TRANSCRIPT: INTERVIEWEE: Susan Hughes INTERVIEWER: David Todd DATE: February 17, 2006 LOCATION: San Antonio Texas SOURCE MEDIA: MP4 video file TRANSCRIPTION: Melanie Smith, Robin Johnson REEL: 2342

DT: Susan, when we were on the last tape, you kind of referred to this interest in using this well perhaps as a way to enter into augmentation of the Edwards Aquifer so that the springs could be supported, but that the aquifer as a whole could be pumped lower, below what would normally be supplying the springs. Can you try and explain why that option probably isn't a realistic one?

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SH: The hydrological studies that—that we've done so far have not—had been done before are—are not hopeful in terms of being able to continue the existence of spring flow, natural spring flow, nat—well, you know. Natural augmented spring flow—that's kind of contradiction in terms, but keeping the springs flowing and functioning if you draw down the aquifer below the lip of the springs. So we're continuing to, you know, to look at some of these options and possibilities from a—from a scientific and—and technical perspective, but it really doesn't look like it's very promising. I mean, there's—a lot of the ways the—the aquifer functions has to do with—with pressure. You

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know, it's not—it's not a matter of, you know, water coming into the recharge zone and flowing immediately to the springs and coming out. It's a matter of, you know, these pressure pulses and so forth and that's why we see, you know, variations in the—the levels of the aquifer after we have rainfall and so forth that are—that are quite rapid, frequently. The responses are—are amazingly fast. But the fear was that if there were access to this pump so near the springs that it would be—that the natural spring flow would be sacrificed in favor of being able to pump the aquifer more deeply or—or at—well, never have the right words for that. But a bring taking the—the aquifer to lower levels, you know. So that was why—you—and and for a lot of reasons, the people in

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New Braunfels and—and San Marcos did not want to sacrifice having natural spring flow. Now there's also some biological reasons, you know, associated with the endangered species th—situations there. Why, you know, we've—we have also believed that natural spring flow is very important for the maintenance of the species. So, you know, once you start taking—and the—and that would be, you know, that—that well would be probably the closest in terms of chemistry and temperature and so forth to natural spring flow, so you could theoretically take that pump and—in—in that well and

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run some water around and, you know, kind of figure out a way to—to get it in there. But the thing is, too, that—and that—or I'm not a hydrologist and don't even play one on TV, but you know, there's—there—there are a lot of just physical problems associated with—with trying to recreate something approaching natural spring flow. So anyway, they didn't want us to—to bypass the springs and let them dry up, just like we've done with San Antonio Springs and San Pedro Springs and so forth over the years. And just by running a pipe down into one of the spring runs and saying well, there's water that's

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going downstream, that's all you need, you know. So that's, you know, one of the sources of the endangered species lawsuit, Sierra Club's (?) was, you know, to protect natural spring flow and to, you know, to sidetrack the folks who were looking at some sort of artificial augmentation, so.

DT: So the distinction was between spring flow that was pumped spring flow, you know, water coming out of the spring aquifer and natural spring flow that was because of the head in the aquifer.

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SH: Right. Mmm hmm.

DT: This might be a chance, after telling about that success, to talk about your work with the South Central Texas Regional Water Planning Group, which not only had this groundwater as part of its purview, but also the surface water and how you can provide for a growing city like San Antonio that's in a pretty dry region of the state.

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SH: Yeah. Somebody should've thought of that. The—excuse me—the South Central Regional Water Planning Group, besides being quite a mouthful, runs all the way from the Rio Grande to the coast. And it's nineteen and a half or twenty and a half counties that are part of this group. So you look at the Edwards Aquifer community as a, maybe not entirely a microcosm, but a maybe a—a semicosm of this larger group and—and just multiply the interests by this larger geographical area and you see that, you know, the complexities are enormous. Again, we have similar sorts of interests. We have the agricultural communities to the west, we have the big city of San Antonio and its, you know, surrounding counties and we have, again, the downstream interests and, you know, all the way to the coast. So that—so they—the interests are really quite similar to what we experience in—in the Edwards, it's just that there's more surface water issues

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and—and so forth. But groundwater and surface water, you know, are connected at some level, so most everything that runs down the—the Guadalupe has something to do with—with the Edwards or springs up in the Trinity or something—we have a few more aquifers to deal with in the Regional Water Planning Group than just the Edwards. We have the Trinity, we have the Gulf Coast, we have the Carrizo-Wilcox, we have, you know, so—I mean, it's, you know, a—assorted little ones here and there. So it's—it's—

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it's complicated by—by those factors. The other thing that—that, of course, we're we are an appointed body and we have a representative from a lot of—involving a lot of water walks. I mean, we've got representatives from the River Authorities and Public Utilities and power generating plants and, you know, counties, cities, you know, and so forth. And then we have these few representatives and we have one person that represents the public. We have one person that represents the environmental interest. We have a couple of small business people, so forth. So...

DT: And you're the environmental rep...?

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SH: I'm in the environmental representative, yes. So sometimes we—those of us representing the public and the environment and so forth feel like we're a little bit shortchanged in terms of what our influence can be in such a—a situation as that. But we try to hold our own, nevertheless. It's—I think once again establishing the fact that I was

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not going to come in and be a wild and raving, you know, enviro was very important in—in what influence I could have in the Regional Water Planning Group. I—I already had a reputation based on my service on the Edwards board as being somebody that, you know, that could be reasonable and dealt with. It's a find—fine line in there, you know, between—between really being the—the—the stalwart environmental advocate and—and who just turns around and—and ticks everybody off and, you know, becomes ineffective and trying to be the person who can at least be—listen and try to find some common

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ground and, you know, move forward with solutions that, you know, that are—are reasonable for—and that other people—that people could live with. I—I've been criticized from time to time by—by folks who say, you know, you're not—you're not in there, you're not, you know, pitching enough for this side or the other. But, you know, I—I could do that and be completely ignored, you know. Or I could try to weasel my way into some issues and try to, you know, explain why they're important and why they're good for everybody and maybe—maybe get, you know, some of the pie, even if not all off the pie. So that's sort of a tightrope I've walked over the years.

DT: Is there a particular niche that you've tried to fill or a particular goal you've tried to pursue?

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SH: Well, I found myself over the years in a—in a role of—of mediation. In fact, I—I, you know, I just did mediation training at UT Law School last month, or in—finished in December, I guess, because I've really been drawn to this—to this role of

trying to find common ground and trying to, you know, ex—explain positions and to, you know, to try to desensitize issues and, you know, help get facts on the table and so forth. And really, I've—I've sort of feel like I found a—a niche there over the—over the years in the work that I've done and it's—it's one that I'm—I feel very—very comfortable in. I think

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I'm respected for—for that and the fact that I, you know, have not—I'm—I've tried very hard to understand how much I can compromise on any given issue. You know, you have—you know, you could go from being a total pushover, you know, and just say I'll just go along to get along or you could be so hardnosed that you really just you know, you can have your standards set so high that you have no room for negotiation. And I've tried always to figure out where that line is beyond which I cannot compromise, but up to which I can try to work around things so that—that we can come to something that will

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move us forward in a positive way. It's real important to know where the line is. But it's really important to have some room for compromise. So that's what I've really worked hard on is knowing, you know, where that is for any given issue.

DT: To give an example, would you find it acceptable for the planning group to propose any new reservoirs?

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SH: That was somewhere where I really dug my heels in. You know, it was—it was my intention going into this whole planning issue that—that no new reservoirs.

DT: So that's a bright line.

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SH: That's a bright line for me. In terms of, you know, some of the other issues, I—I have been perceived by some, perhaps, as being a little wishy washy on some things like the pipelines and stuff like that because one of the problems that I've seen in some of these areas is—is that there is a proposal for a pipeline, as an example, and someone would say well, absolute—you know, absolutely not because the environmental impacts of that are going to be terrible. Well, the environmental impacts of that probably won't really be understood until you get further down the line and start looking at the

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engineering associated with it. There's probably twenty places that you could put a pipeline and of those, fifteen may be really terrible, five may be possible. You know, realistic op—realistic options. And it depends on the way they're engineered, designed, so forth. Where they're placed, you know. What—what choices you make. And you don't really know that necessarily going in. So you know, the—the environmental studies that are done, usually by the engineering firms, you know, lack a little in terms of their scope and, you know. So I—I just don't usually see any sense in getting up in arms about something that is so nebulous as to, you know, not really be measurable, you know. So let's took it—talk about this. I mean, we know

what the impacts of a reservoir are going to be and a pipeline can be pretty, you know, pretty enormous impact as well.

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Especially, you know, sometimes the—the—the same folks that were talking about augmentation all the time were talking about, you know, recirculation and—and, you know, and we're looking at some of these issues now. And you know, the—the—the size of a pipeline that you would need to capture floodwaters from the Guadalupe and ship them, you know, west to recharge the aquifer, I mean, we're talking about 20, 30 foot—40 foot pipelines. I mean, these—you know, huge things that, you know, that have to flow maybe two ways, that have to, you know, be kept charged, you know, all the time.

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That have to, you know, all these technical problems and, you know, I say they're they're going to fall out by themselves whenever you start doing the economics on them. You know, so I'm not going to get in an uproar about something that's going to prove to be, you know, improbable or, you know, along the line anyway, so.

DT: Well, am I following you that while you serve as the environmental rep and try to bring in conservation concerns, that you think that some of these more aggressive proposals will fall of their own economic weight?

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SH: Yeah, I really do.

DT: Without environmental critique.

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SH: Mmm hmm. You know, and the—the economics will—will play out or, you know, you're not going to do these things without an environmental impact statement. You're not going to do these things without further, you know, ob—observation and involvement from the public and so forth. And a lot of them, you know, you don't necessarily have the—all the data that you need to really prove your case early on. You may know, you may believe in your heart that this is a—a dumb idea and that it's not going to work, but that's not going to convince the people who are, you know, heels dug

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in, that this is the absolute solution. So you kind of have to sometimes let these things play themselves out. It—and, you know, it doesn't really—doesn't really gain you anything to sit around and just, you know, just wait until I can say I told you so. But you know, just let it—just let it work itself out, you know. Something else is going to happen, we'll learn something new, you know, things change. None of these projects will be completed in a matter of two or three years. Some of them are—you know, many of them are on the—on the books for, you know, long after I'm gone, so just don't worry too much about it, you know.

DT: Some of these things are long term problems that your descendants will be involved in and whole future generations and I'm wondering what sort of advice you'd give to them from your dealing with all sorts of disparate people on big organizations over the years?

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SH: I think that the most important thing is—is to focus on common ground. Try not to spend a lot of time worrying about where you disagree with people and look at where you agree with them and how you can move forward rather than ending up at a stalemate. That's the way to—to get things done and if you are, you know, if you listen and if you engage people, you are much more likely to get your point across to them and to get to the end that—that you will be happy with than if you go head to head with them. I think that's really important. The other thing is to always try to consider upstream and

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downstream impacts of the decisions that you make. And perhaps the other thing is to not do what I did so much of my life, which was to avoid being in a position of decision making and take DeeDee Armantraud's advice, which was that the best way to influence a decision maker is to become one—or the easiest way and—and I think that's what I chose to do when I got involved, somewhat with Audubon, and then also, you know, whenever I chose to run for office. The Edwards Aquifer Authority may seem like pretty

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small potatoes, but it's—it's a pretty influential body and a pretty influential experiment in water management in Texas, completely overturning the old, traditional rule of capture and establishing rights in groundwater, establishing a market, changing the way people think about water, providing an economic—an economic measure for the value of water. It's—you know, it's a—it's a very significant experiment that we've been conducting here for the past ten years.

DT: You've invested so much of your time and effort in San Antonio and the Edwards Aquifer and planning for the future for this area. I was wondering if you could talk to us a little bit about place and if there were a particular place, maybe in San Antonio or maybe elsewhere, that brings you joy and solace and sort of reminds you of why you got involved in this effort?

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SH: You know, it's funny because I'm—I'm frequently confronted by people who say oh, I—you know, I really—I love to go out and do this and I love to go be this place or the other. And the truth of the matter is, I do most of my conservation work sitting in front of a computer. Part of that happened whenever my—my joints started giving away and the—then before I had all these joint replacements and so forth, going outside was really painful for me for a long time. But I love my garden. I can just take a step outside, you know, and—and be with nature all around me, in spite of the fact that I'm in the middle of the city. I have wonderful memories and recollections of time spent out in the

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hill country and in the Texas brush country, which I dearly love, and—and you know, Bracken Bat Cave where I went—you know, my dad took me very early on, when we—I guess when we were in high school. Three friends of—you know, from high school and I—my dad took us out to Bracken Bat Cave to see the guys that—the—the family that owned it, they worked down at the Pearl Brewery where my dad did. He had this opportunity to take us out there and it was just like, oh, God, what an amazing—amazing

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thing that was. It was before anybody even really knew much about it, you know. And subsequently, the friend—one of the friends that I took out there with me has become a, you know, a world recognized bat biologist.

DT: Maybe you could tell us for those who haven't been to Bracken what it's like.

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SH: Bracken Cave is, you know, this hole in the ground that is home to, what is it, 40 million bats after the—after the—the nursery activities, the nursery cave. Twenty million females show up pregnant each year and, you know, give birth and then there's forty million at the end of the—at the end of the season. And every night, we are blessed with this wonderful emergence of all of these bats that come out and—and really keep, you know—it's—it's the best thing that—it's better than irrigation in terms of its benefits to the agricultural community in South Texas. Absolutely, by—because they consume, you

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know, tons and tons and tons of bugs and a lot of them are corn borers and other kinds of swarms of insects that move up here during the seasons and—and they just nibble on them, you know, all night long. Come back and—and sleep during the day. Just the most amazing thing to watch them come out and every once in a while, you're blessed with the emergence of an albino and so you sort of watch—you can watch—actually watch them as they circle and circle and circle out, you know, because you can spot this one albino that will, you know, fly off. And oh my, what a—what an amazing experience

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it is to watch them. One of—when I—when I really got the bat bug, as it were, was one time when my friends, Bill Rainey and—who—who I went to high school with and Dixie Pearson, his wife, who are both bat biologists, were here and—and in the—in one of the buildings at DataPoint, where I was working, there had been a, I guess, a cold snap or something happened and—and a—a bat had gotten into the building. And so they were all freaking out and, of course, they knew that, you know, I was the one to call, right? So they—they called me and said well, what are we—what are we going to do with this bat?

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So we went over and Dixie brought a—a bag and so forth and got this little dehydrated bat off the wall and we brought it home, put it in the closet during the day and then that evening, we got it out of the closet and—and were trying to

rehydrate it. And so I was holding it in my hand and this wonderful—the only thing that I can compare it to was—is seal fur. You know, just soft and thick and remarkable and—and it started vibrating and Dixie says oh, it's getting ready to, you know, to go out for the night. You know, to—raising its body temperature and so we took it outside and put it on the post, you know,

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down—downwind side of the post. And after a little while, it climbed up for—then all of a sudden, it just took flight. It was a precious, priceless little creature went off to, you know, to do its job again, one—one more night, this little Mexican free tail bat was, you know, going off to—going off to work. And then I got to know some Mariannus fruit bats that Bill and Dixie had had for a while, one of which even had gone to Congress whenever they were trying to get the Samoan National Refuge at established and—and

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he had lived with them for a while. So he had—he had been to Congress and very influential in convincing Congress to set aside this—this wonderful preserve. So I've—you know, I became a real bat nut, was no question about it. And in fact, my—my jewelry business is entitled Bats About Beads. So that's...

DT: Well, I think it's wonderful how you've woven conservation into every aspect to your life and thank you very much for telling us about it. I really appreciate it.

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SH: Oh, it's been fun.

DT: Thank you very much.

(misc.)

[End of Reel 342 and End of Interview with Susan Hughes]