

## Len Bahr Interview

**Interviewers: Don Davis and Carl Brasseaux**

Roy Kron: So we're recording now.

Don Davis: This is an interview with Dr. Len Bahr. I'm at his home at 5544 Melrose Street in Baton Rouge. My name is Don Davis. Dr. Len Bahr, before we get started I just want to get your permission to record this conversation and put it in the archives so that people who want to study essentially coastal issues, some various perspective in the years to come, can listen to it and get information.. use it in articles, books, documents, whatever project they are working on. Is this okay with you?

Len Bahr: It is.

Don: Alright Len, give your full name and your birth date.

Len: It's been a long time since my birthday, it goes way back. My name is Leonard, you don't need my middle name huh?

Don: No.

Len: Bahr Jr., and to this day I'm disappointed my father didn't have more creativity than to make me a junior. I've always hated being junior because he was (inaudible) in Baltimore. I was born in June 17th, 1940 during the war and my father was a (inaudible) in Baltimore, and teacher. He's been dead since 1990, but my younger sister elected to putting all kinds of things about him on the internet, so my name gets confused with his. Nobody ever called him Len. I didn't want to be called Leonard because that would be different, but anyway long story short, or short story long.

Don: This study has been approved by the LSU IRB [Institutional Review Board], if you have any questions please contact the chair, Dr. Dennis Landin at 578-8692. Leonard, you and I have known each other for decades. What prompted your interest in coasts or in marine resources in the coast?

Len: I graduated from the University of Maryland as very mediocre student I would say. After trying different majors English, engineering, fine arts, eventually zoology which I finally graduated in, but I had a hard time deciding what fields to engage in, because I was interested in everything including writing, literature, politics. My father and mother both instilled in me a passion for coastal water estuaries, because we were going to go outside of Baltimore near a prominent estuary, Chesapeake Bay, and so we canoed. That kind of surrounded me so when I finally settled on that career choice it was ecology, which was very young then. There was one

professor of ecology at the University of Maryland who befriended me and guided me a little bit, inspired me. So when I graduated with a C average, having flunked out and having been subject of the draft to go to Vietnam which was a major turning point in my life. And now I'm taking a job at a printing press and learning how the real world worked, I decided that wasn't for me. So I went back to school. I was nervous, I couldn't focus enough to work hard and I was commuting for the most part and I had a car that broke down constantly. My parents had modest backgrounds, so I didn't want to burden them with textbook costs, so I didn't buy textbooks. I took an engineering math course at 8 o'clock in the morning and I missed about 1/3 of the classes so I didn't do well. When I graduated, my advisor advised me to not think about grad school but rather to take a job and see if I liked it, so I did. I got this professor, ecologist from Wisconsin help me get a job at the University of Maryland biological laboratory. It's on the river. Beautiful place. I got a job as an oyster assistant, oyster research assistant with a wonderful man who was their senior, one of the world's experts on oyster ecology. He helped me along and I worked there for 3 years and published a couple of papers and had a marvelous lifestyle. I never wore a tie or long pants in the summer time. My samples were on the pier. I could just walk out and jump in if I wanted to if it's hot. I spent a lot of time in boats, traveling the bay and studying oysters and diseases, oyster diseases and problems. So I went out and after 3 years I realized I had to go to school or just stay there for the rest of my life and \$1,000 a year didn't seem to good. So as much as I loved the place, I rented a house for \$65 with a pier for the sail boat that I'd bought... I'm not sure how much time we got on this tape, but I decided to go to the University of Richmond. I had met a professor there who I became friends with, he talked me into signing up for a master's degree. Even though Richmond was for the arts, he was a coastal scientist named John Bishop. I spent 2 years in Richmond, very conservative city, very little power politically, so it was a strange time. I finished that, married, went to the University of Georgia, worked.

Don: Was that for your PhD?

Len: Yeah. Worked for a doctoral program. I went back to oysters. I had worked for a fresh water invertebrate in Richmond. (inaudible) I went back and it turns out that the coast of Georgia, where I met Jean Turner, has beautiful islands, and the most delightful undeveloped gold mine. Georgia coast, I didn't even know there was a coast, south of Savannah. I discovered that there were reefs, oyster reefs off the coast at very high tide.

Don: Now is that Sapelo Island?

Len: Yes. That's a safe place, neat and wonderful. also strange, the people that lived there were strange.

Don: Gullah?

Len: No. I don't know the natives. (Inaudible) My professor was Dirk Frankenburg who ended up getting recognized as one of the top people in the science foundation at that time, so he pretty much went off to Washington D.C. and left me on my own which was great for me. I was pretty much an independent grad student. I was liberal and not too many students were happy with that.

In 1973, or 72, I had met Jim Gosselick in college, needing some work. In 1973, before I finished and got my doctorate completed, I had done everything but dissertation approval. He invited me to join a team of researchers at LSU to study wetland resources. That doesn't exist anymore. Ironically I came as part of the team to study the effects of oil and gas production on the coast of Louisiana, and I laughed because who would have guessed that many years later I would have become a really out spoken critic of the way oil and gas production has happened in Louisiana. A fan of (inaudible), the work that he's done, documenting the impact it's had on this state, which is extraordinary. He also, he also did a scholarly monograph, it was published in 2015 I believe. Then the oil and gas thing came out, then the other one was about shell drudging. I had become very much involved in shell drudging during my stay at LSU. I had always wanted to study oysters, get back to the oysters, because the state was busily happily in (inaudible) in contracting the drudging away of the world's largest oyster reef off of, it was called Point au Fer Reef off the Atchafalaya River. I wanted to study it before it was all gone, and I had made friend (inaudible) for sure with, I can't remember what his title was, but he was heavily involved in LSU, politics and development of wildlife and fisheries. His name was Ted Ford. He rest in peace. He had drinks on his porch, gin and tonic or whatever it was while he was talking to me and making sure that I didn't get any funding to do this oyster study, because part of wildlife and fisheries is heavily conflicted with the shell drudging industry. They were getting commissioned 25 cents a bushel for all the shells drugged. They had no interest at all in seeing an outspoken researcher out there documenting what we were doing to the coast. So he put the word out there I was not to get funded. I ended up, after 10 years... I've been let go. My contract wasn't renewed, I wasn't fired, it was mostly a soft money position.

Don: I'll interrupt for just a minute. Explain what soft money is for those people that aren't familiar with it.

Len: Yeah, soft money is an academic position at a university in which the employee has to pretty much generate his own funding from whatever sources he can impress. I came in 1973, joined the faculty, the next year I became an assistant professor. I started as a research associate, then I had no problem, I worked with some good people, I was very high, because money was easy to get, research money. That was before the recession hit in Louisiana, gas went down to \$5 a barrel or whatever it was and so 1982, that's when it really hit. Jimmy Carter was president, there was a crisis (inaudible). All of a sudden, our funding became very difficult to come by. I had work with Jim Stone, who got a big million-dollar grant from the news to study Lake Pontchartrain. I became heavily involved in that with some grad students. When the corps pulls a plug on that project in '82, everything changed for worse and we all became worried, cautious, where as we'd all worked together, all of a sudden, nobody talked to anybody else or (inaudible) wondering who was going to go. We didn't have any tenure protection. During those end times I survived until '84. By that time it was clear I was headed out. The economy was really bad at the time. I had become a parent, our daughter was 4 years old and I lost my job and my wife was leaving me, she wanted (inaudible), and it was scary. So, it was a really really bad time and to relieve the stress I started, I became an alarm disinformant. Actually I started in 1980 when my daughter was born. I became very obsessed about it and very good at it. I was very competitive for my age. So when I lost my job I thought well I'll just create a business and I started running a business, I put on races. Considering that the economy was so bad at the time, it survived through marginally for 5 years or so. Created a whole part of my life that was brand new

politically, I met new friends and new people and stuff. So, I kept my head in with the universe to croute pretty much, and as a result of that one Friday afternoon, Paul Templet and I, we were big buddies at the time. He was at LSU and then he took a job at DEQ. He was very political. He and I had started a beer drinking session every Friday afternoon at a bar on Chimes Street right by LSU's north gate. It became quite a big to do. A lot of people started coming to that event until in summer it sold out and lost its lease or whatever. So I started, so I took it on myself to recreate that event at a place on Perkins road. At one of those final sessions, one of Jim Stone's former students, Doug Chambers, came and we were drinking a beer together and talking. He had just joined the governor's office as the first coast executive assistant. Brand new program had just begun in 1989. I forgot to mention that before I had this conversation with him. In 1989 my money had pretty much run out and that was after becoming a single parent. So out of desperation I had taken a job at DQ while it has its race permits which I was absolutely unqualified for. I hated it, it was a bureaucratic job, I made an enormous amount of money, but I was working for the state. Paul Templet was secretary. He didn't help much. So I was really unhappy there and that's when I had this conversation with Doug Chambers, he said well why didn't I come join him as an assistant in the governor's office, I said I could've kissed him on the spot. So I did that. One year, the (inaudible) administration. I appreciated (something), me and Paul Templet were very close, he knew me well. I was dating his ex-wife and all. That was another story, but I had become very enchanted with my introduction to politics and science and since I was in administration, the new election (inaudible) but it also was to KKJ himself. I decided to try to fight to stay on whatever got elected or reelected actually. So David Duke was an embarrassment of course. I had become a friend of his daughter in law, Arlene, who was (inaudible). She was the runner-up; she was just a friend from (inaudible). I met a lot of friends from (inaudible). As it turns out, when (someone) was elected, I called Steven I said you know your dad probably doesn't know that there's a coastal office. It's brand new and it's very important for the state. I'd like to talk to you about it, so he gave Dave Chambers and me a note, cause he was a lawyer, at his law office. We spent an hour or so at the end of which Steven called me back and said he wasn't all that impressed with Dave Chambers, because he suggested that I'd be the right guy to head the office to take Dave Chambers place. They called me, and offered me the job, the rest is history.

Don: Let's stop right there, because that's an entirely different part of your life.

Len: Oh yeah absolutely. I have 3 parts of my life. The science, the academic science, (inaudible) and then the politics. Let me get more comfortable, this chair is starting to rub into me.

### **Len Bahr 2 Interview continued:**

Len: Dave didn't want to stay anyway, he wanted to go to the EPA in Washington, which he did. That's a story of itself, because Dave had his own form of opinion just as we all do, about people and issues, and one of the people he didn't respect at DEQ was Merlina Neal, you probably don't remember that name..

Don: I do.

Len: Oh okay, well that was an attorney who did some regrettable things, she didn't really sign, so they didn't respect her for that. Low and behold he goes to Washington D.C., UPA headquarters, gets a job and she is his boss. Can you imagine? He didn't last long. He ended up going to Delaware to work in the credit card business, completely got away from ecological stuff.

Don: You mentioned a couple things I'd like to go back to. One, your father is a painter I recognize. A landscape that often appears in art work deals with the coast. Was your father ever a painter of the coast?

Len: Not really.

Don: Alright.

Len: He probably did a few landscapes, but not, more pencil.

Don: The other thing is you and Jim Stone worked on Lake Pontchartrain. Rodger Soucier wrote his PhD on Lake Ponchartrain, but from the point of view of a geologist, you were looking at essentially ecology and as I recall there was some shell dredging issues, but was that ever published?

Len: Yes. There were 2 significant documents that came out of the Ponchartrain study that I was involved in. They were both written primarily by Walter and Jean Sikora. I don't remember the titles, but they're probably still available in some libraries. One was the condition of the coast, of the bottom, the community. The other one was a report on shell fishing impacts, and that became quite a controversial, it was a well done piece of work. Walter and I, he's in Georgia now, we have a lot of disagreements about a lot of things, but I will never discredit that work that he and Jean did. It was quite a piece of work. It got me involved in specifically in the reason I lost my job, I mentioned before that shell and the oyster dredging, I had also come into contact with the dredging industry which was small but very powerful in those days. I testified, I didn't even remember this, but I testified at a coastal commission that Paul Templet set up. That's documented in the report on the dredging issue. The other prominent scientist who worked on the lake was Leslie Darnell who did a report back in the old days, he did a study of fisheries and just the health of the lake. The reason the corps hired Jim Stone and the rest of us to go study was it was pretty much an environmental impact statement of the lake. Before the corps, we'd be allowed to construct some big barriers on the north shore. The other reason, they were planning to sell some moveable metal barriers that could be closed before a storm approached. The corps finally pulled the plug, because they abandoned that idea in order to build higher levees on the north shore. That is very unfortunate, because it covered a lot of different things including fisheries of course and then marshes, I had, John Day and I had a student that we shared her view on marshes and stuff so, anyway.

Don: Well the reason I bring it up. In some ways, Lake Ponchartrain's been ignored. Now Shea Penland did establish an institute at UNO to look at Lake Pontchartrain. With your interests have you ever seen anybody continue that research in what was 40 years ago?

Len: No and that doesn't mean that it didn't happen. Let me back up a little bit, because we're talking geological science. I always thought it was ironic that Jim [James] Gosselink hired me to come and become part of a team study of coastal delta. The delta itself, the largest delta in North America, I call it America's delta. The Mississippi Atchafalaya River delta complex, MARC, was an is an incredible ecosystem. A worldwide prominence, importance, significance. It formed 7,000 years ago, roughly began to form not long ago along with the other deltas. The sea level rose after the (inaudible). So I came down here to join, well before I get to my part, back in the 50's and 60's, some geologists I assume, coming from companies to exhaust an incredible research on, I call it forensic research on the delta. How it formed, when and how it formed. The various lobes, about every 1,000 years it would change course and some parts would start to disappear. So that work was done at LSU. I blank on the names, but Reed Gagliano came along in the 70's after that forensic work had been done and told to the world that this delta was dying. It was disappearing at an extraordinary rate. So I give Woody the credit for really calling attention to this before anybody else did. So I was high in '73, he was doing work in the 70's and so on. I was hired to come down here, but I was a coastal ecologist, I had worked in Maryland Chesapeake Bay and I had worked in Georgia. The only reason I'm surfaced here is I worked on wetland issues and so on, but all these estuaries and what I call the near of the coast, the surface. I never had a geology course in my life, and I'm not proud of that, because I learned a lot about geology in the years since on my own. It has occurred to me many times that whoever made the decision, I'm not saying it was just Jim Gosselick. The team that I worked with was mostly just surface people, ecologists. They should have, it seems quite obvious to me now, put the emphasis on the underlying processes that, the tectonic processes that really drive deltas. Whether they did this on purpose or not, I will never know. Some people think it was a purposeful decision not to go too much into the geology, because we couldn't really guess if it's so powerful. It was on shore production that caused incredible damage. It was moving when I came here, it was just in the process of moving off shore. It was balls to the wall exploration, dean canal like there was no tomorrow. To hell with permits and permit compliance and some of that. So it's possible that there was a strong political motivation for having people like myself. One of the things I was hired to do was to be a part of the study of the effects of a major pipeline that was created to build, well first it was a loop pipeline, the off shore oil pipe, Evan Edwards project, and then a decision was made back in the Jimmy Carter phase I guess to create this strategic petroleum reserve, and Louisiana was the place to put oil and the pipelines pile it out, so that's what they did, they built the pipelines to do that. So there we were, supposedly looking at the impacts on birds and marshes and so on of pipelines. That's a very tough issue, tough thing to do. I work with a guy from Texas, Dave Maybee, a great guy, wildlife biologist who spent many hours flying over the coast in flood plains, counting birds. Seeing if there was any difference if he flew over a pipeline area versus a non-pipeline area. That kind of research is almost dying to fail. I don't think that was the purpose, but you know. So, to this day, I think we, that's the under study of geology. Of course, Shea Penland and some others did some great work including documenting impacts of oil and gas production and other issues. He created that UNO institute whatever it's called. I think during the time, I'm not sure of the dates, probably when I completely lost my job at LSU. I was pretty bitter I must say. I kind of wanted to divorce myself

from issues. I took a hiatus about 5 or 6 years, 8 years maybe where I didn't go to things and I made it a point not to be involved. When I got back and I was at the governor's office, I was full of new enthusiasm and interest and became a pretty outspoken. Well one of my other characteristics when I was still happily at LSU was my interest in, I had already developed an interest in politics. I had someone write letters to the editor, which didn't go... LSU was a very political institution as it still is, and it didn't go over too well with the dean, Jack Van Lopik. He talked to Jim Gosselick about me and said, "can you discourage Len Bahr from writing all these letters," and Jim said "what do you want me to do? Take away his opinion? There is a 1st amendment. So that was another little complaint that I know some people had, the people who wanted to avoid politics.

Don: Let me call Carl. Carl would like to join us for a moment.

Len: Sure.

Don: And at least perhaps ask a couple of appropriate questions.

Len: Sure, I hope I can hear him.

Don: I'll make sure you can.

Carl Brasseaux: Well, hello there.

Don: Carl, we're in Len's living room. We've started the interview and we thought maybe you'd like to ask him a few questions before you have to go to your next appointment.

Carl: First of all Len, am I on speaker?

Don: Yes you are, and he's holding my phone.

Carl: Oh well Len it's so good to speak with you.

Len: Yeah you too Carl. I'm sorry I haven't seen you for so long.

Carl: Well you know, the years are not what they're... (laughter)

Len: Tell me. You're talking to a victim or whatever, but anyway.

Carl: Well first of all I want to thank you for sharing your wisdom and your impressable knowledge with us. We're hoping to capture some of that for future generations.

Len: Yeah he's given me a pretty good introduction to the project. I'm glad to see it happen. We've been talking mostly about my background and how I got involved in coastal science and then came to Louisiana in '73, joined LSU, took part in some important studies including one on Lake Ponchartrain.

Carl: Well I think my questions have the perfect lead in, because my 2 questions will hopefully put you back well onto the foundation and (inaudible). The first question that I would have would be, could you share with us a clipped up version of what you think (William?) has done right and wrong and our ongoing struggle against catastrophic environmental change? and the second question is could you share some personal antidotes with us about the environmental changes that you personally witnessed?

Len: Right, well I'm doing that. I'm letting it all hang out. In terms of your first suggestion, I was about to tell Don before we started recording, Don and your associates, something happened yesterday that I think is a symptom of one of the things that I feel very strongly has been done wrong. I just went over one of my old complaints which is the fact that in my opinion, all the studies that have been going on for 25 years to try to mount a successful restoration program and then became a restoration protection program after Katrina, has been handicapped in my opinion by an undo dependence on folks, people like science, folks people like myself who had a lot of experience on surface issues: marshes and oyster reefs and estuaries, but they didn't pay enough attention to the under lying geology. I just mentioned to the folks that I'm not all together convinced that that wasn't a purposeful thing. I almost think that if the people like, oh my goodness I'm trying to think of his name, a geologist from the USGS, Bob Morton.

Don: Not Williams?

Len: No no no, not Williams. Eventually I'll think of it, but anyway. He's the one who came up with a very important thesis that the on shore production during the 70's resulted in incredible subsidence acceleration, because of reducing pressure thousands of feet under the surface. Morton. Bob Morton.

Don: Morton yeah. (inaudible)

Len: Yeah, so anyway, so the geology, that's one big issue. The thing yesterday that is so typical, and I sort of blame the science community for this. My impression has been I was an unusual scientist and I was always, I made a reputation for being probably too outspoken, and that's why I became very intrigued by the politics as well as the science, and I've always worked at the interface, always since I joined the governor's office. I worked at the interface between science and politics, which is a very exciting place to be. It's very frustrating as well, because the politicians, the officials, don't really necessarily respect the science as we can see from the incredible proportion of legislatures who are total deniers of climate change. Then you have the scientists who in general tend to be very reluctant to get involved in politics, and they want to do pure work and be free to study away or whatever their primary interests are, and I understand



that, but it was very frustrating for me for the whole time I was at the governor's office. I tried unsuccessfully for years to get in audience with Edwin Edwards and then Mike Foster. A small group of scientists including Wade Gagliano, including Harry Roberts, especially Harry, and Joe Suhayda, a group of people who really knew the geology and something about the surface to give a thumbnail sketch to both of those governors. Neither one of them could ever find the time for it. Edwards didn't really care and Foster cared I think, but he also didn't have a strong, he didn't have any science background and he had a disinclination to believe in climate change. He and I used to argue about it. So yesterday, or rather in 2016, well let me back up a little bit. 2009, I got in Mike Blum and Harry Roberts published what I think is one of the most important papers in this 25 year history of trying to save the coast. It was a published reference journal of course, well done, in which they documented the sediment deficit that Bob Mead I think many years ago had written about, in which the suspended sediment load in the Mississippi River has dropped by 50% or had by that time, because the dams on the Missouri River system. As you all know, most of the sediment in the river comes from the Missouri, not from the Ohio Mississippi system. So that was a huge change and Blum and Roberts documented this and they said because up until that time, just about all of the scientists with a few exceptions, Jean Turner being one, agreed that if we were to save the coast it would absolutely fundamentally depend on our ability to reconnect the river to the delta. That became just a truism. When Blum and Roberts published that paper, they put a real serious doubt in that possibility of doing much, because the river was carrying so little sediment. There was a huge deficit and we were losing every year and it would take billions of cubic yards to reverse the situation. Well 2009, and they were invited to give that paper to some federally high level policy people, including CPRA and I was glad to see that. I thought that was very refreshing for policy people to finally listen to some real science, and so nevertheless, the planning effort continued apace. (phone ringing) I'm going to ignore that. It's a telemarketer I'm sure. So the planning effort kept going forward and we kept coming up with these new master plans, so in 2007, and then there was one in 2012 and well whatever.

Don: 2017.

Len: Yeah 2017. I have real serious issues with all those plans. I think they undercut the science, they certainly give short shift to climate change which is a huge, the elephant in the room. So after this paper by Blum and Roberts, that didn't seem to make any difference. The planners continued to publish their plans and spend millions of dollars in doing their work and the modeling effort improved tremendously. That was one thing that really did happen. But if I can be frank to you guys, I distracted myself, and my impression, I already mentioned the problem between getting the scientists and the politicians together. I think there was a mutual problem there, but I also think the scientists were reluctant, especially under the Bobby Jindal administration, were reluctant to have independent science out there. I think setting up the river ends to the gulf was a sellout to create a world class science group that was not allowed to publish their own stuff, without going through the governor's coastal assistant and the governor. Chip Groat and I had lunch together one day and he said "oh yeah we're independent." I said "Chip, if you're independent, why don't you publish a paper on the fact that the Morganza to the gulf project will never be built, it's a failure, it can't work as planned." He didn't say anything, but they're not independent. Anyway yesterday, I keep saying, in 2015... 2016, Paul Kemp and John Day and a bunch of several other people, but Paul did most of the work. They had become very intrigued with this whole Missouri River system, and they had learned Paul had learned

primarily, he spent a lot of time in the watershed of Missouri and talked to the folks over there. It's a huge area. He discovered that the dams on the Missouri River that attract all this sediment consist of some major big dams on the main stem, but a number, I don't know how many, a hundred something maybe small dams on the tributaries of the Missouri and the lower part of the river system. All those dams had pretty much filled up with fine, wonderful sediments, silt and clay, that we should be able to pay a ransom for. And the environmental community in the areas in the watersheds are very concerned that the habitat is all changed as the reservoirs that were built by the corps have filled in. They're no longer useful for the ecology that people had come to expect, and they would love to get rid of that sediment. Well, there are ways to do that. You can build plumbing systems to get sand or silt around levees and it's not that expensive according to Paul, he did the documentation and he's also got a lot of engineering expertise, so he published a paper. He and his colleges published a paper in 2016 in which we could affectively double the amount of suspended sediment in the river in the lower Mississippi. Well to me that's a game changer right off the bat. If you can't build a delta because you're missing half the sediment, and you find a way to double the amount of sediment, well duh you know? So Paul who is not a salesman by any means. He's a brilliant guy and one of my heroes, but he's not a promotor. He's the antithesis of Donald Trump. So Paul has given talks on this paper a number of times, and I've been to one of them, and I've heard about all the others, and none of those talks has been attended by anyone with any policy power. Not Johnny, Brad Bradberry, not Brent Hause, not any of the CPRA people. So I am so disgusted by that refusal. I don't know what's going on. There's not one word about it in the 2017 draft plan. The pub review carrier (inaudible.) was last Sunday, the 26th. So yesterday, there was this coffee schedule at LSU. Doug Daigle, my friend, alerted me about it, but I can't go to meetings much anymore. I sent him a 5 point statement to read at that meeting, but he didn't get it in time, he didn't check his email. So the statement wasn't read, but I pointed out that this work needed to be brought into the plan in some serious way, and then allowed the recalculation of the cost and benefits of this very controversial sediment diversion projects. I was reposed by as you all know, some fishing interest and so on. Sure enough, just as I expected, the meeting was poorly attended at LSU. A few people showed up. Primarily talked about, Paul gave the paper, but there was no big follow up or any interest really. So I'm not for who's to blame, but it's just so frustrating to somebody like myself who would like to see science respected and taken advantage of, here we got a gold... and the corps of engineers by the way would hate the project, hate the idea, and their solution to these, the fact that these dams, these reservoirs have filled in, is to raise the levee, raise the dams. That don't solve the problem right? So, wasting all this precious sediment. Okay so that's one thing. Another thing that I'm wanting to put in the plan, I think I did have it in my last post, was the fact that, whereas the plans are all called comprehensive, they completely exclude the entire Atchafalaya Basin. To me that is outrageous. I gave a talk at Tulane a couple of weeks ago and made that point. Here we are on one of the biggest pieces of the coast that's not even considered part of the coast. One of my interests is using the old river control structure, which is north of Baton Rouge as you all know, as a control structure, not to maintain a static 70/30 split between the lower Mis. and the Atchafalaya, but to optimize the flow under different conditions to maximize the opportunity to build coast, to build landscape. And the corps would not like that either, they're very comfortable with keeping it a static 70/30 split. My third strong recommendation for the plan which I did say to Doug [Daigle], I never heard any word from him, but there ought to be a disclaimer. Write on page 1 that any serious action, gosh the global scale on climate change within the next couple of decades, the whole plan is moot. It won't make any difference. We're looking at a 6 foot sea level

rise by the end of the century, some people are and it'll get worse without a serious look at climate change. My logic was that if you put this disclaimer, just a one paragraph, very short, I wrote a draft of it and sent it out to some of my friends. The legislatures who are going to be forced to sign off on this plan during the regular session in April, many of whom are against climate change, would be forced to put their name on something that says climate change is real. I'd love to put that kind of pressure on these guys, force them to acknowledge something that is an existential threat to our coast. Anyway, that's the summary I guess. I can give you guys the 5 point suggestions if I can get my computer to do it.

Don: Carl?

Carl: Yes sir?

Don: We will continue this, I know you've got to put a different hat on in the moment, but you can see we're having a good time here. (laughter)

Carl: Well I'm very sorry I'm not there, but I would very much like to hear the other copy of the interview to listen to it afterwards. Len, thanks so much for sharing your time and again your valuable wisdom with us and future generations.

Len: Oh you're more than welcome and I'm happy to do it any time. I have a group that meets every Saturday here, people will come here knowing I have a hard time getting out, so Paul Kemp and Michael Beck and Craig Colton and sometimes some others, Mark Davis has come. Oliver Howe came one time, uh Jim Wilkins. I do invite people in to talk, because that's the easiest thing for me. But, we talk about a lot of good stuff. So anyway.

Don: Take care.

Carl: Okay you too Don.

Don: Alright buh-bye. I want to go back to the model.

Len: Oh okay.

Don: The reason I want to do this

Len: Well which model?

Don: It'll come to you. When you were working in the governor's office, you were essentially in charge of coast, we won't go into names, but there was somebody ahead of you, essentially your boss or at least he thought he did, And you suggested that we should model the coast.

Len: Yeah.

Don: You suggested that one of the things the science community had not done is model the coast. And that was done circa 1985, 6, might have even gone into 1990.

Len: Well see, that's the period that I have a blind spot, because I left the university and I was pretty much out of the loop '84, '85, '86, '87, '88. '89 is when I took the job at DQ and that brought me back into contact. '91 is when I started the job at the governor's office.

Don: Alright.

Len: I think you're eluding to my very positive impression of the work that Joe Suhayda did as an engineer.

Don: Yup.

Len: He and his, I can't remember the guy's name, his Indian assistant, they put together their own.

Don: Mashriqui

Len: Mashriqui. No no that wasn't Mashriqui that was Paul, this was another guy.

Don: Alright.

Len: Anyway, another Indian guy, Joe did it on a shoestring, he bought something like 8, I don't know what they call them. The most powerful laptops you can buy at the time, hooked them all together and created a network, a very powerful computer, they would be nothing now, but it was impressive then, and did a model of the coast, and since then a lot of that has been repeated and improved. I guess the most prominent participant now is you have McCully [Meade Allison inaudible] working with [Ehab] Meselhe. And I have the highest respect for those 2 guys. That's why I'm a little reluctant to criticize Twig [The Water Institute of the Gulf], at the same time I'm absolutely convinced that Twig was the wrong way to go.

Don: Yeah but Jack Caldwell gave you some pushback.

Len: Oh yeah. Well a lot of people id.

Don: Yeah but that's the point we need to bring out.

Len: Yeah, he wasn't the only one, but Jack. Oh boy those stories. Before Jack, Jack McClanahan, secretary of Dean (inaudible), under every... threatened me a couple times that I would be fired if I blew the whistle on some of the stuff that I was very upset about, and not to be.. I was really scared. I'll never forget I called an emergency meeting in our office van, it was the only secret place we could meet, parked in front of the capital and Karen Gautreaux, Jim Stone, probably Cathy Brignac Mitias at the time, or Cathy whatever her maiden name was, and Karl DeRouen who I've completely lost touch with. He's somebody I would really like to talk to. I don't know where he is, he used to be at the University of Alabama teaching political science, but I don't know where he is now. I really lost touch with him. I blew my guts, I said look I've threatened to be fired, but you guys have to know that there is this unwise, it wasn't a plot, it was just a thing to keep us quiet and to keep, oh I know, Edwin Edwards had a friend on the property ground at Grand Isle, right on the beach. He had either built a house or was building a house and he wanted to build a structure in front of his house that would prevent storm damage. And there was the most cockamamie, poorly conceived piece of shit I've ever seen. Ivar van Heerden was involved at that time, he was working at the... that didn't last long. Jim Stones appointment didn't last long at (inaudible), but Jack McClanahan, the secretary, wanted to get a permit for this horrible project and it was all of course subsidized the state of employees building, bringing bricks out and I mean it was just stupid. I think that was one of the things Jack was concerned about. He knew that I thought it was a joke. Jack McClanahan was not a bad guy, he was totally uneducated, he was like a Donald Trump, he wasn't threatening particularly. He wasn't terribly vindictive and he had a sense of humor at least, but anyway that's another story. Yes I did promote that. I did promote the idea of being, having at least Edwards and Foster sit down for a 45 minute seminar on the coast and what was really happening. Couldn't get either one of them to do it.

Don: Well now, how long did you work in the governor's office?

Len: 18 years.

Don: Alright. What's the high point?

Len: The high point ughhh

Don: I think we've heard a number of low points, what's the high point.

Len: The high point probably when they planted a tree in my name at the governor's mansion. I'm being somewhat facetious, Mike Foster did give me employee of the year award in 2003 and that was all in the tree planting. Foster and I didn't agree about a lot of stuff, but one of the things I really respected him for was that he wasn't threatened by my disagreement. Bobby Jindal was the most vindictive governor I think, and I didn't know Huey Long so I can't say that for sure. Mike Foster was mature enough not to be threatened by me. I told Mike Foster, who at one time was head of the southern governors association. They had a meeting in New Orleans, and I went to the party after the meeting in which he had hosted all of these governor's from Arkansas and

other places. I got his attention and I said how'd it go and he had flown over the coast with a couple of people, I said the thing went well, I said well you know governor, what we need to do is not take everybody in congress to fly over the coast, we don't have time to do that or money. We need really good film of the coast done by scientists, explaining what they were doing, a documentary flown low and at different altitudes, showing what was disappearing and why blah blah blah. He liked the idea, but he completely took it to a different extreme and he ended up using whatever influence he had which was quite significant with some filming interest, and they produced a film called "After the Storm" I believe that was a, what do you call it, a technique they used at the Audubon, at the zoo, you know, the...

Don: Surround no.

Len: Surround sound but you know what I'm talking about.

Don: Panoramic.

Len: Well it's got another name, but

Don: 360 degrees.

Len: No it's common, but in those days.

Don: Well what's it called?

Roy: Imax?

Don: Imax.

Len: Imax. It was an Imax film. So they put together an Imax film. It was not the least bit like what I wanted, they had actors and you know this young girl playing the fiddle and they had all dramatization of the storm and hurricanes and stuff, didn't explain anything to anybody, but I went to the premiere. (laughter) Anyway, so I guess the high point was... we had a couple of meetings and I really thought we were going to make a difference. Summit meetings, one of which I got to speak, King Milling spoke, the governor spoke all back to back in which the governor announced that we were going to have a (inaudible) to set the coast up, can you imagine? There's a less appropriate thing to say than his (inaudible). Of course he didn't know what was coming in the future. If you want, I can look up my email that I sent to Doug 2 days ago, the 5 point suggestions that ought to be read to this group at LSU, didn't get read. It's very short and sweet.

Don: I want to go back a bit. There's a lot of discussion on barrier islands.

Len: Yeah

Don: And Andy Valens was mayor of Grand Isle.

Len: Oh yeah

Don: And you hosted a meeting at Grand Isle, in which scientists came in and gave presentations. And it was a good meeting.

Len: Yeah.

Don: But was it ever published?

Len: I don't think so. That might've been the reason Dave (inaudible...) We were at the community center in Grand Isle and we walked out on the patio, you know the balcony and we were threatening to throw each other over I believe. We had some real tough arguments.

Don: But the point is, in your career in the governor's office almost 20 years.

Len: 18 years yeah.

Don: Alright so let's just say 2 decades. That's about 1/3 of your working life.

Len: Mhm.

Don: You've been able to do a number of things but they've never been published.

Len: No, no and that's a good point to make. I had started to outline a book that I was going to put all this stuff down, but I started outlining it and then I got distracted and Craig called and told me he was writing a book and I said well so am I. John Day. I mean all these people write books, I don't know how you guys do it so quickly. But one of my things is I have to do it myself. I'm not very good at collaborating with other coauthors. I think that's one thing you need to develop a skill for and I've never done it, been able to do it. Thinking about a book, I started putting together a timeline of the events that I think were critical, and that always kept expanding. At first, I started with a discussion of, ugh I'm drawing a blank on the names, I'm so bad with names, one of my real heroes that died in 1961.

Don: 61?

Len: Yeah. I've never met him. Former wildlife and fisheries employee

Don: Aval?

Len: No. Oh no.

Don: And not Ford?

Len: (mumbling)

Don: No no but wildlife and fisheries.

Len: Yeah he was there.

Don: Viosca?

Len: No he was far back, he was old.

Don: Oh Viosca.

Len: Percy Viosca. I got to know his family after the fact and wrote some of my posts about him and then I started thinking, well no it goes way back before Percy. It goes back to 1847 or whenever the national geographic published an article about the corps, about building levees and dams on the river and how that was going to cause problems. Then I started thinking well it goes back before then. Now I'm working on a premise that it all began during the industrial evolution and when we started burning coal almost 300 years ago in England. I'm working on those ideas now. So I keep pushing myself back and bigger and bigger in scale and back and back in time which is something you can't do when you write a book I'm sure or you're not going to be successful.

Don: Well we like to keep these about an hour.

Len: Oh okay.

Don: And we've been about an hour. Why don't you look up those 5 points?

Len: Okay.

Don: And that will be a good way for us to...



Len: Yeah, it'll take me a...

Unknown: It's gotta be over here.

Len: Yeah just go straight ahead. Well you guys have been awfully quiet over here.

Roy: Oh well we're just, I'm recording and making sure that it's all working properly.

Len: Yeah that's important. I bought myself a little recorder to help with writing my book. I was going to interview people like Woody and others and you know I've just never done it. I've never used the damn thing. Now you can get programs that transcribe it for you and everything.

Roy: To a point. You know it has to learn the speech pattern. So it may learn one person but it doesn't necessarily understand the next person.

Len: I know, well it would just be me so that wouldn't be a problem. Oh I see what you mean, the people I interview. Yeah yeah. That's true, that's a good point. Okay I'm not, I almost pulled it up here, let's see. I'm afraid to look at my email. Doug Daniel has become quite a resource for me. Okay here's what I told him. You might want to record this.

Roy: Yeah it's on.

Len: I wish I could attend the coffee at LSU, I'd like to offer the following comments in abstention, what do you think? And he didn't get the email. 1) Ever since the coastal restoration program began 25 years ago the scientific community has endorsed as a fundamental principle the need to reconnect the river to its delta plain using large sediment diversion projects none of which has ever been implemented. 2) The unanswered question however has always been whether the lower 2 diversions will carry a sufficient sediment load to over crown relative sea level rise from subsidence in global warming. 3) In 2009 Blum and Roberts published a critical paper that cast doubt on the likelihood of success of the sediment diversion strategy giving us a 50% reduction in sediments some Missouri river water shed since the 1950's. 4) In 2016, Kemp et al. published the paper that he described today proposing a way to double the sediment to the lower river system. Theoretically a game changing possibility. 5) Nevertheless, today the CPRA policy folks have shown zero interest in this concept despite the fact that the 2017 draft master plan shows only a modest reduction in the regular land loss through 2050 after a \$50 billion investment. Yesterday was the deadline for public comments on this plan, but it may not be too late for the science community here at docks and school of the coast to raise a flag. That's it. That's all.

Don: Good way to end. Thank you.

End.