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STATE OF LOUISIANA
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION

WATER RESOURCES COMMISSION
1ST REGULAR MEETING
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

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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. DUPLÉCHIN, 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

1 COMMISSION MEMBERS IN ATTENDANCE (CONTINUED)
2
3 CHRISTOPHER P. KNOTTS, P.E., FASCE
4 LOUISIANA DEPARTMENT OF TRANSPORTATION AND
5 DEVELOPMENT
6 BENJAMIN J. MALBROUGH
7 EXECUTIVE DIRECTOR BAYOU LAFOURCHE FRESH WATER
8 DISTRICT
9 DAVID B. RABALAIS
10 PORTS ASSOCIATION OF LOUISIANA
11 BRADLEY E. SPICER
12 AGRICULTURE AND FORESTRY
13 CHARLES SUTCLIFFE
14 CHIEF RESILIENCE OFFICER AT GOVERNOR'S OFFICE
15 COASTAL ACTIVITIES
16 ELLEN J. TORGRIMSON
17 LEAGUE OF WOMEN VOTERS, LOUISIANA WILDLIFE
18 FEDERATION AND THE COALITION TO RESTORE COASTAL
19 LOUISIANA.
20 ELLIOTT B. VEGA
21 DEPARTMENT OF ENVIRONMENTAL QUALITY
22 GLENN J. VICE
23 CHIEF EXECUTIVE OFFICER AT JMB COMPANIES, INC.
24
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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

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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?

1 COMMISSIONER CULPEPPER: Here.
2 MR. REONAS: Mr. Davis?
3 COMMISSIONER DAVIS: Here.
4 MR. REONAS: Mr. Duplechin?
5 COMMISSIONER DUPLÉCHIN: Here.
6 MR. REONAS: Mr. Forsman?
7 COMMISSIONER FORSMAN: Here.
8 MR. REONAS: Mr. Founds?
9 COMMISSIONER FOUNDS: Here.
10 MR. REONAS: Mr. Frey?
11 COMMISSIONER FREY: (No response.)
12 MR. REONAS: Ms. Gouedy?
13 COMMISSIONER GOUEDY: Here.
14 MR. REONAS: Mr. Gray?
15 COMMISSIONER GRAY: (No response.)
16 MR. REONAS: Mr. Harper?
17 COMMISSIONER HARPER: (No response.)
18 MR. REONAS: Chairman Harris?
19 CHAIRMAN HARRIS: Here.
20 MR. REONAS: Mr. Knotts?
21 COMMISSIONER KNOTTS: Here.
22 MR. REONAS: Mr. Malbrough?
23 COMMISSIONER MALBROUGH: Here.
24 MR. REONAS: Mr. Rabalais?
25 COMMISSIONER RABALAIS: Here.

1 MR. REONAS: Mr. Spicer?

2 COMMISSIONER SPICER: Here.

3 MR. REONAS: And Mr. Stoshak is
4 absent today.

5 Mr. Sutcliffe?

6 COMMISSIONER SUTCLIFFE: Here.

7 MR. REONAS: Ms. Torgrimson?

8 COMMISSIONER TORGRIMSON: Here.

9 MR. REONAS: Mr. Vega?

10 COMMISSIONER VEGA: Here.

11 MR. REONAS: Mr. Vice?

12 COMMISSIONER VICE: Here.

13 MR. REONAS: Mr. Witty?

14 COMMISSIONER WITTY: Here.

15 MR. REONAS: And then

16 Mr. Zaunbrecher is absent also.

17 Okay. We do have a quorum, yes,
18 sir.

19 CHAIRMAN HARRIS: Thank you, Matt.

20 Before we get to the agenda, I would
21 like to welcome our newest member of the
22 Commission. Ellen Torgrimson from
23 New Orleans is a joint-appointed seat
24 representing the League of Women Voters,
25 Louisiana Wildlife Federation and the

1 Coalition to Restore Coastal Louisiana.

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

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

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

16 CHAIRMAN HARRIS: Thanks and
17 welcome.

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

22 Do I hear a motion to approve it?

23 COMMISSIONER SPICER: (Makes
24 motion.)

25 COMMISSIONER BALKUM: Second.

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

4 Any questions, comments, objections?
5 (No response.)

6 CHAIRMAN HARRIS: Hearing none, the
7 motion carries.

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

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

18 2019 has been a record year in many
19 ways for navigation. I know everybody is
20 aware of some of the challenges. I'll
21 try to bring you up to date to some of
22 the things especially relevant to ship
23 traffic.

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

1 patent. But an artist put this together
2 a few years ago (indicating). I used a
3 friend's computer technology to change
4 the Mississippi River Basin to a color
5 that I could live with. It was done in
6 pink in the original one, and it just
7 didn't look right. But 31 states, two
8 Canadian provinces connected. This
9 shows, you know, 250 tributaries. So
10 with the record high water, this area
11 has, of course, greatly impacted all of
12 2019, really starting -- going back into
13 November 2018.

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

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

9 Mississippi River economics is --
10 there's not a single place you can go and
11 really find what's here. I put together
12 a number using three different reports
13 that covered multiple purposes of the
14 river, navigation, flood control,
15 drinking supply, environmental, fishing,
16 the whole gamut. And when you put those
17 together, that's where I got that
18 \$735 billion number and the 2.4 million
19 jobs.

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

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

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

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

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

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

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

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

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

3 This is another way to show that
4 41 percent of the country drains through
5 the Mississippi River Basin. Basically,
6 the vast majority of everything east of
7 the Rockies winds up draining through
8 here. 1.25 million square miles,
9 41 percent of the country, again.

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

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

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

18 1895 is when they started keeping
19 records. Nobody has a record that I'm
20 aware of, of what it was like before
21 that. But since we started keeping
22 records, it's the wettest and most
23 precipitation in any 12-month period.

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

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

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

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

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

25 About the time I thought, "Oh, we

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

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

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

1 Congress passed the Flood Control Act of
2 1928. The Flood Control Act of 1928 has
3 not been completed yet, 91 years later.
4 It never was envisioned to take 100
5 years. So when we see levies failing and
6 problems with the system, this is one of
7 the things that I can point at. I have
8 some close friends that work for flood
9 control agencies, and there are some of
10 these projects, the majority of them are
11 related to bringing levies to grade and
12 backwater storage. This year the Yazoo
13 pumps, the backwater and Yazoo has been
14 in the news. And when you drive through
15 flooded farmland, you see "build a pump"
16 signs everywhere. President Trump has
17 talked about reinvigorating that, but
18 that project goes back to that flood
19 control act.

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

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

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

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

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

1 1800s that are on beach now and not in
2 open water.

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

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

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

4 And then the total for the year
5 including the crossings from New Orleans
6 to Baton Rouge is about 66 miles that
7 have to be dredged where the river bends
8 across from side to side. And when you
9 add those total in an average year, it's
10 42 million cubic yards of sediment
11 removed. And right now we're at 56.3.
12 So that number will probably be around 65
13 by the end of the fiscal year, two more
14 months.

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

25 COMMISSIONER DAVIS: We can talk,

1 Sean. We can make an arrangement.

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

4 So a number we hear a lot,
5 1.25 million cubic feet per second, the
6 trigger point for Bonnet Carre Spillway.
7 If you think of that as 320 18-wheelers
8 carrying water past you per second in
9 that limited area, it gives it a whole
10 new meaning to understand. When you look
11 at it, it's impressive, but trying to
12 imagine that amount of water is really
13 complex, hard to fathom. Hopefully, that
14 number helps you. Hopefully, you don't
15 see it on the way home today.

16 I had so much fun with my bar graph.
17 I added this one so that it shows the
18 more frequent opens (indicating). It's
19 spaced out over time. So you can see
20 that we opened three times in the first
21 50 years of operation. And we've done
22 that in the last two years. It gets back
23 to dealing with more water.

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

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

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

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

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

23 So there's a bunch of numbers here.
24 If you look in the bottom right, that
25 8,800 acres, that's what was restored

1 when this was prepared a couple of months
2 ago. We're over 9,000 acres now. By the
3 end of the year, I do believe it will be
4 10,000 acres. That's 10,000 acres in ten
5 years, and I do like to call it the
6 largest wetlands restoration project in
7 the world, over 120 billion cubic yards
8 of material.

9 So we've had a lot of trouble this
10 year with high water and shoaling. And
11 we have a channel that is deficient, but
12 we also have a project to deepen the
13 river to 50 feet. I think this is kind
14 of a follow-up to a presentation that Joe
15 Accardo did a few years back based on the
16 new Panama Canal. And lots of channels
17 across the country are trying to get to
18 50 feet to match the control in that
19 draft, depth or draft of the Panama
20 Canal.

21 The project here is approved. It's
22 waiting on funding. It has to be done in
23 phases where you do from Venice to the
24 Gulf first. That's about a
25 110 million-dollar price tag. About 21,

1 22 million of that is a state cost share
2 that can be broken out over a couple of
3 days -- over a couple of years. Pardon.

4 This is another way to look at it.
5 So the phases, you have to do Venice to
6 the Gulf; that's number one there, and
7 then you have to do the crossings. So
8 the total dredging is about 157 million
9 dollar total project. It used to be a
10 50/50 cost share. We were part of
11 changing that to 75 federal, 25 state.
12 And I think that was in 2016. They start
13 to run together over the years, but
14 several years ago that was changed. So
15 it's now 75, 25.

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

1 and then did the section up above.

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

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

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

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

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

1 MR. DUFFY: You're quite welcome.

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

4 CHAIRMAN HARRIS: Yeah, sure.

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

12 MR. REONAS: Where was it at?

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

19 MR. REONAS: "Media unavailable."

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

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

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

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

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

8 Senator Claitor, just this past
9 legislative session, offered rebuilds on
10 the subject of water conservation and
11 water efficiency. And thank you for
12 being here, Senator Claitor.

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

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

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

18 So I have friends that are very
19 concerned about water. One of them is
20 here today, Mr. Hays (phonetic). And
21 when I came to the legislature 11 years
22 ago, he worked on educating me on some of
23 the issues that we have relative to
24 water. And low and behold, here locally,
25 we have got some saltwater intrusion

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

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

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

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

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

1 the government did or the technology did.

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

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

1 is once you get into the weeds and start
2 looking at what the actual cost of all
3 the equipment was. But the simple idea
4 is if you took yourself off of the
5 groundwater, we're using the Mississippi
6 River, we'll give you a credit up to
7 \$2 million with a cap of \$10 million,
8 because we can't have programs uncapped.

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

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

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

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

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

1 you collect and conserve.

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

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

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

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

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

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

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

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

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

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

14 Questions?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

25 COMMISSIONER GOUEDY: Yes.

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

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

15 We're actually in the middle of
16 conducting a study to compare what was
17 done in 2009 that showed we had a
18 10 million-gallon-a-day loss rate due to
19 dated infrastructure, old pipes. So
20 while on this bill, we're talking about
21 new technology. I don't see in there a
22 whole lot pointed on that updated
23 infrastructure. Is that something you
24 could see in the event this bill comes up
25 that bears a direct focus on that in with

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

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

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

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

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

17 MR. REONAS: Absolutely.

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

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

1 phase one. Glad to have you back.

2 DR. DAUSMAN: Thank you.

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

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

9 Thank you for having me here today.

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

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

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

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

1 the Commission and stakeholders, all
2 right, to identify and evaluate feasible,
3 realistic alternatives, basically, right,
4 that are cost effective. That might not
5 sound like a big deal, but actually can
6 be quite a challenge to do when you have
7 18 people sitting at the table and they
8 all have different ideas on how to move
9 forward.

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

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

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

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

13 And so I've done individual meetings
14 with all of the Commission members that
15 were able to meet with me. So of the 18,
16 I've met with 16 individually. And, you
17 know, what you realize if you talk to
18 everybody is long-term objectives, 50 and
19 100 years out, everybody is pretty much
20 on the same page. We need clean water,
21 right. It's not like rocket science. In
22 50 years or 100 years, I would like to
23 have clean water available for drinking,
24 for industry. We would like to have
25 jobs. We would like for that growth to

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

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

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

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

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

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

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

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

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

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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

1 because we just want to have a
2 transparent process. Who's at the table?
3 What are their values? What are their
4 objectives? What do they want in 50 to
5 100 years? And, you know, as one of the
6 commissioners said last week, I just want
7 us all to be in a room, and I just want
8 to put it all out on the table. And I
9 can appreciate that. And we're going to
10 start that process tomorrow, actually.

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

1 aquifer dynamics, and that's okay.

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

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

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

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

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

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

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

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

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

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

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

1 how you actually evaluate alternatives.

2 So just because you have a set of
3 alternatives that look great like, "Oh,
4 we could all agree to this," until you
5 really evaluate how they perform against
6 your objectives -- so they're going to
7 have these objectives identified, and
8 then you're going to want to evaluate
9 those alternatives and how they go up
10 against those objectives. And those
11 objectives, like I said, they can be
12 about water, but they can also be about
13 cost; they can be about -- it can be
14 whatever the Commission determines their
15 objectives to be and then alternatives
16 can be then evaluated and how they
17 perform against those objectives.

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

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

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

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

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

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

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

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

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

25 DR. DAUSMAN: Right.

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

14 DR. DAUSMAN: Right.

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

20 DR. DAUSMAN: They have, right.

21 CHAIRMAN HARRIS: Any other
22 questions?

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

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

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

24 DR. DAUSMAN: Thank you.

25 CHAIRMAN HARRIS: Our final agenda

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

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

7 CHAIRMAN HARRIS: Thank you.

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

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

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

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

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

25 We have roughly about 40 gauges --

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

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

25 Other agencies, the bulk of that is

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

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

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

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

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

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

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

1 five years, we try and, kind of,
2 inventory our usage across the state,
3 what's being pumped. But between then --
4 between those five-year efforts, we do
5 other things. One thing is keeping
6 track, monitoring the usage by the top
7 175 water users in the state. That's
8 public supplies, industries, power plants
9 that typically pump over a million
10 gallons per day, and get monthly data
11 from those systems. And those are on top
12 of what Capital Area is already
13 collecting for some of the big plants in
14 the Baton Rouge area in the water
15 systems.

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

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

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

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

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

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

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

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

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

25 So we're doing this project in

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 heavily used when we get finished with
2 it.

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

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

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

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

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

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

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

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

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

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

16 COMMISSIONER DUPLECHIN: Here. I'd
17 like to point out -- and I know we've
18 been discussing our work in the
19 2,000-foot sand in the Capital Area for
20 years now, and last week we finally
21 started drilling our first hole in the
22 2,000-foot sand to go down and log it and
23 see just exactly how thick the sand is at
24 a certain location, and log to see what
25 the saltwater looks like there. So if

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

7 So as of yesterday, they were down
8 to 239 feet, which doesn't seem like a
9 lot in a week. But they had to go
10 through 150 feet of clay that they
11 weren't really expecting to have to go
12 through. So it should start moving a lot
13 more now. They'll be finished down to
14 2,000 feet by next week -- end of next
15 week.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10 CHAIRMAN HARRIS: Thank you,
11 Dr. Duex.

12 MR. DUEX: Thank you for your time.

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

15 COMMISSIONER DAVIS: (Makes motion.)

16 CHAIRMAN HARRIS: Mr. Davis.

17 COMMISSIONER DUPLECHIN: Second.

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

20 (No response.)

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

23

24 (CONCLUDED AT 1:06 P.M.)

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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