STATE OF LOUISIANA

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF CONSERVATION

WATER RESOURCES COMMISSION

1ST REGULAR MEETING - 2019

WEDNESDAY, JULY 31ST, 2019

COMMENCING AT 11:00 A.M.

LASALLE BUILDING - FIRST FLOOR

LABELLE ROOM

617 NORTH THIRD STREET

BATON ROUGE, LOUISIANA 70802

REPORTED BY:

BRITTANY E. VIDRINE, CCR, RPR

BATON ROUGE COURT REPORTERS, LLC

COMMISSION MEMBERS IN ATTENDANCE:

KYLE F. BALKUM
LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES
SENATOR NORBY CHABERT
LOUISIANA STATE SENATE
DAVID D. CULPEPPER
GEOSCIENTISTS WITH EXPERTISE IN GROUNDWATER RESOURCE MANAGEMENT
MARK S. DAVIS
TULANE INSTITUTE OF WATER RESOURCES POLICY AND LAW
ANTHONY J. DUPLECHIN, JR.
CAPITAL AREA GROUNDWATER CONSERVATION DISTRICT
JOHAN FORSMAN
LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS - OFFICE OF PUBLIC HEALTH
WARREN L. FOUNDS
SABINE RIVER AUTHORITY
LINDSEY K. GOUEDY
SPARTA GROUNDWATER CONSERVATION DISTRICT
CHAIRMAN THOMAS HARRIS
LOUISIANA OFFICE OF THE GOVERNOR

COMMISSION MEMBERS IN ATTENDANCE (CONTINUED)

CHRISTOPHER P. KNOTTS, P.E., FASCE
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
BENJAMIN J. MALBROUGH
EXECUTIVE DIRECTOR BAYOU LAFOURCHE FRESH WATER DISTRICT
DAVID B. RABALAIS
PORTS ASSOCIATION OF LOUISIANA
BRADLEY E. SPICER
AGRICULTURE AND FORESTRY
CHARLES SUTCLIFFE
CHIEF RESILIENCE OFFICER AT GOVERNOR'S OFFICE COASTAL ACTIVITIES
ELLEN J. TORGRIMSON
LEAGUE OF WOMEN VOTERS, LOUISIANA WILDLIFE FEDERATION AND THE COALITION TO RESTORE COASTAL LOUISIANA.
ELLIOTT B. VEGA
DEPARTMENT OF ENVIRONMENTAL QUALITY
GLENN J. VICE
CHIEF EXECUTIVE OFFICER AT JMB COMPANIES, INC., REPRESENTING LOUISIANA LANDOWNERS ASSOCIATION

COMMISSION MEMBERS IN ATTENDANCE (CONTINUED)

PATRICK WITTY
DIRECTOR OF SMALL BUSINESSES SERVICES AT
LOUISIANA ECONOMIC DEVELOPMENT

ALSO PRESENT:
SEAN DUFFY
SENATOR DAN CLAITOR
ALYSSA DAUSMAN, Ph.D.
JOHN LOVELACE
TIM DUEX

I N D E X

CALL TO ORDER

CHAIRMAN HARRIS: Good morning, everyone. I'd like to thank you for being here, and I'm calling this meeting of the Water Resources Commission to order.

Matt, would you call the roll, please?

MR. REONAS: Yes, sir.

Mr. Balkum?

COMMISSIONER BALKUM: Here.

MR. REONAS: Representative Bishop?

REPRESENTATIVE BISHOP:

(No response.)

MR. REONAS: Captain Bopp?

CAPTAIN BOPP: (No response.)

MR. REONAS: Mayor Brasseaux?

MAYOR BRASSEAUX: (No response.)

MR. REONAS: Senator Chabert?

SENATOR CHABERT: Here.

MR. REONAS: Mr. Cormier?

COMMISSIONER CORMIER: (No response.)

MR. REONAS: Mr. Culpepper?

COMMISSIONER CULPEPPER: Here.
MR. REONAS: Mr. Davis?
COMMISSIONER DAVIS: Here.
MR. REONAS: Mr. Duplechin?
COMMISSIONER DUPLECHIN: Here.
MR. REONAS: Mr. Forsman?
COMMISSIONER FORSMAN: Here.
MR. REONAS: Mr. Founds?
COMMISSIONER FOUNDS: Here.
MR. REONAS: Mr. Frey?
COMMISSIONER FREY: (No response.)
MR. REONAS: Ms. Gouedy?
COMMISSIONER GOUEDY: Here.
MR. REONAS: Mr. Gray?
COMMISSIONER GRAY: (No response.)
MR. REONAS: Mr. Harper?
COMMISSIONER HARPER: (No response.)
MR. REONAS: Chairman Harris?
CHAIRMAN HARRIS: Here.
MR. REONAS: Mr. Knotts?
COMMISSIONER KNOTTS: Here.
MR. REONAS: Mr. Malbrough?
COMMISSIONER MALBROUGH: Here.
MR. REONAS: Mr. Rabalais?
COMMISSIONER RABALAIS: Here.

MR. REONAS: Mr. Spicer?
COMMISSIONER SPICER: Here.
MR. REONAS: And Mr. Stoshak is absent today.
Mr. Sutcliffe?
COMMISSIONER SUTCLIFFE: Here.
MR. REONAS: Ms. Torgrimson?
COMMISSIONER TORGRIMSON: Here.
MR. REONAS: Mr. Vega?
COMMISSIONER VEGA: Here.
MR. REONAS: Mr. Vice?
COMMISSIONER VICE: Here.
MR. REONAS: Mr. Witty?
COMMISSIONER WITTY: Here.
MR. REONAS: And then Mr. Zaunbrecher is absent also.
Okay. We do have a quorum, yes, sir.
CHAIRMAN HARRIS: Thank you, Matt.
Before we get to the agenda, I would like to welcome our newest member of the Commission. Ellen Torgrimson from New Orleans is a joint-appointed seat representing the League of Women Voters, Louisiana Wildlife Federation and the

Coalition to Restore Coastal Louisiana.

Welcome. And would you like to say anything to introduce yourself? Sorry to put you on the spot.

COMMISSIONER TORGRIMSON: Yeah, you put me on the spot. I don't know how to use the microphone.

I represent the League of Women Voters. My professional career was mostly as a technical editor for an environmental consulting firm in New Mexico. And I worked on very, very many water planning reports, so I think that's my qualification for being here. Thank you very much.

CHAIRMAN HARRIS: Thanks and welcome.

Our first agenda item, as usual, we need -- you have all received the meeting summary, the minutes from our last meeting.

Do I hear a motion to approve it?

COMMISSIONER SPICER: (Makes motion.)

COMMISSIONER BALKUM: Second.

CHAIRMAN HARRIS: We have a motion by Mr. Spicer, and a second by Mr. Balkum.

Any questions, comments, objections?

(No response.)

CHAIRMAN HARRIS: Hearing none, the motion carries.

Our first agenda item is a presentation from Mr. Sean Duffy, Executive Director of the Big River Coalition. He's here to provide some perspective on the historic high water in the Mississippi, and then what that's meant to ship navigation, commerce.

MR. DUFFY: Good morning, Members of the Commission. I appreciate the chance to update you.

2019 has been a record year in many ways for navigation. I know everybody is aware of some of the challenges. I'll try to bring you up to date to some of the things especially relevant to ship traffic.

So this is -- I took a little liberty. Hopefully, I haven't violated a

patent. But an artist put this together a few years ago (indicating). I used a friend's computer technology to change the Mississippi River Basin to a color that I could live with. It was done in pink in the original one, and it just didn't look right. But 31 states, two Canadian provinces connected. This shows, you know, 250 tributaries. So with the record high water, this area has, of course, greatly impacted all of 2019, really starting -- going back into November 2018.

There are a lot of ways to measure the metrics of a port. The port system on the river moves about 500 million tons of cargo on an annual basis. So you can compare this to some of the huge ports we always hear about, New York, New Jersey, LA, Long Beach. They're huge ports. They move a lot of containers. Containers are typically not that heavy. They don't ship a lot of really bulk cargoes in them. So if I'm allowed to pick the metric to measure a port by its

own tonnage -- so 500 million tons of cargo and the five deep draft ports on the river that's Baton Rouge, south Louisiana. Port of South Louisiana moves over 300 billion tons a year by itself, then the Port of New Orleans, Port of St. Bernard and Port of Plaquemine in the lower river.

Mississippi River economics is -- there's not a single place you can go and really find what's here. I put together a number using three different reports that covered multiple purposes of the river, navigation, flood control, drinking supply, environmental, fishing, the whole gamut. And when you put those together, that's where I got that $735 billion number and the 2.4 million jobs.

The Corps of Engineers is also using this same information. There's a lot of challenges with core economics. I'll discuss some of it. And don't mean to say that in a way to throw them under the bus, but they can only look at what

actually is happening. They can't include future development and different things like that.

So this is a shot of -- if Captain Bopp were here, he could tell you that's his station over there (indicating). I don't know if the pointer works, but the one building over there to your top right, that's the Pilottown. So you see vessel traffic in the bottom of the screen there, that's a cutterhead dredge working to remove material and beneficially place it over in the West Bay receiving area. What you can't see in this picture is this is right above the Head of Passes. So there's a huge turn that all these ships have to come around and communicate. And I was talking to Dr. Wilson in the audience earlier this morning about how the pilots basically do one way traffic and communicate at times moving 30 ships between up to -- we had up to seven dredges working at one time earlier this year.

This is a slide that I got from Captain Miller, who's the President of the Bar Pilots. So the Bar Pilots handle every vessel that comes into the river, on their entrance and exit to the river. It shows you huge bulk carriers. That's your grain ships, coal, iron ore, different port cargoes. The chemical product tankers make up a huge sum, too. And some of the chemical tankers that come into the river may make ten or more stops at different docks, may load one cargo here and take another there before they make an out-of-bound traffic going from dock to dock.

You can see while we move, a little less than a million TEUs, I think 20-foot containers. So we are moving more containers. There's a lot of future development, looking at capturing some of the larger container vessels.

I like to use this slide a lot (indicating). I don't know how old it is. I want to say I been probably using it for five years. But what it shows is

the global agricultural zones, that 139 hectares on the -- across the Mississippi River Basin equates to about 350 million acres of farmland, agricultural land. It's the only place in the world there's a major river connected to a major agricultural belt.

This article by George -- I'm drawing a blank on his name. It will come to me. But from George Friedman from Stratfor. So it's called the Inevitable Empire. One of the quotes that I often use is, he says in this article that, Americans are great because of where they are not because of who they are. When you need to get fired up some days, remember that. But it does show that we have a lot of challenges maintaining this natural resource. He had five post-its. I used to be a coach, so when you use words like "dominate" and "eliminate," I've got to include them. But you see there, "Dominate the Greater Mississippi River Basin, eliminate all land-based threats." So that was the

development going out west in the beginning of the country's formation.

This is another way to show that 41 percent of the country drains through the Mississippi River Basin. Basically, the vast majority of everything east of the Rockies winds up draining through here. 1.25 million square miles, 41 percent of the country, again.

One of the things that has really challenged us this year is we're seeing more precipitation. And that's not just a local phenomenon. There's a bunch of reports out there from the National Weather Service, Core of Engineers, National Center of Environmental -- of Excellence information -- environmental information that show precipitation has increased. And this is one of the problems that we see is we're dealing with precipitation based on levels that are no longer happening. Things like -- I'll mention in a minute, Bonnet Carre. But we're seeing these rain events. One of the things it says is it's happening

around the world and that we're seeing more robust rain patterns, heavy downpours, and it's not just a local phenomenon.

So about February of this year, this came to my attention again from some of the agencies I reference. But what's critical is it shows that basin, and 124 years, that was the wettest 12-month period we had ever had. And much of it was over 120 years. You can see on the slide. And as we look at trying to deal with increased precipitation, all these factors are going to come into play. And having to invest as a nation to deal with water better and to be prepared for these challenges occurring.

1895 is when they started keeping records. Nobody has a record that I'm aware of, of what it was like before that. But since we started keeping records, it's the wettest and most precipitation in any 12-month period.

To kind of give you -- I don't have all the dates of when we started rising

in October and November of 2018. Typically, when we're at 10 feet on the Carrollton gauge, we need dredges in the Southwest Pass. So we're looking for dredges in November of 2018. You can see where the spillway was open. I was proud when I said something to my son about Bonnet Carre opening in February of this year, and he called me and he said, "Dad, I can't grasp that the Bonnet Carre is opening in back-to-back years." And I was like, he's been paying attention, "Well done, son."

This is from the -- and I'm going to blow the name -- N-C-E-I, National Center of Environmental Information, but NOAA. And it shows exactly what we're talking about. It increased that line of precipitation. So we're projected -- I sit on the Board of Americans Watershed Initiative. We had a webinar recently. This is where that slide came from. And they said as far out as we can predict is about five years, but we should expect precipitation to continue to increase.

This is why New Orleans is a concern. If you look at this cross section, imagine during Hurricane Barry, that 20-foot level was at least originally predicted. The infrastructure along the river system across the country is very important. I will say that I had a pow wow with our children when we were going to 20 feet, and I had them prepared to evacuate. It's a real big deal. Seventeen-foot river is crazy. And when we start going over that, I would say that we have to be very concerned.

Captain Bopp would love this picture if he were here (indicating). But this is a Corp Hopper Dredge Wheeler. Another thing happened, we had all kind of challenges. So in January, February if we have 21 days of blackout fog, that's -- typical fog lifts about 9:00-10:00 in the morning, sets in the evening before. We had 21 days with blackout fog. Couldn't move ships. Couldn't dredge. Couldn't survey.

About the time I thought, "Oh, we

got this," know what's happening; I saw that record precipitation, my friend who lives in Minnesota sent me this photo. And I was like, "Oh, guess what? That's all coming our way, too." I always keep that picture.

So this shows the Corp's investment, and I had this going back to 2016. But over the last couple of years, we've seen some increases through supplemental funding and starting to respond to some of this. But if you look, going back into the late '60s, we were investing a lot more in our water infrastructure, our maritime infrastructure, locks, dams, bridges, channels. And we lived off of that investment for a long time. It's not on here, but once, that I always remember, is in 2012, we were investing our infrastructure at a level that made us number 144 in the world. That's not good news for us.

One of the challenges we face, too, is so after the Great Flood of 1927, this incredible period in our history,

Congress passed the Flood Control Act of 1928. The Flood Control Act of 1928 has not been completed yet, 91 years later. It never was envisioned to take 100 years. So when we see levies failing and problems with the system, this is one of the things that I can point at. I have some close friends that work for flood control agencies, and there are some of these projects, the majority of them are related to bringing levies to grade and backwater storage. This year the Yazoo pumps, the backwater and Yazoo has been in the news. And when you drive through flooded farmland, you see "build a pump" signs everywhere. President Trump has talked about reinvigorating that, but that project goes back to that flood control act.

Here's another way to look at the length of this flood. So you'll see, we have records for above flood stage in all these important river cities including Baton Rouge. So the Great Flood of 2019 has all the records except for Memphis,

Arkansas City and Vicksburg. And the reason those are not records is because projects that were built from the Flood Control Act of 1928 protected them and worked.

So this is a picture of Southwest Pass. One of my friends from the Corps of Engineers told me while I was on Capitol Hill, he said, "Your job here is to make sure that they know Southwest Pass is not a play that Sean Payton and Drew Brees drew up. Southwest Pass, explain the importance."

So in this photo, there's a lot. This year we've received the record amount of funding, that total allocation. We just received an additional $8 billion over the last ten days. $224 million. Average year before this was trending upward to about $151 million a year.

If you notice that the sandy areas on -- as you're looking at the screen on your right, those are areas that were restored by cutterhead dredges, areas under lighthouses that were built in the

1800s that are on beach now and not in open water.

So I talked about the 244 million. In 2009 as part of the American Recovery and Reinvestment Act, we had the previous record of 179 million. That was mainly based on budget availability and not on channel need. But it does show we can recover in every year. In low water years, we can use additional funding to recover and prepare for the next high water.

So the simple part of this is in a typical year from Venice to the Gulf, we used to say Southwest Pass, we're seeing challenges in the lower river. I won't go into why they are. I have my theories. But we're dredging further up to Venice, to the jump, than we used to. So it's really Venice to the Gulf, not just Southwest Pass now. We typically dredge just under 20 million cubic yards. So far this year, we're at 38, and that number could indeed eclipse 50 by the time the year is over. We have six

dredges working right now in the lower river, and would like to get a couple more.

And then the total for the year including the crossings from New Orleans to Baton Rouge is about 66 miles that have to be dredged where the river bends across from side to side. And when you add those total in an average year, it's 42 million cubic yards of sediment removed. And right now we're at 56.3. So that number will probably be around 65 by the end of the fiscal year, two more months.

So there's a lot of ways to look at Bonnet Carre. We haven't opened another time. If you look to the right, I have three for 2019 to show the first opening and the second opening, and then the total combined. If I had a grad student like Dr. Davis, I would have had somebody color code this and do it. It really was my first shot at doing this kind of bar graph.

COMMISSIONER DAVIS: We can talk,

Sean. We can make an arrangement.

MR. DUFFY: Well, thank you. I need the help.

So a number we hear a lot, 1.25 million cubic feet per second, the trigger point for Bonnet Carre Spillway. If you think of that as 320 18-wheelers carrying water past you per second in that limited area, it gives it a whole new meaning to understand. When you look at it, it's impressive, but trying to imagine that amount of water is really complex, hard to fathom. Hopefully, that number helps you. Hopefully, you don't see it on the way home today.

I had so much fun with my bar graph. I added this one so that it shows the more frequent opens (indicating). It's spaced out over time. So you can see that we opened three times in the first 50 years of operation. And we've done that in the last two years. It gets back to dealing with more water.

I do not want to talk in great deal about Morganza Spillway, but it was

scheduled to be open a couple of times. This is the failure of the levee at Pin Oak in Windfield, Missouri. There were several levee breaches. The trigger point flow of 1.5 million cubic feet per second to open Morganza was not reached because of these levy failures taking water off the system. Not something I would recommend, but hopefully we can start to invest in not only recovery but preparing for the next record high water.

This is a photo of Southwest Pass Head of Passes, Cupid's Gap, South Pass, Pass A Loutre 1938. Before Katrina, I took this and made a copy out of one of the pilot stations. It would have been lost. That's that same area in 1985. Of course, a lot of land loss, marsh loss, changes. That's the area in 2015. So this highlights some of the beneficial use. You can see the sandy materials mostly on your right. Since this photo was taken in 2015, there's about 3,000 new acres in this area from Venice to the Gulf. There's a project going on right

now that will restore about 1,000 acres in the Pass A Loutre wildlife management area. The partners in this are the pilots, the Corps of Engineers, the Big River Coalition, Louisiana Department of Wildlife and Fisheries, US Fish and Wildlife. And it's simply taking the material out of the river and beneficially using it. That's kind of what it looks like (indicating). This was recently done. That's in the ongoing work at the Pass A Loutre wildlife management area, an area that was wiped out 50 years ago by a combination of Hurricanes Camille and Betsy.

This is -- kind of to show you this. The photo I showed in the very beginning with the cutterhead dredge working. The cutterhead is there with a ship coming up around it, and you can see where that cutterhead is pumping material into the West Bay Receiving Area.

So there's a bunch of numbers here. If you look in the bottom right, that 8,800 acres, that's what was restored

when this was prepared a couple of months ago. We're over 9,000 acres now. By the end of the year, I do believe it will be 10,000 acres. That's 10,000 acres in ten years, and I do like to call it the largest wetlands restoration project in the world, over 120 billion cubic yards of material.

So we've had a lot of trouble this year with high water and shoaling. And we have a channel that is deficient, but we also have a project to deepen the river to 50 feet. I think this is kind of a follow-up to a presentation that Joe Accardo did a few years back based on the new Panama Canal. And lots of channels across the country are trying to get to 50 feet to match the control in that draft, depth or draft of the Panama Canal.

The project here is approved. It's waiting on funding. It has to be done in phases where you do from Venice to the Gulf first. That's about a 110 million-dollar price tag. About 21,

22 million of that is a state cost share that can be broken out over a couple of days -- over a couple of years. Pardon.

This is another way to look at it. So the phases, you have to do Venice to the Gulf; that's number one there, and then you have to do the crossings. So the total dredging is about 157 million dollar total project. It used to be a 50/50 cost share. We were part of changing that to 75 federal, 25 state. And I think that was in 2016. They start to run together over the years, but several years ago that was changed. So it's now 75, 25.

And then that last item is, there are pipelines on the crossings between New Orleans and Baton Rouge that have to be relocated. There's some different thinking about who's responsible for that cost. I don't want to get into that in a lot of detail, but if we focus on the dredging first. And whenever the channel has been deepened, it was done the same way. You start at Venice to the Gulf,

and then did the section up above.

I believe, that's it. I have time for questions, maybe. I have a video that may or may not play based on all the technical problems. If there is time, it's about four minutes, but I'll wait to hear any questions and guidance on whether there is time to do a video or not.

COMMISSIONER RABALAIS: I just have a comment. I want to thank you for coming, and it's very informative. Thank you for all that you do.

MR. DUFFY: Well, thank you. As you've heard me say before, waterways management is a team sport, and we win and lose together. And we need each to be successful to win. So thank you for what you to do, too, sir.

CHAIRMAN HARRIS: Do we have any other questions for Mr. Duffy?

Thank you, sir, for coming. Very informative, and we appreciate the information and you being here today. Thank you.

MR. DUFFY: You're quite welcome.

MR. REONAS: Tom, did we want to try and run the video? Do we have time?

CHAIRMAN HARRIS: Yeah, sure.

MR. DUFFY: So when we did this, I kind of did the script, and my boss basically told me, "You have a face for radio and a voice for Microsoft Word." So I'm not featured. I was like, "Thanks. I appreciate that." Hopefully it will play.

MR. REONAS: Where was it at?

MR. DUFFY: It was the last one. And it may or may not play. It is available on YouTube. Big River Coalition Sediment Recycling, if it doesn't work and you have a burning desire to see it.

MR. REONAS: "Media unavailable."

MR. DUFFY: "QuickTime not available." Okay.

MR. REONAS: My apologies. We can send that out as a link.

MR. DUFFY: Yeah. I can help you get it if you need to.

COMMISSIONER RABALAIS: It's a picture of the bottom of the river.

CHAIRMAN HARRIS: Our next speaker really doesn't need any introduction, but I'm going to anyway. It's Senator Dan Claitor from Baton Rouge. We really appreciate you being here.

Senator Claitor, just this past legislative session, offered bills on the subject of water conservation and water efficiency. And thank you for being here, Senator Claitor.

SENATOR CLAITOR: Thank you, Mr. Chairman. I don't have any fancy presentation that Sean had, but I got to thinking about it, so I am going to use one little visual aid. Imagine this is a straw (indicating.) In Louisiana we have the law of capture, right? So if you stick your straw into the ground, you can pump out as much water as you can pump, right? We know that. That's the law -- the law of capture. And so there -- as far as I can tell, no movement or incentive or desire to change the law of

capture though water is what was used to baptize Christ in. It wasn't oil. It wasn't something else. It was water. We know that water is tremendously important in every aspect of our life, and without water, we don't have life. We don't go to the moon and hang out there, because we don't have the resources to get water from there. So water is very important biblically, scientifically, every other reason.

Capture was a method of law that we used when we didn't have any concept that somebody could pump millions of gallons of water a day. It made sense in Napoleon's time, and I don't see it being changed any time soon.

So I have friends that are very concerned about water. One of them is here today, Mr. Hays Town. And when I came to the legislature 11 years ago, he worked on educating me on some of the issues that we have relative to water. And low and behold, here locally, we have got some saltwater intrusion issues. And

it's always kind of funny to me when we start talking about the fault and where that is in Baton Rouge and that I'm pretty sure it runs right under Chris' restaurant. And so that's kind of funny. All the deals that are made at Ruth's Chris restaurant are right on top of the fault as it relates to saltwater intrusions.

But the entire time that I was here, I tried different ways to get people educated and interested in water issues that we have, not just in Baton Rouge, but statewide, but more particularly in Baton Rouge and that the area that I represent is always in East Baton Rouge Parish.

I engaged in dialogue a long time ago with Georgia Pacific, and said -- and Exxon since they were the biggest users that I was aware of -- "what can we do to incentivize you to use other water? Help me come up with some legislation that would work for you." We incentivize everything. We have quality jobs. We

have all these other things that we incentivize people. You, industry, help me come up with an incentive that will work for you to get off the water.

In the beginning, I thought that it would ultimately happen, and toward the end now -- I'm almost out of here -- it never did happen where I got any suggested language from my friends there. But the economy and the new economy and technology actually took care of some of the issue. And I'm certainly not happy that a lot of people lost their jobs in the copier paper industry and the things that happened there, but a lot of times the things that are important to us kind of take care of themselves through the advancement of the economy and things of that sort. So I'm not saying it's a good thing that Georgia Pacific cut down their demands for water through having to lay a bunch of people off of their jobs. That's not the way that I would have liked to have seen it happen. But the economy did that. That's not something

the government did or the technology did.

But as I ramped up toward -- and I'm sorry that I'm giving you too much background here, but I think it's somewhat important. As I came into my last year, fiscal session, I said, you know, "I'll just give it my own shot and see what I can put together as far as an incentive program," and I came up with two separate bills, one for industry, and one for consumers. And if you look at the USGS information that we have, it says that industry is about 51 percent of the demand, and consumers are, I think, about 41 percent, and then we have 5 percent of other agricultural uses and things of that sort.

And so on industry, I basically wrote an open-ended incentive that said, "Hey, if after a particular time period you're doing something to take yourself off the groundwater and use surface water from wherever" -- Mississippi is a pretty easy source you would think, although, nothing is ever as easy as you think it

is once you get into the weeds and start looking at what the actual cost of all the equipment was. But the simple idea is if you took yourself off of the groundwater, we're using the Mississippi River, we'll give you a credit up to $2 million with a cap of $10 million, because we can't have programs uncapped.

If y'all were just casually paying attention, you saw what happened with the solar credits where that just went nuts as far as what happened there. And I pat myself slightly on the back, and I said, "This language is not correct, and it will end up going nuts. And we need to do a better job on this." I'm not one of those people who really enjoy saying "Told you so." I'd rather we fix it on the front end. But we put a cap on this at $10 million, and a cap on the individual user. The revenue committee thought that it was a reasonable thing to do, merited discussion. They sent it over to the finance committee. Senator Chabert and I have both served on

the finance committee, and we have a process whereby we kill your bill by saying we're going to put it on the stack, and we're going to consider it once we know what the real budget is. And so my consumer -- not my consumer. My industry focused bill got laid on the stack, and they said, we'd get back to you. And, of course, it didn't happen. And I understand that. We have a limited number of resources in what we can spend money on. But I thought that was a worthy bill for us to look at and something for us to do. When you looked at the numbers, and I'm talking about as far as the consumers of the water, industry, and end users. End users get overlooked all the time. There's no credit or program other than TOPS for the little man, as Senator Hebert used to like to call them. And I didn't see why there shouldn't be an incentive for the little man to conserve water and that if you can make a dent in a big user, that's good. But you eat an elephant one bite

at a time, and if you can get 1,000 people to take one bite at a time as opposed to one monstrous bite, maybe you make a dent.

So the consumer-driven incentive was directed to high efficiency toilets, high efficiency washing machines, water-based irrigation controller. And I'm sure as members of this committee, it drives you nuts when you're driving home at the end of the day in the rain and somebody is watering their yard. That's what a weather-based irrigation controller is; it's simply a device that keeps you from watering your yard when it's pouring down raining. And we save water by not doing that.

Storm water collection system. Our grandparents would have called that -- or maybe even some of you-guys. I see some gray hairs in there. We call that a cistern or the rain barrel collection system. And we had one, that storm water collection system that was written into here based on the amount of water that

you collect and conserve.

And then if the credit was going to be requested in an area of groundwater concern, we doubled your credit. And these were all very sensible, small credits, for the toilet, $50 per toilet, three per taxpayer. High efficiency washing machine probably doesn't need more than one, $100, one per taxpayer. Weather-based irrigation controller, one at $100. Storm water collection system is based on how big it is, $100, $200. Again, you get them doubled. But the little guy, he doesn't ever get credit. And if you gave him a small credit, I think that might influence behavior.

Consumer bill met the same depth. We put a cap on it and I agreed that we should have caps. And we put a sunset on it so that we could come back and look at it in the future on both of these, but it got laid on the stack and died a death of -- goes with the clock. And I get that when we have a limited amount of resources. We set our priorities. But

as I was talking to Anthony before we got started here -- and I apologize if I'm talking too fast, but I have to meet my wife in a little bit. And you never want to keep your wife waiting. So I'm doing the Federal Express thing.

But a lot of what we encounter is ignorance. Good people, just ignorant of the facts and what's going on. They've read a newspaper article, maybe they looked at something on the internet, read something on Facebook; it has to be true. As far as understanding a very complicated system, listening to Sean's presentation, that is a complicated system of what's going on. Our aquifers are a complicated system. We're the people that are drawing the water from serious issues that involve science, not just guesses.

But in addition to giving you an update on what's going on as far as the legislative process, one of the other approaches that you have seen is people are looking to reshuffle commissions and

get more tilt into the -- into what they believe their mindset ought to prevail. But at the end of the day, the science is what carries the day, and the math is what carries the day. And one legislator or two coming up with these things -- I don't know if you remember, but when I was bringing legislation saying, "Hey, these drones, they're fun, little toys, but they can potentially cause some problems," people had a good laugh about it, and said, "That Claitor, he's kind of a kook." But in time, they said, "No, I think he's right on those drones. We ought to have some regulations." And as I told Senator Alario, you didn't blink when it came time to regulate automobiles when we made the switch from horses to cars. We have to take these things on and think about it. And sometimes one guy can't do it by himself. I have different groups that are interested in assisting. If you-guys would work more towards suggesting some of the legislation that may help on these type

of things and offering those type of suggestions and actually -- the things that the legislature gets accused of, I'm sure you're well acquainted with is do something.

I was in a finance committee, and we were talking about study, study, study, study, and one of our members hollered, "I don't want another study. I want concrete. I want something happening on this thing." So I certainly appreciate the value of study, but frequently you're not viewed as doing something. And I don't say that to be meanspirited, but I'm just trying to be a friend and tell you what the perception is from time to time. And I'm certain, you wouldn't be certain in agreeing to do this if you were so thin skinned as to have that hurt your feelings on that. Everybody has a better appreciation than you for your job, and you just got to deal with that. So take what I'm saying with a grain of salt. So as Mr. Rabalais said -- I appreciate what you do, Mr. Rabalais,

showing up here to do this work. I appreciate what all of you-guys do.

I'm moving on. I'm term limited, so I would hope that y'all would have some ability to continue to consider what is smart policy for the state and make some real suggestions. And maybe my suggestions weren't all that good. But if it creates the conversation that leads us to a place to where we actually do something, I'll feel pretty good about that. And I appreciate your help and that type of thing.

Questions?

CHAIRMAN HARRIS: Senator Claitor, do you have any thoughts or ideas on future legislation to incentivize water conservation? Anything? Lessons learned that you could see in such a bill that would help it rise from the pile?

SENATOR CLAITOR: Well, community engagement on these type of things. I have a lot of friends that are interested in participating in government. But people need to see that there really is a

return on that. And my baptism discussion sometimes catches people's eye -- or ear, but it's hard to get people engaged on this because we are a water-water-everywhere kind of place. Where it's -- you know, the newspaper yesterday or the day before showed Cherokee Street, not far from here, being flooded. And people are going to go, "What do you mean we got a water issue beyond it being in my back porch"? So education, education, education is -- is what I would suggest, and engagement of the community. I don't know how many people are behind me. Not even 50. And they're here because they're concerned -- and a couple of them are giving presentations. But more engagement with the community and more investment by the community in that -- I don't mean this as not being thoughtful about it, but most people don't get engaged until the barbarians are at the gate. When you turn on this faucet and you're drinking saltwater, I'm concerned. When there's a

shooting in my front yard, I'm concerned. But when it's three-quarters of a mile away, maybe I'm not. And so engagement by the people to see that it effects them directly, and that's an education process.

SENATOR CHABERT: You know, saltwater intrusion became a very big issue for LaFourche Parish and Bayou Region and the state as a whole when, as Mr. Malbrough knows because he runs the infrastructure district, when they started seeing saltwater at the Valentine Paper Plant. And for those of you that don't know where that is, as we say "down the bayou," that's way up the bayou, okay. And that made it real, and people were tasting the saltwater at the tap.

Another thing I often talk with Mr. Malbrough about is the need to bring back the water barrel, right. I grew up in the country, and my mother -- my mother's parents who lived to the ripe old age of 100 and 95, respectively drank from a cistern every day of their lives,

and they loved it. And one of the issues that the city of New Orleans is facing is just too much water on the grid. Imagine what would happen if every household or business in New Orleans had a small cistern. But in order to get that to happen, you've got to incentivize it. And I really appreciate the consumer incentive bill. We both served on finance when, I think, the stack was invented. We put everything in the stack when we didn't have any money. And times are changing where the state is collecting more revenue, which is enabling the finance committee and the appropriations committee to look in that stack and deem what's more -- I don't want to say more important than others, because we are just coming out of a deficit posture, and now we're backfilling a lot of things that were cut. Hopefully, we remain both from a tax standpoint and an economic standpoint where we revenue positive as opposed to the deficit posture. And those

committees that are going to come in the coming sessions and legislative terms are going to be more able to have some flexibility in funding things like that. But as you know, when you bring a good idea of what happens -- you talked about the barbarians. When you start telling people they need to start drinking more cistern water, who's going to get up in open arms, the plastic companies and all these folks that make money off of whatever it is that your better mousetrap is going to do. So quite often, advocacy goes a long way. And I want to commend you, because I told this to a very prominent business owner in my parish when we were discussing the legislation of who wants to serve, and he said, "How do you handle a bill load"? So what it comes down to, basically, a few basic principals: One, you're going to handle the bills from your district; you need to pay attention to those first. Two, you're going to handle the bills that come before your committee and whatever

assignment that may be. And in the Senate, unlike the House, we serve a four-committee, so it could be a monster. Three, you're going to handle the bills that you're passionate about. And you're going to worry about those issues that you're passionate about. And correct me if I'm wrong, Senator, but I know your record fairly well. I don't think you ever served on ag nor natural resources in your three terms.

SENATOR CLAITOR: I was on natural resources for a little bit.

SENATOR CHABERT: For a cup of coffee. I think you came to a committee dinner once. But for the most part, this is not an area of your jurisdiction, though it does affect your district, but, more importantly, it's an issue that's very important to you. Thank you for that.

SENATOR CLAITOR: So a little follow-up on that is, as business folks, dollars-and-cents guys, when we look at the return on the investment of our

incentives, it's hard to put a dollar figure on clean water, not salty water, and those things. And so the committee and the legislature -- me too, I've been at fault of this before -- don't always see the return. It's more in line that perhaps with the return of a -- it's a poor comparison, but a nice park, in that how do you put the return on a nice park. And these other type of things, how do you put the return on that. And it's difficult to put a return on this type of thing.

In closing, I guess, one of the things that Georgia Pacific was creating there -- and it's not making an attack on Georgia Pacific by any means. I like those folks, and they create important products. But one of the important products they created there with the clean water is toilet paper. I'm a huge fan of toilet paper. But at the same time, I'm a bigger fan of clean water that, perhaps maybe, when we talk about beer is proof that God loves us, maybe

I'd rather use that clean water to make a beer as opposed to toilet paper. So it's just educating our people and getting them engaged. Our children are much better about being engaged on this issue than we are. But, Lord knows, we've got to make a smooth, thoughtful, kind handoff when the time comes, and our grandchildren.

Thank you, again, for the work that you do. Thank you for the opportunity to update you. Again, I'll try to answer if there are anymore questions, but I also don't want to keep my wife waiting too long.

COMMISSIONER DUPLECHIN: Senator Claitor, I'm really thankful for all of the work that you've done over the years, and I know that sometimes we've been at odds and had different opinions on things. But I went to the committee meeting -- finance -- no, fiscal, and, like you said, it's just a certain amount of ignorance -- and I don't mean that in a derogatory way -- of the people on the

committees, especially people that don't live in areas that use groundwater. "Go to the river." Well, it's not quite so easy to do that.

I think you had a very good approach. And it always, again, comes down to money. Can we afford it? Well, eventually we may be having to afford building plants to make clean water for us if we don't take care of it now. Don't look at -- spend a dime and not spend a dollar. Save a dollar down the road.

But, once again, thank you, and I hope somebody else picks up the mantle in the Senate for groundwater conservation.

SENATOR CLAITOR: Me too, wherever they come from. Thank you. Mr. Davis?

COMMISSIONER DAVIS: Yeah. Senator Claitor, I'm Mark Davis. And I think you've made a bigger difference than you may realize. I've sat on two laws, two committees, that exist because of you. And I chair the Law Institute Committee, and I'm drafting a model water

code in Louisiana. And I can tell you that that work is actually proceeding, and it is hard work, because it requires that you think about all the things that you're thinking about. But if it hadn't been for the leadership that you provided, that would not have occurred.

So I wanted to say, thanks for that. And also, I think your point is -- and, again, you know, as Tony was just mentioning, we hope someone steps in that -- I agree with you that one of the entities that needs to step in is this commission. We need to look at ways that we can provide a more tangible guidance. Obviously, we're kind of a standing focus group, and so it's not always easy to get everybody together. But I do think that's also a strength. So we should be, I think, looking for opportunities. And we can talk about it offline, about what we as a commission should be, you know, trying to set up, first, in education, but also, you know, maybe policy or even legislative recommendations that it's our

job to think through and put on the table. And surely there will be opposition. But any idea that has no opposition is probably not one worth thinking about, at least in this realm, because water is too important; it has too many different users and needs. So I think that you're spot on, and, you know, I hope that you find a way to remain engaged. And I would love to sit down and brief you on some of the things that you already put in motion and you might not know where they stand.

SENATOR CLAITOR: I'll be happy to listen, and I appreciate it. I'm not going to go beyond that. But when you give somebody encouragement, just in your regular life, you encourage a kid or whoever else on something that they're doing, you can't ever tell whether that's going to end up bearing fruit or not, but it's certainly worth the effort. But I'm glad that this is, at least, taking some root with you-guys. One of the things that I try to explain to my physician

buddies is Norby and I sit on Health and Welfare, and the physicians who you would think would be very engaged are hardly engaged in the decisions that are being made in health and welfare until the barbarians are at the gate, and then you have an insurance guy, a lawyer, I think, undertaker and somebody else making the decision on what's going on as far as this is concerned. So the knowledge that's found in this group would be very valuable, which is why I'm encouraging you to help in the process. So I prefer to listen to somebody that knows what they're talking about than an anonymous ranter in cyberspace.

COMMISSIONER GOUEDY: Senator, I don't know that we've had the pleasure. I'm Lindsey Gouedy. I represent the Sparta Groundwater Commission in north Louisiana.

So often when we talk about groundwater, when we talk about saltwater intrusion, it's with the thought of -- this is something we've struggled with

for many years. When your legislation came up this year, it did pique our interest, and we were interested to see where it would go, especially talking with some of our industries in north Louisiana that have made some pretty wide advances without incentives, as it is. And I've been assured by all of them that they'll continue to put the water needs of north Louisiana in the forefront of their mind as they continue to move forward with or without the Senate. Of course, they say it wouldn't hurt.

SENATOR CLAITOR: Representative Fannin was very engaged in it, and we had discussions as far as, I agree that y'all have been a model on good ways to do it in the way that you work with your gray water circulation systems and things of that sort. We can learn a lot from looking to north Louisiana, and, obviously, the geography in the stuff that I put forward was for everyone, not for just south Louisiana.

COMMISSIONER GOUEDY: Yes.

SENATOR CLAITOR: I agree with your -- let's educate it that it's not just the south of I-10 at issue.

COMMISSIONER GOUEDY: That is correct. But one thing I don't really see covered in this legislation, and I'm sure it's between the lines to some degree, is any type of designation for our rural water systems. You know, that's one thing we're looking at in north Louisiana, particularly right now is that loss rate due to dated infrastructure. And I know that's a statewide thing.

We're actually in the middle of conducting a study to compare what was done in 2009 that showed we had a 10 million-gallon-a-day loss rate due to dated infrastructure, old pipes. So while on this bill, we're talking about new technology. I don't see in there a whole lot pointed on that updated infrastructure. Is that something you could see in the event this bill comes up that bears a direct focus on that in with

this type of incentivized legislation for those districts to be able to reinvest or invest.

SENATOR CLAITOR: So by way of analogy, who would have thought that all this criminal justice reform reinvestment stuff would have happened, and what started out -- started moving into the process, people would point out deficiencies in it just like you're doing here, and that that's the process and that I rely on other people to chime in. There's 39 of us in the Senate, and Jim Fannin did a good job to say, "Hold on." You know, that's great for y'all down there, and that's good discussion on that type of thing in that. But this stuff is dead and in the stack and gone. It's up to the next guy or gal to bring it along. But there's nothing wrong with filing a bill that's just zeroed-in on that issue, because when they get too complicated, sometimes people get afraid of them. And so that might be something good to be folded in. But if you got a bullet proof

bill that makes sense, sometimes you just want to go in on your own and not be part of a bigger picture. So I'd be happy to visit with you and give you my thoughts on whether or not that would work. But it's raising the level of awareness and educating people, and that's a good point; and I thank you for making it.

CHAIRMAN HARRIS: Senator Claitor, thank you very much for your time and providing us with your perspectives, and please send our apologies to your wife for keeping you away.

SENATOR CLAITOR: It's all good. Thanks for allowing me to use your visual aid.

MR. REONAS: Absolutely.

CHAIRMAN HARRIS: Our next agenda item, we have Dr. Alyssa Dausman with the Water Institute of the Gulf.

Last summer Dr. Dausman was here talking on a recently signed agreement with the Capital Area Groundwater Conservation Commission, and I understand the Water Institute is moving forward to

phase one. Glad to have you back.

DR. DAUSMAN: Thank you.

CHAIRMAN HARRIS: And I've been remiss. Would you please identify yourself for the record?

DR. DAUSMAN: Yes. My name is Alyssa Dausman, and I am with the Water Institute of the Gulf.

Thank you for having me here today.

So I came and briefed the Commission about a year ago when we first started talking about the project, but it actually didn't get kicked off until January, February of this year. And so we've been -- we've been moving. We're -- I don't want to say we're midway through phase one, but we're getting close to midway through. So I'll give you-guys a little bit of an update on where we are with that and then where we're going.

So I've been working on this with some colleagues at the Water Institute and at the USGS. So Ryan Clark, who's here; he's a research scientist, as well

as, Adrian McInnis and then Dr. Mike Runge; he's with USGS. He actually lives up in Maryland, but he's an expert in decision support and decision analysis. And Ellen Bean who is also -- she's an independent consultant but has a lot of experience with strategic planning. And they helped with a lot of the strategic planning. They actually initiated what's being implemented for the Glen Canyon Dam, for example, which was a huge issue with a lot of stakeholders as far as water, water resources. And so while my background is groundwater, saltwater intrusion and water resources, because of the makeup of the Commission, the Capital Area Groundwater Conservation Commission, and working with these decision-makers to move forward, making sure that there is a structured process to have productive discussions is really important in long-term strategic planning. And so I'll talk a little bit about that.

So in the strategic long-term planning, our objectives are to work with

the Commission and stakeholders, all right, to identify and evaluate feasible, realistic alternatives, basically, right, that are cost effective. That might not sound like a big deal, but actually can be quite a challenge to do when you have 18 people sitting at the table and they all have different ideas on how to move forward.

Also at the same time, to evaluate the state of the science related to groundwater use and conservation needs, all right, and thinking about those. What is the kind of information that has been collected, and what is the information and data information to move forward. And then identifying management alternatives that are realistic and feasible to develop a long-term strategic plan. So that's just kind of to go back. These objectives haven't changed. They were always there, but it's just a reminder.

So we're taking a phased approach, and I put this up here (indicating).

There's a little red dot if you're looking at it. So in structured decision-making and decision analysis, we utilize what we call proactive framework. And where you work with decision-makers actually identifying in structure a problem and identifying fundamental objectives. And, you know, this has been around, this wheel, for the problem, objectives, alternatives, consequences, analysis, trade-offs and optimization, and then to decide and take action. It's been around a long time. It's specifically in fields of human dynamics and values. But, essentially, a lot of times in the field of sciences -- and I'm guilty of this too -- we usually jump straight to alternatives, and we're like, "These are all the alternatives. We've got a problem. Here's the alternatives." And what happens is when you go into alternative focus thinking, you can narrowly constrain your problem without stepping back to looking at the bigger picture. And so by taking everybody back

and saying, "Let's actually articulate in writing what the problem is," because I'm sure different people have different perspectives on what the problem is, and it could be, you know, you think somebody's personality is the problem. I mean, there's all kinds of things related to what you think a problem could be. And then what are, actually, your objectives. And when I talk about objectives, I mean your fundamental long-term objectives.

And so I've done individual meetings with all of the Commission members that were able to meet with me. So of the 18, I've met with 16 individually. And, you know, what you realize if you talk to everybody is long-term objectives, 50 and 100 years out, everybody is pretty much on the same page. We need clean water, right. It's not like rocket science. In 50 years or 100 years, I would like to have clean water available for drinking, for industry. We would like to have jobs. We would like for that growth to

continue. And so people, when they look forward in the long-term, they might not necessarily be on a different page when you think about your fundamental objectives, but your means on how you get there is where a lot of the conflict occurs, like, so, okay, how are we going to get there. And it's not an easy path to follow. But by stepping back and looking at the problem in its whole -- and your long-term objectives, and then getting everybody on the same page, then you start talking about what are the alternatives or individual actions. And I'll talk a little bit about that in a second.

So right now we're in phase one, and we're in the middle of doing facilitated workshops in a scientific review that's currently approved. Phase two, I'll go back to that in a little bit. But phase two and three have not been budgeted or approved, because it really depends on the results of phase one, on how you scope out phase two. So phase one is

really about the problem, the objectives, and initiating some of the actions that will lead to alternatives.

So the Institute and the USGS are taking this structured approach -- it's a facilitated approach -- to look at the potential problems based on the mandates, laws, and preferences. So we actually have a lawyer on our team, right. So Mark Davis would be happy about that, right. Because you can't ask people to make a decision if they don't know the laws and the context in which that decision needs to be made. So having somebody engaged in that process and that's thinking about that. And what are the specific long-term fundamental objectives of the Commission? I talked a little bit about that. Clean water in 50 or 100 years is kind of some of the basics. And then some of the potential management alternatives the Commission would actually consider as a whole.

So in the timeline of phase one, I just kind of wanted to go through where

we are, updating you. So we're in the middle of doing literature review. We have an annotated bibliography. We're meeting with various experts. Obviously, there's a lot that have been working in the field. John Lovelace with the USGS, and the Water Resources, they've done a ton of work, a ton of modeling. Dr. Tsai with LSU, also done a tremendous amount of work, working with them to think about the things that have been done, identifying any gaps, data gaps in information. And it may not just be about water and groundwater, but also could be related to long-term demand, right.

So how is the Greater Baton Rouge Area going to change over time? How is demand for water resources going to change? We can't necessarily assume that it's going to be static, right. So what is population growth going to look like? What is industry growth going to look like? What are we actually going to need to supply? I'm not saying it needs to or

to not be supplied by groundwater, just what is going to be the demand over the long term.

And then right now we also have several meetings and workshops that are ongoing. So on July 24th, last week, we had a three and a half hour meeting. God bless everybody who stood through it. I did bring coffee and scones and things for people to -- the public was there. The Commission was there. We offered an online and in-person meeting. So we had about 30 people that joined us in person with commissioners and the public. We had about 20 people who joined us via webinar. And, really, that first meeting was a dissemination of information. What is the structured decision-making to inform long-term planning. We had somebody kind of provide us just a legal analysis for review. I'll put this up (indicating). This figure up here on the right -- because it's the same thing. You have the problem, the objectives. But it gives you a little bit more

detail.

So when we look at the problem, what are the mandates, laws and policies that constrain that problem. What is the trigger that started the problem, all right. So there's, you know -- how do you identify this. And then when you get into objectives, the objectives are really important to talk about, because objectives might not just be about, I want water in 50 years. It might be that. But it might be, I want cost effective, right. I want to maintain. A fundamental objective might be, I want to maintain the number of jobs or increase the number of jobs in the Greater Baton Rouge Area. That's okay if that's an objective. It's not for us to say what those objectives are. We're here to be scientific independent facilitators. It's up to the Commission to decide what their objectives are, but it's okay for those objectives to include their values and their preferences, right.

So the reason I bring that up is

because we just want to have a transparent process. Who's at the table? What are their values? What are their objectives? What do they want in 50 to 100 years? And, you know, as one of the commissioners said last week, I just want us all to be in a room, and I just want to put it all out on the table. And I can appreciate that. And we're going to start that process tomorrow, actually.

So our meeting last week was really talking a little bit about this. We talked quite a bit about supply and demand, really, what's the long-term -- could be the long-term demand. What's that going to need to look like. What kind of analysis will need to be done to look at demand in the longterm in supply of water, and that could be the supply of groundwater, but also, if needed, supply of other water resources. And we talked quite a bit about aquifer dynamics, and part of it is, a lot of different people, both the commissioners and the public, have a different level of information on

aquifer dynamics, and that's okay.

We talked -- the prior judge, the judge prior to me, you know, talked a little bit about different people have a different level of understanding of where their water comes from. We have way too much water in Louisiana. Why are we having this conversation? And, granted, the people that are engaged in the conversation in the room are interested in this problem, but why is the problem we're dealing with here different from a problem in some other area or coastal area. And we talked about confined aquifers and unconfined aquifers and saltwater intrusion.

We had a special presentation on Tampa Bay water long-term planning. And I bring that up because I thought it was very interesting. And I brought that up a year ago when I spoke here about, you know, other people in other areas have had these problems. So we had one of the women who was kind of the architect leading them through that process give us

a talk, and it was really interesting. She talked about how they changed governance and law. They changed a lot. I mean, it was pretty robust changes in Tampa, but it didn't happen overnight. I mean, it took them, I think, ten years to get their management plan in place, and then they're still in the process of implementing it. And they decreased their groundwater usage by -- you know, from -- approximately, by 50 percent in, you know, 10 to -- in 20 years. Ten years of planning. So they've done a lot. And they did a lot. They changed a lot of governance. Different groups bought out -- purchased out other groups, and, you know, working with the legislature, so it was actually quite interesting.

And so, basically, tomorrow we start what we call our first facilitated workshop. So last week was a dissemination of information. So tomorrow it's actually a facilitated work discussion where it is open to the

public. But it's mostly -- it will be a discussion amongst the commissioners, very facilitated, for them to start talking about problem framing and articulating their long-term fundamental objectives. And talking through some of the decision analytical concepts of objectives, how you organize those, what would their performance metrics be. So that starts tomorrow. It's two hours tomorrow, and two hours on Friday. So it's actually a four-hour workshop split over two days.

Then in a few weeks we're going to have a second workshop. We're going to talk more -- narrow in, make sure we have the objectives articulated, performance metrics, and then we'll start talking about actions and alternatives. And so really what we'll think about is what are some of the individual actions that people can take. And I think that prior to me, there's quite a lot of things that were presented as individual actions. When Tampa Bay did theirs -- I found this

very interesting -- when they were doing their workshops, they let -- every action anyone wanted to put out there was on the table. They had a suggestion from somebody that they thought they should bring an iceberg in and that that should be an option on the table to solve their water resource problem. And they were like, "Okay, we'll just keep it in the pot. We'll put that" -- "that's an individual action." So the reason that they do that is you want it to be open, you want stakeholders to be involved, you want people to be able to say whatever ideas that they have on the table, and you may -- somebody may have some super creative thoughts of individual actions that can be done that people have not thought about, right. And then you take those actions, and then you start to group them together with different types of alternatives, right. So an alternative might not be one action. An alternative could be 30 different actions that need to be subsequently implemented

over 20 years, right. That's the kind of -- that's the direction that you're going in.

And so the third workshop that will be in September will be focused on taking some of those actions and putting them into alternatives, thinking about some strategies, and then the discussion of phase two and what that needs to look like.

And so phase two could very likely -- should very likely incorporate, you know, probably some additional modeling. And, you know, how you optimize if you were to change things about the system that the Commission wants changed. If it's changing a well field placement or water sources, I don't know what that would look like. And that's why there's no scope for phase two, because it really depends on what comes out of these discussions in the next two months. And so that process really starts tomorrow, and hopefully everybody will come to the table with

their most creative ideas and open mind on how that can be done. And really our goal is to have these people move forward, have everybody move forward in a constructive way where they can come to consensus and really not, you know, pointing fingers at anybody. But really like how do we beat -- how can we -- or how can the Commission as a group go forward in a productive way, come to agreement. And also, you know, it's important to set the expectation that strategic planning takes a long time to strategically plan. So it took Tampa ten years to complete that and to move forward, but they have, right? They've coming a very, very long way in over 20 years. And so solutions don't happen overnight, but it doesn't mean that they can't happen. And I'm hoping that through this process in an open, honest facilitated way that it can be a productive discussion. And then we can talk about phase two and an alternative analysis and how you fill the gaps and

how you actually evaluate alternatives.

So just because you have a set of alternatives that look great like, "Oh, we could all agree to this," until you really evaluate how they perform against your objectives -- so they're going to have these objectives identified, and then you're going to want to evaluate those alternatives and how they go up against those objectives. And those objectives, like I said, they can be about water, but they can also be about cost; they can be about -- it can be whatever the Commission determines their objectives to be and then alternatives can be then evaluated and how they perform against those objectives.

And with that, I will open it up for questions.

COMMISSIONER DAVIS: Alyssa, thank you for that. It's nice to know there are arduous meetings going on that I'm not required to go to.

DR. DAUSMAN: It's open to the public, so you're welcome to join us.

COMMISSIONER DAVIS: The notion of trying to figure out, you know, what our water needs are going to be, which I thought was the best way to be one of the more important but more difficult pieces, are you also looking at what kinds of water they're going to need? I mean, right now when we talk about public supply, we're essentially saying we will provide anyone who uses it, whether it's for irrigation, gardening, industrial, you know.

But going forward, do we have an idea of how much of the water demand is going to be for water with certain -- like with gray water, things like that? If we're going to start re-purposing and segmenting our water -- water management, do we have an idea of really what the demand sectors are going to be called?

DR. DAUSMAN: So that's an excellent question. I think part of that, we don't know now, no. That's part of what would need to be done; it's part of phase two is looking at that. And looking at that

will depend on the alternatives that are selected as part of phase one. So I'm just going to make this up out of my head. If somebody says, "What if we separate it out and people used gray water on their lawns and, you know, groundwater just for drinking" or whatever, if that is a set of alternatives that the Commission wants to look at, and that may or may not be, then that would need to be part of filling the gap in phase two of actually looking at that demand in separating it out. So right now we don't have an idea -- so when we talked last week more about demand, it was just kind of -- it was at a very high level to kind of pique the thought process of what are your needs going to be like, has anybody really kind of thought through. Because they've run some modeling alternatives related to groundwater and then having some, you know, constrained assumptions about demand and not thinking maybe on a deeper level of what that could be. But, you

know, maybe you've come up with like a creative alternative that people could think through that would actually give many or all of the users the kind of quality water that they would like, be it for their drinking and for others, but recognizing that there's a lot of water that could be reused or thought about in a different way. And they do that, obviously, quite a bit in other countries and out west.

COMMISSIONER DAVIS: I would guess that some people are probably thinking about it just in a quiet way. Louisiana Water Law in general -- and the Capitol Area is its own special thing. But for the most part, as Senator Claitor said, it's still the law of capture, you take and you use. But under Louisiana Law, if you get to a point of criticality, there's not enough water to go around, and, basically, public supply trumps, now, we don't really know how to do all of this, right.

DR. DAUSMAN: Right.

COMMISSIONER DAVIS: But I do think if it gets to that point, somebody -- probably someone in the room -- would have it in their job description to figure out, you know, what wisdom and, you know, observance of the law means. So my guess is that, you know, since that is a feature of the law already. And then so you do have a two-tier system, one is public supply, and everybody else if you get to that point. But I don't think anybody wants to have water at their home and no water at their job.

DR. DAUSMAN: Right.

COMMISSIONER DAVIS: So trying to figure those pieces out. So I'm willing to bet that some folks have started thinking about it. Most of all, have been thinking about it in other markets.

DR. DAUSMAN: They have, right.

CHAIRMAN HARRIS: Any other questions?

COMMISSIONER DUPLECHIN: Just a comment on what Mark said. And, you know, one thing we have to remember is

public supply does not mean water for human consumption. I think Senator Claitor said, you have a carwash that's hooked up to Baton Rouge Water Company. My prime example is -- using the public supply, going for something else -- is up in Farmerville, there's a chicken plant up there, and there are three wells on the plant site that are registered to Farmerville Water Company as public supply well, and they're not drinking all that water. It's going through processing. So, you know, people think groundwater is drinking water. That's far from the truth. And neither is public supply. Public supply is water that goes out for the public. Now, maybe the water code will have to come up with another definition of public supply. As it stands right now, it encompasses all water, all uses, sub-uses.

CHAIRMAN HARRIS: Dr. Dausman, thank you so much. Appreciate the update.

DR. DAUSMAN: Thank you.

CHAIRMAN HARRIS: Our final agenda

item is a presentation from John Lovelace of USGS. Good to see you again, Dr. Lovelace. Would you identify yourself, please?

MR. LOVELACE: Yes. John Lovelace, U.S. Geological Survey, and not a doctor.

CHAIRMAN HARRIS: Thank you.

MR. LOVELACE: Yeah, Matt asked me to -- good afternoon. Matt asked me to come speak today and talk to you a little bit about a program that we have, a cooperative research program that we have at the Louisiana Department of Transportation and Development. And I'm just going to give you a little background of our agency.

To start off with, we're rather unique in the Federal Government in that the bulk of our funding does not come from Congress; it comes from other agencies that are partner agencies. And most of the funding that does come to us from Congress, we can only spend through a partnership with another agency. So those other agencies have to put up at

least 50 percent of the funding. Because of that, we typically do work that people actually want, for some reason. So we've had this long-term funding partnership with DOTD; I am not sure how far it goes back, probably into the 1940s. Back then it was under the Office of Public Works. And we've been -- we've had that program and done a lot of research over the years in the State of Louisiana. We are a federal agency, but we are in all the states, and we have this cooperative program in all of the states.

So Matt asked me to talk about what we're doing this year in the program, this year coming up. Because we're just kind of ironing out the plans for this coming fiscal year.

We've maintained surface water and groundwater monitoring networks across the state. One of the main things we do is work with DOT and a lot of other agencies, agencies that a lot of you represent here today.

We have roughly about 40 gauges --

surface water gauges that we maintain for DOTD, and that's a relatively small number with the other agencies that are funding gauges across the state. And the list did not include what's actually funded by -- well, the Corps of Engineers also has a network on the large members where we do not have a lot of coverage. And it's just a map showing where we do have stream flow gauges, various types of gauges across the state. And, see, we have a very large number of them here in Baton Rouge and essentially the Amite River -- Amite, Comite River basins. Then we also have some coastal sites out there.

And we maintain a groundwater network. We have water level sites for monitoring water levels, and chloride sites where we're monitoring saltwater encroachment. And you see that DOT does make up -- the program of DOT makes up the lion's share of what we're doing in the state.

Other agencies, the bulk of that is

actually with Capital Area Groundwater Conservation Commission, which is apparent when you look at the map here, the little blue dots are what we monitor with Capital Area, and in the green are coverage with the DOTD network for water level monitoring.

We try and really capture what's going on in every aquifer in the state. We measure water levels quarterly at these wells.

And this is our chloride monitoring network where we're trying to observe what's happening along the fresh water, saltwater interfaces. So you can see there's an area up in -- I don't know if -- anyway, there's an area along the Sparta, which Ms. Gouedy was talking about, for monitoring saltwater, fresh water interface down into the Sparta, monitoring into the Mississippi River or Alluvial Aquifer in North Louisiana, and monitoring around the Alexandria area and the Jasper. We have several wells in various ends in the Chicot Aquifer

system, and some in New Orleans, some over in the Slidell area, and quite a few here in the Baton Rouge area where we're monitoring the saltwater coming across the fault.

So besides the monitoring, we also have an investigations program. The funding is roughly split 50/50 in our program between data collection -- routine data collection and what we call investigative studies. And these are special research and applied science studies that we reprogram from year to year. They're typically multi-year studies that come and go and often are starting something new when something else is ending during the year.

For this coming year, we have eight ongoing studies and one new one. I'm just going to kind of quickly step through what all these are.

The first one is water use in Louisiana. I think you-all received a copy of our latest water use report. Water use in Louisiana for 2015. Every

five years, we try and, kind of, inventory our usage across the state, what's being pumped. But between then -- between those five-year efforts, we do other things. One thing is keeping track, monitoring the usage by the top 175 water users in the state. That's public supplies, industries, power plants that typically pump over a million gallons per day, and get monthly data from those systems. And those are on top of what Capital Area is already collecting for some of the big plants in the Baton Rouge area in the water systems.

We've also been looking at trying to better our estimates -- we're planning to improve our estimates of supply in domestic populations. With those inventories, some of the water use is reported and some is -- for some categories it needs to be estimated. And domestic use is one of those things. It's always kind of difficult trying to figure out what the distribution of the

domestic population is in the state, because the census no longer really collects those data like they used to.

And, obviously, I'm not going to dwell on these. I kind of included some information on the purpose of this. I think that Matt will put this information online, and anyone can go in there and look at these presentations.

Essentially, you really need the water-use data to figure out anything that's going on of all the -- especially with groundwater. Everything you see in groundwater is in the response to withdrawals, in particular, problems we're looking at, and sometimes it's surface water, too. So it's very important to keep track of our water usage, and hopefully ensure that water use needs are met across the state in a sustainable way. And that's just a picture of the report in front of you.

Another thing that you may have noticed -- the display out front, we've been putting together these little fact

sheets on water use -- water resources of every parish in Louisiana. And this kind of came around from me going to various public meetings and hearing some very interesting things said about water supplies in different areas. And it was often clear that stakeholders didn't really have a good grasp of what their water resources were really like. So we, you know, put out all these technical reports. And we have hundreds of technical reports that we've put out over the years, and they're not easily consumed by a lot of people. You need to have a little bit of background.

So we had this idea to put out some fact sheets that are a little bit more general, aimed at the layperson, that would sort of explain what their water resources are like on a parish-by-parish basis. And so we've been slowly cranking these out for the past few years. And they have 50 of them written and published now. And we're down to the final 14, which we hope to put out by the

end of the year. And they said -- outside there's a little display set up of the fact sheets that we have published to date. And here's a map showing -- all those green parishes are ones that are available. The blue ones have been published online, but we don't have print copies yet. And the gray are what we're -- the ones we need to finish up. And they've all been written; they're just in various stages of review right now.

So another one of the projects that we're working on is -- it's a long name up there (indicating). The short name is the Baton Rouge Groundwater Model. We're simulating conditions, water levels and saltwater movement in the ten sands of the Baton Rouge area. And it's been a multi-year effort simulating one or two sands at a time, because we have a flow model and then also a separate transport model for the saltwater that we do separately for each of the sands.

So we're doing this project in

cooperation with not only DOTD, but also with Capital Area Groundwater Conservation Commission and East Baton Rouge City/Parish. They're all kicking in funds, as well as USGS putting in funds to look at this. And what we're trying to come up with is a model that can be used as a tool to look at various alternate scenarios for water use. These are the what-if hypothetical scenarios. What if nothing is done to manage the water in the Baton Rouge area, and we keep pumping at the current rates? What will it look like 40 years out or 100 years out? And then we can look at -- interestingly, one of the things that we looked at recently was what happens if Georgia Pacific goes offline and stops pumping water? What will happen with water levels? And we simulated that for the 2,800-foot sand. And we -- those results have not been published yet, but we're also monitoring what is happening if Georgia Pacific has gone offline or mostly offline. So we will use that

information to continue to calibrate and update the model. And as Capital Area looks -- the Commission looks at various alternatives, we're running scenarios as they think of them, suggest them, to look at various alternatives including moving pumping around, scavenger wells, changing up discharge rates from scavenger wells.

And that's just one of the figures from one of the reports showing the plume of saltwater that's moved across the fault, a simulated plume, and is heading towards -- slowly heading towards the industrial district. And that's the kind of things that we can do with the model. You can see how changing up pumping will affect the size and shape of that plume and the amount of saltwater actually coming across the fault.

Another project we're looking at is trying to map the hydrogeologic structure of southwestern Louisiana. That's the Chicot, Evangeline and Jasper Aquifer systems. They have been mapped in the past, but not in as much detail as we're

doing this time and coming up with, really, a digital model of the aquifer surfaces that we'll be able to use for modeling in the future. And we get a lot of questions from well drillers, especially landowners, you know, how deep is the aquifer in this area. So doing this sort of work will answer a lot of questions and make this data available to other researches as well as modelers and well builders. And we're coming into the final stage of it in this coming year.

We have a couple of projects going up on the Mississippi River or Alluvial Aquifer which runs along the river from north Louisiana down into south Louisiana. We're kind of doing these efforts right now as part of a larger program -- or I'm going to say here, to compliment a larger project that was federally funded through Congress to look at the Mississippi River Alluvial Plain. Mostly in Arkansas, Mississippi, and Tennessee, but also a little bit in Louisiana. And we're kind of adding on

to that with our own effort to look deeper into Louisiana. And because of that, that Mississippi Alluvial Plain are map studies also expanding their scope. So we can do some things together. One of the things is, they're developing water budgets. So we're building some potentially metric maps that's simply measuring water levels at different snapshots to look across the Mississippi, Alluvial Valley and see what the water levels are in the aquifer. And then that information will feed into the water budgets and the water -- the groundwater models they're creating. It will also give us an idea of what the impact is of pumping on water levels and how the river stage effects water levels, as well, because it is affected by both the Mississippi River and, in north Louisiana, by the stage and other rivers in the valley. And that's the -- the extent of the area that we're looking at. You see it covers a large area, northeast and south central, Louisiana.

So there's also some saltwater issues in the Mississippi River, Alluvial Aquifer particularly around Franklin, Winnsboro area -- the Winnsboro area, Franklin Parish, and just some other isolated pockets. And we last mapped these in the late 1970s. And this is sort of a repeat effort to go back and see if saltwater is increasing in any of these little hotspots, these pockets we saw back then, and try and identify where it's increasing, if there's new saltwater going on. And we're doing these because of the map project, but also we've gotten -- I've been getting questions over the years from farmers up in this area that are also discovering saltwater in their wells where they've never had saltwater before, and they're asking questions about where it's coming from. And I don't, generally, have a good answer for them. And may not be able to answer where they're coming from. But at least want to know -- to be able to say, "There is saltwater in your area. We

have looked at it, and we know what the concentrations are."

And just to get an idea of how many people are pumping water from the Mississippi River, Alluvial Aquifer, these are the map of the wells, the active wells out there. So you can see there's quite a bit of activity. It's a pretty heavily used aquifer.

Another study we're looking at is potential corrosivity on treated groundwater in Louisiana. This is looking at water quality characteristics and existing data to come up. There was a national study done that developed some corrosivity indices. And basically, what this does is tells you the possible impact of untreated water on certain types of plumbing, particularly metal and lead pipes, and the potential for the water to leach harmful metals out into your drinking water system.

So there was a national study done. It basically indicated that there was a high potential for corrosivity in

groundwater across Louisiana. What we're doing now is taking existing data and breaking it down by aquifer to see if there's a difference across the different aquifers in the area and what those differences are. And hopefully, this will be able to inform the -- the newly formed Rural Water Infrastructure Committee about maybe some of the systems or areas that they should be looking at in particular. They should be able to correlate our results with some of the system age and get an idea of who may be at greater risk. This will also possibly help out people that have older home water systems that are on their own supply.

We're also finishing up some mapping, some water level mapping projects in the Upland Terrace and Cockfield aquifers in central and north Louisiana. Again, this sort of stuff, potentiometric maps, is something we like to update periodically even when there's not a real issue that we see. But this

information helps inform us whether there is an issue or not. It tells you a lot about the impacts of pumping, what sort of changes are occurring in the aquifer. So we try and update these potentiometric maps every 15 or 20 years at a minimum in all the major aquifers in the state.

We've collected water levels in the Cockfield aquifer, which is up in the northeast. And it's not -- it's a very important aquifer to the communities it served. It's not one of the more heavily used aquifers in the state. Like I said, when you're using water off of it, it is very important. And the same thing with the Upland Terrace aquifer, which is kind of scattered across north Louisiana in different limited pockets.

And getting near the end here. But this past year, we started the implementation of an application -- web-based application that we have that's called StreamStats. And what StreamStats does is allows any planners -- it's really important, especially for people

that are building roads and bridges that they can go into a map and put a dot on any stream, and this application will estimate the statistics for that stream, the stream flow statistics including stuff like the 7Q10, which is a minimum seven-day average stream flow for a ten-year reoccurrence interval. It will give you your percent of chances of flood, the annual flow. And all this stuff is really important for, particularly, highway and bridge design. But it can also give information about aquatic habitat and assimilative capacity of streams to carry various pollutants and discharges. And it's something that has pretty much been implemented in most other states in the US, but been kind of slow to do that here. It is a big effort. It's also a GIS-based effort. Louisiana is difficult, because we have so many flat areas, and it's difficult to define drainage, and drainage basins in some places and the direction of the drainage. But we expect it to be pretty

heavily used when we get finished with it.

And then lastly, we are starting a new project in southwest Louisiana, a multi-aspect project. We're looking at water levels, withdrawals and recharge. So we're going to be coming back through some historical water levels that are in the summarized database, trying to comb out what data are valid and which are not, and these will form the basis for a future groundwater flow model, input for a future groundwater flow model. That's a relatively small effort for this.

We will be measuring water levels across the area, which we do periodically to develop potentiometric maps for the aquifer system, see how it's changed over time. We're going to be -- something new we're going to be doing is, we plan to measure groundwater withdrawals for irrigation at selected sites. So we're going to go out and implement some irrigation wells with meters, about six. We've started doing this in northeast

Louisiana and the Mississippi Alluvial plain program has done that. And they have a lot of meters set up in Arkansas.

We have not -- we had one past project where we measured irrigation rates at a couple of farms, but we really don't have a good idea of how much farmers use. What they're finding out in Arkansas is that it's likely farmers that -- and up there farmers are required to report their pumpage. But it appears that they may be reporting more pumpage than they're actually using possibly as an effort to -- if there's any -- ever any regulation of pumpage, they're rates will be grandfathered in, and if they're recording extra, it will all be good in the future. So now that we're actually monitoring it, they're looking -- they're seeing that it's not quite what has been reported. We're trying to get a better handle on that here. We know that a lot of water is used for irrigation. We're hoping we can get some farmers that will let us monitor their irrigation. An then

we're going to look at potential recharge rates too through a slow water balance model. That's also a question we get, "How much water is going into the aquifer? Do we have enough water? Is it really being recharged"? And if you were wondering about that question, mostly only about -- in most areas, only probably one to three inches of rainfall are infiltrating into an aquifer as recharge across an area. So with our 60 inches of average rainfall per year, usually the rainfall is not a limiting factor. So recharge, generally, is steady, but we don't have a good handle on the rates. Most of what we know has come through modeling. We generally do not do a lot of instrumentation to try to estimate that.

So, anyway, that's it. That's our plans for this coming year. And if you have any questions, feel free to contact me. Thank you very much.

CHAIRMAN HARRIS: Thank you very much. And not just for being here today.

I appreciate the technical support you've given us over the years, not just this body, but the Capital Area and Sparta, as well. Thank you.

MR. LOVELACE: We get especially excited when we see people using our information. We get a lot of questions from different people, and like to be able to answer them with some sort of information that we actually know and don't have to guess at.

CHAIRMAN HARRIS: Thank you, John. Before we get to the public comments section, any commission members have any comments, questions, alibis?

COMMISSIONER DUPLECHIN: Here. I'd like to point out -- and I know we've been discussing our work in the 2,000-foot sand in the Capital Area for years now, and last week we finally started drilling our first hole in the 2,000-foot sand to go down and log it and see just exactly how thick the sand is at a certain location, and log to see what the saltwater looks like there. So if

you feel like going out and looking at it, it's on the corner of Myrtle and Delpit just south of the approach -- the I-10 bridge. And you can't miss it. It's there sticking up in the middle of an empty lot.

So as of yesterday, they were down to 239 feet, which doesn't seem like a lot in a week. But they had to go through 150 feet of clay that they weren't really expecting to have to go through. So it should start moving a lot more now. They'll be finished down to 2,000 feet by next week -- end of next week.

CHAIRMAN HARRIS: Thank you. I do have one card here from a Mr. Tim Duex, and I apologize if I butchered your name. Mr. Duex is a professor at the University of Louisiana. Thank you for coming today. Would you identify yourself for the record, please?

MR. DUEX: My name is Tim Duex. I'm with the University of Louisiana Lafayette School of Geosciences. And I'd

like to bring up something that I think is appropriate to a lot of the discussions that have been going on here.

Just to kind of review a little bit, I'm a member of the advisory task force, and I have been a member since 2001. And I've participated in a number of different planning meetings. So in this particular case, I have a brief summary of some of this stuff.

In 2001 Act 446 of the Louisiana State Legislature created the Groundwater Management Commission and the Advisory Task Force. And that's when I was appointed to this as a representative from University of Louisiana. And I've been coming to these meetings off and on since then. I recognize a few familiar faces.

The legislation also authorized hiring an outside consultant to evaluate the state's water resources and come up with recommendations concerning what action should be taken. The company or companies that were involved in this were

LBG-Guyton Associates and Fenstermaker & Associates, and the chief scientist on this was Dr. Bruce Darling who is a native of Louisiana but had been working in Texas for quite some time and helped formulate the rules and regulations that they came up with for their water planning.

So during 2002, we met numerous times with the Task Force and the Commission and with various subcommittees associated with that. In fact, I believe, it was during that year that I came to 22 separate meetings in Lafayette and participated in a number of discussions. The result of that was Act 49 in 2003 of the Louisiana State Legislature, which created or recreated the Louisiana Groundwater Resources Commission and the Advisory Task Force and adopted many of the consultants' recommendations including the main thing that I'd like to talk about today, which is the authorization for the potential to create up to five, what was called,

regional stakeholder bodies. And what I have here is a copy of the letter that Mr. Don Broussard and I submitted on June 23rd in 2004, to Mr. Scott Kirkpatrick who was chairman then of this Commission. And I'd like to read that to you just to kind of give you an idea of the historical summary. [As read]: "Dear Mr. Kirkpatrick, a group of water users are seeking approval per Act 49 of the 2003 regular session of the Louisiana Legislature of the Louisiana Groundwater Resources Commission, hereby called the Commission, to form a regional stakeholder body based on the general location of the Chicot Aquifer. We are attaching a draft statement on purpose, which is admittedly a work in progress, stating the purpose including our desire to support and advise the Commission and is charged to manage the state's groundwater resources. We have listed a few objectives with the stakeholder group to support the Commission's charge. We expect that an organizational meeting

will be held in 90 days, so that we could report back to the Commission at its next regularly scheduled meeting. We thank you for your consideration, for our request to be recognized, and we look forward to a favorable determination." Respectively submitted by myself and Mr. Don Broussard, Professional Engineer, Water Operations Manager, for the Lafayette Utility Systems.

In this particular case, I've attached a statement of purpose that we created June 14th in 2004, and a summary of the first meeting that we held, which was July 28th of 2004, with Mr. Don Broussard, myself, Dr. Bruce Darling, and Mr. Brett Sonnier. Subsequent to that, I attended a number of meetings, and in the particular case, I resubmitted the petition form in 2006 to this Commission and asked for a clarification of what were the established guidelines, and, basically, that's kind of where it's stood since then. But we had a series of meetings in 2004 and had over 50

participants that were interested in helping with this. And I think some of the things that have been brought up here by John Lovelace and Mr. Duplechin and others are that it would be good to have knowledge of what's going on in specific situations. And this was a group that was willing to do that, but were waiting on exactly how it could be established.

And so, essentially, I'd like to resubmit that to the Commission and ask for advice on how to proceed with this. And I think there still are people who are interested in this, although Mr. Broussard has retired and Dr. Bruce Darling has moved back to Texas, and a lot of the people have just kind of moved on. And I realize the wheels of progress turn slowly, but as you can probably deduce, I'm probably not going to be here in another 15 years. So I'd like to see something established before I retire or I die or whatever. And I request clarification in that, and try to get something established.

I have copies of this that I can leave with you. And I'm glad to try to answer any questions if you have any.

CHAIRMAN HARRIS: Thank you, Dr. Duex. Any questions?

COMMISSIONER DAVIS: Very interesting history lesson. Shows you should read laws more often. Obviously, there's some resourcing issues that probably go with it. But I would suggest, first of all, we get him a direct and prompt response, but also with the Louisiana Watershed Initiative tracking, which we'll be looking at regional water management of various sorts, it might be a good idea to check with the Office of Community Development to see where they're going, because, again, depending on whether the grant they got is for 64 parishes or 10 would make a significant difference. But there are resources there for engaging, you know, communities. So there may be more than one way to approach this. And I also think that -- I don't think the OCD

planning effort would have the ability to create any kind of more structured engagement. But I do think that our statute does. So I would just recommend that we kind of look at responding to him, but also in the context of where water management planning is and where the dollars support that, what they may allow.

CHAIRMAN HARRIS: Thank you, Dr. Duex.

MR. DUEX: Thank you for your time.

CHAIRMAN HARRIS: So I guess, at this point, we need a motion to adjourn.

COMMISSIONER DAVIS: (Makes motion.)

CHAIRMAN HARRIS: Mr. Davis.

COMMISSIONER DUPLECHIN: Second.

CHAIRMAN HARRIS: Second from Mr. Duplechin. Any objection?

(No response.)

CHAIRMAN HARRIS: Hearing none, this meeting is adjourned. Thank you all.

(CONCLUDED AT 1:06 P.M.)

REPORTER'S CERTIFICATE

I, BRITTANY E. VIDRINE, Certified Court Reporter in and for the State of Louisiana, Registered Professional Reporter, do hereby certify the foregoing 112 pages of the Water Resources Commission Meeting.

I further certify that said testimony was reported by me in the Stenotype reporting method, was prepared and transcribed by me or under my direction and supervision, and is a true and correct transcript to the best of my ability and understanding.

I further certify that the transcript has been prepared in compliance with transcript format guidelines required by statute or by rules of the board and that I have been informed about the complete arrangement, financial or otherwise, with the person or entity making arrangements for deposition services.

I further certify that I have acted in compliance with the prohibition on contractual relationships, as defined by Louisiana Code of Civil Procedure Article 1434, and in rules and advisory opinions of the board.

I further certify that I am not an attorney or counsel for any of the parties, that I am neither related to nor employed by any attorney or counsel connected with this action, and that I have no financial interest in the outcome of this matter.

This certificate is valid only for this transcript accompanied by my original signature and original raised seal on this page.

Baton Rouge, Louisiana, this 11th day of September, 2019.

_____

BRITTANY E. VIDRINE, CCR, RPR
CCR NO. 2014025, RPR NO. 963689