Ray Allen

Interviewed by Jen Brown
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Nueces Delta Preserve, Texas

Transcribed by Alyssa Lucas

[Jen Brown]: Okay, we are recording. This is Jen Brown. I'm here with Ray Allen for an oral history interview with his work on, um, at the Coastal Bend Bays and Estuaries Program and on freshwater inflow. It is May 11, 2021 [ed. note: actually 2022], and we are at the Nueces Delta Preserve outside Corpus Christi, Texas. To begin, do I have your permission to record?

[Ray Allen]: I'm sorry, I'm going to have to turn up my hearing aid, so let's try that again.

[Brown]: Oh, do I have your permission to record?

[Allen]: You do indeed.

[Brown]: Okay.

[Allen]: Yes.

[Brown]: Thank you.

[Allen]: Yes.

[Brown]: Um, so as a starting point, can you please tell me about your background and early life?

[Allen]: Well, sure. I, you know, I grew up mostly in Ohio, and it's part of the story of my getting to the coast is that I grew up in southern Ohio and for us, family vacations were always to go to Florida and to go to the Gulf Coast, primarily St. Pete, Tampa, you know, that part of the Florida Coast, and so that caused me to fall in love with going to the coast and enjoying the marine environment. So, later while I was in high school, I got to move to, with my family, to San Antonio, and so we're only, uh, three hours away from Port Aransas, and so every weekend we try to come down to the coast, and so that's really that early, early years through high school, and so I just fell in love with the coast and, like everybody, wanted to live and be by the water so that was a great opportunity. However, my education from high school on, then was a bit of a meander, you know, and started school, uh, college in San Antonio, and at that time, if you can believe it, they didn't have any state universities in San Antonio. We're talking early 1970s, '72, '73. So, eventually ended up going to East Texas State University, which is now Texas A&M at Commerce, Texas, which is not near the coast at all, and I spent one year up there, and I'm married my wife, Vicki, by then, and so we went up there, and it's like I couldn't take it. It's a

small little community, rural, you know, they rolled up the sidewalks on Friday afternoon, and so after that, by the time I finished one year, I said, "I'm getting out of here," and so I ended up going to what was then Texas A&I at Corpus Christi, which then became Corpus Christi State University, and then became Texas A&M of Corpus Christi. So, but really my love was, uh, come to the coast, lot of vacations in Port Aransas during that time when I was not living here and the fascinating story there was, it was between semesters at East Texas State, and the opportunity came up to walk inside of the UT Marine Science Institute. So, it's like, okay, here's your college, man, I'd like to go there, but, of course, it's graduate level, and I didn't know that at the time. Well, I walk in, I'm walking the halls, it's off season, and I ran into Rick Tinnin, a professor over there, and Rick says, "You know, now we don't really take undergraduates here," but what was University of Corpus Christi, which was a Baptist University back in the day had shut down, hurricane, bankruptcy, whatever, and the state of Texas had taken it over and moved in as Texas A&I-Corpus Christi and was just upper level at that time, juniors, seniors, graduate school. So, by then I had enough of credits, so I just transferred over and started pursuing a marine science degree. In the biology department, there were only a handful of professors, and so I got to work with them, and at that time it was very small. So, man, we did a lot of great field trips, and I'm talking twelve people in a class, fifteen people in a class. It was really, it's not the College Station experience. It's the small university so lots of hands-on work with the professors, and it was just a great educational opportunity. I finished my undergraduate degree in '77 there and then decided to get a master's degree after getting my bachelor's degree. I actually went job hunting and by then I had a child, and so I was like, "Jeez, I probably should make some money," and I talked to them at Parks and Wildlife and places like that. I couldn't afford to live on what they paid for a person right out of school, and it's like no, no. So, the advice then was, well, if you really want to be in the field, you need a graduate degree, a master's, or even a Ph.D. So, well, I got into graduate school at, I think it was Corpus Christi State University, at that time, same place, new buildings, oh, that was nice, and pursued a master's in marine biology, and that worked out really well. Some of my friends went on and got PhDs, but by then I had a second child, and I was tired of going to school, and I wanted to work so that kind of wrapped up my educational background here, and I did go back though later to that part of the story. I did get a job. At that time, students and undergraduate degrees in biology were often getting a minor in chemistry, which I did. So, I had a minor degree in chemistry and that was able to get me a job with electric utility company, Central Power and Light Company, doing water quality monitoring at one of their power stations, the Barney Davis Station in Flour Bluff, and water quality monitoring on the process side, you know, steam process and chemistry, but also the environmental permit monitoring because I had that environmental background. So, that was a very nice career. I moved around a little bit at CP&L, and did everything from laboratory work to water quality work to eventually environmental, just full-time environmental compliance. So that was quite an adventure, and I spent right at twenty years with Central Power and Light Company. So I don't—are you wanting to ask me questions along the way or are you just letting me free flow my thoughts here?

[Brown]: I have some questions, but I'll let you keep going if you want—

[Allen]: Well, let me just keep telling the story to get to the estuary program.

[Brown]: Okay.

[Allen]: So, I ended up the last, I don't know, six or eight years at Central Power and Light Company, which was owned at that time by Central and Southwest, which was a holding company. And so when I moved full-time into the environmental compliance department, we did things from water permitting, air permitting, solid waste management, hazardous waste management, transmission line routing, endangered species, and then I had a boss named Dave Sullivan and Scott Murray, and these guys were very plugged into the community and environmental stewardship, so I really had an opportunity to, to feed off of my leaders there who were giving back to the community. You know we had a redfish hatchery at the Barney Davis Power Station and with Texas Parks and Wildlife and the Coastal Conservation Association, so I was very much aware that the company was engaged in community activities. Eventually, my career there took a path of specializing in transmission line routing, endangered species concerns, a community partnership development, so I had just a lot of great public relations with local community organizations and state and federal regulatory agencies. Do we want to stop (both talking at once)—

[Brown]: —Yeah (laughs)—

[Allen]: —for just a second? I forgot about the air-conditioning.

[Brown]: Are you warm?

[Allen]: No, you can turn it off.

[Brown]: Okay.

[Allen]: I can hold my breath that long (Brown laughs), so.

[Brown]: We can take a break.

[Allen]: Yeah, we're taking a break here to turn off the noisy air-conditioner. We're in a portable office building, a portable classroom building so, it has one of those air conditioners hanging off the wall. Yeah, turning it down won't work. You probably just got to turn it off. Yeah, that's what I would do. If it gets too hot, we'll turn it back on (train whistle blows). Good news, I can hear a train coming too (both laugh). There, that's a little quieter. That's very nice.

[Brown]: The train will be ambience.

[Allen]: So, this idea that I had been working with Central Power and Light in their environmental department, working in the community doing stewardship projects, working with the resource at natural resource agencies, Parks and Wildlife, Fish and Wildlife, at that

time it was the Texas Water Commission, so I was really plugged into what all these agencies were trying to accomplish. They all came about in my lifetime, from the Clean Water Act to the Clean Air Act in the early seventies, so it was great to see all those in action, and it was a fascinating time because the electric company still had a lot of, let's just be nice and call them old-timers still around, who didn't have to used to put up with all those environmental rules and regulations, so it was quite an interesting transition for those folks and helping them deal with Endangered Species Act or water quality permitting or air discharge limits. It was kind of a fascinating career background there. But, anyway, to wrap that part of the story up, was very much aware that the Corpus Christi and the Coastal Bend had experienced some very significant droughts, and at the same time, we sort of have an Earth Day celebrations, and a friend of mine, Jennifer Lahren, had somehow gotten to be in charge of hosting some Earth Day Celebrations, and so she reached out to us at the electric company, and I was involved with helping with that a little bit, and then I ran into some other folks, and next thing you know is I'm visiting with some local bay shrimpers, and they had, you know, droughts were always bad for shrimping, especially for the white shrimp because the white shrimp are so dependent upon freshwater inflows and lower salinities for survival and growth in the back bays. And so, they and State Senator Carlos Truan and his chief aid, Vic Hines, we got together. We started figuring out how to help these folks, and so somehow, I ended up kind of being the lead for bay shrimpers. It was called Coalition about Restoration of Estuaries [CARE], just a little made up organization we put together to figure out what was going on with freshwater inflows and so that was kind of the nexus of, you know, taking a step from day to day compliance at the electric company to being more fully engaged in the community, and the idea there was to look at what needed to be done and, well, the city of Corpus Christi and some of the other water rights holders had gotten a permit. I guess they started working on it in the sixties and finally got it in the seventies for Choke Canyon Reservoir, and Choke Canyon Reservoir, their water rights permit, and we could go into this in more depth later, but had a provision there to provide freshwater inflows to the bay. There was a recognition that healthy estuaries need those freshwater inflows to maintain salinity regimes, nutrient inputs, sediment inputs, and all those things associated with riverine inputs to an estuary. And so, we worked through all that, well, there was a requirement for the city to do that, they weren't making releases. Their argument was, of course, that they were waiting for specific guidance from the state of Texas who hadn't provided any guidance so, okay, so we started working on as a technical advisory committee through the Texas Water Commission. A number of stakeholders, water rights holders, state and federal agencies, the Coalition about Restoration of Estuaries that I represented, and we started trying to figure out what the heck was the right amount of freshwater inflows. There was a number, 151,000 acre feet a year, in the water rights certification, adjudication, but it didn't have monthly patterns, it didn't have seasonal patterns, it just said, "Here's a number, not less than," and so there was a lot of, "Oh, how do we manage those inflows to maximize the ecological benefit and not impact water supply?" So, those are challenging questions, so I did that while I was at the electric company with CP&L, Central Power and Light, and, of course, taking water during a drought, it was tough times. It was stressful for everyone because of the drought and the need to provide water for the shrimpers, and really the shrimpers were a vessel to get freshwater for the estuary, yeah. Although, I had a lot of respect and admiration for those bay shrimpers. That's a very tough life and most of them

are all gone now. They're just out of business. But the idea was, try to figure all that out. So like that was the early nineties, we started working on these agreements, and what became clear out of all of that was even though Texas Parks and Wildlife had data on fisheries and water quality inflow and the TC—Texas Water Commission had information on, some basic information on water quality. I'm talking temperature, salinity, DO [dissolved oxygen], that kind of very basic physical parameter I kind of think. There still wasn't just enough knowledge there, so we came out of that process with the realization that we needed just a whole lot more information to really make a reasonable demand on water supply to provide for a healthy estuary, and that part of the process of getting more data, getting a better understanding really led to the creation of two organizations. One was the Coastal Bend Bays Foundation. Let me know if you want me to stop yet.

[Brown]: No, keep—

[Allen]: One was the Coastal Bend Bays Foundation. It was modeled on the Galveston Bay Foundation. A great lady, Linda Sheen, who was running the Galveston Bay Foundation at that time, came over, shared all her documents, helped us get it set up, and again, it was a stakeholder driven process broader, more industry, more local governments, more conservation, and environmental groups, sport fishermen, people who use the bay, boaters, just everybody that was involved, restaurant people whose idea was, hey, we got a healthy bay system here or we thought it was healthy. We need to make sure we preserve it and manage it and improve it. So, we started working with the Coastal Bend Bays Foundation, and there's a whole other story about all that, but I ended up as the founding chairman of that, partly because I had help with the office to do all this stuff paperwork wise (Brown laughs), but we got that going with some great funding from people like Ed Harte and Bob Wallace and some basic core funding to get going, and some great leadership then from the Port Authority, and I don't want to downplay what they did there. There were some Port Commissioners, Bernie Paulson and Dick Bowers in particular, you know, they were both on the Port Commission here. They both wanted to move away from what I had seen and what they had seen, which is industry or Port wanted to do a project, the environmental groups would all get, try to get organized a little bit and opposed them, and then the issue would be resolved one way or the other, and then everybody would just disappear back into the woodwork, and there was no continuity. So, the idea was could we create an organization, the Coastal Bend Bays Foundation, that would then have continuity month after month, year after year, stay on top of things, development management plans. So on our very first public meeting of the Bays Foundation, I had Linda Sheen come down from the Galveston Bay Foundation, and she talked about what they were doing, and she talked about the Galveston Bay Estuary Program, one of the National Estuary Programs, one of the initial ones set up by Congress through the Clean Water Act via the Environmental Protection Agency, so we happened to have in the audience from University of Texas Marine Sciences Institute, oh my God, I can't think of that guy's name, Dr. Terry Whitledge was his name. Terry, Dr. Whitledge had done some projects for the Galveston Bay Estuary Program, you know, characterization studies, water quality efforts, and things like that, so he knew some people at EPA, and he made some inquiries, and it just so happened that right at the same time, EPA had funding to expand the National Estuary Program.

[Brown]: And what year was this?

[Allen]: This would've been '92 or '93, 1992, 1993. Um so, coincident, so we started—so, yeah, we liked that idea because it brought a lot of money and would allow us to do both some basic studies and some management activities. We started pursuing that, and the governor at that time was Governor Ann Richards, and Governor Richards was very supportive of the idea and her staff, Susan Rieff and Frank Fuller were her environmental people on staff, they loved it, you know, the Texas Water Commission, they wanted to do what the governor wanted to do, thank God, and they were very happy with their Galveston Bay Program, which is still administered by the state over there, that's the choice they made. So yeah, let's do that, so the local folks with, I'll just say TWC, Texas Water Commission, taking the lead in putting together a nomination packet for EPA's consideration. A fellow named Bruce Moulton with the Texas Water Commission was the lead there. He was also a principal player on these freshwater inflow issues for the agency. So Parks and Wildlife, people like Dr. Wes Tunnell from Corpus Christi, whatever the university was at that time, myself from CARE, and James Dodson from the city of Corpus Christi, Al Green from Parks and Wildlife, and a number of other people that which I'd have to go back and look at the documents to remember all their names, but so, everybody took a chapter of the nomination packet, and we banged it out and submitted it and, man, a year later we got a notice that, oh yeah, you guys are getting a National Estuary Program. What the heck is that? So, that turned out to be a great asset for this community here, and really, really the start of doing more than just getting by. So, the National Estuary Program, the goal there of that program, at that time, was to develop what they called a Comprehensive Conservation Management Plan, or in EPA speak a CCMP, that's the plan, that's your management plan for the area. It's a non-regulatory, voluntary program just to bring stakeholders together and get agreement on what's a priority, what the priority issues are. EPA wanted to call them priority problems, we called them priority issues here because we're sensitive. So the idea was let's just go down that path and then for the first—oh, well, it was supposed to be a four year program to develop a plan, you know, significant funding from the feds and funding from matching dollars from the state of Texas, and we started off by doing what all the National Estuary Programs do, and there are now twenty-eight around the country, you start doing characterization studies. What do we know about this system? What do we think we know? What do we really know, and that was a good starting point. What do we know about water quality? What do we know about changes in habitat, gains, losses, fluctuations? What's going on in the whole system? What do we know about living resources? So, we got to do—what about changes in circulation? What do we know about channelization? What are all these improvements around—improvements around the bay system? I know you can't see my air quotes on the tape (Brown laughs), but so the idea, for the first couple years, that's what we did, was just try to arrive at a common understanding of what the system had been and what it was at that time in the nineties. Uh so, the Texas Water Commission, they staffed up, they put a team of people together, they hired a fellow, Richard Volk came in to be the program manager. It's a little story there that at that time, of course, I had been approached by the agency itself to be the manager for the program, but I had a very nice career at the electric company and was being paid fairly well, and I couldn't work for state wages at that time, and I just wasn't ready to

make a change. So Richard came in, and he ran the program. I continued to participate as a volunteer at the highest level, you know, there was a whole structure of policy committee, management committee, it's government to the nth degree of committee structures, so it's just the way they set it up. It's like, okay, I'm participating at all levels because I'm loving it, but we really, we took those four years that they allocated and put together our first Coastal Bend Bays plan, our Comprehensive Conservation Management Plan, and in that plan, we ended up with some fifty action items of areas that we wanted to work on, and as a community, as a community that everybody agreed to them. There was no—there's no regulatory enforcement procedures in there, which is like let's just deal with these issues one way or another and work together, and as I go back to the original involvement of the Port Commissioners, Paulson and Bowers, it was just, you know, we needed to do something different here then just fight each other from the environmental side to the industrial sides. So, okay, we're still going down that path. We come up with this great plan, and it's not much more really in four years than a somewhat detailed skeleton of where we want to go. It was certainly not a shopping list of specific projects. It was a, let's deal with bacterial loading issues in the bay, let's deal with pollution in Nueces Bay, let's look at habitat seagrass losses or changes or whatever, and so that was kind of a sketch so the details were left to come in the annual work plans, so we started working on that. And then we finished, finally finished, the plan, and now we're in 1998. Our four years are up, the funding's changing at EPA, it's going to be decreased. One of the strategies of the National Estuary Program from EPA guidance is they require a step at the end of the planning process for everybody to sit down and figure out an implementation strategy. Working together and putting a plan together, lots of people do that. There's lots of great plans on the shelf. Going from planning to implementation is the challenge. So, fortunately for us, and I can't give enough credit to the folks up in the Galveston Bay System, we had a model, they were years ahead of us, they finished their plan before we did, they moved into implementation before we did, and we got to see how they were doing it. There were other National Estuary Programs around the country, you know, the Galveston Program was still being, and is still being, run out of what's now the Texas Commission on Environmental Quality, the old Texas Water Commission. Well, that's a model. Some programs had moved their estuary programs to different state agencies, maybe Parks and Wildlife or maybe to a university or to a local government or nonprofit. So, we started going through the process, and I say we, and I'm talking about all the stakeholders here. I didn't do this myself. I was involved, but just another person on the working group coming up with what would work for our community, and of course, from the environmental side, from my perspective, I'm still an employee at CP&L, so the idea was how do we ensure that we have funding coming for this National Estuary Program? Because they required a match. So, that's important. How do we maintain local control? You know, I think the local industry and government folks had seen that the Galveston Bay Estuary Program had stayed with the Texas Commission on Environmental Quality, the Water Commission at that time, which of course, is a regulatory agency. So, some of the people are, let's work together voluntarily, the next day they're in your plant writing you up for a water quality violation or something. So, there was kind of that effort here to, can we do something that's not part of a regulatory agency? And we started looking at different models to do that, the working committee that was addressing this question. We looked at, can we be part of a local government? Well, won't surprise you to know that local governments don't always get

along with each other, so there was a lot of indecision and concern about, well, who's going to get the money, who's going to manage it, where are the employees going to be housed? At one point we actually arrived at being part of the Port of Corpus Christi because they had money, they had facilities, they had of all the local governmental entities, they had the strongest nexus to the bay, you know, their business is transmitting vessels across the bay system so the connection there was very strong. In the end, however, and I give credit to the Port's attorneys, they said, "You know, let's keep a little arm's length distance here. We like the program. We want to support it," remember Dick Bowers and Bernie Paulson? They said, "We want to like it and we want to support it, but you guys should be a nonprofit, and we'll make a commitment to fund it from the Port Authority and from the city of Corpus Christi, Nueces County, San Patricio County, some of the smaller towns, Ingleside, Port Aransas, Portland." So, uh, with the assurance that there was local support to funding going forward, we moved the program, and this was 1998, we moved the program out of the state agency at the end of—so, the decision was made to move it out. Of course, they're all, all the people running it were state agency employees, and you had to deal with all those issues. Richard Volk by that time, who was still the program manager throughout the whole planning process, had decided it was, he was not from the Corpus Christi area, he had decided it was time for him to move on to other opportunities. So he resigned and because we were in this transition, the state did not fill that position, um, coincidently, I'll go back to Central Power and Light. By then, the whole electric utility industry had been deregulated and was changing, and so many people I had worked with, friends at the company had been either transferred or the company had downsized, and people had been pushed out through a couple of rounds. Well, I was still there, and for a while I felt like, oh, man, they like me, they want me to stay. By the second or third time they had rounds of layoffs, I was realizing those other people had left and had gotten really good jobs elsewhere, and I was still stuck doing less than I had been before because of all the reorganization. So, at about that time I decided, and this was 1998 that, okay, time for me to pick up and do something different. Now this is after twenty years with the electric company so a wife, two kids, you know. So anyway, January 1, 1999, I left the Electric Company and went to work as a consultant for what was going to be the Coastal Bend Bays and Estuaries Program, so we were still working on getting our 501c3 status. We were still working on getting what was called the Texas Estuaries Act passed through the Texas legislature because funding for the program had come through the agency as a special line item in their budget, and there's a danger that that could go away, even though there was another estuary program in Galveston, you know, you never know. So, with some great help from our State Representative Judy Holly at that time and State Senator Carlos Truan, and some folks from the—Patty Gray, from the Galveston-Houston area, we were able to get the Texas Estuaries Act passed in that session of the Texas legislature, and that really firmed up directing the agency, the TWC, to be the lead entity, I think they might have been TNRCC by that time, to be the lead entity on the two estuary programs, and whether that was implementing it directly or working with a local organization. So, with that, later on then when the end of the state fiscal year came about, all of the employees at the estuary program, and that time it was called the Corpus Christi Bay National Estuary Program, were offered jobs with the new program and nice little pay raises, you know, things to do that. Well, some of them elected, they were—had nice careers with the agency, they wanted to stay, and some of them went on and went back to school because we

were housed at the university at that time, and a few employees came over, enough to get by, and so I was hired in '99 at the beginning of the year to be the program director when we got the program going. For like eight or nine months there, I'm kind of like telling my wife, "Hey, this is all okay. This is all okay. Okay, good, we've got state funding. We're good now. I've got a real job." Later on, she smacked me for doing that, said, "You didn't tell me it was a risk." Well, everything's a risk. So, that was the strategy for moving forward there, and that was kind of going from planning into implementation. Becoming a 501c3 nonprofit, changing our name to the Coastal Bend Bays and Estuaries Program to reflect that it wasn't just a Corpus Christi or Corpus Christi Bay centered program, you know, our program area is much wider both to the north and to the south along the coast, or I guess east and west, whatever, and so really the name change really was to broaden that appeal and to encourage these outlying communities to still be engaged. You don't want to be where the city of Rockport, what do I have to do Corpus Christi Bay? So, we made it a bigger name. So, that was how we ended up getting a 501c3 to implement the National Estuary Program here, and I'm going to take a little break right now.

[Brown]: Okay, sure. I was just going to suggest this. It was getting kind of warm.

(pause in recording)

[Brown]: Okay, we are back, Ray Allen oral history, so we had left off and you had just created this program as a nonprofit. Can we go back a little—

[Allen]: —sure—

[Brown]: —and talk about, ask you some follow ups there? Um, you talked about growing up and spending a lot of time on the coast and your love of the coast, can you tell me more about what you loved about it?

[Allen]: You know, I had, uh, a lot of out trips when I was a child with my father and my grandfather, it was a whole big family deal to go to Florida for vacation. Those were sightseeing, fishing expeditions, so it was the manly thing to do, was to go to the coast and go fishing and catch big fish and take those offshore fishing trips and do all that. So, really, my love there was, my parents had taught me to just be outdoors. I just loved being outdoors and for me growing up that meant going fishing. That's what you did in the outdoors. Sure, you went hiking and camping but all that was, you know, we're going fishing. So, of course by the time I move to the coast, I'm married, with Vicki, and we just liked going to the coast, and we liked the fresh air and being outside, but still I was fishing, and I went to school and at that time there was a thing called push nets. You could get a net and go work the seagrass beds, catch your own bait, which meant shrimp. So, it's like, okay, I could go catch bait to go fishing or I could catch shrimp to eat, and they were those little hoppers from the bay, little, small little shrimp, but you know what? They taste darn good when you boil them up and put them in a gumbo or something. They're really good, and you just have to have a lot of them. But just being outdoors was the main thing, but fishing was the thing to do, and then when I worked at the power station for

Central Power and Light on the Laguna Madre, I had access as an employee to the cooling pond, which, year around, growth of big redfish and trout and just like, okay, it wasn't really fishing, it was catching (Brown laughs). If you were out there, and if you knew where to go, you could catch them. And so, my poor kids, they ate an awful lot of fish. I had a good job, and I had a good salary, but we ate a lot of fish, lot of sea trout and flounder, and so just did all that. Eventually, well, I think I was still at CP&L, oh yeah, then my job, I moved away from the power plants and my fishing went down a little bit and did all that, but I still fished, and I had a boss at the other place, at the central laboratory, we liked to go fishing together, so we did all that. It was really a great, great life, and finally I got away from fishing. I decided that really, I liked being outdoors, and of course, by then I had all my degrees, and had been exposed to all sorts of life, not just fish and had a bird class and all that, so eventually I got tired of fishing. My wife got tired of fish, and so it's like, I just want to be outside birding, so I became an avid birder, and I still am. Uh, way back in high school, and I'm talking now '71, '72, that time frame, my favorite class was high school photography and those were the old days, I mean, film cameras and darkroom. It was a nightmare to master all that, and I never really did, but by now, we're talking digital cameras. You put your finger on the button, you get a hundred pictures in a second. When I grew up you could either afford a roll of twenty-four frames or thirty-six frames and every shot was careful. But, anyway, the whole idea of going birding and just being outdoors is really what drives me now, and I just love that. I was a birder and then I really wanted to get back into photography, so I bought some equipment, and I just love it so that's what I do, and that's what I'm looking forward to doing actually in retirement, is chasing birds a little bit more and doing more nature, not just bird photography but nature photography. I just love being outdoors and for me, it's a form of therapy, almost a, I don't want to say religious experience, but a very soothing experience for me to be outdoors, and it's because of my childhood and my parents and my grandparents, and my whole life has been an outdoor life, and the greatest frustration I had was, you know, I guess I took my kids birding too much when they were little and soon as they could they pushed back, "Dad, I don't want to go," and I think I overdid it with them, but now they're a little better, but they still don't want to go bird watching with me (laughs). So, that's really my journey through the outdoors life of camping and just fishing and just being outdoors and enjoying nature, and it's very spiritual to me.

[Brown]: And how did that translate to studying nature at college?

[Allen]: So, oh, that's a good question. So, I actually talked about photography after high school, actually, went to what's now was East Texas State University to pursue a photography degree, and it's like, oh, so, okay, I got up there, and we're close to Dallas so the professors, the art and photography professors, came from Dallas. It's a short little drive. So, they'd come in and do their classes, and I was into nature photography and sports photography, and the professors were into art photography, so right away, I didn't fit in. My idea of photography didn't meld with what they wanted, and it's like, oh, do I really need a degree in photography to be a photographer? I was going to be a professional photographer. Well, no, you don't because some of these guys teaching the classes didn't have degrees. They just had a career and had a lot of experience and were known in their field. So, I started pulling back. I had completed essentially all my basics that you have to take in college and was all caught up and trying to

figure out what to do and thought, well, I like marine life, so maybe I'll do that. Well, of course, I'm in Commerce, Texas, about as far away from the coast as you can get in Texas, maybe the panhandle's worse, but it's like, well, they didn't really have a marine biology class, and I wasn't really interested in farm agriculture classes that they had, and so I looked at some marine geology. Well, one semester of that, and I knew that wasn't for me, and that was that summer that I went to Port Aransas and ran into Rick Tinnin and found out about Texas A&I at Corpus Christi and by the fall semester, I'm in Corpus Christi, Vicki and I, my wife, we're going there. She has an art degree, by the way, so she benefited from those artists in Dallas, and they had some great art instructors here too for her to get her degree. It worked out really well. So, from photography, which was for me nature photography and now sports photography and wedding photography. I was already making money, so it's like I don't really need all this so then my wife wouldn't let me not go to school. This is why you need a spouse, you know, for me, somebody to kick my butt (Brown laughs), and she kept me in school, she wouldn't let me drop out, and so she said, "Okay, you go to Corpus, but you're going to school," okay. So, came down here, got into marine, you know, they didn't even have marine biology then, it was zoology, because the university system wouldn't let them do that because they taught it somewhere else, and it was crazy back then.

[Brown]: What was it like studying zoology there?

[Allen]: Well, it was a great—here as I talked about earlier of very small classes because now, we're junior, senior level students, there's no big freshmen classes where all the big numbers are, and the professors were all, I'll just say, young, and most of them were recent PhDs themselves, and they were still doing field research, and they drug all their students along with them to go do these great field trips and to do the research and to find projects for everybody and so just the exposure at that level was incredible. It's like, you know, professors themselves taught the labs because it's just a small university, and you develop a one-on-one relationship with your professor, your major professor, and he helped guide you or she, there were some, Joyce and Janice Freeman who were at the university at the time, just great people who really cared about students and teaching and weren't overwhelmed by massive numbers of students. The focus there was, you know, mammalogy class, vertebrate class, ornithology class, marine fisheries classes, uh, herpetology classes. It was just a broad exposure in zoology. It wasn't just, hey, go take fisheries classes. It was just like, first off, in an undergraduate, you've got to get everything, and, of course, the big prize at that time was to graduate and get to go to Coral Reef Ecology taught by Dr. Wes Tunnell in Mexico. So, it's like, okay, man, I'm going to grad school, and so got to do my graduate research project down in Mexico on the reefs off of Veracruz and Tuxpan. My project was looking at crabs, what species were where on the coral reefs, at what elevations in the water, and what kind of habitats they were in. It was just a quick characterization of what species were there. It was a master's degree, so you don't get too deep, but it was a great project, eye opening, got to go to Mexico multiple times. In the old days we used to drive, just get an old beat-up truck and drive down to Mexico, camp on the beach, camp on an island. Oh my God, I loved it so much. Then I had to come back, go to work, heartbreaking (both laugh)—

[Brown]: That must have been—

[Allen]: —heartbreaking—

[Brown]: —when Wes Tunnell had just started teaching then?

[Allen]: Yeah, he had. He was just—it was Wes Tunnell, Brian Chapman, and Bart Cook, and Joyce and Janice Freeman were the professors then, and they were all very young and, I mean, I was the youngest person in the class because most of these people were returnees back to college. The other students where, you know, mid-twenties, upper twenties, I was twenty-three. The professors were younger than some of the students. They were thirty, late twenties. Unfortunately, they're gone now. Chapman's gone, Wes Tunnell's gone, Bart Cook's gone. We get old, so it's tough. What a great life though. What a great life.

[Brown]: Yeah, sounds like a fun master's thesis.

[Allen]: So, I never had those classes where I talked to people to come to see me for job, "Oh, I took biology at A&M-College Station, that intro level, that first level class, there were two hundred of us in the class." It was a lecture program. It was like no hands on, no nothing. Yeah, maybe you had graduate students doing some laboratories. It's a different time and a different place, so I give an awful lot of credit to my college professors there. They taught me to know why I was loving the outdoors. It's one thing to love it, it's another thing to know it, and so that was a great part of that experience. So.

[Brown]: Nice. So, when you went to work, another thing you mentioned that I wanted to ask about is you're seeing—you said you saw the Clean Air Act and Clean Water Act like in action when it's first getting enacted, and can you tell me more about that and then some of these old timers who weren't used to that regulatory environment?

[Allen]: Well, certainly having gone to high school in the late sixties and early seventies, the passage of the Clean Water Act, and then the continued improvements to those regulations throughout the years and how industry stepped up, partly because they were required to, but in the end, it was better to do that. We all remember, if you're old enough you remember, the bad old days of the Houston Ship Channel catching on fire, problems up in Cleveland on a river, the worst of the worst from the fifties, the sixties, the after World War II industrial expansion, and all those things. It was a different time, I don't blame those people. It got corrected. It continues to be improved through additional refinement of the Clean Water Act and additional regulations and more specific guidance on specific compounds as we learn more on what safe levels are and what safe levels aren't. All those things, we got to see that, throughout my working career and college career, but also then here at the estuary program, and so it wasn't a surprise to me that when we got into the early 1990s, mid-1990s, if you will, with the estuary program, and we started doing characterization studies of pollutant loads to the bay, and we were able to document from self-reported data and testing data that the agencies had, along the way and industry, industrial discharges did in fact, many—the pollutant total, the total

pollutant landing of those specific pollutants had dropped by well over ninety-five percent. The dumping of lead and mercury and zinc and heavy metals and other contaminants had gone way, way down thanks to the Clean Water Act, just amazing. Nutrient loading in our bay system here had gone way down because wastewater plants had to make improvements. First, they had to have wastewater treatment plants (laughs), and then primary treatments, secondary treatments, and best available technology, so as technology improved for waste treatment, the plants were upgraded and expanded to do a better job of pollutant and nutrient reduction. It's just like, wow. We went from this time of these horrible conditions in the bay from pollutant loading to one of all that being pretty much under control, as much as you could get through available technology. You know, people still have discharges, but it's not like the dirty old days, and so for me what was fascinating to watch was these older petrochemical plants, refineries, industrial processes that had to be upgraded over the years, I got to see it firsthand at power plants, which are very, very clean operation to begin with because all they make is steam to run the turbines, so they got some wastewaters and some process streams, but nothing like at a wastewater plant or a petrochemical plant, so we were able to clean all that up and to see all that. To see these actual hard numbers when Professor George Ward from University of Texas up in Austin did his study and looked at total loadings to the bay system, I was more than pleased to see how much we had really cleaned up the environment, and you could see it in the environment, you could see that algal blooms weren't as bad, water clarity had greatly improved, seagrass beds had expanded because light penetration had improved, and you see this in other estuaries around the country where just getting the nutrients out allowed for better light penetration and seagrass beds were able to expand into deeper waters, which is a very valuable fisheries habitat in and of itself. So, those were great things, and we all know about southern states, and their opposition to regulations and things like that, but thank God for the federal regs, the Clean Water Act, and even though those authorities were delegated to the state of Texas and the Texas Water Commission and whatever the names are now, TCEQ, you know, they all really did a good job bringing the program around. It took a generation to make those improvements, and, yes, there are still some legacy pollutants out there. Nueces Bay still is contaminated with zinc. There used to be an ASARCO [American Smelting and Refining Company] zinc smelter on Nueces Bay. They discharged directly into Nueces Bay from World War II days and all after that till the sixties, and that zinc, those metals, don't go away. Eventually, they sink down in the sediments and get covered up, but every time the wind blows, they get resuspended, and oysters in the bay are just such good bioaccumulators, there's still an awfully strong metal signal out there in the bay system that has to be dealt with, and to this day, you're not supposed to harvest oysters from Nueces Bay because of metal contamination. So, really what we had seen, the Clean Water Act be very, very effective on point source discharges. It doesn't mean there weren't still accidents, you know, vessel collisions, pipeline ruptures, mishaps at plants. Those things still happen, but not like they used to. So, the issue for us at the estuary program, and I hope I'm not jumping too far ahead, became one of nonpoint source pollution, pollution that isn't easy to regulate, what washes off my personal yard or off my driveway or off the parking lot at the shopping centers, and all those other things. Those in some regions, those are the major source of pollutants to the bay now. Now, here's the deal, Corpus Christi population growth has been very slow over the decades here, so we've seen the bay's ability, because of the other nutrients went away, nutrient loadings from my yard or other

people's yard, it kind of was not as major a load to the system, so the bay system has the ability to absorb those nutrients and without having too much of a negative impact, especially at a time when we were seeing reduced freshwater inflows from the river, which carried a lot of nutrients, especially during flood events. So, it's like, yeah, we're taking nutrients away from riverine inputs, we've cleaned up a lot of the wastewater discharges, which by the way most of the pollutants were nitrogen compounds of one kind or another, and then we're left with this nonpoint source pollution, but we're not the city of Houston sitting on top of Galveston Bay or the city of Dallas sitting upstream on the river that goes to Galveston Bay. We've got this South Texas ranch land that goes on forever in our watershed, yeah, there are some cattle operations, there's some farming operations especially as you get closer to the coast, row crop farming, and just like everything else row crop farming has greatly improved over the decades, their ability to apply less fertilizers, less herbicides, because all those things cost money, it's in their own interest to put as little down as they absolutely need to, and land management, cultivation practices, retention ponds, so this has just been great overall improvements. Not to say that the problems have all gone away, but for sure it's not like the old days. It's just not like the old days.

[Brown]: Um, you know, you're talking about environmental changes, but do you think people's perceptions of bays have changed over time?

[Allen]: I think people's perception of the environment has definitely changed. I think ninety-nine percent of people consider themselves environmentalists now, and those people working in those refineries and petrochemical plants, I went to school with those people. They're now managers, plant managers, and senior level people. They enjoy fishing as much as the next guy, and they make that connection to what they do and how healthy the bay system is to how healthy the fish populations are, so I think almost everybody, and it doesn't mean there aren't commercial pressures or corporate efforts to improve profits and all that, but really, I think the general understanding by the population is much more sensitive to the environmental conditions and that extends to the bay itself. A lot of people here appreciate that, you know, we're not Lubbock in the middle of a dry, dusty (Brown laughs) plain here. We're blessed to have our bays out our front door. What a great playground, and the people who live here understand that and they understand that good water quality and lack of pollution in the bay system is good for everyone, it's good for business. If you get too much pollution, people come unglued at the companies and you start getting more negative pushback, and so it's just a good—and that's why I think industry and the Port Authority and all those folks there, they recognize that they're part of the community too. Now, they have accidents, there's some bad actors. I don't want to paint with too broad a brush, but generally speaking, these folks are very sensitive to doing as good a job as they possibly can and we learn more all the time, and sins of the past are still around in terms of previous contaminates, but mostly things have gotten a lot better. That doesn't mean we haven't lost a lot of habitat over the years, and when you have people, you just have more of a demand on the natural resources, whether that's freshwater, whether that's people going to the beach, or one of my concerns is so many people come here to go fishing. The fish populations, especially the targeted species, are really impacted by recreational harvesting, so I have a lot of respect for Texas Parks and Wildlife who has this dual job of getting people out to enjoy the natural resources and recreating and also protecting the

fisheries populations at the same time. It's very tough, it's very tough.

[Brown]: Yeah. Um—

[Allen]: Now, I do want to go back. There's still a lot of people who think there's too many environmental rules and too many regulations, and for them I would tell them, my own view on environmental rules or regulations is that there's never been a rule or regulation that wasn't a response to a bad situation. In this country, and probably everywhere, we are responsive to situations. Oh, turns out we have a pollution problem, we develop rules and regulations. Nobody goes, "Hey, that might be a problem ten years from now. We better have rules." No, they wait. So, we're always in a responsive mode. There's a word for that, I forgot what it is, but essentially the rules are written in response to problems that develop. Maybe not in your backyard, but so maybe the problems been taken care of, and now they've got all these rules and regulations still around doing their job, but why do we need them? I wouldn't pour mercury in the bay. Well, you wouldn't, but somebody might, so you still have to have those rules out there to protect the resource.

[Brown]: You know, it seems like water is the same way, of no one thinks about water until there's a drought, and we're in a crisis.

[Allen]: Ah, yes, the water cycle, the hydro-illogic cycle. Yeah, yeah, it's one of those basic, it's like clean air, you know, we all expect the air to be clean and breathable. We all expect to turn on the lights and flip the switch and the lights to come on. We want to turn the spout on at the water faucet and get a drink of water and until it's not there or until we're told to take more drastic actions to conserve, to most people it's just in the background, and I understand that. Well, I mean, it affects me in that same way, too. So, it's just a challenge to do that, but I think what we've seen here generally is a more in-depth understanding by more people about the importance of freshwater to the bays and estuaries. It isn't just, I need it for industry or I need it for my home, but there's these other needs out there, so there's a growing understanding of that, partly through environmental education through the school systems, through outreach efforts like the Coastal Bend Bays and Estuaries Program does, but just a general understanding of watching nature on PBS [Public Broadcasting Service], and that we're all connected to this great environment and need to find a way to live in it and protect the animals and the fishes and the water quality and still go about our normal lives of making a living, taking care of our families, and doing the day to day things we do.

[Brown]: Well, let's talk about you starting at the Coastal Bend Bays and Estuaries Program at (Allen laughs)—

[Allen]: Well, I started with the program, I didn't start it. Certainly there were many people involved. So, the idea that we came out of that, of the early years on freshwater inflows, I'm talking early '91–'93, timeframe on freshwater inflows and trying to understand how much freshwater was needed to the bay system, and like I said, the original certificate of the adjudication for water rights provided a big number, 151,000 acre feet per year, I don't know

where that number came from, but it was agreed to, and it's in the water rights. So, you start looking at that, there's no provision about where that water is supposed to go, what month it's supposed to go in, when it's needed, what it's supposed to consist of, you know, we don't want just purified bottle of water put in the bay because it's got to stimulate growth and all those other things, and this is an extreme example. We started looking at how to do that, and by the time the nineties came around, Texas Parks and Wildlife and the Texas Water Development Board had been looking at freshwater inflow. So, this wasn't just a Corpus Christi-Nueces Bay issue. This had been dealt with in other places, and so the state of Texas actually had a model for, uh, for how much inflows were needed to at least meet salinity levels because freshwater inflows give you all these great benefits, they're tough to measure, and you have freshwater inflows, you have a good year, lots of nutrients come in via the river, two years from now, three years from now, you have a nice fish population. It's very hard to coordinate that back and figure that in. We all understand the concept of it, so the state came up—they had a model, and we started looking at that, and we started applying it, started looking at what organisms, what animals lived in Nueces Bay, what plants, oysters, shrimp, white shrimp, brown shrimp, what fish species. Some of them are very tolerant of salinity ranges and some of them, like oysters, are very specific, spartina alterniflora, a marsh grass, requires certain salinity levels to really thrive and reproduce, so you start understanding what all those connections are from a salinity point of view. So, the model was driven by salinities, and then you start going, when's the growth season for oysters, when do the white shrimp come in, what months do they spawn offshore and the little shrimps come in to the bay system, and what conditions do they—so, you start looking at all that and you factor that into the model and you come up with, in order, some calculations to figure out how much water you need to get into the salinity range that's needed for those animals to be healthy and productive. Because if you aren't, some will survive, but the percentage of animals at those younger stages in order to have a big shrimp a year later, you've got to have little shrimp early. It's pretty obvious so you got to have the right conditions to get the conditions right at the right time of the year. Those are all laid out in the model and from there we tried to figure out how much water to get that within the water rights permit for Nueces Bay because see we had this constraint, there's already, the reservoirs are built. You can't undo that so what's the best you can do, and the focus was, well, look, nature would have provided these inflows to Nueces Bay and the mouth of the river and the deltaic marshes, all these prime environmental ecological habitats out there, this prime estuarine area for life to grow, for little fishes and shrimps and crabs and everything else to start the food chain process, and it starts way below little fishes and little crabs. When does the algae grow and the bacteria and the little copepods and all those other little things that are out there that start really the bottom of the food chain, the beginning of the food chain. So, we don't really understand all that all that much, all we know the baby shrimp are move in, so you got to have conditions rights and little fishes. Then you start laying over the historical rainfall patterns and inflow patterns. So, the nice thing is we had a, thanks to the U.S. Geological Survey and the city of Corpus Christi because the reservoir management, they had a long track record of when did it rain and weather stations, you know, when did we see these freshwater inflow events, storm events come in, and what kind of flows, and so you start factoring that in to, because the system really, the ecological system has adjusted to accommodate those seasonal patterns, so here we have a kind of a bimodal, we have spring events, and in some years we have fall

events, primarily associated with tropical season. We don't get them every year. We don't even get seasons, spring season that rains every year, but that's really the kind of traditional, historical pattern of rainfall events, so you factor that into your model also, and you do all that, and you end up with a, well, we need these inflows in these months to try to make the target, and then you start looking at the physical conditions out there and this is why we're here today at the Nueces Delta Preserve, the Coastal Bend Bays and Estuaries Preserve here, is it takes a certain amount of flow event to push water through the deltaic marshes, the river, as all rivers do, had meandered to the far south side, if you will, of the delta complex here, and the river would under low flow conditions, would simply flow directly out to the mouth of the river and into Nueces Bay and bypass the deltaic marshes, all that prime habitat. So, what we had seen due to the drought and because of the reduced freshwater inflows due to the reservoirs, is we weren't getting these freshwater events flooding the deltaic marshes, and they had over the years become hypersaline, you know, bay water would be pushed up on tidal cycles, seasonal tidal cycles high up, and then it would retreat, leaving saltwater behind, they would evaporate out, and you'd get these hypersaline flats. When we started buying the property here in the Nueces Delta in the early 2000s, there were places you could walk out there, and what should've been marsh was crusted over in salt from the water evaporating away. So, obviously no vegetation could withstand that or very, very little, and so it was just habitat had been destroyed or altered from what it had been. So the decision from the resource managers and water inflow management effort was, we need to put water where it's most needed. We need to put that water, at least some amount of water into the Nueces Delta, and so we started coming up with strategies of how to do that. There's an old river channel called the Rincon Bayou, we may get to look at that here in a while, that would allow for flows under high flow conditions, the water would enter into that channel and flow through the marshes and spread out and really inundate thousands of acres of what should be marsh habitat, but because of the reservoir system, we weren't getting those floods. They had been scalped off to build up the reservoir's water supply. So, the first effort, and bless their heart, the Bureau of Reclamation who was the builder of Choke Canyon Reservoir stepped up and opened a channel from Nueces River into Rincon Bayou so that it would take less of a river flow needed to push water through the system, but the truth is it still didn't happen often enough to make a difference. So, we went back to the table with the parties and the city of Corpus Christi was receptive to the idea of literally moving water via pipeline, a pump and a pipeline, into the Rincon Bayou so that a very small amount of water could be delivered to the delta and flow through the marshes. Well, they're so shallow, it doesn't take a lot to freshen them up, but it does take some water to do that. So, after all the permits were obtained, the city finally was able to build a pump station above the saltwater dam, and to build a pipeline that would come around and discharge into Rincon Bayou, and then flow down through the bay, through the marshes directly to Nueces Bay, and spread out doing so. That was a great solution, and they ran that, and I'm not going to go into all the details of the agreed order on freshwater inflows, that's a whole other history lesson into itself, but needless to say that over time enough water was delivered via pipeline to the Rincon Bayou that the salts that had built up in the soils started to be flushed out, the vegetation started coming back, we didn't have to replant. It just came back when the conditions were improved. The animals, the fish, shrimp, the crabs, they all moved back. The birds came back to eat them. The bigger fish came back to eat the little fishes. The whole

system started to be restored, and that's where we are today. We still have drought situations here because our watershed's in a desert, so it's a flashy system to begin with, but that's part of the system. It's not like it flows every day here, it doesn't, and it can go for months without flows. That's where we are today here in May of 2022, is we've been in an extended drought now for a long time, and it's just dry out there. We need water. The system's adapted to it. The crab and fish and shrimp populations won't be as productive. They won't die off and go away. There just won't be as many of them until there's a better cycle, and some of the great studies we've done, I've looked at that, it seems that really you need a couple of good wet years to build back up the shrimp and crab populations, and so there's more to learn, and we here at the estuary program, we've been investing in those kinds of studies to understand what happens and how that works, and so that we can tweak the current management system in place to improve ecological productively hopefully without too much more water to be needed for that purpose. So, that's kind of where we are with that, and it's an ongoing effort to understand the system, to understand the biology associated with that. We first started looking at fish, shrimp, and crabs, things that swim and move and are mobile, and then we started working with folks at the Harte Research Institute at Texas A&M-Corpus Christi looking at the benthic communities, and UTMSI in Port Aransas, and trying to understand further down the food chain. It's nice to know about redfish and flounder and white shrimp, but you really need to understand algal blooms and copepods, and all those other little things that really are the base of the food chain, the bacteria that really drive it all, and so it's very complex, and I don't want to give the impression that we really understand the system all that much. We have a broad understanding that gets us pretty close to where we want to be. I think as we look at freshwater management of inflows, we're in what I call the tweaking stage here. We might even be able to do a little more or little less. We might be able to do it a little better, but overall, the big issues have been dealt with given the water supply that's available. The truth is there just isn't enough water left in the Nueces River to have oysters, oyster reefs in Nueces Bay, can't get the salinity levels where you want, only nature can do that, and that might take like a ten-year wet cycle, so these are beyond our management controls, and that's why really although we have oysters here in our bay systems, we're like the southern point in Texas where Crassostrea virginica grows, and numbers were really just beyond the southern point because we don't get enough rain here. That's why you go to East Texas, you go to the Galveston Bay system, the Matagorda Bay system, the San Antonio Bay system, even the Copano-Aransas, they all get more water and lower salinities because they get more rainfall. So, those bay systems are much better suited for oysters, doesn't mean we don't have them, and if we get a couple good years they can take off, but we're just on the dry side of where they really want to take off and be happy, so it's a challenge.

[Brown]: So, you talked about, you got the water in now—

[Allen]: —Right—

[Brown]: —with Rincon Bayou and the channel. Um, where did the idea come from to purchase the land and create a preserve?

[Allen]: Well, that was a good deal. That came about at about the time we had the National Estuary Program started here in the mid-nineties, '94 we kicked off the program, '98, '99. One of our action items in our Comprehensive Conservation Management Plan, or the Coastal Bend Bays Plan, was to encourage habitat conservation through acquisition, , buy it, protect it, manage it for fish and wildlife. And within all these discussions about moving water around in the Nueces Delta, we realized those lands are all privately owned. Before you start flooding other people's property or trying to manage them, you either got to get conservation needs or management agreements or buy them out, and so we happened—it's a great story. The Coastal Bend Bays and Estuaries program in like, we opened the doors officially in 1999, by 2000, a couple of, an industry here had, had a number of oil spills and pipeline releases, so a large settlement came about that generated some money, and our friends at the Texas Water Commission, a fellow named Buddy Stanley, he's still around. He was the manager of the local TWC office then here, and said, "You know, they're negotiating a settlement here in response to all these oil spills and violations, and there's going to be money. Ray, what will the Estuary Program do with that?" Oh, well, we're looking at these great habitats out in the marsh and some of it's for sale. We'd like to buy it. So, we got some money, and this was the beauty of the estuary program. We could take those funds, and we leveraged them up. We'd go get matching grants, we'd go find other sources of money, and we'd just roll those dollars over and over until we could get enough money to get a Fish and Wildlife Service grant, get other dollars somehow, somewhere, to do these land acquisitions. Today, here in the Nueces River Delta, we own over ten thousand acres of land. There are still some privately owned lands out there and some state owned properties, but that's the bulk of it, is that we own. So, we're able to give ourselves permission to move water around to do habitat restoration, to remove old farm and ranch roads and oil field roads that had blocked flows, and to do a revegetation work and just otherwise try to restore the function of the habitat, and that's much easier to do if you own it. You don't have to ask anybody else (Brown laughs), except for some things require permits even when you own the property, so we have to be respectful for Corps of Engineers' wetland permits and things like that. That really was the—we saw an opportunity to move water into the system. It just looked easier to start acquiring it, working with the property owners, and then finding the money to do acquisition. There was a lot of support from that from our state and federal agency partners, all the money comes from Washington, D.C., at one point. So, we just hustled up the money to start doing these purchases and do these restoration projects, and that's the way it's worked out for us. It's been very fortunate, very fortunate.

[Brown]: So, the purchases, I read somewhere that one of the big purchases was a ranch?

[Allen]: Well, all of this was South Texas ranch land. This area that we're sitting in now, the upper portion of our properties here at the Nueces Delta Preserve, were owned by the McGregor family, Mr. John McGregor, been in his family for a hundred years. By the time we visited with them, they had leased it out for cattle ranching, they had sold some of it off, there was a sand and gravel operation on the property because there are some sand deposited here. There's not much gravel, thank goodness. That caused them to go out of business, so there's sand, but there's lots of sand around, but there's not much gravel. These are things I've learned (laughs) that I didn't learn about in school. But anyway, the idea was we had a willing seller and

a willing buyer and a fair market appraisal, and we were able to get grants and funding to make those purchases, and we just started building on it, and some of the neighbors, other property owners, the land had been on their property for generations, small pieces here and there out in the delta. Some of them had never even seen the properties, never been to it, it just came with an inheritance that cost them tax money every year, so some of them were more than happy to let us buy them out. Just over a decade or so we've been buying properties as we can find a willing seller and find the money to make it happen. It's worked out really well and allowed us to create this over ten thousand acres of estuarine marsh and associated uplands to protect it and to restore it. When we started down that path, I'll be honest with you, we didn't know that. Nobody said, "Hey, let's buy ten thousand acres." No, they said, "Let's buy this spot where the water goes into the Rincon Bayou." Oh, the neighbor's for sale, oh, it just happened, and then we realized, oh, we should be doing this as a real effort, and then we focused on what's available, who owns what, where can we make this happen, and that's where we had great people on our staff who said, "Ray, let me go talk to these neighbors to see if they're interested in selling, and what they're thinking about their property and what their thoughts are," and it just kept working out, and it was really a great advantage to the program to do all that and great for the environment, I think. So, I feel really good about it.

[Brown]: Yeah. Can you tell me how you developed the educational programs?

[Allen]: Yeah, can we take a break for—

[Brown]: —Sure—

[Allen]: —a few minutes?

[Brown]: Sure.

[Allen]: I'm going to go visit—

(pause in recording)

[Allen]: Good, good.

[Brown]: Okay, we're back and recording. So, you were just going to tell me about the educational programming?

[Allen]: You're right. We started acquiring property here at the Nueces Delta Preserve, that's what we call it now. The first piece of property was, as I mentioned, was purchased from John McGregor and his family, the McGregor Ranch, and it was a time—we still had a lot of, and we still do have a lot of different committees, the whole National Estuary Program is built on stakeholder participation and committee structures and public involvement, and we had this wonderful lady named Jane Ward from Ingleside who was working with us, and she was our, whatever we called the committee at that time, outreach and education, or something, and so

she knew that we were buying this property for conservation purposes, so she came out, looked at it, and immediately, I think she must have had some teacher background experience. Did you know Jane? (speaking to Education Coordinator Kimberly Ogden who joined for this part of the interview) I'm sorry, I'm off topic here, but so she said, "Oh, this would be a great place to bring the students out and the teachers out." So, we started looking around at educational programs. At that time, we were, as a program, at the estuary program, we were funding and supporting other efforts. The university had some teacher training programs in the summer that we would fund. We would help at Texas Parks and Wildlife at their state parks, they would do educational programs and things like that. The aquarium, we would help them with some things. Sometimes with funding, sometimes with manpower. Jane came out, said, "We need to be doing something here," so we started looking, we wanted to understand the educational need, and it didn't take long before we very quickly read the *Caller Times* newspaper and saw the headlines that our area, the students were already scoring poorly on science and math, you know, that we were behind the curve here on all that, so we worked with the university, Texas A&M-Corpus Christi, to try to figure out why that was and the answer, and the answer, I'm sorry I forgot the name of the researcher who was, who did that little survey, who came back and said, "Well, it turns out a lot of the teachers at these grades themselves are not that comfortable with environmental education." They just didn't get it in their training. They don't know how to present it. So we started off doing summer teacher workshops, and end of the semester, whenever we could meet with teachers. The main focus initially was, hey, let's reach out to the teachers and help them, do they need supplies, do they need training, can we get them out here and expose them to it and give them some examples of how they could, from either their classrooms or nearby, do these kinds of environmental education things. Well, we did that for a couple years and by then the teachers were clamoring to bring their students out here. It's like, can we bring out, come out here for a field trip? So, we staffed up a little bit, and we liked that idea. We had some board members who were very much thrilled, a fellow named Bob Corrigan who was on our board, had been very involved, loved this concept of mud between the toes. Let's get these kids outside, they didn't really get mud between their toes (Brown laughs), but we really wanted them outside, he was an outdoorsmen himself, hunter, fishermen, just loved being outside, and so, yeah, let's try—and he realized from his involvement with other groups that the number of kids getting exposed to the outdoors had gone down over the years, and it was becoming a real problem for recognition of the value of natural resources. So, we just started doing that, and it just snowballed from there, get some good staff people come in here, started doing these teacher workshops. The teachers were then invited to bring their students back on field trips, and then eventually they talked to other teachers who hadn't been here so they wanted to come for field trips, and then the teachers would come the next summer for teacher sessions, and, of course, you're doing all that within the confines of what the school districts would allow, what kind of training the teachers needed. We were able to offer continuing education credits for the teachers, but in the end the bread and butter became, let's get these students out here. For a lot of these kids, this is the first time they'd been in a park that didn't have paved sidewalks, you stayed on and mowed grass as the main part of the park. So, getting them out of here, and the kids would get off the school bus and the first lecture they would get was safety. Watch where you step, watch what you grab, things like that, but for these kids, it was a real eye

opener, and especially for the city kids. Some of the rural school districts, their kids come from more of a farm and ranch background, so for them it wasn't all that new, but for the city kids I call them city kids, it was a great experience for them, and they would love it, and they'd go to tell their parents, and we finally started offering some weekend activities for the parents to come out with their kids, and it just snowballed along, and finally we were seeing eight to ten thousand students a year and their teachers out here on an annual basis, and over the years then, we staffed up, we increased the staff. We were able to get funding to do that. Some of our industry partners stepped up and helped provided funding to pay staff and pay for supplies and materials, and with our board support who just loved it, our board of directors, they just loved it, and so did we at the management level, we just kept building on it, looking for new ways to do that, and one of the keys for us, because over the years it got harder and harder for teachers to get permission to go on field trips, you know, to get the principle, to get the school district to approve it, that's not even talking about the cost of the buses and all those hassles, but we had to make sure that our education efforts, it wasn't just a fun day at the nature preserve. When the students and their teachers came out, it was geared towards their specific teaching requirements. What were the state standards for the first, third grade, fifth grade, whatever grade they were in, and so we had to have a curriculum and activities for them to do out here that the teachers could then go back to their science coordinators or their school principals or superintendents in some districts, say "Look this going to fit right in to what we're trying to teach here out of our required TEK standards." And so, that's really (coughs), excuse me, that's really been the key to really responding to what the school districts need, to what the teachers need, and trying to fit in a great learning experience for the students to come out, and we've had students here from preschool to all the way through high school and those special science classes that they have and even college classes come out here on field trips, so it's just been a great, wonderful thing, and then, of course, then we had COVID hit, and it just almost shut us down. Our staff out here responded by going to the schools when they were allowed to. Some schools didn't let other people in, trying to get video services to people could do field trips from their desks, and then now we're starting to slowly come out of COVID-19, restrictions, and we're really, this is now May of 2022, we're seeing more field trips at the end of this school year, and we're really looking forward to gearing up for next school year. And maybe having to gear back up all of our education, you know, we had some, I want to just say our staff did a great job. We had some great volunteers, we had some great part-time people. Unfortunately, during the time of COVID, we just didn't have enough need for them, and they kind of went and did other things, but we're trying to gear back up now and see what we can do in the coming school years. There's still a firm commitment by the Coastal Bend Bays and Estuaries Program to get these kids outdoors and get them exposed to nature within a scientific concept, and over the years we actually started doing things other than just science out here. A little history, a little art, a little other things that go with all that, and you'll have to come back and talk to the staff about everything they've done here. They've seen a need and tried to fill it whenever possible, so it was great. I'm starting to perspire so.

[Brown]: Do you want to take a break or do you—

[Allen]: I'm going to get some paper towels.

[Brown]: Okay.

[Allen]: I'm hot. What's it like out here on the weekend?

(end of recording)

[Ed. note: we ended the interview here.]