch not too far from here called Willow Water Hole Bayou. It's actually a little bayou and they had channelized it but not concreted it so it had grassy banks and things like that. And so I spent some time on that. I even wrote a little paper, you know, about it and everything. And then, you know, they came in and channelized it and turned it into a concrete, you know, conduit and so, you know, I—you just see these things disappear and—and then you wish they wouldn't but they do and it just really affects you as far as your sense of place because your sense of place is constantly changing and all those things you were familiar with for many years just disappear and then you're expected to sort of respond and modify your—your feelings, you know, based on these new environments that are built. So it's kind of different and, you know, a little—little bit strange to—to see that all happen in your lifetime.
DT: Very rapid.
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BM: Yeah, yeah, I mean, you know, I'm fif—I'm 51 and I'm a native Houstonian, you know, been here my whole life with the exception of going to Sam Houston State University, which is in Huntsville about, you know, 60 – 70 miles north of Houston. So you know I've—and I've been either in Montrose or this general area, which is Meyerland, most of my adult life and so, you know, I've just seen everything go and it seems to keep accelerating. And now the things that were familiar to me maybe not here but a little farther out because I'm going to Sam Houston National Forest or Big Thicket National Preserve. Now all those things are changing too. So for instance, the—the area
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between like Willis and Conroe, there's an esplanade, you know, a little grassy area and—and I had just saw recently that Texas Department of Transportation wants to make that into an 8 lane wide freeway 45 with feeder roads, you know, all the way up to the Walker County line. So it's going to wipe out this nice little—little touch of forest and nature that—that I've enjoyed just driving up, you know, through for, you know, 30 years or something like that. So it's just—it's happening all the time.
DT: Do you think there's a more romantic side of you to miss these things or do you think that there's something more objective that you're missing?
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BM: I—I personally think that this is one of the things that's wrong with people in our society today is that—that there's so many changes going on so fast so rapidly that I don't think evolutionarily that we can comprehend and—and—and—and modify ourselves to deal with those changes. I think that's partly why a lot of people are unhappy because they see their familiar surroundings disappearing. I mean every year I get phone calls from lots of people saying like, you know, I live in this neighborhood and there's this 20 acres over here of forest that, you know, its always been there and we really like it and now Wal-Mart is going to move in or s—something else is going to
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happen and what can we do? And you know, other people I think see it too. Maybe they don't quite connect fully to it but I think they realize that their surroundings just are

changing and I think one of the reasons that people move out to the fringes is because we've so uglified our urban environment and—and forgotten that—that—that we evolve with green. You know our eyes are used to that and—and want that. That—that we uglify it and turn it into gray concrete and other things and so I think people are searching for that but just don't quite realize that that's what they're searching for.
DT: You mentioned that you went for a time outside of Houston and attended Sam Houston State and I believe also the University of Houston at Clear Lake and got two environmental science degrees, a Bachelors and a Masters.
BM: Right.
DT: Can you explain what you learned in school and how it compared with what you have seen in the regular business-day world?
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BM: Well, you know in—in school it—you're taught a lot of basics, you know, like, you know, ecologically you're taught about ecological processes like fire or windstorms or things like this you know in sort of a—you've got it in the book as an example in this kind of stuff. But what they really I don't think teach you is like how things work in real life politically and—and, you know, every day, you know, and so—and also as a—as a person who is both as a volunteer for the Sierra Club but also as just as an individual many times who has participated in—in various proposals dealing with, you know, development projects that would—would alter the environment. They don't teach you how difficult it is to—to make a change and to get things prevented that shouldn't happen to the environment, you know, they don't prepare you for that. And so when you go out
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there and you run into the brick wall then like you're not really prepared to deal with that and so it—it—it caused a lot of frustration, a lot of anger, you know, a lot of like feeling helpless and that kind of thing and so from that standpoint they don't prepare you at all. And so you think that wow, you know, this is democracy well, you know, we can—but then you find out how things are set up and they're really set up to allow development to occur, not set up to protect beautiful wild places or wildlife or recreational opportunities or things like that. So you—so you have to fight, you know, twice as hard to—to get something or to prevent something than the person who wants to develop that thing. So it's kind of stacked against, you know, the individual or even the organization that's—that's dealing with these issues.
DT: I guess you have a pretty intimate experience with the political and government world because you've actually worked for—is it 29 years now for the…
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BM: Next year it'll be 29 years for the City of Houston as far as my job goes.
DT: …for the Bureau of Air Quality Control?
00:11:22 – 2280
BM: Yeah, the—the Bureau of Air Quality Control. I—or most of those years were the—the first three years were in the City of Houston's laboratory, you know, where I did what they call sanitary microbiology, which—which dealt with, you know, doing bacteriological examinations on samples of like seafood and dairy products like ice creams and milks and—and sandwiches and things of that nature to see if they're contaminated, you know, like with E. coli or—or other bacteria that—that could make people sick or indications that—that there might be bacteria that could—pathogenic bacteria that could make people

sick. So those were my first three years and the rest has been with the Bureau.
DT: Can you talk a little bit about your career at the Bureau as an air pollution inspector?
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BM: Its been—its been kind of varied and part of that has been as an environmental investigator with the City of Houston. And my initial years were with—as an investigator doing samples and taking complaints and doing investigations on certain companies and doing surveillance. And then I was transferred over into the technical services area and that area deals with the ambient air monitoring that the City of Houston does for the pollutants that the—the—the U.S. EPA feel are—are—are the most significant on a U.S. wide basis like ozone or carbon monoxide or sulfur dioxide. So I was there for 13 years and then I—I was transferred again into a program called Source Registration. The city has a local program where they'll register small sources of air
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pollution and charge them a fee and so I was in charge of that—that group that was colleting the fees and we were also determining whether certain companies needed to be part of the program or they didn't need to be part of the program. And then I got transferred to the engineering section, which is where I am at now and we do the investigations on the larger sources of air pollution like petroleum refineries or chemical plants or—or—or other larger facilities. So that—that's kind of in a nut shell kind of what my history has been, you know, at the city but in—in different parts of the Bureau and its been—been interesting doing different things.
DT: Can you talk about the investigation and the monitoring work that you've done?
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BM: The monitoring work is—a lot of it is much more automated than it used to be. Like when I was doing it and this was—I finished doing my air monitoring work in 1995. There was a lot more hands on physical, you know, manipulation of the instruments. And—and today a lot of that is done by computerized programs that—that basically send signals out to the air monitoring trailers that, you know, say hey, it's time to calibrate this instrument to make sure it's working properly. And so there—there's a lot of that going on now and it—it's—it's sophisticated and technical and you kind of have to have a sense of—of instrumentation. You've got to have a sense of, you know, of detail because it's very important that you—that you keep things clean so that they're not contaminated so that they affect the sample, you know, and—and what the reading is and that sort of thing. And then as far as investigations go that basically has to do with—with me and—
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and sometimes I'm with a partner going out and focusing on a company to determine their compliance with both the EPA and also Texas Commissioner on Environmental Quality Rules and Regulations. And my current job requires me to go out and do cooling water sampling and also leak detection and repair sampling where we actually have a portable hydrocarbon analyzer and we check the various valves and other components to see if they're leaking or not and we check the record keeping of the company and make sure that they're—they're—they're doing that and they're doing it correctly. We check their calibration gases; lots of other things. So it's kind of a—kind of a technical thing and then you've got to write a report and if they have a violation you—you issue a notice of violation or a notice of enforcement and, you know, go through a certain process to get the company to come in to compliance.

DT: Can you talk at all about the strengths and weaknesses of ambient and emissions monitoring?
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BM: You always have to keep in mind that ambient air monitoring is different from source monitoring because ambient air monitoring basically measures the air that—that—that's around you that's—that's beyond the fence line of the company that you're interested in that may be emitting emissions. So that's going to—if you have an ambient air monitoring trailer usually that doesn't tell you or give you a specific indication that—that XYZ Company is putting out XYZ pollutant. Now occasionally it can if the wind direction is in the right, you know, direction and—and if this pollutant is kind of specialized to this particular company you—sometimes you can see if you're monitoring for that kind of pollutant, you know, a difference there. But as far as source monitoring goes, you know, the—the extent of the cities source monitoring deals with that portable hydro carbon analyzer that I mentioned before and also a portable air stripping device that we use to—for cooling tower water to go ahead and—and—and run it through and—
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and get that—those volatile compounds that would be in the cooling water because there's a leak in the process, you know, get those to come out and then use that portable organic analyzer to—to check and see what those levels are. And if it's significant then we will take a stainless steel canister, a summa canister, and pull a sample and s—ship it off to a laboratory to analyze to tell us exactly what are those pollutants, you know, and, you know, are they—they hazardous air pollutants or are they something else and then we calculate like with this leak what could we expect in an hour and what could we expect in a year if this leak just stayed here the whole time. So we have an estimate of how serious the leak is. So you know, and then we turn that information, you know, we let the company know and—and they have to kind of deal with that. Sometimes that may cause a violation of their permit and sometimes if they're grandfather there's not much you can do about it because with respect to grandfathering the state is starting to—to permit all those old grandfather facilities, but we're sort of in a transition period and—
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and we don't have a good handle on what the grandfather emission limits used to be. So it's hard to measure what you get versus some limit that you don't know or that the company, let's put it this way, doesn't seem to be able to figure out what it is. So—so—so those are basically the source sampling that we do specific. Ambient sampling is—is—is different like a said and that's where the city—most of the city's money has gone is into the ambient monitoring because they get grants from the state and from the EPA to—to operate and—and the equipment and actually to buy the equipment to—to operate.
DT: I understand that recently there's been the Bucket Brigade that's sprung up to try and fill in some of the gaps that they see in the industries and agencies sampling program. What do you think about their critique if the existing ambient sampling and their alternative system?
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BM: First of all, I've—I've got to plead guilty because I'm on the Texas Bucket Brigades Board of Directors with LaNell Anderson. She's the—sort of the chair. So I—I'm biased, but any rate they're doing something that we're not doing and that no one else is doing and that needs to be done and could be done and I don't know why we're not doing it and that

basically is going out and finding basically a lot of times by smell, you know, significant strong odors and taking a summa canister and opening it up for a certain number of minutes and then closing it and then getting an analysis. And in several cases, you know, the—the levels of certain compounds have been very high, you know, and as a result in some instances the Texas Bucket Brigade has been able to talk to the companies and get the companies to admit that—that there was a problem and that the
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companies offer to do something to take care of that problem. And so from—from that perspective that is something that is very important and it's something that a c—citizen has been shown that a citizen can do can have a real effect on these companies. And so I don't know why Harris County or the City of Houston or the state isn't doing the same thing. I—I wish they were, but they're not. And so I would—I think it serves a very valuable function.
DT: Are the companies obligated by rules or regulations to respond to these citizens discoveries or are they just doing it as a good PR thing?
(Misc.)
DT: The question is, were the companies under any legal or regulation requirement to respond to these citizens discoveries or were they simply doing it as good public relations?
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BM: There—there's no requirement, although at least in one instance the sample that the Texas Bucket Brigade took Harris County Pollution Control has used that information to basically sit down with the company and say you've got a violation here, you've got a problem. But usually it's not that they have to cooperate. I mean there's no law saying that if I take a sample and show something that—that you have to do anything. I think the companies realize that, you know, sometimes they do have problems and that if you verify that and—and these samples are—are done correctly, professionally and they—the analysis is done professionally then rather then getting some bad PR they may be willing to sit down with a group and do something, but sometimes they don't. Sometimes they basically say we just don't want to talk to you.
DT: On those occasions where they don't has the Bucket Brigade used the power of the press or the media to then present these findings to the media and make a story out of it?
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BM: Yes it has indeed. And—and that is—in one particular case that's continuing. And—and the hope is that the company will sit down with the community and will agree to a source reduction program where they will voluntarily analyze and determine some areas where they have emissions that they can reduce and that they will reduce them. They—they successfully did this particular source reduction program with a couple of companies in Channel View and—and were very successful in—in reducing those emissions, but it was about a three or four year project and was—and many times it was touch and go as to whether, you know, the company was going to continue working with the citizens or not. But ultimately to their credit they did and they did reduce emissions and—and because of that the community is—is safer today than it was before because of citizens efforts.
DT: I understood that in this past legislature session there was an effort to try and reject the admissibility of citizen collected samples. Can you tell us about how that came about and what the result was?
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BM: I don't know all the particulars, but it was suspected that part of the reason that this

was done and I think the Texas Chemical Council or—or its—it may not be called that today. It may be called something else, but any rate that—that particular organization—my understanding is they were behind the—the proposed change and that they were concerned about people like the Texas Bucket Brigade; citizens actually getting credible evidence and being able to present a it either to the state agency or to use it for their own purposes to get the companies to—to reduce emissions. And so my understanding is that's one of the reasons that they were attempting to—to weaken the—the citizen generated and gathered data like either on air or water or hazardous waste is because they were kind of fearful that—that might bite them and they wanted to try and keep that from happening.
DT: We've heard from some people that this citizen effort of air sampling came about because citizens would call in a nuisance odor and there would be a day, two days, maybe a week delay until an inspector came out and tested it, and often times that nuisance situation no longer existed and so no notice of violation would be filed. Is that the case and why do you think that is if so?
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BM: Well, you know it—depending on the agency too. The Bureau of Air Quality Control, in general, when it gets a complaint, you know, hopefully within an hour an investigator will be out, you know, to visit with the complainant, which is fairly quick, you know. A lot of times Texas Commission on Environmental Quality it may be a week or something of that in which case, you know, it's really hard to—to figure out what went on at that time, especially since you're on the property and you can't smell anything because the smell is long gone. Now sometimes citizens have put things—documented things with camcorders, you know, where they have the date and all that, you know, on the film and everything. I remember seeing one at the
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TCEQ where it had to do with a smoke, like from a stack and, you know, they recorded the whole thing for, I don't know, it was a long time, you know, 20 – 30 minutes and they had presented that to the TCEQ and said this is what we're talking about. And I know in those instances that can be real helpful because then the agency can start putting people in that general vicinity more frequently and at certain times if it's happening at certain times. And—and maybe see what's actually going on, but it's not unusual at all for a, you know, like the TCEQ to, because of manpower shortages and things of that to, you know, by the time they get there they can't tell anything that happened, you know, and so that frustrates citizens because, you know, what good is it having an investigative arm if they can't even get there to assist in the situation? So you know that—that was probably one of the reasons initially that—
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that there was a push to—to have citizen gathered data be excepted by the state is because so often the investigator couldn't get there in time, but the citizen did have a way of—of producing some sort of evidence that something had happened.
DT: Could you talk about the coolant towers situation, which I understand has received some attention recently?
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BM: We know that cooling towers are a source of fault organic compounds and can be a significant source and that's because the cooling water goes to like a heat exchanger in the process and there's process fluid going through the heat exchanger and it leaks and gets

into the cooling water and then goes back to the cooling tower and evaporates. And—and so we do know that and we do know that—that some of the—the p—the volatile organic compounds that are in the cooling water can be hazardous air fluids, for instance, 1, 3-Butadiene or something like that, which is a potential carcinogen or cancer causing type of chemical. So we know all that and—and as a result of this I think there was a recognition from the U.S. EPA and the TCEQ that, you know, here was a source where nothing was being done to control the
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emissions that something needed to be done. And so about a couple years ago they—they started doing this cooling tower sampling and the City of Houston just started it last year, you know, by—by getting equipment and—and money from EPA and the state to do the sampling. And so, you know, that's what we've been trying to do this—like get a handle on well, how—are there leaks and if there are, you know, how is this, you know, what is this resulting to the air? Also, this has to do with—our—our area is not attainment for ozone, which simply means we're above the health standard. And they noticed back in 2000 after they'd done a number of extensive scientific studies where they had monitored the air that we had a whole lot more volatile organic compounds in the air then we thought we did. And secondly that our ozone episodes where we had high ozone levels were extremely quick in reacting and going up very high very quickly, and what they determined was that basically people
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are either through upset, which are unplanned releases of emissions—air emissions, or through regular emissions that have not been determined are—are creating basically a soup that's perfect to create ozone very quickly under the right circumstances. And so cooling towers may be one of the sources that are doing this and have these highly reactive volatile organic compounds, so they decided well we need to focus on this and try and—and get the companies to start reducing the number of leaks they have into the—the cooling water, so we can reduce our—our ozone levels and the episodes that occur
DT: Did this begin about a year ago?
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BM: For the city it did. The state is—has been doing it a little bit longer than we have.
DT: In that year that's past have you begun to see enough data that's allowing you to perhaps start to formulate some conclusions on that?
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BM: Well, you know s—sometimes you find leaks and sometimes you don't, you know, so you know we—we do the appropriate thing whatever that may be. If—if there's a—an emission limit that a company has and they're above that there may be a permitting problem, a compliance problem. If they're grandfathered then there's not a whole lot we can do except to point it out to the company at this particular point in time. In a couple of years all those grandfathered cooling towers will be permitted and they will have emission limits and hopefully they will have in their permits strong conditions about how they're going to operate their cooling towers. And then for those particular units we'll have something more to work with as far as a compliance handle, but currently on some of them it's, you know, we don't have a very big handle to work with.
DT: Do you see any large discrepancy between what the particular companies that own these cooling towers estimate coming out of these towers and that which is actually

measured to come out in terms of VOCs or other pollutants?
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BM: I haven't really been comparing their emissions inventory estimates that much with what's coming out. So I'm not sure I can respond directly to that question.
DT: You said earlier that you worked on some of the fugitive emissions too and I was wondering if you found that there were any kinds of trends or patterns that you've seen there?
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BM: I—I would say that in general we're verifying what the U.S. EPA already verified that a lot of times the—we find more leaks than the companies find and I think that's due in part to how you apply the—the monitoring technique. If you do it the right way there's less chance of you missing a leak than if you don't do it according to the proper procedure and I think that's partly what's going on. And so EPA that's basically what they found and that's one of the reasons they came to the state and the state came to the city was they said hey, company may say they have one half percent leakers for—for these valves and—and flanges and other components, but we're finding they have five percent, which doesn't sound like a lot
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but when you multiply the—the leak by each component over a years time it can be a considerable amount of—of pollution. And so I think in some ways we have found similar things and so basically I think these investigations help the company get a little more focused in—in what it ought to be doing and—and develop a better program of—of doing their monitoring. S—and it will be very interesting this—I mean the second year of this. We're going to go back to the companies we went to last year and so it will be very interesting to kind of see the difference from last year to this year as far as how their monitoring programs are going and what we find. So I'm—I'm kind of looking forward to that.
DT: Do you find that the errors in their monitoring are due to ignorance, negligence or intentional deceit?
00:37:02 – 2280
BM: I—I can't really say intentional deceit. I mean I—it's hard for me sometimes to—to know why the errors were made. I mean, you know, everybody is a human so, you know, sometimes the folks are suppose to do something a certain way and they don't. And so I guess it d—the company—what you find out is how well the company's program consistently is implemented and operates. You know if—if there's not good oversight then you would expect that sometimes things get sloppy. And I like to think that our audits that we do on them sort of help them get focused on where it is that perhaps they just weren't quite as focused as they ought to be. And so—and of course if there's a violation of a rule, you know, that will be addressed and even if there's not a violation of rule if there's a area of concern maybe it's not a
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violation but, you know, we have a uncomfortable feeling about something. We still tell them those things. And a lot of times they'll make changes accordingly because, you know, they say well yeah, you've got a point there. Maybe—maybe we should be doing it different. So you know, I—I look at what we do as, you know, being real helpful and, you know, hopefully it hel—it does help to have someone looking over your shoulder. If you don't

have that then the incentive is maybe not to do it or not to do it all the time or not to do it right. So I think it helps to have us knocking on the door and say we'd like to sit down with you and take a look and see what you got.
DT: Do you have any comments about upsets and how they are factored into permit and compliance records and the performance of the plan?
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BM: Well, you know the past couple of years things have kind of tightened up a bit and there's again more focus on that because of the—the issues being with the exceedance of the ozone standards that might be due to some upsets, which again are releases of air pollutants that—that aren't planned for and they're not normal routine emissions. And so what I've seen is that a lot of times when a company has an upset that with the present criteria they must meet in order to have their emissions excused as being a violation. A lot of times they're not able to meet those—that criteria in
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which case it turns into a violation. So I—I think gradually over time that again it's having the effective—having companies go hmm, we—again, we need to do something different here because if we're repeatedly having the same upset or—or some upsets that—that are caused by human error or whatever how can we avoid this in the future? And so I—I think it's really good that extra focus that's going on there. It's—it's kind of hard to say well how much of an effect that's having, but I know that when we go visit companies they certainly are extremely aware that whatever happens dealing with upsets is going to be scrutinized very carefully.
DT: Do you see any weaknesses that are persistent or places where you felt frustrated in trying to achieve your goal for air quality improvement that just don't seem to get addressed?
00:41:25 – 2280
BM: Well, I think part of it—I mean part of my frustration is that being an air quality investigator you would think that every day I'd be out, you know, investigating. That's not the case. I mean when you're talking about some of the larger facilities, you know, going out two or three times a month is about all you do because the reports—the—what it takes to generate a—a complete package documenting everything you do has become so complicated and so involved and it changes constantly back and forth. W—the c—the city has a contract with the state. We get the money but the state says you must do certain things to get the money. And part of it is to use their—their procedures of doing reports and other things. But those things are always changing and it—it makes it real hard to—to complete something and it
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gets real frustrating for an investigator because you ought to be spending 90 percent of your time in the field, but instead you're spending 90 percent of the time in front of the computer screen. So to me that's the most frustrating thing is—is, you know, it seems to me I'm most valuable out in the field talking to people, looking at what they're doing, assessing compliance, but instead it seems like I'm in my chair most of the time. So that would be the biggest thing if there were a way to make it easier to finish and—your documentation so that it's complete but it doesn't take a whole lot of time. That would be nice, but I'm not sure that—that—that has—we have made a lot of progress on that.
DT: Have you ever felt like there was a lot of pressure on you not to find things or to lower

the requirements to come into compliance?
00:43:49 – 2280
BM: Well, the companies are—are—are fighting everything a lot more than they used to because of the compliance history requirements now. You know now the state has these compliance history requirements that basically say okay, we're going to take note of the problems you have had in the past, we're going to give you a point score for each one of those, we're going to add them up, if you're over something then you may need to do further things. So that—that's made the companies much more feisty about fighting every violation that—that—that you as an investigator say well, I think you've got a problem here. So they're not afraid at all to contest them and to come in and have a compliance meeting and—and to go to the state or even go to EPA and say, you know, we don't think, you know, this is appropriate. So the—there's a lot of pressure from the companies that way and also, you know, it's kind of
00:44:48 – 2280
interesting sometimes, you know, you ask the company questions and—and ask for information and you get a certain amount but not quite what you want and then when you go ahead and issue a violation and ask for compliance all of a sudden that information is available. So sometimes it gets frustrating, you know, as—as an investigator about that. So the other thing is that from an investigator standpoint even the city cannot administratively penalize a company. Only the state holds that authority. So we have to ship our notices of enforcement to the state for them to make a decision on that. And you know, you go through a lot of work, you put the report together, you document all the violations, you send it up to the state and then some of the penalties that they assess are not very high. So sometimes it seems like is this really a deterrent, you know? And from my point of view a lot of times it doesn't seem like it, but you know, it's—it's the system we've got and have to work with
00:45:56 – 2280
because the Texas legislature never gave local governments administrative penalty powers. And so as a result we don't have a choice, you know, if we find something that triggers a notice of enforcement then we have to give it to the state for them to deal with. S—and also, you know, they—they also have a calculation and a penalty sheet and they give for good faith effort and all this stuff they—they give a lot of, how should I say it? They reduced the penalties a lot and I'm not sure in my own mind while I love good faith effort whether the penalty should be reduced as much as they are, you know, based on those kinds of situations.
DT: Do you find that the penalties are usually on a par or less than equal to the benefits that were gained by not being in compliance?
00:46:57 – 2280
BM: It's hard to say because we don't make that calculation. You know we—I don't necessarily know what the benefits were. There's nothing in—in our procedures that requires us to do that and because of the effort to get the reports done on time you can't dawdle and, you know, deal with things like that because you just don't have the time to do it.
DT: Let's say you take samples, are the companies required to do split samples? Do they take their own samples and then try to challenge you in court so it sort of becomes your scientist versus their scientist?

00:47:46 – 2280
BM: Well, we almost never go to court. You have to remember that. I ha—I don't recall the city going to court for an air pollution violation in quite a few years. But when we do the cooling water—cooling tower samples sometimes they do set up right next to us and take their own samples at the same time, which is fine. We don't have a problem with that. I mean we're going to do ours the right way and, you know, get whatever we get and, you know, I prefer them actually sampling with us because if they get approximately the same thing we do then like there's no question,
00:48:30 – 2280
you know. It's like uh-oh, you know, need to do something here or it's fine and we see it's fine too. So I—I think it's to their benefit to sample along side us because then they can assess, you know, their program with our program and—and, you know, see if it's comparable. So sometimes they do do that, but you know, that's just part of the—what you deal with.
DT: Can you give us any examples of cases that were really successful that you worked on or ones that went awry that were just not as productive as you hoped?
00:49:13 – 2280
BM: I—I'm not sure I can give those, you know—you know, specifically enough to, you know, to—to really—to detail them, you know. And I still work for the Bureau and, you know, I'm not supposed to talk about too specifically about things and so I'd—I'd—I'd rather not, you know, do that.
DT: Can you talk about how these grandfather facilities came to be and why the loophole extended for almost a generation and how it was finally closed in recent sessions?
00:50:09 – 2280
BM: Well, I mean the Texas legis—legislature in the early 70's was—was basically told that, you know, if—if I've got a current source of air pollution don't permit me. Permit only new sources of air pollution and this old source in a few years is going to be modified or shut down or we're going to replace it with a new facility and therefore when that happens it'll have better pollution control equipment on it because it's—it's newer and it's required under the permit program and therefore, you know, we'll reduce the air pollution. Well, the problem was that didn't happen. A lot of facilities kept operating their old equipment. Some would suggest that they actually modified it but then didn't bother to tell the state agency that they modified it and kept operating. And so this—they were essentially polluting a whole lot more than anybody thought they would for a longer period of time. And finally just, I think, two years ago the state legislature, you know, after many years of citizens
00:51:30 – 2280
saying these old facilities are—are creating a problem with air pollution, finally stated that within a few years they will all be permitted or get a permit by rule or some other authorization so that none of them will—will be able to operate as they have in the past. But even that permitting is not astringent as—as we would have liked it because it'll be based on ten year old pollution control equipment instead of current day pollution control equipment in the—the levels of—of pollutants that you would get today, which would be much less than they wo—would be like ten years ago with pollution control equipment. So it will reduce the levels but not as much as probably it should.
DT: I understand that when Governor Bush was still in office and when he was running for President he and his administration and some industry figures drew up a way of trying to

respond to this grandfather problem and I think it involved voluntary emissions reductions. Can you tell us what you know about that?
00:52:46 – 2280
BM: I—I don't know much except that basically almost no one signed on to the program, you know, and that was one of the reasons they eventually went to a mandatory program because the governor said well, we're going to address grandfather sources, but we're going to, you know, request that everybody do it on their own. And everybody didn't and so as a result when the Texas Commission on Environmental Quality had to report they only had a very few companies that ever said, you know, had ever submitted a permit to reduce their grandfather emissions voluntarily. And it was really I think very embarrassing because it showed that voluntary emission reduction, you know, at least in that case didn't work. So—and
00:53:32 – 2280
because Houston and other areas were still having lots of pollution problems finally the legislature bit the bullet and said okay, well I guess we're going to address this now and it won't be voluntary, you know, you're going to have to do this. So you know, we tried voluntary, it didn't work, so we said what I really love is command and control. Thou shalt do this by such and such a date and it'll be such and such an emission and that's it and that works. Voluntary doesn't work.
DT: What would you say to the industry representative who might say well, community control is a one size fits all inflexible solution that doesn't recognize the nuances and specific problems of each plant?
00:54:27 – 2280
BM: I would say our lungs don't recognize a difference between the nuances, you know. We still get sick and—and ha—die and—and have allergies and asthma and everything. And m—my other thing is if you ever look at the rules you'll see they're very nuanced. They give lots of exemptions to lots of different kinds of sources. So depending on your rule writers and the agency you can write these rules such that you can provide some nuance if you want to. There's always an alternative emission reduction section in most rules so that if a company really feels like doing it this way
00:55:12 – 2280
doesn't work if they can convince the agency that doing it this way works just as well, but it's different. They can do that but most companies don't ever do that. So—so I think there are opportunities to get nuanced but mostly we don't need nuance we just need to reduce the air pollution.
DT: Can you give some examples of the health effects that drive some of these air quality regulations from your personal experience?
00:55:47 – 2280
BM: Well, I mean we have a national problem with asthma and while it's not been conclusively linked to air pollution many scientists and many medical professionals feel very strongly that the rise in asthma is attached to in part air pollutants that we generate, not natural born air pollution like pollens and things, but the sulfur dioxides and the volatile organic compounds and the other things that are being emitted that—that affect our health. So we know that, you know, we know from the Harvard studies that—for particulate matter that, you know, it affects people much more from a mortality standpoint and from a health standpoint than we ever thought possible in the past. The better studies

we do the finer scale the studies the more we find that pollution effects—air pollution affects people. And this is after we've d—had 30 plus years of reducing air pollution, so if we'd done these studies a long time ago we would of found even a—probably a greater impact on people's health, but it's still a
00:57:09 – 2280
significant impact today even with everything that we have done. So we're not there yet. We've got a long way to go. We've made some good strides, but certainly now is not the time to say that's all we need to do, so you know, I don't know. It's just—I mean people are always complaining when—when, you know, at an air pollution bureau when you go out people complain about, you know, having problems breathing and that sort of thing and, you know, the—they're equating it to their neighbors, you know, their industrial neighbors. And so, you know, it just seems to me it's—if you're sitting next to a refinery or a big chemical plant or at least nearby that—and we know they have upsets and we know there's a lot of emissions they generate that nobody even knows are there that, you know, just sitting there near them is going to have some sort of impact and the studies seem to indicate that that—that's the case.
DT: Do you ever get called out when somebody has got an asthma attack or gets some sort of a rash or has some sort of neurological or…
00:58:30 – 2280
BM: I used to handle complaints a long time ago, but the investigations I do now are—are strictly—don't deal with complaints. So I—I don't handle complaints, although there's other people in the Bureau who do handle complaints.
DT: Are the complaints and the investigations limited to people who live near them or can you be ten miles away in Houston from this kind of thing or 15 miles away?
00:59:25 – 2280
BM: I don't have any doubt that it—it could be legitimate. There are occasions when we have an east wind, which is relatively rare in Houston and somebody over on the Ship Channel has had a problem and it's a compound that's odorless that you can smell it all the way across town. But it's real hard for an investigator to say ten miles away that this company did that. It's—it's virtually impossible for an investigator who's just using their nose to make such an assertion unless that odor has been verified at that company and its come all the way across town and everybody has complained about it and, you know, you know what that odor is. But it's—it's very difficult. I mean—and—and this is the best instrument we have as far as odors go is the nose. You know there's no instrument, no scientific technology available that—that seems to be just smelling an odor.
DT: How about blood tests that reveal chemical analysis of stuff people may be absorbing over a long term?
01:00:38 – 2280
BM: We don't do that. If—if someone had a problem and they thought it was related to air pollution they would have to go get the blood tests themselves and they'd have to go to their doctor and, you know, basically do their own research because we're not equipped to do that. We don't have any of the equipment, any of the money and the personnel, any of the experience, any of the skill to do any of that kind of thing. So that would be someone like a researcher looking at epidemiology, you know, why there's sickness in a particular area or something like that, perhaps. We don't even do community surveys, you know, health surveys. Some people in the past like Dr. Marvin Legator who actually wrote a book

about doing detective work as a citizen. Actually, had done community surveys where they picked out community health problems and some of them may be related to air pollution, but the—our Bureau doesn't do that.
[End of Reel 2280]
DT: Can you give us an idea of why it's such a major vector for people being exposed and having health effects from the environment?
00:01:38 – 2281
BM: Well, I—I think too you need to realize Houston's kind of, you know, the boosters here always talk about Houston being unique and I totally agree with them. Where else are you going to get this massive amount of petrochemical refinery capacity, you know, anywhere else in the world? And you know people breathe approximately 20,000 quarts of air a day, but it's all involuntary so we don't think about it and we just breathe. But when you have a problem like asthma where you can't catch your breath then you start realizing just how important it is to breath because without oxygen two or three minutes you're dead. You know you can go what, maybe three four, maybe even a week without water. Maybe you can go 30 days without food, but without air you're out of business right away. So you know we—we seem to have a lot more children and a lot of other people developing asthma that just have never had these problems before and—and I know a lot of parents, you
00:02:47 – 2281
know, because I've spoken to parents and they say yeah, my—my child has asthma. My child, you know, has to take something every day, you know, to—to help them catch their breath or if they have an attack or something. So—and I just don't believe that what's being emitted by a lot of these large facilities is particularly a beneficial thing to take in. I think that complicates the whole situation and the scientific research seems to indicate that also. So I—I—I feel like I'm on pretty firm ground to say that air pollution hurts you and, you know, the more we can reduce it from my standpoint the better off we are. That's why I like command and control versus these economic arguments like s—you know, we'll put a price on pollution and everything. Me, I just want to say here's your limit and if you've got a stack you've got to reduce it to that limit. It seems like that's much easier to do than talk about something that's worth 50 dollars a ton and that this guy can reduce it or this guy can pay some other
00:03:57 – 2281
guy for the amount that's he's reduced so he doesn't have to reduce it. I mean think about the economic and the environmental unfairness of it all. If I lived next to a facility and this facility doesn't want to reduce its SO2, for instance, okay, and buys a credit from somebody else who's reduced that SO2 that person sitting there is stuck breathing that stuff. Why should they be forced to breathe that? It seems to me a basic tenet—a basic right everyone has is to breathe just to live. So those economic mechanisms of reducing air pollution I don't like them. I'm an old throw back. I like command and control. Put a limit on that sucker and then I can test it, then I can see if it's there. If you have mumbo jumbo about paper and you bought credits and everything for an investigator it's very confusing trying to figure out whether you have met your cap or not met your cap; those kinds of things. So for me I prefer simplicity. You know I always tell an e—I always tell companies the worst thing you
00:05:03 – 2281

can have is a confused investigator in your facility. So whatever you do make sure it's simple so that we can understand what it is you're doing because you don't want an investigator who's confused about what it is you're doing. And so I think these economic ways of reducing air pollution are very confusing, at least for me, and it's much easier just to put a limit. And besides that I think we should maximize pollution reduction. So far we haven't found any limit that is good for you and so I think it's better to err reducing it than to err and say well, let's let them put a little bit more out. That seems to be going in the wrong direction for me.
DT: Do you think that there's no safe level and that zero is generally best?
00:05:51 – 2281
BM: I would say as close as you can get to zero in my opinion is that's the way we ought to go because see I don't have a choice. I have to breathe the air whatever it is. So if you're putting that stuff out there and you're doing that because you don't want to pay the cost of—for the air pollution contripment to control that. I don't have a choice. I've got to breathe your trash and so I don't think that's fair. To me that's an insult, a nuisance, a trespass on the air, which is a common good type of resource and so everybody deserves clean air from the poorest person to the richest person in River
00:06:33 – 2281
Oaks. And so it shouldn't be based on where you live and what facility is next to you. So—so while technically that's difficult to do and in some cases that may be very hard to do. I think we should strive to go in that direction because I'd like to have zero emissions and I'm visionary enough and romantic enough to believe we can do that eventually, but we won't if we always make excuses and say well, you can buy your way out of this. Why do we put a price on air anyway, you know? I mean it's priceless. I mean you can't live without it so why would you want to filth it up? So that's just my perspective.
DT: Do you have a philosophical problem with the idea of having a air pollution permit?
00:07:22 – 2281
BM: Yeah, well, I understand why they have permits. It's basically to say what are you putting out and authorizing you to put out something. And so I don't particularly have a problem with permits. What I have a problem with is a lot of permits are not stringent enough. They're written such that it's hard to enforce them to make sure that someone is in compliance with them. They're, you know, maybe they need to be a little tighter here and there and permits get renewed once—once every 10 – 15 years, whatever the time period is, so that's not very often to—to do that. And my own feeling is, you know, I mean we're talking about people's health here; people's lives.
DT: So you don't see the right to pollute as some sort of property right that…
00:08:21 – 2281
BM: No, I—I do not. I mean, you know, why does someone have a right to kill me or to wound me or to hurt my child, you know? I don't think anyone has that right and I consider it an assault on your body, you know, from my perspective and realizing that nothing goes to zero overnight. I'm not saying that it—tomorrow it should be zero and we should shut everything down, which is always the response you get. Well, then you want us to just shut down. No, I never said that, you know, I—I don't have a problem if the refineries stay here, but on the other hand they need
00:08:59 – 2281
to be good neighbors. We're part of a community of life and so as a result if they're my

neighbor and actually they're neighbors to all of us because their air pollution goes all across this—this great big city of ours. They need to act that way. They need to take some ethical responsibility for their actions. It's not just dollars and cents. It's people's lives and their health and their lifestyles and their quality of life. So I—I believe that they have that responsibility regardless of what their stockholders say.
DT: What if you did put a price on air? What if the companies were assessed to have to pay for a pound of air or a ton of air they contaminated? Would that be an economic way to force them into certainly having to cut their pollution?
00:10:15 – 2281
BM: Well, obviously in economics all of the professors, all the people who are economists say we have externalities and—and the ideal thing is to take all those externalities and internalize them within your—your economic system so that it's as perfect as it can be. So what you're talking about is one way to address that. Maybe that will—will work and maybe it wouldn't, but we're not doing that right now or even approaching doing that, you know. The air is considered free and so you can dump trash into it and—and—just from a philosophical standpoint, you know, as much as possible I think we should dump as little trash into our air as possible because we've got to breath it. We don't have a choice. And since we know that putting that trash into the air can hurt people then I think we ought to do as little of that stuff as we can so that, you know, we minimize the risk to everybody and, you know.
DT: Do you think that the improvements through regulatory programs that would allow plants to improve and make themselves more efficient and presumably cleaner that I think the Bush Administration is seeking to do through the New Source Review would outweigh the pollution that's created with the more efficient plants or what do you think the case would be?
00:12:05 – 2281
BM: I don't know it sounds—sounds like voluntary grandfather permitting again, you know, I mean just because you increase your efficiency doesn't necessarily mean you're not going to generate more pollution. I mean the—the two aren't inextricably linked, you know, you can put another unit, it can be very efficient but when added to the other two units you've got more pollution. So the New Source Review modifications that you're talking about that EPA recently approved I think in August of this year are, you know, basically have torn the guts out of the Clean Air Act, you know, because if you can as you go along reduce air pollution by making new sources use the best that you can find you—you're going to have a deteriorating air quality situation over a period of time. I mean basically what they've done is—is said you
00:13:01 – 2281
can almost do anything to your unit and not call it a new source, you know. You could replace a unit, an old grandfather unit, piece by piece and if that took three years fine you could replace it and you wouldn't have to put c—controls on, you know. So it's kind of scary what—what they have approved and I'm—I'm praying that people will sue over it and that we'll, you know, get a hearing in court and that we'll see whether that is in fact the case. A law professor at University of Houston and—and several of his colleagues across the nation decided that they would submit their own comments on New Source Review and—and work independently and—and then as a whole submit all their comments and they didn't. They all came to basically the same conclusion that what has been approved by EPA is

illegal under the Clean
00:14:02 – 2281
Air Act and just from a statutory reading of the act and they had other reasons to—to think that New Source Review as was approved won't work. But just from statutory what they talk about no increase or any increase they said it's illegal to do this. So why is EPA being an illegal agency? Why—why are they doing illegal things?
DT: What do you think the compulsion is?
00:14:33 – 2281
BM: Well, the compulsion is obvious that—that, you know, we have a captured regulatory agency. The—the industrial polluters will benefit by not putting on pollution control equipment, by not going through New Source Review, have the ear of the President and his cabinet. And the President and his cabinet have made a decision that they are going to acquiesce to those people for whatever reason, whether it was from political contributions or just because that they have a similar mindset as those people. And so they decided to hell with the law and to hell with what's legal. We're going to do it and if you don't like it sue us. And that's happened so much with a—an individual or a person who's representing a environmental organization. We have lawless agencies. That's what I call them because so many of the agencies
00:15:30 – 2281
knowingly break the law and when you tell them that they're breaking the law and you tell them what the law is and you tell them what the regulation is their response is so what, sue me because they know most people don't have the money or the organization to sue them and they know that they have a good enough chance in court, it's a crapshoot sometimes, especially when you put people in positions of judges who have little experience dealing with pollution cases, which can be very different and kind of, you know, require you maybe to think a little bit out of the box sometimes. They feel pretty comfortable that, you know, most of the times you're not going to sue them and if you do well we're the U.S. Government, we've got
00:16:27 – 2281
attorneys, we've got money, you know, we'll do everything we can to make sure this runs up the expense on your side and delay and file extra motions and all this kind of stuff to where, you know, what chance do you have? It's—it's—it's relatively small. So I think we have a lot of lawless agencies today. In my opinion we need laws that basically put a lot of the agency people in jails that have the agencies.
DT: What do you think of the threat of CO2 emissions that many scientists believe are causing climate changes?
00:17:31 – 2281
BM: Well, I—I think Kyoto is—is not a particularly wonderful protocol in the first place. Its—its got a lot of holes in it, but it you know it was a beginning, you know, back in—when it was—97 when it was approved. And the whole idea was to get your—kind of your toe in the door and then gradually over time you talk to other countries and—and—and you improve on the protocol. People start opting and then say yeah, we're going to reduce our carbon dioxide emissions or whatever and gradually you get a better mechanism and you start reducing more. I don't know. The thing that convinces me most that—that—I mean to me there's no doubt we have global warming, but the thing that convinces me most of that fact and also that, you know, we're contributing to that is first the almost, not total but I

would say 99
00:18:27 – 2281
percent universal agreement scientifically of that. There's a few naysayer scientists but it's kind of strange that they're held up as being an equal side to like 99.99 percent of the people. Other scientists on the hand who say yeah, we're in global warming. But I think the things that are happening at the poles are particularly interesting, north and south poles. The—the melting of the glaciers all across the continents, the ice sheets breaking up that have been intact for, you know, as long as human recorded history or whatever, you know. I mean something is happening, you know, and it's kind of obvious. They're finding species of plants and animals that seem to be migrating, you know, north you know, which would make sense as far as global warming goes. They're finding tundra that doesn't quite really permafrost anymore. You—you know something is going on and it's sad that—that we won't
00:19:37 – 2281
accept the responsibility because the U.S. along with China I think are—are the largest emitters. And, you know, we use, what is it, a fourth a third of the total resources in the entire world, you know, we—we're the energy hog. You know, we got the Cadillac and everybody else has the Iseta, you know. So you know it's kind of up to us to show the way. I mean why—if I were China why would I reduce my emissions if the U.S. isn't going to show the way, you know. And China wants to burn more coal and coal is one of the dirtiest fuels you got, so you know, make it worth my while. Show me how to do it and assist me to do it and maybe I'll be more w—you know, willing to put out the effort. So I don't think there's any doubt that, you know, we put ourselves in a corner and if we wait another four years I think we're going to have even less opportunity to sort of reverse ground and—and do something of significance to—to reduce the problem. But you know a lot of
00:20:49 – 2281
scientists are saying it's already happening and you can't stop it now. In other words, whatever it's going to do is already in place. We haven's seen it played out fully yet, but that temperature rise that they talk about, 10 degrees 5 degrees whatever it is you know, all you can do is keep it from getting worse than that, you know, because that's already going to happen. And that is frightening to think that, you know, we may be heating up the planet that much to where, you know, we're going to lose most of the poles, which means then we're going to raise the ocean levels, which means you can kiss Florida good bye, you know, among other places. Maybe Jeb Bush won't like a smaller state. I don't know, but any rate so, you know, that is of concern.
DT: Before we move on to another topic is their anything else you'd like to say about your air quality interests and work?
00:21:52 – 2281
BM: I guess it's just the reason that I work—have worked for the city for almost—well next year will be 29 years, is because I always felt—wanted to be a public servant. I always wanted to help people and that—it seemed to me that—that working as an air quality investigator was one way that I could physically, you know, do that, you know, actually put my hands around helping people, you know, because I could actually say well, they did that because I called them on it, you know, and that means that that's not in the air anymore. So—so for me I guess that's one of the things that's kept me going is that, you know, I mean who else is going to protect the

00:22:46 – 2281
public if not government sponsored agencies specifically set up to do that because industry is not going to do it, you know. Their highest calling is to stockholders and to the highest amount of money they can generate in a quarter or a year or whatever. So we already know laissez-faire doesn't work, you know, we had that in the early—late 1800's early 1900's. That's why we've got a lot of the child labor laws and you know food safety laws and everything. We know if left strictly on their own industry will—will not do the right thing because that's not why they're set up.
DT: Have you had to overcome some supervisors who have been in disagreement with you during your career?
00:24:16 – 2281
BM: Yeah, well I've been punished for—for my activities outside of my work for the volunteer work for the Sierra Club or just on my own. I mean I once had a Bureau Chief who wanted to fire me because of my Sierra Club activities and I outlasted him; just got lucky. Had a—had a protector within the city who was bigger than he was and some people were afraid of that person and—and I—I managed to slip kind of, you know, in between the blockers, you know. So—so I lucked out, but I—I have been punished for my—my efforts. I've been told that I don't have good judgment. I've been looked upon suspiciously because I speak on behalf of the Sierra Club sometimes in public at public hearings before the state on air pollution matters. And—but when you're in the job itself dealing with compliance you've got to deal with what rules and laws and regulations you have. You can't create new ones. So I
00:25:30 – 2281
don't personally see a conflict there, you know. I mean when I go out to a company I don't create a new rule and say gotcha. I can't do that. My supervisors wouldn't allow me to do that anyway and I don't want to do that. You know I have to use what's on the books. But there isn't a lot of passion in many of the agencies. I mean people don't think of these jobs as like gee, I want to help the public. They think of it oh, I got a job, thank goodness, you know, and I can understand that, but.
DT: It's not a job for kind of missionary zeal?
00:26:04 – 2281
BM: Well, I think it is a good job for missionary zeal but unfortunately the people in charge don't necessarily feel that way. I mean you always have to be fair, you know, you don't want to issue a violation to an industry that they don't deserve. I don't want that anymore than the industry does. On the other hand, you know you've got to call it the way you see it, too. And you know with our agency, you know, I don't just call them. My supervisor looks at what I do and I ask him to look at what I do and we go to the TCEQ and ask them to look at what we do because I sure don't want to be wrong, you know. If I go to a company I want them to understand that I know what I'm talking about. And if I say I see something that I perceive as a problem then I want them to be concerned and to have at least enough confidence in my abilities to where they'll say okay, well let's look at this.
DT: I understand about a quarter of the air pollution problem in Houston is the vehicular traffic and I know you've commented on a lot of the transportation proposals that have come up for the city. Could you give a little bit of history to some of these projects and your comments on them?
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BM: Oh we've had 50 years to build a—to succeed with freeways to reduce congestion and air pollution and we haven't succeeded, you know. I'm always amazed that Texas Department of Transportation will say well, when we build this freeway expansion, you know, it's going to reduce air pollution. And in the first place I don't think it ever will, but let's suggest for a moment it did. Well, within five or ten years it's congested again with more cars so that means there's more air pollution. So long term they don't ever look at that, you know, and how that affects people. And you know again there have been studies that talk about people living next to freeways and—and the effects that air pollution has on—on those people, the health effects. So we—we—we know there's a problem there. In Houston, though, I've got—got to say that, you know, overwhelmingly industrial emissions are—are the biggest problem, but that doesn't mean that we wouldn't have hot spots generated by traffic, you know, and also the other thing is when we measure ambient air we're not measuring at the breathing level. We're measuring elevated. So if you're
00:29:14 – 2281
standing at a bus stop, let's say for instance, and cars are going by, nobody knows what you're breathing in at those levels because no one is measuring that, but I can guarantee you're getting quite a hit, you know, if you're standing there in traffic w—waiting for someone or for whatever reason. Maybe your car broke down. They've also found that—they've done studies of—inside vehicles and they found very high pollution levels inside of vehicles and that makes a lot of sense because vehicles aren't perfectly sealed and so emissions can get inside and when you're in traffic you've got not just your emissions, but the emissions from the guy in front of you, both sides of you and behind you. So it kind of makes sense that, you know, you would get high pollution levels inside of your vehicle too. And—and so from my standpoint putting all your eggs in one basket, which is expanding freeways, you know, hasn't worked. So we need something else and a lot of freeways seem to be built to encourage development not necessarily to help traffic congestion even though
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that's the purpose that's stated. So it's going to be very interesting to see what happens in a couple of weeks when people vote on the metro rail, at least the next small step on it, because if that fails then, you know, again we'll be one to two decades behind everybody else in getting another opportunity to do something other than building freeway lanes, not that rail itself is going to do anything, you know. I mean basically TxDOT needs to tell people no matter what we do you're going to have congestion, a certain level of congestion. And you may not like that, but that's reality because we can build freeways from now until dooms day and the reality shows that when you build a new freeway or you expand it w—what they call latent demand, which is just everybody going oh, they expanded the freeway, I think I'll use it; fills up the freeway. So you know it's sort of a never ending sort of thing, plus you know, when we have a growing population and when people drive more, you know, I live maybe ten miles from work. A lot of people live 20, 30, 40 miles from work and
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so they commute back and forth every day. We're driving a lot more than we used to and so even though vehicles may put out less air pollution than they did 30 years ago the amount of extra distance we're driving is kind of like taking away that advantage. So—so we're generating at least as much if not more than what we were doing before because we're driving more and there's more of us driving. So you know I—I—I see it as a battle we can't win basically unless we are willing to live closer together, tolerate each other and—and are

willing to—to take the inconvenience of not jumping in your own car and going anywhere you want, but maybe going with other people to your location either on a bus or a van pool or a rail or whatever.
DT: One of the other forms of transportation that you've commented on was the West Side Airport that was proposed for a location near Katy and in the prairie. Can you explain what the issue was there and how you managed with others to sway the city from building the airport?
00:33:08 – 2281
BM: I wish I could say I swayed the city but I didn't but any rate about—about '86 a group of developers basically sold the city on the idea of—of building a fourth airport. We have three airports. We have Intercontinental, we've got Hobby and we've got Ellington, but a fourth airport on the west side because they said well, we have all this growth on there and, you know, we—going to need it for both commercial purposes and also for private purposes. And this is in an area called the Katy Prairie, which historically was a fairly large swath of coastal prairie with tall grasses and—and now has been kind of chopped up. It still is a wintering area for—for many ducks and geese and another water fowl, a lot of wading birds, a lot of other wildlife. And so there's been a recognition that the Katy Prairie is disappearing and that environmentalists or somebody needed to try and protect some of it. the West Side Airport was a threat because, you know, when—when that airport went in—if it went in then you'd have development coming out from it and that would further
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fragment the Katy Prairie. So basically we had about a—almost a 15 year effort to—to stop the airport and it—it appears that that particular location the airport is dead. Unfortunately, Waller County just a little bit farther over is wanting to put in an airport, which could have similar impacts. So although we beat that one it looks like, you know, son of West Side Airport has—has arisen and that's the problem you have with all these development projects, you know. If you beat them you do it f—temporarily and then somebody comes up with another one and then if you lose well, that tract of land is gone forever, you know. I mean how many—how many shopping centers you know have been plowed back up and planted to trees and birds and, you know, plants and all that kind of stuff? I—I don't know of any yet, but—so when
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you lose you lose permanently and when you win it's a temporary gain. And even if you protect an area if development occurs all the way around it now we found out that we have all these impacts of that development that occurs around it that affects that piece of property right there, you know. These—the fragmentation effects. The effects of feral cats and dogs coming into a nature preserve and—and killing all the birds, you know, ground nesting birds and things like that. So—so even when you protect something it's not necessarily protected, you know, other things affect it that are on the outside but—but can affect it on the inside.
DT: I was wondering if you could talk a little bit about your efforts in assuring that this legacy of forest in East Texas is being maintained.
00:36:43 – 2281
BM: Well, Big Thicket National Preserve, you know, it's kind of interesting, I've used this term several times now, fragmentation, it's the perfect example of a—a preserve that—because it's disjunked, it's scattered across a large area is now coming under a lot of

pressure from—from highway development and—and the commercial and subdivision development that—that stems from highway development. So even though we have corridors protecting, you know, certain par—rivers in the Big Thicket and we have certain plots of land in the Big Thicket that's protected, now we're getting development around those. And—and part of what's happening is forest lands that used to be owned by large timber companies like International Paper and Louisiana Pacific are selling literally millions of acres now, you know, getting out of the business saying, well we're going to go to Peru. We can grow trees quicker and better and cheaper there anyway. And so they're getting out of East Texas and
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they're selling the land and—and the concern is that land is going to either be subdivided into ranchettes or regular subdivisions or you're going to have groups like, what do they call them? They're groups that basically manage land for other investors and the idea is they're going to intensify that—that level of—of forestry and basically pull everything they can off of it and then sell it, you know, for real estate. So that's happening right now, so—so Big Thicket is threatened by that and it's also threatened by oil and gas drilling because oil and gas drilling is still allowed in Big Thicket National Preserve. It was one of the compromises that was made and the Bush Administration has reinterpreted its own rules concerning oil and gas drilling to make it easier to do now and—in and or adjacent to Big Thicket National Preserve. And so I spend a lot of effort in the past year or year and a half dealing with that, but you're right. Big Thicket National Preserve in comparison to Sam Houston National
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Forest is much more protected. In Sam Houston National Forest where I'm the—I'm the forestry chair for the Houston Sierra Club, you know, logging is a way of life basically and basically runs the entire forest. And this is the largest piece of public land in the Houston area, you know, it's a hundred and sixty three thousand acres and that's not altogether. Again, it's kind of disjunked, but it's a real jewel. There's a lot of really important areas there; rare species, really nice bottom land hardwood forest, just some really neat areas. And a lot of people don't—still don't even know about it even though it's 50 miles north of Houston a lot of people don't even know about it. But it—it's so critical because it protects the upper watershed of the San Jacinto River or at least a portion of it. And where do we get our water from? Well, a lot of our water comes from the San Jacinto River. Lake Houston and Lake Conroe are both
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dams on the San Jacinto River. If we degrade that watershed up in Sam Houston and around Sam Houston then we're going to degrade our drinking water quality. It may get more expensive to treat that water. So—and originally it was set aside in the 30's to do just that; to protect those upper watersheds just like in many other states across the U.S. the same thing happened, so.
DT: We were talking about the management of the Sam Houston National Forest and how it's important that it be protected because it's in the upper reaches of the watershed that provides our drinking water here in Houston through Lake Houston and Lake Conroe, but as I understand it Sam Houston National Forest is under other pressures including paper pulp production and I was wondering if you could talk about how those pressures have changed the nature of the landscape there?

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BM: Well, basically in reading Forest Service documents and reading other sources of information it appears that Sam Houston was mostly Loblolly Pine ecosystem and some Shortleaf Pine ecosystem. Exact proportions are really unknown because, you know, back in the 30's no one was like taking down real precise measurements and doing ecological studies.
DT: It had been cut.
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BM: And it—well, you have to remember we have trees that are over—yes, it had been cut, but we have trees that are over a hundred years old today in Sam Houston. The only way—that mean they were 30, 40 years old at that time, so—so yes the—most of the quote "virgin" trees had been cut, but it wasn't necessarily denuded totally. There's a lot of second growth, a lot of original growth that was young at the time when the—the larger trees were cut. So the Forest Service would like to make you think that there was a bare table and that they came in and planted everything and, you know, these are the beautiful forests they created and in some cases that's certainly true. But in many cases it was the—the trees left that weren't considered commercial enough at the time, you know, to those who cut and got out that were left to create the forest we have today. And so what we have today is the Forest Service basically managing our 163,000 acres of national forest as a pine plantation basically.
00:43:09 – 2281
From the very beginning usually they machine or hand plant pines that have been grown in nurseries to be genetically very similar to each other with the same characteristics of fast straight growth and that sort of thing. And then after about 10 years or 15 years when they get large enough to burn they start burning these pines to reduce any sort of hardwood competition because the hardwoods compete with the pines obviously for growing space and so if you want to grow just pines because that's commercially profitable then you want to get rid of as many hardwoods as you can. And then they'll be one or two pre-commercial loggings of the area called thinning and then when they get large enough in size they'll do a couple of commercial thin loggings. And then they'll either clear cut it or they'll do what I call a two stage clear cut, a C-tree cut, which is where you cut everything except a few
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trees per acre, maybe 8 or 10 an acre and let them seed in and then you can either leave those trees or you can remove them. And so that's—and then you burn in between, you know, and so we—if you do that you'll constantly have the pines being favored over the hardwoods and so you'll get a mostly pine forest. And from what I've been able to determine in my research yes, there are a lot of pines in the original forest, but there are also a whole lot of hardwoods. And in fact in a number of the areas the—probably the hardwoods dominate it, but today it's really hard to find a part of the forest where hardwoods dominate with the exception of a few of the—the bottom lying areas along the east or the west fork of the San Jacinto River. So basically the Sierra Club has been trying to get the Forest Service to—to manage in a
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different way. The Forest Service actually has some very good documents dealing with the ecological classification system and this is what they did was they hired the Nature Conservancy and Stephen F. Austin University and said, tell us what originally was here as

far as your—your different types of—of forests. And they went out and they looked at the soils, they look at the topography, they looked at lots of different things and they said well, this is what we think was here and these are the types of vegetation that would grow here if, you know, if this forest is growing here, and this is how often fire would occur here. And the Forest Service has basically ignored that information. So for instance, in—in many Loblolly Pine ecosystems fire
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would occur every 10 to 20 years. Today they burn these ecosystems every two to five years; a much greater frequency. They also grow—burn them in different parts of the year. A lot of times fires occurred late spring, early summer. A lot of times they'll burn them during the winter. You get a different kind of burn during then. You get a hotter burn during…
(Misc.)
DT: Let's pick up where we left off.
00:46:41 – 2281
BM: So—so basically what's happening is the Forest Service burns more frequently and in different seasons than it used to and that affects the vegetation, what will naturally occur versus what they want to create, which is basically more habitat or—or more conditions suitable for growing commercial pines. And so we'd like for them to grow things more like they used to grow and—and let those forests develop like they used to develop. And so that's our basic philosophical conflict with the Forest Service is—is—is that problem with, you know, growing things commercially versus growing things ecologically.
DT: Why does the Forest Service feel pressure to operation the national forest commercially when there are a lot of recreational habitat values that are recognized as part of their multiple use mandate?
00:47:41 – 2281
BM: Well, it's particularly puzzling in Texas because, you know, Texas is a private land state. Ninety seven percent of the—the land is—is privately owned and I think the National Forest in East Texas are like five percent of the—the land area. And—and so you have a lot of forest that's privately managed for logging for commercial trees, so it's not like we have to do that. But you have to look back at how the Forest Service began, you know, in the early—late 1800's early 1900's and—and there was a very concerted philosophical feeling that, you know, we needed to use these resources and kind of maximize our use for the greatest good for the greatest number over the longest period of time. That was Gifford Pinchot's sort of philosophy and the Forest Service has always been very much into the utilitarian sort of got to use it or, you know, or somehow we're not, you know, it's not functioning right. It's not
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doing us any good and those forests actually do us good just sitting there, you know. We get oxygen from them. We get clean water from them. We get wildlife from them. So those forests are working, you know, they talk about the working forest, which means that they log it, but those forests are working 24 hours a day without our help, you know, so. But any rate the Forest Service has this bent, you know, and it—and it's kind of interesting because in the early time periods like the early 1900's the—the—the timber barons at that time hadn't completely cut out all their stuff and they actually went to the Forest Service and said hey, if you start logging a lot you're going to compete with us and you're going to drive

the prices down, so how about not doing that. And until after World War II that's basically—the Forest Service did log some but it was a very relatively small amount and it was very custodial in—in its sort of management. But after World War II people want houses, baby boom, you
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know, everything is growing and everything. The Forest Service and also the big timber companies had basically cut out everything that they had and they came knocking and said Forest Service we need to have access now, you know, we cut all our stuff. Now it's going to take us 20 – 30 years to re-grow our stuff so we need your stuff. In other words, the public stuff now. And the Forest Service was very much in favor of that and it has been that, you know, ever since that time. So—so it's a culture, you know, a timber beast—what I call a timber beast culture, you know. They don't perceive it that way, but you know, I've never seen so many different ways to log that's good for everything. You know we log for wildlife, we log for recreation, we log for scenery, you know, everything has a solution that deals with logging and it—it's pretty amazing to me, but that's kind of the state of—of your typical forestry, you know, today and the—the way the Forest Service practices it.
DT: Does the Forest Service and the public treasury make money off of these commercial log sales?
00:51:05 – 2281
BM: There have been a number of reports, some by the general accounting office and—and some by like the Wilderness Society and other organizations that—that seem to indicate that the Forest Service on its timber budget and—and its overall budget is—is losing money, okay. In other words, we're cutting our public forest but we're ac—we're not even making enough money to—to pay for that. It's actually costing us money. The Sierra Club did a study a year or so ago where they—they included not just the normal cost of—of logging in it, but you know the damage you would do to—to water and to wildlife and everything. And we tried to get a, you know, a vague idea because—because these figures aren't—the Forest Service doesn't keep these figures or anything so we had to sort of make some assumptions
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and everything. And it seemed very clear to us that the Forest Service in Texas—the U.S. Forest Service was operating, you know, at a minimum 20 – 30 million dollars in the hole, you know. And perhaps even a lot more than that if you, you know include some of these other values like, you know, watershed and other things, you know, clean water, you know, a cubic foot of clean water versus water that's dirty or that you have to treat, you know, has a value. And so we tried to put a value on that because the Forest Service has not. For the Forest Service that value is zero, you know, because they don't include it in their costs calculations. So—so it appears to us that in—in Texas and in other places across the U.S. with National Forests that by—by just regular accounting principle record keeping that—that they're losing money.
DT: Can you talk about the effort to protect the habitat of the Red-cockaded Woodpecker?
00:53:20 – 2281
BM: Well, that's one where we won and lost. We won in that in 1988 when we—after we had filed a lawsuit a year or two before we won a judgment against the Forest Service. It basically said they were clear cutting the For—the Red-cockaded Woodpecker to extinction, you know, ba—basically that was the outcome in which directed the Forest

Service to—to change its way of—of logging the forest to protect the bird. And what's happened since then is the F—what the Forest Service has done is created a—a commercial logging program—program that basically also will support a population of Red-cockaded Woodpeckers. So instead of getting the Forest Service to kind of change its management and sort of let—let nature sort of recreate what used to be there we—we've got an—a very artificial—what—what a friend of mine calls woodpeckers zoos. And—and basically it's a situation where they manage
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extremely intensively where the woodpeckers are. Kill all the hardwoods—it just happens that, you know, when we kill all the hardwoods that's good for the woodpeckers and—and just happens to be good for commercial logging too and—and do all this burning at a very high frequency and everything and all of that is being done supposedly to protect the woodpecker. And—and from our viewpoint some of that may be appropriate, but certainly not in the intensity and not in the manner it's—it's being implemented. And basically, you know, I mentioned that there are about 163,000 acres in Sam Houston. About 110 to 120,000 acres of that is dedicated to this intensive management for the Red-cockaded Woodpecker that's basically from our viewpoint commercial timber management. So we theoretically stopped the woodpecker from going extinct, but currently the management that's being done we
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feel in the long term is going to really hurt the woodpecker. Short term there's been some ups and downs, some increases and some drops. But what we're concerned about is they're cutting a lot of the old trees and the old trees are what the woodpecker really needs. And we feel like in the future there is going to be a time period when there's not going to be enough old trees for the woodpecker and that—that's going to cause a real—real problem for that bird.
DT: Can you talk about the effort to press for better management of the National Forest in Texas?
00:56:14 – 2281
BM: Well, we actually filed a l—lawsuit or—or I guess it was—it was sort of an outgrowth out of the Red-cockaded Woodpecker lawsuit and basically we—we went into court and said that—that the Forest Service by using clear cutting or—or its variance, which would be like C—C-tree cutting, which I mentioned before or Shelterwood cutting, which are two stage clear cuts, was reducing the diversity of the forest and in—and also that the—the National Forest Management Act requires certain types of monitoring and inventorying of rare or sensitive species so that you can tell well, is what we're doing having a negative impact on these or—or is it having a good impact on these or does it matter. And the Forest Service wasn't doing that and so our lawsuit dealt with that and we won at the district court level. It was
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appealed by the Forest Service and timber companies to the 5th Circuit. We won before the three judge panel and then lost before the entire 5th Circuit court. And recently in July the district court judge dissolved the injunctions that were in place due to the Red-cockaded Woodpecker lawsuit and he also indicated he was going to take care of the injunctions dealing with this particular lawsuit also. So we've kind of come full circle from—from 1987 or 6 when we first filed the lawsuit to 19 or 2003. You know we—we did a lot of good for it,

we held the Forest Service in abeyance from doing additional logging, but now we don't really have the lawsuits in place that can kind of act as a damper against more logging by the Forest Service of Sam Houston and the other three National Forests.
DT: It sounds like the Forest Service could use a few more employees who cared about the forest the same way you care about the air over Houston.
00:58:55 – 2281
BM: Well, I—I think again the Forest Service grew up kind of in a—some what a partnership with the timber industry. Most of the forestry schools are—are, you know, their focus is on growing and logging trees and so the people—young people who come out that's the education that they get. If you internally, within the Forest Service—if you're not of that mindset it's a very rough road to hoe. I mean there's a entire organization—what's it called? Forest Service Employees for Environmental Ethics that was created back in '89 by Jeff DeBonis to—to speak to people who felt like the Forest Service was off track, was emphasizing the timber part of its job over everything else way too much. And that organization exists today and still helps and assists Forest Service employees who get into trouble because their supervisors don't like it when they say well, wait a minute the Endangered Species Act or the National Forest Management Act or the Clean Water Act or whatever act it is says that hey, we
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shouldn't be doing this. We need to change. And so some of the times these people become whistle blowers and—and (?) particular organization assists them with attorneys and other things to help them fight their cases. But it's—it's very difficult and some of the people in the Forest Service are very nice, you know, but they spend all their time assisting the Timber Management Program and not necessarily doing the job you would normally think they would do. You know a bi—a biologist you would think would go out and study animals and figure out how they're doing and gee, what could we do for these but that biologist is usually doing things to assist the Timber Management Program so that it can get its projects approved via the National Environmental Policy Act and so doesn't spend a lot of time out there, you know, studying those animals. So—and the same with a hydrologist or same with, you know, other of the ologists that are out there, you know, botanists and stuff like that.
01:01:29 – 2281
They had a case I think it was in North Carolina of a botanist who—who was finding rare plants and causing problems for the Forest Service Timber Program and what they told her to do was go do your surveys in the winter and she quit because she couldn't ethically, you know, operate in that manner and—and that's not the only time that's happened. Its happened many number of times. So—so there are difficulties wi—stresses and strains within the Forest Service of people saying hey, maybe we're not going in the right direction, you know, why—why can't we change in—in resistance to that?
[End of Reel 2281]
DT: Could you try to help us understand this phenomena of the Forest Service where the fox is sort of watching the hen house if that's a fair analogy?
00:01:50 – 2282
BM: Well, I—I think too, agencies eventually have people in a university study agencies, especially regulatory agencies and what they found is over a period of time they have a tendency to be captured by the people they regulate. A good example is the Federal

Communication Commission, which is supposed to manage, you know, our air waves, you know, for the public good, but which is basically giving away our air waves to very large corporations to commercially make money off of us with our air waves. So it's not unusual for that to happen. I guess in the case of the Forest Service natural resource agencies, and this includes agencies like the Corps of Engineers also, a lot of the laws may not be as proscriptive as environmentalists would like. And the reason we like them proscriptive—we were talking about command and control, you know, talking about a smoke stack and saying you have this limit of a pollution coming out and that's all you can have. We like it proscriptive because there's your target. It's hard—it's easy to understand, you've
00:03:26 – 2282
just got to do it. When environmental laws are—say you need to do something but don't really say how to do it or fully explain what they mean by doing it then it—it's very flexible and the Forest Service is very good about doing whatever they want to do and—and using the law as an excuse. A good example is National Forest Management Act, which talks in many places about monitoring and inventorying, but the Forest Service twists that in its own manner so that its (?) monitoring and inventory basically says it doesn't have to monitor and inventory. So when Congress isn't proscriptive and the agency has to write the rules and the regulations you can get a big disconnect between what Congress intended versus what the agency is going to do. And so—so that's one problem with—with the Forest Service is, you know, we'll—we'll point out these inconsistencies to them but it doesn't seem to matter.
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They—they ignore you. They say comment noted and do whatever they're going to do and that's—that's real difficult for a citizen because you know your only alternative after you go through the administrative process with the Forest Service that has to do with when they propose a project, you know, so many comments for scoping when they have an environmental document that comes out a draft document submitting comments for that. When they finalize the document and have a written decision appealing that and then you go through all that and they basically ignore you the whole way your only choice is to sue or just allow it to happen and, you know, that's all you can do. So that's—that's a big hurdle for a citizen to have to deal with is the agencies basically ignoring citizens and—and instead of being public servants basically saying we know what—we're the experts, we know what to do, get out of
00:05:55 – 2282
our way, if you don't like it, tough. So—so that—that's sort of been my experience with the Forest Service in—in many cases. A good example is the—what the Bush Administration calls the Healthy Forest Initiative and we call it the Unhealthy Forest Initiative. In Sam Houston National F—Forest there's a pilot project to streamline the environmental assessment process under the National Environmental Policy Act so that it can be done quicker—the project can go through quicker. In streamlining what they've basically done is reduce public opportunities for participation. And currently in that particular project, which the comment deadline has just ended and the Sierra Club submitted 43 pages—written pages of comments and—and additional about a hundred two hundred pages of attachments to document our assertions in the
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comments. The Forest Service is basically going to burn eight thousand acres every two to

five years and log about four thousand acres. And they say that this is—has no significant environmental impact, which is just an absolutely incredible statement to—to make and so, of course, we're contesting that.
DT: What do you do about the big lie? I mean where it's not just inaccuracies but it's an entire fabric that's…
00:07:34 – 2282
BM: Of lies. Well, I—what I wanted to say too, and I meant to say this back when we were talking about air pollution, but I have come to view my role as an environmentalist as an enabler s—a citizen who enables lawsuits. And by that I mean if you don't participate in the administrative process the federal court system has decided that if, you know, i—let's say the Forest Service makes a proposal and you don't comment throughout the process wherever you have that opportunity, the court system has decided that you don't have the right then to take your concerns to court because you didn't err them during that administrative process. So I have tried to involve myself in many administrative processes; road projects like the Grand Parkway, the Unhealthy Forest Initiative stuff, Big Thicket oil and gas drilling, the
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state implementation plan to reduce ozone exceedances for Houston. And the reason—one of the reasons I've done that is my hope is that at some point someone will want to sue and when they want to sue they will have someone who has participated through the entire process and I can act as the enabler of that lawsuit. And that has—in recent years that has I think partially allowed us to sue on the state implementation plan for the Houston area because of my participation on behalf of the Sierra Club and also I think its enabled us in some of the forestry lawsuits to—to participate. So it's one of the things that keeps me going because, you know, I keep beating my head up against the wall administratively because there's no winning, you know. I mean every once in a while the Forest Service will withdraw something, but basically you don't win too many administratively. And so if I set things up to where
00:09:57 – 2282
maybe there's a lawsuit and a lawsuit occurs then I feel like maybe I've served a purpose that no one else is serving. For instance, we have a lawsuit now. It's a national lawsuit that the Sierra Club is involved with with maybe a half a dozen other groups where they're suing the Forest Service for timber sales in about a half a dozen states. And I was approached by the Sierra Club because on behalf of the club I had appealed a timber sale and it turns out that that appeal had the right information in it to be able to be used in this lawsuit.
DT: Could you explain Forest Watch and how you document these?
00:10:51 – 2282
BM: Sure, sure we—what we do is we have a volunteer program where we go out and if the Forest Service says we want to log a thousand acres somewhere let's say, we'll go out and visit the area and we'll document like what's there, what we consider significant both from a positive and a negative standpoint. And we'll put together this information as—and document it and—and provide it either as comments to the Forest Service if there's a specific proposal or if we go out there where nothing is proposed presently and we find something we will submit a letter to the Forest Service documenting, you know, what we found. You know illegal uses like illegal off road vehicle use, for instance, or something of a

positive nature. We find an area that we think would be a good area to designate as future old growth area. The Forest Service under its Forest Plan says it wants the opportunity to designate areas as—as
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old growth. So we're trying to help them by visiting areas and giving them our opinion whether we think these areas would—would be good areas to designate. And it's a lot of fun too, because we get people going out and they write down and say oh, look what we got here and, you know, we document it and we submit it. And—and so Forest Watch kind of is a way for citizens to oversee and monitor the Forest Service and see if they're doing their job and then, you know, we feed that information back to the Forest Service and we use it in lawsuits. We sometimes use it in press conferences and things of that nature, you know, or in Op-Eds or letters to the editor or things of that nature, you know, to try and get some movement from the Forest Service or to try to emphasize that here's something worth protecting that the Forest Service could do positively could take a proactive stance on and do something that—that—that would protect some of the publics resources.
DT: Could you talk about another way that you've gotten people out into the landscape to see the Lone Star Hiking Trail?
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BM: Yeah, there's—the Lone Star Hiking Trail is the longest continuous hiking trail in the state of Texas. It's about 130 miles long and the Sierra Club back in late 1966 was or some members of the Sierra Club were camping in Sam Houston National Forest and were bemoaning the lack of hiking trails in the state of Texas and some one said gee, wouldn't it be great if we had a hundred mile hiking trail? And that was how the Lone Star Hiking Trail was born. And in '67 they went to the Forest Service, got approval to start laying it out, you know, laid out the first part of it in '67 and I think by about '78 they had finished the trail. So it took quite a while to do and ever since that time the—the Sierra Club and others have been maintaining the trail by—by trimming it and keeping it open, making sure that there's markers showing where the trail goes and everything, reporting illegal uses on the trail like—we found like motorcycles using the trail or horseback riders using the trail when they're not
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supposed to and also reporting if we find anything of botanical or ecological significance, you know, on the trail or near the trail. So it—we've been—we get people out to do the trail maintenance, you know, every—every month except for—for November and December, which is hunting season so we—we kind of go somewhere else during hunting season. But otherwise, you know, ten times a year we go out and do trail maintenance on—on the trail, so that other people can hike it and—and enjoy the forest and—and, you know, have a—have a place to go to. So you know, that—that's been one way we've sort of introduced people to Sam Houston National Forest. And you know I always tell people, you know, we come out there to do trail maintenance and remember this is all yours, you know, this is your land. You can come out here whenever you want to and hike and, you know, enjoy yourself, you know. The only thing you need to remember is, you know, take
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care of it. So you know that—that—that's one way that I work to try and introduce people to the natural resources that they own—the public lands that they own that are so valuable. And you know a lot of people in Houston don't even know it exists and it's only 50 miles

north of here. So you know in a way that's good because in a way you don't have too much overcrowding, but in a way that's bad because people don't realize what the Forest Service is doing with their clear cutting and other—other practices that they do so they don't yell and holler as much as they would if there were more people out there, so it's sort of a dual edged problem.
DT: Could you comment on your role as a witness to ecology and natural resource uses and especially for those of us that are city people that are distracted, don't pay attention, don't realize why it's important to watch and keep an eye on these things, especially when they're shared resources?
00:16:00 – 2282
BM: Well, you know it's interesting I—I—I hadn't heard myself called it in those terms, a witness, but I guess because it makes some sense. But you know, if citizens own something and they don't take care of it it's not going to get taken care of. If you're the owner of a company and you have employees and you say yeah, run the company and you wander off and you never check in with them and make sure that things are functioning, you know, the way they should it's probably not going to work. And I—I just look at my, you know, we're owners of that property. The Forest Service are the people we hire to look out after that property for us, but I'm the owner and I take personal responsibility for those lands best I can to protect them. And if I don't like the way my employees are operating I let them know that and
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that's the way I look about it with the Forest Service. They're my employees. It's unfortunate that they think that they kind of are the experts and we should shut up, but we're all owners of that land and so we all have an equal responsibility to take care of it. And so, you know, and it's beautiful, you know, it's—it's just—it really makes a difference in my life when I go out there and spend a day hiking around and seeing just the—the beauty. I—I—I enjoy recognizing what I see. I like to identify vegetation, you know, I like to look for rare plants. I like to see the waters and put my feet in the creeks, you know, and walk around. And—and when I come back, you know, and I go to work the next week I feel the difference, you know, it—it—it really
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assists me not just from a physical standpoint but—but spiritually, you know, it connects me. It makes me feel like, you know, to me that's reality, you know, when I'm walking in the woods. Right here in the city to me this doesn't seem like reality. This seems somehow fake and—and—and—and whatever. Yeah, I don't know if it's a matrix or wha—it's a matrix alright. But you know out there in the woods it just seems like, you know, this is where I'm supposed to be, you know.
DT: Is there a particular place in the woods that you enjoy going to?
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BM: Well, I mean there's—there's a number of spots I like, you know. The other thing I really like is, you know, Sam Houston has 163,000 acres, for instance, okay? There's no way in my entire life I'm ever going to get to see all of that, but it's really exciting and fun to go out and explore, you know. I mean it's hard to find exploration anymore, you know, in your regular normal everyday life. Usually it's just a pain in the butt, but to go out and say I've never been here before. I'm going to go out and see what this looks like, see what I can find, see what it feels like, you know. That's so exciting, you know, to—to—to have that. It gives

you a sense of accomplishment, a sense of confidence and a feeling of, you know, you feel really good about it, you
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know, about yourself that you went out somewhere you—you didn't know anything about it and you wandered around and you found your way back and, you know, you had a good time and you saw a lot of neat stuff. And so I just consider that just a wonderful reward, you know, to me and I wish—I wish I could get more people to feel that and to—to do that and to experience that because I think if they did maybe we'd understand that—that perhaps we're—our—our daily lives are kind of out of kilter and maybe we—we need to reassess, you know, kind of what we think are—is important and what is a priority, you know, for our lives, you know.
DT: What do you think is important?
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BM: Well, I mean we all need a certain level of money, you know, to survive, okay. You know you need a—you need shelter, you need some food, you need some clothes, whatever, but when you g—after you get to that level it seems to me you don't need a whole lot more in money, but I think what you do need is enjoyment of your surroundings, enjoyment of the—the people. You know one of the—the really important things for me that the Sierra Club and—and these other environmental organizations have given me is the ability to meet really wonderful people and to have relationships with them and to learn from them and to sometimes even mentor them myself and to allow me internal growth to do things I never thought I would do personally, but my volunteer positions have allowed me to do. So I—I tell people that what's important is—are those natural areas, your connection with them because
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without air, without water, without green what's life worth living? In fact, you can't live without them. You know everything we have, you know, this TV, this plastic, where did that come from? That came from plants, you know, a long time ago. Without those plants we wouldn't have plastic, we wouldn't have oil, we wouldn't have gas, we wouldn't have anything. Anything you can think of; metals, where do they come from? They come from the ground. They—they—they're there naturally. We didn't create them. We pulled them out. You know everything we do is coming from natural resources. If we don't take care of our backyard of our nest, you know, wha—how are we going to survive? You know you keep shittin' in your nest, guess what? It fills up at some point, you know, and you can't live there anymore. And it worries me that this is the only planet we know of that has life. There may be others, but we haven't found them yet. This beautiful planet and we're destroying it and
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what for? For some—some green pieces of paper that we say are worth something and yet we're destroying what we need to breathe, you know, and to live and it just doesn't make sense to me, you know. I would hope that the kids, you know, because we screwed it up for them. You know global warming is going to screw up their lives. You know we can't take that back and all the—all the old growth we've cut. It's not coming back for them. So I—I hope there's enough left for them to hold on to hope with, you know, because once you make everything so ugly and degrade it so much are people even going to care that it's there, you know. We need to start restoring more and—and—and getting people in touch

more because, you know, I think a lot of people are so walled off that they're ignoring everything and—for short
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term pleasure and—and maybe profit, but as a species how are we going to survive, you know? And—and not just survive but live. You know we're not here just to survive. We're here to live, to enjoy ourselves, to express ourselves, to you know, all that—all that stuff inside that we want to be and that we—we—we aspire to be, you know. How—how can we if—if we destroy what it is that keeps us alive, so.
DT: Was there a phrase that you had told me earlier?
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BM: Yeah, I—I got this thing—a couple weeks ago I was at a Big Thicket Science Conference and I saw this on the screen and I wrote it down real fast because I didn't want to lose it and it's five lines and I just—I think it encapsulates what living is all about and, you know, what living in touch with the environment is about. It says "Work like you don't money. Love like you've never been hurt. Dance like nobody is watching. Sing like nobody is listening. Live like it's heaven on earth." And it is heaven on earth. I mean if you ever go out into the forest, go to the coast, go to a beautiful river, I mean if that's not heaven I don't know what is. I've never seen anything humans have created that is as beautiful as a beautiful flowing river, you know, or—or something of that nature. And I marvel at the intricacies of nature and, you know, how did nature do this? How does evolution work? How does all this fit together? You know some people believe in God and some don't, but if there is a God boy, what a fabulous planet it put together and all for us to learn about and to enjoy, not destroy.
DT: Do you have anything you'd like to add?
DW: How are you able to get volunteers in an age of apathy?
00:27:30 – 2282
BM: Well, I—I get it and I don't get it. I mean I—I'm as puzzled as a lot of other environmentalists about how to get people involved and not just involved then coming once but, you know, making it something that they—they'll do. And so I'm not sure I know—I have the answers anymore than them because we're all different people okay; we have different skills. My skill, it's a strange skill. It's reading environmental impact statements and commenting on them. I'm not a people person per say. Some people are people persons. You know they walk into a room full of strangers and they come out with 50 friends, y—you know, people like that. I'm not like that. I'm—I'm—I'm a different kind of person so I—I don't quite have those skills but—but I—I—I try and—and develop those skills in me but I'm not always successful so, you know. You know we're all, you know, environmentalists is this—
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is like a, you know, pocket knife. You know its got all these little tools, you know. You know you've got to be the organizer, you've got to be the people person, you've got to be the letter writer, you've got to be the inspirer, you know, all that kind of thing. But it's hard to be good at all those and so some of us are good at some things and some are not. And I—I've gotten some people involved but you know it's really tough in Houston because Houston is not considered a place people come to live. Houston is considered to be a place you come make some money and get the hell out and go live somewhere else. And so this is a transient place and I've seen so many really wonderful people that I have met and

developed relationships with leave over the past 25 years, you know, and it's—it's real difficult to keep going, but what else are you going to do? The alternative is jumping off a cliff, right? And I have no intentions of doing that, so you know, I go forward.
DT: Go forward.
[End of Reel 2282]
[End of Interview with Brandt Mannchen]