

The University of Southern Mississippi
Center for Oral History and Cultural Heritage

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Oral History Project

An Oral History

with

William W. Walker

Interviewer: Stephanie Scull-DeArmey

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An Oral History with William Walker, Volume 1043

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Biography

William Warren Walker was born on September 16, 1945, in Hammond, Louisiana, to Mr. and Mrs. William Byrd Walker. Mr. Walker attended Hammond High School, Southeastern Louisiana University for his bachelor's degree, and Mississippi State University for his master's and doctoral degrees, graduating in 1972. He married Sharon H. Walker (b: July 8, 1945) on May 9, 1977, in Ocean Springs, Mississippi; they reared one child: Scott Jared Walker, born July 9, 1979, in Biloxi, Mississippi. Dr. Walker worked for the Gulf Coast Research Laboratory in Ocean Springs for twenty-nine years; after retirement from there, he worked with the US Environmental Protection Agency in Pensacola, Florida. After five years with the EPA, Dr. Walker took a fellowship with Senator Trent Lott in Washington, DC. While Walker was still in Washington, DC, Governor Ronnie Musgrove appointed him as Executive Director for the Department of Marine Resources, located in Biloxi, Mississippi, a position he still holds at the time of this interview. Dr. Walker is affiliated with the Methodist religion. He has served on the Ocean Springs Recreation and School Board and on the YMCA Board of Directors in Ocean Springs. In his leisure time, Dr. Walker enjoys fishing and boating, baseball, and reading.

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AN ORAL HISTORY

with

WILLIAM WALKER

This is an interview for The University of Southern Mississippi Center for Oral History and Cultural Heritage. The interview is with William Walker and is taking place on February 27, 2012. The interviewer is Stephanie Scull-DeArmey.

Scull-DeArmey: This is an interview for the Mississippi Oral History Project of The University of Southern Mississippi, done in conjunction with the NOAA [National Oceanic and Atmospheric Administration] Voices from the Fisheries/BP Deepwater Horizon Oil Disaster Project. The interview is with Dr. Bill Walker. It's taking place on February 27, 2012, about two p.m. in Biloxi, Mississippi. The interviewer is Stephanie DeArmey. And first I'd like to thank you Dr. Walker for taking time to talk with me today and get a little bit of background information about you, which is what we usually do. So I'm going to ask you, for the record, could you state your name, please?

Walker: OK. My name is Bill Walker, B-I-L-L, W-A-L-K-E-R.

Scull-DeArmey: And when were you born?

Walker: Born September 16, 1945, in Hammond, Louisiana.

Scull-DeArmey: In Hammond, Louisiana. Where did you grow up?

Walker: I was in Hammond through college. (0:01:03.2) So I graduated from Southeastern Louisiana University, then from there moved to Mississippi to Mississippi State University to do graduate work. When I finished my PhD at Mississippi State, I came to the Gulf Coast for the first time.

Scull-DeArmey: You said you finished your master's there?

Walker: My master's and PhD.

Scull-DeArmey: And PhD. First of all, what was your bachelor's?

Walker: My bachelor's was botany and microbiology.

Scull-DeArmey: And master's?

Walker: Master's was soil microbiology and biochemistry, same for PhD.

Scull-DeArmey: Soil microbiology and biochemistry.

Walker: Yes.

Scull-DeArmey: If you had to explain soil microbiology in twenty-five words or less, what would you say about it?

Walker: Well, it's the study of the microbiological processes that go on in soils. It's an agricultural sort of endeavor to look at how microorganisms change nitrogen, and degrade organic material, and how all that process goes on to rebuild soils.

Scull-DeArmey: Do you know why you were interested in science as you were growing up?

Walker: Yes and no. It's odd because neither of my parents are science-oriented folks, and when I started college, I was looking at something in the social sciences, and I took a botany course, and the instructor was really good, and I really liked him, and I really liked the course. And I didn't care very much for courses like history and those kind of—government, those kinds of courses. Once I got taking some science, I realized I really liked science, and I liked biological sciences. I liked chemistry. I liked physics. I never understood it very well, but I liked it. And so you know, I just went that direction. And toward the end of my undergraduate time, I took a microbiology course. And I'd never had microbiology before, and I really liked it. So for the rest of my college undergraduate time, I spent as much of that as I could taking microbiology classes.

Scull-DeArmey: What would you say is the difference between biology and microbiology?

Walker: Just size. I mean, you know, biology you're talking about big things. Microbiology you're talking about things generally you can't see with the naked eye.

Scull-DeArmey: And then how would you define botany?

Walker: Study of plants.

Scull-DeArmey: Were you always good in math as a kid?

Walker: I was OK. I was OK; I could figure mathematics out, generally. I certainly wasn't a whiz kid at any of that, but I did like math.

Scull-DeArmey: Math stumped me completely. I wish it hadn't.

Walker: Well, when I got to calculus, that was different. (laughter)

Scull-DeArmey: OK. Can you just tell us a little bit about how you got to where you are, here? How did you choose your career? What brought you along the way?

Walker: Well, it's been odd. When I left Southeastern in Hammond and went to Mississippi State, I didn't really have a clear path, professional path in mind, and it just worked out that when I finished my work at Mississippi State, there was a position down here on the Coast at a small, independent research lab, state research lab, called the Gulf Coast Research Lab. And I came down and interviewed, and I liked it. I enjoyed it. They were looking for someone to look at what microorganisms do in sediments, in marine sediments, not in soil. So it was an easy transition to microorganisms and microbial processes in sediments. So I came here, figured, you know, maybe I would stay here for a couple of years and go do something else, but I really liked it, and so I found myself twenty-eight, twenty-nine years later still at the same place, not doing the same thing, but still in Ocean Springs, Mississippi. And then I retired, actually, from state service in 1997 and went to work for the federal government. I actually worked in Pensacola, Florida, for the US Environmental Protection Agency [EPA]. I completed my fifth year there, and then Senator Trent Lott asked me to come to DC for EPA to pay for me to come to DC to work for him for a year. We were working on some fisheries legislation, Magnuson-Stevens Act, and he wanted someone who knew a little bit about fisheries stuff, fisheries management to come there. So I was honored to do that, and I did, and I was doing that internship with Senator Lott when then-Governor Ronnie Musgrove called me and asked me to—said he wanted to appoint me to this position. So that happened in 2002.

Scull-DeArmey: What is your position here?

Walker: I am the executive director of the Department of Marine Resources. It is a position appointed by the governor. And so I worked under Ronnie Musgrove for two years, and then when Haley Barbour was elected, he wanted me to stay on. And then when Phil Bryant was elected, he wanted me to stay on. So I guess I'm going to do this for another year or so and then probably retire.

Scull-DeArmey: So how long have you worked past retirement now?

Walker: I have about probably—I haven't added it up, but I have somewhere around thirty-eight years of state service.

Scull-DeArmey: Ninety-seven is when you retired. Wow.

Walker: I've had ten here and roughly twenty-eight at the research lab. I can't count my federal time, but I have about thirty-eight years in state service.

Scull-DeArmey: Why did you come back and work [at the Mississippi Department of Marine Resources]? Why didn't you just retire? (0:08:41.8)

Walker: Well, that's a hard question to answer. I guess the simplest way to answer that is I thought that perhaps this agency was a place where one person could make a difference. When I was at the Gulf Coast Research Lab, I had worked with this agency. I represented the lab at this department, so I would come to all the commission meetings. I got to know a lot of the staff, and I knew how things worked. And I felt like this agency, with a little bit different guidance, could do things a lot better, put a little bit more focus on things like customer service and customer satisfaction and even understanding the fact that we do have customers.

Scull-DeArmey: For the record, who are your customers?

Walker: Our customers are the people who, the citizens of Coastal Mississippi, and the visitors who come here to enjoy what we have to offer. When people come to this agency, they may need a permit to build a dock in front of their house. They may need a permit to build a hotel. They may need a permit to build a casino. All of those come through this agency, and we needed to do a better job of getting to, "Yes." We were very good telling people, "No, you can't do that." But we needed to focus on working with our customers to get something out of the end of the pipe, something that was environmentally acceptable but yet still met the need of the customer. Might not look like it did when it went into the pipe, but the idea was to get to a working solution. And then other people that we interact with are people that are out utilizing our waterways and our resources and are harvesting our resources. And so we license those people. Law enforcement oversees those activities. We're tasked with keeping people safe and keeping people legal. And so there's many different ways that you can do that, some nicer than others. And I think we've gotten to a point now where the folks that we interact with, whether it's on an enforcement level or a permitting level or a license level, are happy with the way our people interact with them, and we're able to keep people safe, legal, and most of the time happy through the process, which is, it's a lot easier to do business with people when they're happy than when they're mad. So I guess that's kind of a longwinded answer of why I gave up my retirement to come back to work.

Scull-DeArmey: Well, you said that customer service was one example of how DMR could be improved a little bit. Are there other things besides customer service?

Walker: Yes. This agency has six offices, (0:12:39.5) fisheries, coastal ecology, which does the permitting, law enforcement, which obviously you know what they do, coastal development and planning, which works with the Cities to make the Coast, to build better and build stronger and be more resilient, and then basically my office that doesn't do anything, doesn't do any real work, which my office has people like human resources and finance and public relations. And so they all do work. It's just this particular office that now (laughter) doesn't do much work. But those offices needed to work together better as a team, and they weren't doing that. They were worried internally about their own office, and not worried about the next office on the floor above or below, much like political entities like counties sometimes don't tend to work together. So my philosophy (0:13:53.9) of this agency is, "If you work here,

you're going to pull for the team as a whole. No matter what office you're in, no matter what your job is, you need to be concerned about how well the person down the hall from you is doing." And I have to say that the people on my staff that couldn't grasp that are not on the staff anymore. The people who are on the staff have not only grasped that concept, but embraced it. And so we're a much better agency because of that. And those are the two big things that I think we do better today than we did ten years ago.

Scull-DeArmeY: Well, that's a lot.

Walker: It is. It is. It is a lot.

Scull-DeArmeY: That's great. What's a typical day like in your work? (0:14:54.9)

Walker: I usually get some phone calls from people who need something, and either want to know how to go about getting it, and I can put them in contact with the right people, or I'll get some contacts, phone or e-mail or something from people who are unhappy with something that's happened to them, either a permit or a ticket or something like that. And then occasionally I get calls or e-mails from people saying, "Thank you." And that so-and-so in your organization did an outstanding job, treated us very well. And so whatever it is, if somebody needs something or complaining or is happy, I try to follow up on that. If it's a complaint, I go to whoever this person's complaining about; say, "OK. Tell me your side of the story. Tell me what happened here." And we usually resolve it. We usually resolve it. And then we have internal meetings, or I will meet with City and elected officials. I'm in Jackson a fair amount when the legislature's in session like it is today, although I'm not in Jackson today. I do have a chief of staff that's up there every day that the legislature's in session. (0:16:28.6) And he calls me if I need to be there. The governor or the governor's staff'll call me, or somebody'll call me if I need to be up there. And so that's a typical day for me, reviewing some documents, interacting with people, mostly trying to put person A and person B together so they can work something out.

Scull-DeArmeY: Can you give me an example of someone who needs something, just a concrete example to kind of, not to name names, but just to kind of paint a picture of—

Walker: Well, I mean, a lot of the times people call me and say, "You know, I want to do this. I want to build a dock on my property so I can dock my boat there, or I want to build a little platform over the water so my kids can use it to swim. Do I need a permit for that?" (0:17:23.1) Well, the answer is, "Yes, you do." "What kind of permit do I need?" "Well, depends on how big it is and that sort of thing, but I can put you in contact with an individual who can sit down with you, or you can talk over the phone, or you can come in here and sit down with folks, and they can guide you through the process. We'll give you the paperwork to fill out. We'll help you fill it out, and we'll suggest to you things that you might do differently that might make the permitting process go more smoothly without impacting what you're trying to do." I

mean, people come up with these weird things that they want to do just because that's what they want to do, and some of these would be really, really hard to get permitted, but if you just change a few little things, like the width of a walkway or the height over the marsh, those things can greatly simplify the ability to get through the permitting process, which doesn't involve just us. It has to go—we're the primary stately, but DEQ [Department of Environmental Quality] has signatory authority, and the Mobile District Corps of Engineers has signatory authority. So if the three of us don't agree on a permit, then it doesn't happen.

Scull-DeArmey: And what is DEQ?

Walker: Department of Environmental Quality, it's a Mississippi agency, just like this one.

Scull-DeArmey: The Mobile Corps sounds regional?

Walker: They handle all of Mississippi except a little slice along the Pearl River, which Vicksburg handles, and Vicksburg handles the other side of the river and works with the New Orleans Corps for New Orleans. But Mobile [Corps of Engineers] has most of Mississippi, all of Alabama, and I think, the Panhandle of Florida.

Scull-DeArmey: OK. Well, we could go on for a long time about how things work, but since we have limited time, I guess I'm going to skip on to the questions that I sent you.

Walker: OK.

Scull-DeArmey: Can you tell me, from your point of view, your life and work here on the Coast, how did Hurricane Katrina affect the seafood industry? (0:19:42.1)

Walker: Well, it devastated some of the seafood industry. Oysters were totally eradicated, (0:19:50.8) and when the waves came ashore, when they retreated, they pulled a bunch of debris out with them, and that debris just scraped the reefs, essentially, away. I mean, there was still some reef left, but we probably lost 80 percent of our actual reef, which is different from the freshwater that came from the flood of the Mississippi River through Bonnet Carré Spillway. (0:20:40.5) In some of our reefs we lost 100 percent of our live oysters, but the reef itself was unaffected. But the physical structure of the reef was destroyed in Katrina, so we had to completely rebuild the hard part of the reef. Forget about any live oysters, just the hard material. So then oyster larvae can come and settle on that hard bottom and grow into new oysters. If an oyster larvae, which there are millions of them in the [Mississippi] Sound twice a year, if an oyster larvae falls (0:21:24.9) on soft mud, it'll just sink and die. And so it can't grow. It has to fall on something hard that it can adhere to, and it, from that point on, is called a spat, and then that grows into an adult oyster in about two years. So for two years our oyster industry was devastated. The other industries, the resource was fine. I mean, the finfish, shrimp, crabs, they were

fine. They are very resilient, and they come back. (0:22:03.7) What was not so fine was the infrastructure required for the industry to go out and collect those critters. I mean, there weren't fuel docks. There weren't icehouses for the charter boat industry. There were no docks. Many of them lost their boats. So the infrastructure that's necessary to support the industry was very heavily damaged.

Scull-DeArmey: Would you say processing plants were also—

Walker: Processing plants were significantly damaged and had to rebuild. They had some time to rebuild because the vessels that went and collected product for them to process were not, essentially not collecting. I mean, they couldn't get fuel. They couldn't get ice. They just couldn't do their job. And we lost some processors. Many of them came back. We probably had a dozen legitimate shrimp or oyster processors, maybe fifteen. Now, we probably have eight, maybe ten. Some just didn't come back. Others have come back very well, and today I think you would say, from Katrina, all of our fisheries have long ago rebounded, as well as the processors who process them.

Scull-DeArmey: A couple of follow-up questions. How do you build a reef back? (0:23:56.3)

Walker: You place what we call cultch, C-U-L-T-C-H, cultch material on suitable water bottoms. And cultch material, it might be crushed up concrete. It might be crushed limestone. It might be old oyster shells. Any of those three things have been used and in combination with each other. So basically you load up these big barges full of these materials, and you go to the location where you want them to be placed, and a second barge with basically high-pressure water hoses washes them off the barge into the water, and they settle on water bottoms that are not muddy. They're firm bottoms, and so the cultch material will stay on top of the sediment.

Scull-DeArmey: Is there a lot of bottom in the Mississippi Sound that is muddy?

Walker: Yes.

Scull-DeArmey: If you had to guess like how much is muddy, how much is firm and could take the oysters, what would the ratio be?

Walker: Well, I would guess probably fifty/fifty, but there's more to it than just that. The salinity has to be right for oysters to grow. If it's too salty, oysters like it just fine in really, really saltwater, but they have some predators called oyster drills that, in high salinity, will come in and virtually drill a hole in the oyster shell and suck the meat out. And those predators can't live in lower salinity water. And an oyster can't live in water that's below about three to five parts per thousand. So you need to have a range from three to five parts per thousand up to about fifteen parts per thousand. You're really looking at a fairly narrow range.

Scull-DeArmey: Somebody had mentioned conchs as predators? Is that the same thing as an oyster drill?

Walker: That's the same thing as an oyster drill, yeah.

Scull-DeArmey: Two years for the spat to become an oyster. That's a long time, really.

Walker: A harvestable oyster, which is three inches at its widest point.

Scull-DeArmey: If an oyster dies on the reef, does it then just become part of the reef, that it's OK for the new spat to attach to?

Walker: Yeah. It's call a box; a dead oyster's called a box. And what a box is is just an oyster that's died. When they die, they open their shell; their shells open. Crabs, little fish, whatever, eat what's left, and you just have an empty oyster shell. And yes, I mean, larvae can fall on that, and there's plenty of example where they do, and they'll grow. They'll set on an old oyster shell and grow into a new oyster.

Scull-DeArmey: The reason I asked that is because I had heard in an interview that oyster shells that might be used to make a new reef have to be sanitized before they're put back down. Does that—no, not necessarily?

Walker: No. What our oyster processors typically do is their shuckers will shuck the oysters, and the shells aren't sanitized at all. They just go on a pile out back. I mean, they may go through a brief rinse just to keep the pile from stinking up, smelling up the neighborhood. And then they just go outside, and they sit there in the sun and the rain and whatever, and they belong to the processor. And the processor will typically sell them to us to use for cultch, but we don't do anything to them, other than take them out there and sink them.

Scull-DeArmey: OK. What would you say the time span is from the time they're shucked to when they would go back out on the reef?

Walker: That's variable because we typically plant cultch twice a year, if we do it at all; we do it twice a year. We do it once in the spring and once in the fall, and that's because oyster larvae are present in the water in the spring and again in the fall. So if we're going to do a new cultch plant, we want to do it before the spat set. But oyster processors have shells that they sell to other people, too. I mean, they sell—these shells can go in roadbeds. (0:29:15.2) These shells can be ground up and used as filler for certain animal feeds. So it just depends on the availability of actually old oyster shells, which there's usually, this day and time, there's not a high availability of that material, and we wind up using crushed-up concrete or crushed-up limestone.

Scull-DeArmey: Is that from, that's kind of waste from the industry, the concrete, the crushed-up concrete?

Walker: Yes. Usually a private-sector guy will buy concrete, whether it's concrete from a house slab or from a bridge or from whatever. He'll buy that concrete, or he'll agree to take it off somebody's hands because I mean, if a City—when Biloxi had all these concrete slabs around, well, they needed somebody to come get them out of the ground, and the homeowner wasn't going to do it, so some entrepreneurial folks said, "We'll do it. We'll come do it for you. We'll take it up; won't cost you a nickel." And then they took it and crushed it up and sold it. And again, it can be used in roadbeds. It can be used for cultch plants. It can be used for a variety of purposes.

Scull-DeArmey: Why did the City have to worry about the slabs rather than the homeowner?

Walker: Well, I don't know that we need to go there in this interview, but it was an opportunity for the City to get some broken slabs out of the way. Some of them actually were damaged to the point that they were dangerous to people that might—because the homeowners were who knows where. I mean, they were scattered all over the place. Some of them moved away, to never come back. They just walked off. So there were a lot of just what I would call derelict concrete slabs laying around. Some of them to the west, some of them at that time were building ten, twelve, fifteen feet off the ground, so you had some columns of concrete blocks and a slab, and it was abandoned. So it's a danger to people who are, I mean, illegally on the property, but still, it's a danger. So some of the Cities and the counties took that route to get rid of some of those situations.

Scull-DeArmey: After Hurricane Katrina, for people who have never been through a hurricane of that magnitude, there were basically slabs and debris for sixty miles, maybe from Mobile to Slidell, I guess.

Walker: Absolutely.

Scull-DeArmey: And the magnitude of debris is hard to conceive unless you went through Katrina or did a lot of research on it or read about it.

Walker: No. If you weren't from here, I mean, if you didn't see it and experience it, pictures just don't do it.

Scull-DeArmey: We were talking about after Katrina the infrastructure wasn't there, but there were a lot of shrimp and finfish and crabs, although the oysters, their reefs were 80 percent gone. What did the debris in the water—how did that affect fishermen here?

Walker: Well, that's odd because we were responsible for making sure that if we found debris in the water that we notified the appropriate people within FEMA [Federal Emergency Management Agency], MEMA [Mississippi Emergency Management Agency], and they would have contractors clean that up. (0:33:32.5)

And so we fully expected to find debris completely from here to the barrier islands on the bottom, and we did find some. I mean, some interesting kind of little cases where we would be side-scanning an area, and we would see the top of a spare tire, sticking out of the sand. So we'd report that there's a tire that needed to be picked up. Well, what we didn't know was that tire was attached to an eighteen-wheeler that was under the sand. (laughter) And so you found little things like that that were odd, but for the most part, we found things like appliances, small things. There were some cars that were right—but the interesting thing was that all of that was basically within the first mile offshore, and once you got to about a mile offshore, we ran extensive transects across the Mississippi Sound, east, west, north, and south and found that area amazingly clean. So we didn't have the problems that we anticipated when shrimp season did open and people were pulling nets and that. I mean, there was an occasional refrigerator would get caught or something that we had missed. But there really wasn't the level of debris out in the water that we expected. It was right along the shoreline, like I said, within the first mile or so, or onshore. And we've never found debris south of the barrier islands. We don't know where it went. There are theories that folks are saying that there are these large areas of debris fifty miles offshore, but nobody's actually found it or documented.

Scull-DeArmey: How many miles do you have to go offshore in the Gulf of Mexico before it drops off?

Walker: To the continental shelf, which drops off from about a hundred, two hundred feet to about two thousand feet, that's probably, from here probably close to two hundred miles offshore.

Scull-DeArmey: I know because I've lived here all my life that it's shallow in the Mississippi Sound for a long way out. Where do you drop off, say, to where you couldn't just be walking in it?

Walker: Oh, not very far off. I mean, the average depth of the Mississippi Sound, which is between here and our barrier islands is seven to ten feet. So basically if you went to Biloxi Beach, and you started walking, you could probably on a normal tidal day, you could probably walk out a couple of hundred feet before you'd be over your head. And then from there on out, it's a gradual decline, and then an incline when you start getting close to the barrier islands. And then on the other side of the barrier islands, the same thing. And it drops off more quickly. But you have to go, to get to fifty feet of water, you probably have to go, probably five, eight miles south of the barrier islands.

Scull-DeArmey: So that's pretty interesting that there weren't five miles of debris. There was really just about a mile of debris in the water.

Walker: Yeah, a mile or so. Yeah, a mile or two, mile and a half.

Scull-DeArmey: Are most of our Mississippi shrimpers in the Mississippi Sound? They're in inshore waters? (0:37:37.4)

Walker: I wouldn't say most. We have two types of shrimpers. We have small boats and big boats. And the small boats, fifty feet or less, are pretty much near shore, either in the Mississippi Sound, or just south of the barrier islands, but not very far south. The big boats, the hundred-foot boats, hundred-and-fifty-foot boats, those are the ones that go; they will leave from Biloxi, and they may go shrimp off Texas, Louisiana, and bring their product back here for processing. So we process a lot of shrimp. Our landings are very high, but not a very large percentage of those shrimp are caught in Mississippi waters. They're caught either in federal waters, south of Mississippi or off of Louisiana and Texas, occasionally Alabama.

Scull-DeArmey: Is there anything else about the way Hurricane Katrina affected the seafood industry that you can think of?

Walker: No. I think we've pretty well covered that.

Scull-DeArmey: We've talked about this a little bit—there may be other things that you can think of—how DMR helped the seafood industry recover from the effects of Hurricane Katrina. We talked about debris removal a little bit.

Walker: Well, I think the biggest thing we were able to do after Katrina is we got some federal money through NOAA called Emergency Disaster Relief Program (0:39:27.2) or EDRP, and those funds, we were able to actually hire some fishermen. When we talked about restoring the oyster reefs, we not only put cultch down, but we also did an oyster relay where we collected oysters from Back Bay Biloxi that were not damaged by Katrina, and we hired oyster fishermen to collect those oysters, bring them to a central location on a barge, in sacks like they normally collect their oysters. And we would pay them so much a sack, and then we would hire a larger contractor, not a local fishermen, to then take those oysters over to the appropriate areas and place them on the bottom. (0:40:24.1) We generally just let them sink to the bottom. That enabled us to make sure that we had enough oyster larvae on our newly-created reefs, but at the same time, it was able to, one, pay the fishermen to rebuild their own reefs and give them a bit of a sense of pride in the fact that they helped to restore their own livelihood. So we were able to do that. We were able to provide some direct relief, just payments to fishermen who were not able to work because of Katrina. And I think that, and then actually using that same money to pay for the cultch plants and that sort of stuff, to pay for some debris removal from our—where we had to. Mostly FEMA paid for debris removal from our pristine marshes, like out here. That little island was covered up with boats and trees and stuff. Well, that little island is a nursery habitat for shrimp and small crabs, and small fish. (0:41:35.6) They need places to hide from predators and that sort of thing. And so we had to clean up our environment, and we used federal money for that, either FEMA or EDRP. I think we've pretty much covered that.

Scull-DeArmey: What about Hurricane Rita? Did Hurricane Rita affect the seafood industry here? (0:41:59.9)

Walker: Not really. It did some flooding, primarily over in Hancock County. [Hurricanes] Rita and Gustav both did, but those were really, for us, kind of just high-tide, rain events where it just, the bad part of those storms was that just as some people felt like they were recovering from Katrina, just from a homeowner point of view, they got flooded again. They didn't have the wind damage and all that, but they did have water in their houses again. So that was unfortunate.

Scull-DeArmey: For the record, Rita was about a month after Katrina.

Walker: I think that's right.

Scull-DeArmey: So September of 2005. So did your office need to help the seafood industry recover from the effects of Rita at all?

Walker: Not really. I mean, you really couldn't—it was so close to Katrina, we were still so focused on trying to recover from Katrina that Rita came through and passed us by. And like I said, other than some people getting flooded again, there was no real structural damage to our resources or to our oyster reefs or any of that kind of thing.

Scull-DeArmey: What about the BP Deepwater Horizon oil spill? How did that affect the seafood industry of the Mississippi Gulf Coast? (0:43:36.8)

Walker: Well, the resource, itself, the actual oysters, fish, shrimp, crabs, I think I can say with honesty that they really weren't affected. I mean, did some fish larvae pass through oil materials somewhere between here and the Deepwater Horizon site? Sure. They did. And would that have killed those larvae? Sure. It would have killed them. So we lost some larvae. But for example, shrimp and crabs are annual crops. We catch every shrimp we can catch, every crab we can catch, and then they go away, and then the next year they come back as little crabs and larvae, and they grow up in our estuaries. And then we catch them, again. And there's plenty of larvae. We don't have a recruitment problem. We have a habitat problem. We don't have enough habitat. So things like shrimp and [crabs], they're an annual crop. Fish, we get small fish every year, and they grow into big fish. Some of the big fish hang around year after year after year. The only crop that's not like that is oysters because they can't move. They can't swim away. They are subject to whatever comes their way. Now, with the Deepwater Horizon spill, by the time oil got to Mississippi oysters, it was very degraded. It was more like tar balls (0:45:29.9) that would just kind of roll across the oyster beds on their way to the beaches over in Harrison and Hancock Counties. And we did have a lot of that material that had to cross the oyster reefs to get to the beaches. Now, we did samples (0:45:49.3) of oysters and shrimp and crabs and finfish before we ever had any trace of oil in our waters. We started sampling tissues, and we never found petroleum hydrocarbons in any of our tissues from any of these animals. So we feel comfortable; I feel comfortable making the statement that our oysters, our

marine resources have never been unsafe to eat. (0:46:27.1) And they were never affected from a population point of view, where we were worried about losing a species. I mean, it just wasn't going to happen. I mean, the distance: it's ninety miles from here to the leak site. The type oil, it's a light crude. The water in the Gulf is warm. There are natural bacteria that are out there all the time, simply because there are natural seeps of this same oil, and they [bacteria] are there to degrade that oil. (0:47:16.3) So most of us were of the opinion that by the time any oil got to Mississippi, it would be degraded, and it would not pose a damage to either humans or wildlife. And that pretty much proved to be the case. Now, Louisiana, you can't say the same thing. Unfortunately for them, the winds and the tides were all working against Louisiana when that thing blew. (0:47:43.6) Their closest marsh in Louisiana is forty miles from the accident site. And some of those areas were inundated with basically crude oil. But we didn't have that problem. We were fortunate in that respect. The biggest problem that—now, we're going through the Natural Resource Damage Assessment (0:48:13.1) now, the NRDA process, N-R-D-A. And that process is where the scientific community is trying to determine what long-term effects we might be seeing, and there's some indication that we may be seeing some developmental problems in some of our species. Whether that's going to be a short-term thing or longer-term thing, we don't know. But short-term, acute effects, we really didn't have a lot. We had some oil that needed to be cleaned up, and it got cleaned up (0:48:55.9), some oil material. The biggest impact of the oil spill to short-term impact was the perception that everything was contaminated, that the beaches were covered with oil. The visitors didn't come. People wouldn't buy our seafood. I remember sitting in a very upscale restaurant in Indianapolis, Indiana, about a year after the oil spill. And we had some people from Indiana, several of us from the Coast. We were all sitting around the table eating shrimp cocktail. And I asked the waiter, I said, "Do these shrimp come from the Gulf of Mexico?" He said, "Oh, no, sir. We wouldn't do that to our customers." And it was not uncommon to see on the Internet, or just driving around sometimes, signs in fresh markets saying, "Our seafood is not from the Gulf of Mexico." So that was a perception brought about primarily through the national media. (0:50:00.9) They would show an oily estuary or an oily beach. Most of it was Louisiana, but they would purport it to be in Mississippi or in Alabama or in the Florida Panhandle. And they kept showing this same pitiful pelican, covered with oil, which it was hard to look at, but it seemed like that same bird made it to every state. So he was getting around pretty good. And that kind of coverage from people who were—because we depend on people from Chicago, Atlanta, California. That's who buys our product; I mean buys the product from our processors. And when those people quit buying—people like Darden—and those folks say, "Well, we're going to lay off this Gulf product for a while," that really hurt our business. And our wholesale sales, directly from our processors to who used to buy from them probably plummeted to about 30 percent of what it was before the oil spill. And now it's back up to probably 60, 70 percent of where it was, maybe 75.

Scull-DeArmey: But you're still at maybe a 25 percent loss?

Walker: Yeah. Maybe a 25 percent, and I don't know if that number is accurate, but it's—

Scull-DeArmey: Ballpark.

Walker: It's somewhere in that range. We're still having a perception problem, not from local people, but from people away from here. So we're doing—I don't know what shirt I got on. (laughter) We have some shirts that have seafood safety kind of things. We have little pins, lapel pins that say, "Gulf safe." And just little things like that to try to convince people that seafood from the area is safe, and it's working fairly well.

Scull-DeArmey: What's so ironic about that to me is that the imported shrimp (0:51:56.5) has as much, if not more of a chance to be contaminated than the wild-caught shrimp here just because there's so much of it, and testing can only be random. You can't test *all* of it.

Walker: FDA [Food and Drug Administration] tests less than 1 percent of imported product.

Scull-DeArmey: Just because of the sheer volume.

Walker: Yep. There is no seafood in the world that is more tested than Gulf seafood today. (0:52:25.9)

Scull-DeArmey: Wild caught.

Walker: Wild-caught, Gulf seafood. Absolutely. The federal government has taken literally tens of thousands of samples. The states, each state has taken hundreds of samples, and a very, very small percentage of those, probably less than 1 percent of all the samples that have been collected by anybody, anywhere have not come anywhere close to FDA level of concern.

Scull-DeArmey: What about the oil dispersant? Do we know anything about it? Where it goes? What effect it has on wildlife or people when they eat the wildlife? (0:53:09.1)

Walker: We don't know enough about the dispersant. On a good news side of things, it's a combination of basically soaps. It's just basically soaps. It's things that if you wash your hands, it breaks down the grease on your hands and that sort of thing. And so it should—and the maker will tell you that this stuff will break down very rapidly in the environment. It's not subject to hanging around a long time. And the science part of me looks at what's in there and feels like that's true. But we don't know what all the byproducts of that breakdown process is. So we don't really know if it goes all the way to CO₂ in water, or whether it stops at something else.

Scull-DeArmey: What's CO₂?

Walker: Carbon dioxide. I mean, if you're going to degrade something organic, and you degrade it completely, it's going to wind up being carbon, oxygen, and hydrogen. So those things are usually combined together as carbon dioxide, which just goes into the air—it's in the air everywhere—and water. But we don't know how complete the degradation process is on that Corexit stuff. So that's a question. That is a question.

Scull-DeArmey: Is anybody testing it, looking at that?

Walker: Yes. The folks who are, the scientific community—and there's some in every state looking at this—are doing that. That's one of the things that the five hundred million dollar BP Gulf of Mexico Research Initiative is addressing. That's one of the uses, the specified uses, of that five hundred million dollars is to study the breakdown, not only of the crude oil, itself, but of the dispersant.

Scull-DeArmey: Are there any studies to see what the dispersant does to the species that we have here in the Gulf of Mexico? To the turtles, to the shrimp, to the crabs, to the finfish.

Walker: I don't know for a fact that there are, but I would think that they're—there's going to be a meeting in May in New Orleans where the scientists that are working on this BP Gulf Research Initiative are going to present their findings, and I would be shocked if there's not something in there where folks have done some bioassays using—well, it's kind of hard to do bioassays on endangered species, but I would not be surprised if at least somebody, somewhere in the federal system, somebody's not trying to look at that.

Scull-DeArmey: Would necropsies of sea turtle deaths show that? (0:56:17.8)

Walker: Well, now, there have been thousands of those. Thousands of those, and most of that data, while some of those necropsies have been done here in Gulfport at the Institute for Marine Mammal Studies, those data are all—I don't know what to call them, but they're being sequestered by NOAA.

Scull-DeArmey: What does that mean?

Walker: They're just not available. They're not available to the public. They're not available to anybody, really, and that's simply because of the Department of Justice lawsuit against BP. So you're basically talking—these turtle necropsies are evidence in a litigation trial that is scheduled. You just saw in the newspaper this morning; that trial has been put back a week. So that's the lawsuit, the first lawsuit, well, the big lawsuit that's going to try to see where to go from here. But yes, I mean, I've heard, just through the grapevine, that there are certain indications that either oil byproducts or something associated with it—could be the dispersant—are rendering some turtles

less resistant to just normal disease processes and normal infections that they would normally just be able to shrug off.

Scull-DeArmey: The stressors that are there that their immune systems could usually protect them from.

Walker: Yeah. Right. And so I think we're going to find when this information comes out that there probably was some of that, some impact to immune systems, not only in turtles but in marine mammals, as well.

Scull-DeArmey: Do you think there's any concern among scientists that if there's a huge proliferation of drilling in the Gulf of Mexico, and the BP Deepwater Horizon spill was magnified by a hundred times, that then that would really be a disaster? Is there a perception that more is not good? (0:58:38.4) (laughter)

Walker: There's certainly that component of not only the scientific community, but just the general populace as a whole that says, "Drilling is not good. We don't need to do anymore. In fact, we need to reduce what we're doing now." And on the other side of that you have the proponent that says, "We need to wean ourselves away from foreign oil dependency." And so those are two different camps. There's the economic development side that feels like drilling for oil or natural gas is just another industry that helps the bottom line of the nation, whether we need it for our own consumption, or we sell it overseas. We export oil now. We import oil, and we export oil. I don't quite understand how all that works, but—

Scull-DeArmey: It works that we're going to be paying five dollars a gallon for it! That's how it works. (laughter)

Walker: It's [\$3.50] now. So yeah, it might. I hope not, but it may. So yeah, there's a component of every part of society, whether it's science or just a guy on the street or elected officials. Some are going to say, "No more new drilling, and let's even cut back on what we got out there." And the others are, "Drill, baby, drill." It's two extremes. And the answer is, as most answers are, somewhere in the middle. My personal opinion is that the Deepwater Horizon was an anomaly, that drilling for oil and gas, even at depth, is a pretty sound science, and that either Deepwater Horizon was a nonpreventable accident, or it was the result of some negligence. But in any case, folks drill all over the world in deepwater, and they seem to do it successfully and without problems. Now, you said something about a disaster a hundred times greater than Deepwater Horizon. Unless that happened way the heck away from anything, that would be really, really bad. I mean, a spill of that magnitude where Deepwater Horizon was would be disastrous for the entire northern Gulf Coast.

Scull-DeArmey: Do you think that more oversight, more regulating, more enforcement of regulations for the oil drilling would be a safeguard that would work? (1:01:57.8)

Walker: It has to be. It has to be. If we didn't learn that from Deepwater Horizon, that we had to do a better job of overseeing operations, then we're going to pay for it in the future. And the government has taken steps. They've overhauled the Mineral Management Service, split it into two distinct bodies: one now, that permits things, and another one that oversees them, where before you had some crosswalk between people who were providing the permits and the people who were enforcing the permits.

Scull-DeArmeY: Is that a bad thing?

Walker: Yeah, I think it's bad.

Scull-DeArmeY: Why?

Walker: Well, you want a little bit of crosswalk so that people know what each other are doing, but just like in this agency, our enforcement people, they work with our fisheries folks who set the licenses and set the seasons and all that, make the rules. But their job is to enforce the rules, not to set the rules. (1:03:12.8) Their job is to enforce the rules, and if you're really going to be effective as an enforcement arm, you can't get caught up in whether the rule is right or wrong. If it's a rule, then you enforce it. If it's not a good rule, then don't look for the enforcement people to make it a better rule. You go back over here to the people who made the rule and give them the opportunity to make it better. So that's the way I think the federal government has tried to do with the BOEMER [Bureau of Ocean Energy Management, Regulation, and Enforcement]. (1:03:47.7) That's what they've tried to do is differentiate between the people who make the rules and give the permits and the people who then enforce those rules and regulations. And I think that's going to be better. I mean a guy that, he knows his job every day when he gets up is to enforce the rules. Somebody made them; somebody else put the regs in place. Maybe it's Congress. Who knows? But their job is not to worry about that. Their job is to make sure if it says, "You have two blowout preventers on this well," you better damn well have two blowout preventers on that well. So I think the result of that and the demand for that from the American people—I mean, people are demanding, "If you're going to drill, you better do it safely"—[is] that drilling in the future will be safer.

Scull-DeArmeY: I have a few follow-up questions. The oil-eating bacteria that are there, have they evolved over years to occur naturally, and does mankind need to put more of them in the Gulf of Mexico? (1:05:04.3)

Walker: I'm comfortable the answer to that is, "No. We don't need to do anything to supplement those populations." Those populations would not be there at all if it weren't for the natural seeps of oil. They have evolved to the degree that they can metabolize that material, just like we eat a peanut-butter-and-jelly sandwich. They could eat an oil droplet. And if that seep goes away, and the oil quits coming, then they'll just die off. And I don't think you could really supplement that. I mean, I'm a recovering scientist, (laughter) so I don't like to talk about all the intricate parts of this.

There are lots of microbiologists now that can do it a lot better than I can, but my take, as a recovering scientist, is that the microbial communities will self-regulate themselves. They will get bigger if they need to, if there's more material there for them to eat. And they'll get smaller if there's less.

Scull-DeArmey: I guess there will always be a little bit [of seeping oil] unless we pump every last drop of it out. There will always be a little bit of natural [seeping oil].

Walker: Yeah. And I think we're a long way from pumping all of it out. (laughter)
There's a lot of material. (laughter)

Scull-DeArmey: Well, then why is gas so expensive? That's a really rhetorical question.

Walker: I don't think it's a supply problem or a demand problem. If you listen to the talking heads, it's a speculation problem. We're paying today prices based on what folks *think* oil's going to cost in the future.

Scull-DeArmey: I think it's a greed problem.

Walker: Well, that's in there, too.

Scull-DeArmey: You said, if I understood you correctly, that there's not enough habitat for shrimp and crabs; that's our real problem here. Could that be corrected by a human-made habitat? (1:07:10.5)

Walker: It can be helped, and we do that. We do that. We create marshes every opportunity that we have. In fact, we use dredge material that used to be thrown away in a hole, upland somewhere. We actually use that material now to build marshes.

Scull-DeArmey: For the record, could you just say what dredging is and what the material is?

Walker: Well, dredging is the necessary removal of silt and sediment that are carried into various channels, which are all manmade. I mean, all these channels were manmade. Some of them are federally-maintained channels that, for example, the one that's required for coal barges to get to the power plant. There's a Gulfport ship channel that's required for the vessels to get to the Port of Gulfport. There's channels into the Port of Pascagoula and into Chevron and Litton and all those places where commerce is necessary. Well, those channels silt in over time, and you have to go back periodically and remove that material so that the channel can be opened back to its prescribed depth. And so you wind up with a mix of sediment, silt, some clay, and water. And we use that material now to create marshes, marsh habitats for things like shrimp and crabs and fish and birds and all of that. So yeah. And another program that we have—I'll just mention it—after Katrina, is a buy-out program where areas that have been repetitively damaged by storms and repetitively flooded, and to be

quite frank about all this, should never have been developed anyway—I mean, a hundred years ago those areas were marshes, and people have come in and filled the marshes and built on them. So we have a program where we are able to purchase from willing sellers their properties, and we can convert those back into what they were years ago. So we hope to be able; Congress hadn't funded that part of the Mississippi Coastal Improvement Plan yet. So we haven't been able to really get going on it like we'd like to, but when we do get funds to do that, it might come from Congress; it may come from BP. I don't care where the money comes from; I just want to be able to do the program, and we'll be able to buy areas that essentially should never have been developed and convert them back to what they were, which would be natural marsh.

Scull-DeArmeY: And how are those helpful when there is a hurricane? (1:10:31.4)

Walker: Well, there's a number; I don't remember what it is exactly, but it's like for every mile or maybe every ten miles that a hurricane passes over marshy areas rather than open waters, it goes down from one Category. And Katrina, as bad as it was, when it actually hit at the state line, it was a Category Four. And I think—and many think like this—that it was a Category Five when it was out in the open Gulf. It came across the Biloxi marshes, which are Louisiana properties, before it hit right there; I think the eye went right up the Pearl River, or pretty much right up the Pearl River. And so would it have been worse if it had not crossed those marshes? It's hard to imagine it being worse, but I think the answer is, "Yes, it would have been worse." So they [wetlands] do weaken hurricanes and tropical storms. And then there's an ecological benefit to having them.

Scull-DeArmeY: What comes to mind about how DMR helped the people employed in the seafood industry recover from the effects of the BP Deepwater Horizon oil spill? (1:12:06.0)

Walker: Well, I think we were able to do some good things after Katrina and after BP. With the oil spill, BP did a lot of that, themselves. Rather than give the state money to hire people, to put people to work, BP put people to work in the Vessels of Opportunity program (1:12:36.6) where people, who basically had boats and couldn't use them to fish or shrimp, would take part in this Vessels of Opportunity program, and they could go out and look for oil or pull netting and mesh material to try to see if there's oil out there, and report back. And they made good money doing that. So we were not as involved with the actual engaging the seafood industry people because BP did it directly. They could have done it the other—they could have given money to us, and we could have done that, but quite honestly, it's probably better that they did it.

Scull-DeArmeY: So DMR doesn't have anything to do with the testing of the seafood? (1:13:36.3)

Walker: We do. We are using some funds provided by BP for that purpose to collect samples, and every state's doing it, but Mississippi's doing their part. We collect our

samples, and we send them up to the state chemistry lab at Mississippi State [University], an independent university chemistry lab that is sanctioned, and they use all the FDA protocols and analyze the materials sent and report it back to us. And we pay them to do those samples out of that same seafood testing fund.

Scull-DeArmey: Is that done all the time, anyway?

Walker: No. It's done periodically. It's done when we think there's a reason to do it because we don't really have funding to do that. But once we knew that we had the real serious potential of having maybe significant oil in Mississippi waters, then we started collecting samples well before oil ever was anywhere close to us so we would have some before-and-after kind of comparisons. And we're just not seeing a lot of difference in the before-and-afters. We're just not seeing hardly any material.

Scull-DeArmey: Well, I've heard that people didn't see much oil in Mississippi, either, so—

Walker: Didn't see much?

Scull-DeArmey: Didn't see much oil in Mississippi.

Walker: Well, as I said, I mean, really the only oil we got was in the form of just degraded, asphalt-like tar balls. (1:15:24.3)

Scull-DeArmey: Why is that not as much of a worry as, say, oil on the water?

Walker: Well, crude oil has things in it like benzene, xylene, a lot of *-enes*. I mean, these are chemicals that are known carcinogens. These are, they're called low-molecular-weight hydrocarbons, and that means they're small in the number of carbon atoms they have. Benzene is a six-carbon ring. But there are a lot of those, and they're very volatile. The dangerous ones are very volatile—

Scull-DeArmey: What is volatility?

Walker: —which means they tend to evaporate. And so in sunlight and in warm water, they tend to just go from a liquid form to a gaseous form. That's what volatilize means. And so once they're in their gaseous form, then they go into the atmosphere and dissipate or further degrade or whatever, but they're no longer in the oil. And so what got to Mississippi, all the chemicals in crude oil associated with things like cancer were gone. Yeah. I mean, they just were volatilized away, and so you're left with this hardened material that has the high-molecular-weight hydrocarbons in it, the things that are big, long-chained chemicals; like asphalt is one. So you have those materials, and while they're aggravating to get it on your skin or something, they're not really of any real danger to anybody.

Scull-DeArmey: Um-hm. That's very interesting. Glad to know that. Is there any funding to get the results of the testing out to people? There's funding to collect the samples and do the testing like with the FDA protocols, but is there any funding then to let the public know, let the consumers know?

Walker: All of Mississippi's samples results are on our Website. You can get to them by DMR, dot, whatever it is: DMR.ms.gov or something. And I think all the other states are on their state Web sites, as well. I don't know about the NOAA folks. I don't know about the federal.

Scull-DeArmey: You know what? You guys ought to have a poster contest among the elementary school children for like, "How safe is Mississippi's seafood." (laughter) Right?

Walker: Well, we could.

Scull-DeArmey: Using these results, and then plaster them everywhere. It'd be win-win.

Walker: Well, we do a children's calendar. I think I've got one over there.

Scull-DeArmey: I've seen it. It's beautiful.

Walker: OK. So we do that kind of stuff, but I hadn't thought about what you just said. That might be a pretty good idea to do.

Scull-DeArmey: Get the word out, yeah. OK. Anything else about the BP Deepwater Horizon oil spill that you'd like to put on the record?

Walker: No. I don't think so. I don't think so.

Scull-DeArmey: OK. Well, let's think about the freshwater diversion from the Bonnet Carré Spillway. Did that affect the seafood industry in Mississippi? (1:19:31.0)

Walker: Only oysters.

Scull-DeArmey: And how did it?

Walker: Killed them. On average we lost about 85 percent of our live oysters. And in our reefs to the west, the westernmost reefs, we were essentially at 100 percent mortality. I was talking earlier; the difference between Katrina and the oil spill: Katrina tore up the reefs as well, but the flood, the Bonnet Carré diversion didn't hurt the reefs. It just killed the living oysters. The reefs'll come back.

Scull-DeArmey: But if it takes two years to get a marketable oyster, man, that really must have hurt the oystermen.

Walker: Oh, it did. It put them out of business. And so we've asked the federal government to declare a federal fisheries disaster, or a federal fisheries failure (1:20:30.3) I think they actually call it. And if the secretary of NOAA declares that, then that gives Congress the authority to provide funding. That same process that was used after Katrina. And a federal fisheries disaster was declared, and federal funds came. So far, after the freshwater event, that federal fisheries failure has not been declared. We think it will be for oysters; for sure, we think it will be for oysters, and we hope it will be for shrimp.

Scull-DeArmey: Did the salinity affect the shrimp, as well?

Walker: We have evidence that the answer is yes, and that is because our landings of shrimp caught in Mississippi waters (1:21:29.5) is down.

Scull-DeArmey: There's a correlation.

Walker: Yeah. Our overall landings are not down, which simply means that we got more shrimp from non-Mississippi waters. But we have a way of determining how many shrimp came from Mississippi waters and not from Mississippi waters, and we are able to show—you have to show a 45 percent reduction in product. With oysters it was easy. We were at least at 85 percent. With crab, we were at about 60 percent loss. So we've asked for a federal fisheries disaster in crabs. (1:22:10.4) With shrimp we're right on the edge, around 45 percent, so I don't know whether that'll work or not. But anyway, for oyster fishermen and hopefully crabs as well, we hope that NOAA will declare a federal fisheries failure, and that Congress will appropriate some money to shore up those fisheries.

Scull-DeArmey: How can that money be used?

Walker: That money can be used to directly compensate fishermen who can show that before the flood they harvested X number of sacks of oysters, and after the flood they harvested zero. So we can compensate people based on if they can document their losses.

Scull-DeArmey: So would they come to DMR offices to do that, to fill out forms?

Walker: Yeah.

Scull-DeArmey: And you guys would help them understand how to do that?

Walker: Just like we did after Katrina, same thing.

Scull-DeArmey: Is there any other way that DMR would help the fishermen in the freshwater diversion damages and losses that they—

Walker: You mean direct, financial ways?

Scull-DeArmey: Just any help at all that DMR would—besides the fisheries failure money, is there any other way that DMR would—

Walker: Well, we talked about doing some additional cultch plants and maybe doing some relays. We have asked for some not federal money but for some BP money to allow us to hire fishermen to relay some oysters for us, and also to, what we call cultivate our existing oyster reefs. (1:23:58.5) And so if we get that, we'll be able to hire some fishermen to do that restoration.

Scull-DeArmey: Gosh, it's a long wait for them, getting money from BP, isn't it?

Walker: Well, no. Let's don't get these pots of money confused because the fishermen and anybody else that as an individual was impacted by the oil spill, had the opportunity to ask for compensation, and many of them got that months and months ago.

Scull-DeArmey: That's right.

Walker: Others went to work for BP and received some compensation. This would be additional. We would just hire people who were interested, since they can't harvest oysters right now, if they would be interested in harvesting oysters for relay purposes for us, like we did after Katrina.

Scull-DeArmey: So they would go out of state to get those oysters? (1:25:01.5)

Walker: No. They would come right up in here. [Dr. Walker's office is on Back Bay Biloxi.] There are a lot of oysters in this bay that we can't harvest because the waters, these are closed waters. They're closed not because there's anything wrong with them. They're closed because there's a sewage treatment plant right up the way here, and there're just certain conditions that waters have to meet. If something would happen at that sewage plant, and we were harvesting these oysters, then they could get to market before we could stop the process. So you just have to meet certain criteria. These waters meet swimmable, fishable, all that; they just don't meet oyster harvest.

Scull-DeArmey: So why then is it safe to move them to another place?

Walker: If you move them to an acceptable area where the water quality is good, and it's deemed appropriate by the federal folks, they will cleanse themselves, if there's anything wrong with them, in twenty-one or twenty-eight days. So if they're sitting out there in polluted water, they'll absorb pollutants as they pass water through their gills and their bodies. If you take that oyster that's contaminated, I mean, he's happy

as he can be, being contaminated. (laughter) It doesn't matter to him, but it matters to us. But if you take that contaminated oyster and put him in clean water, he'll decontaminate himself in three to four weeks.

Scull-DeArmey: Oh, I thought of something to ask you, and now it's slipped out of my mind.

Walker: You about picked my brain, anyway.

Scull-DeArmey: I think it's gone. (laughter) Well, on a lighter note, would you share with me your favorite seafood meal, and if you cook, how do you prepare it? (1:26:54.0)

Walker: Well, my favorite seafood meal is fried oysters. And when I cook them, I fry them. If I can't cook it on a grill or fry it, I generally don't cook it. But my wife, on the other hand, does lots of dishes that are very good and a whole lot better for you than fried stuff. But I just don't cook in an oven. I don't cook inside the house, actually. (laughter)

Scull-DeArmey: How do you fry oysters outside?

Walker: Well, I have just little fryers, just electrical fryers that I use. We have done them with butane cookers, as well. But you just season them and bread them and fry them in oil.

Scull-DeArmey: OK. What do you season them with?

Walker: Well, I use not a ground meal, but a ground flour. It's a lot finer than corn meal. And so I use corn flour, I guess is the proper term. And then season it with usually something just like Tony Chachere's, some kind of pre-put-together sauce, but you can do it individually with black pepper and garlic and a little bit of salt and some cayenne and that kind of stuff. I've done it both ways, but it's just easier to get something that's already put together. And I try to lightly bread the oysters I cook. I don't like heavily-breaded oysters. And then just cook them at 275 degrees.

Scull-DeArmey: Do they have to be covered in oil? How much oil are we—

Walker: Yeah. You're talking about deep-frying. You're talking about having them basically, when you put them, the cookers I use, there's a depth of oil about that deep.

Scull-DeArmey: What's that? Three inches?

Walker: Yeah, about three or four inches. And then you have a little basket; you have baskets that go in there, and you put the oysters in the baskets, and they go to the bottom. And then as they cook, they come to the top, just like fish do, the same thing.

Scull-DeArmey: So that's how you know they're done? They come to the top?

Walker: Well, when they first come to the top, they're still pretty soft. So I like my oysters a little more crispy, and so I just cook them until I can lift the basket up, touch them to know that they're the right crispness, I guess.

Scull-DeArmey: So then is it just down the hatch like that, or do you have horseradish or anything?

Walker: Oh, yeah. I mean, you can use all kind of sauces and stuff. I rarely do. I usually just eat them just fried. I mean, and I love to eat raw oysters. I mean, I love to eat chargrilled oysters. I don't think there's a way you can cook an oyster or prepare an oyster or serve an oyster that I don't like.

Scull-DeArmey: When did you first eat an oyster?

Walker: Well, when I was a kid. My father liked oysters, and he fed them to us, and I've always loved seafood in general, but you asked me my favorite. So of all the seafood that you can get, I enjoy oysters the best.

Scull-DeArmey: To me, oysters just don't seem like something that a child would go for. Do you know what I mean?

Walker: Many don't. Many adults don't care for them, particularly raw.

Scull-DeArmey: But even as a child you were not averse to—

Walker: No. I mean, we lived in the marsh, I mean, in the freshwater areas in Louisiana. I mean, growing up in Louisiana, you were always tromping around in some river or marsh or something, and I mean, we weren't in areas where oysters were, but we were in areas where you caught fish, and you brought them home and ate them.

Scull-DeArmey: Crawfish?

Walker: Oh, yeah, always crawfish. We'd catch crawfish out of the ditch alongside the house.

Scull-DeArmey: I did, too. I grew up in Alexandria as a little girl till about the sixth grade, and I can't tell you how many crawfish I brought home in a coffee can.

Walker: I know. I mean, my friends and I used to catch them in the ditches and cook them in a little can out in the yard, just boil water in a little can and drop the crawfish in there and cook them. Probably wasn't the best thing we ever did, but we survived. I did, anyway.

Scull-DeArmey: Oh, it was probably really good for you.

Walker: I don't know.

Scull-DeArmey: Is there anything else that we have not covered that you'd like to put on the record?

Walker: No. I think it's going to take a little editing or something to get this straightened out because we've kind of rambled around a little bit, but I think we've hit on most of the topics you wanted to cover. So I appreciate you taking time to go through this with me.

Scull-DeArmey: I appreciate you taking time, very, very much. I'm going to turn the machine off.

(end of interview)