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STATE OF LOUISIANA  
DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF CONSERVATION

WATER RESOURCES COMMISSION  
10TH REGULAR MEETING  
WEDNESDAY, SEPTEMBER 27, 2017  
BATON ROUGE, LOUISIANA  
11:05 A.M.

LASALLE BUILDING  
1ST FLOOR LABELLE ROOM  
617 NORTH 3RD STREET  
BATON ROUGE, LOUISIANA 70802

REPORTED BY:  
LAURA QUINETTE, CCR, RPR  
BATON ROUGE COURT REPORTERS, LLC

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COMMISSION MEMBERS IN ATTENDANCE

KYLE F. BALKUM

Louisiana Wildlife & Fisheries

HONORABLE GLENN BRASSEAU

Mayor of Carencro, Louisiana Municipal  
Association

SENATOR NORBERT "NORBY" CHABERT

Chairman of the Senate Natural Resources and  
Environmental Committee

David B. CULPEPPER

Geoscientist with Expertise in Groundwater  
Resource Management

MARK S. DAVIS

Tulane Institute on Water Resources Law and  
Policy

ANTHONY J. DUPLECHIN, JR.

Capital Area Groundwater Conservation District

JOHAN FORSMAN

Louisiana Department of Health & Hospitals-Office  
of Public Health

PAUL D. FREY

Louisiana Landowners Association

1 COMISSION MEMBERS IN ATTENDANCE (CONTINUED)

2  
3 KAREN K. GAUTREAUX

4 The Nature Conservancy of Louisiana

5 LINDSAY K. GOUEDY

6 Sparta Groundwater Commission

7  
8 JERRY V. GRAVES, SR.

9 Ports Association

10 THOMAS HARRIS

11 Secretary of the Department of Natural  
12 Resources, Governor 's Office

13 CHRISTOPHER P. KNOTTS, PE, FASCE

14 Louisiana Department of Transportation and  
15 Development

16 BENJAMIN J. MALBROUGH

17 Residential Consumers

18  
19 SHERRI MCCONNELL

20 Louisiana Economic Development

21 JAMES W. PRATT

22 Sabine River Authority

23  
24 CHARLES SUTCLIFFE

25 Governor 's Office of Coastal Activities

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## 1 CALL TO ORDER

2 MR. HARRIS:

3 Good morning. It is 11:05. I'd like to  
4 call the September 27th Water Resources Commission to  
5 order. Matt, would you call the roll, please?

## 6 ROLL CALL

7 MR. REONAS:

8 Yes, sir. Mr Balkum?

9 MR. BALKUM:

10 Here.

11 MR. REONAS:

12 Mr. Bishop? Mr. Brasseaux?

13 MR. BRASSEAUX:

14 Here.

15 MR. REONAS:

16 Mr. Chabert?

17 SENATOR CHABERT:

18 Here.

19 MR. REONAS:

20 Mr. Cormier? Mr. Cramond? Mr. Culpepper?

21 MR. CULPEPPER:

22 Here.

23 MR. REONAS:

24 Mr. Davis?

25 MR. DAVIS:

1                   Here.

2           MR. REONAS:

3                   Mr. Duplechin?

4           MR. DUPLÉCHIN:

5                   Here.

6           MR. REONAS:

7                   Mr. Forsman?

8           MR. FORSMAN:

9                   Here.

10          MR. REONAS:

11                   Mr. Frey?

12          MR. FREY:

13                   Here.

14          MR. REONAS:

15                   Ms. Gautreaux?

16          MS. GAUTREAX:

17                   Here.

18          MR. REONAS:

19                   Ms. Gonzales? Ms. Gouedy?

20          MS. GOUEDY:

21                   Here.

22          MR. REONAS:

23                   Mr. Graves? Mr. Gray? Mr. Guidry?

24   Mr. Harris?

25          MR. HARRIS:

1                   Here.

2           MR. REONAS:

3                   Mr. Ieyoub? Mr. Knotts?

4           MR. KNOTTS:

5                   Here.

6           MR. REONAS:

7                   Mr. Marlborough?

8           MR. MARLBROUGH:

9                   Here.

10          MR. REONAS:

11                   Ms. McConnell? Mr. Pratt?

12          MR. PRATT:

13                   Here.

14          MR. REONAS:

15                   Mr. Spicer? Mr. Sutcliffe? I know he  
16 confirmed he will come in just a little bit.

17 Mr. Vega? Ms. Zaunbrecher? Mr. Zaunbrecher?

18                   Okay, 14. So we do have a quorum, sir.  
19 You may proceed.

20                   ADOPTION OF THE PREVIOUS MEETING SUMMARY

21          MR. HARRIS:

22                   Thank you, Matt. The first agenda item is  
23 approval of the minutes. You've all received a copy  
24 of the draft minutes via e-mail. Are there any  
25 additions or comments? Hearing none, do I have a

1 motion?

2 MS. GAUTREAUX:

3 I motion.

4 MR. HARRIS:

5 Motion by Karen Gautreaux. Do I hear a  
6 second?

7 MR. DAVIS:

8 Second.

9 MR. HARRIS:

10 Mark Davis, second. Any objection?

11 Hearing none, the minutes are approved.

12 DISCUSS THE FORMATION OF A WORK GROUP ON THE  
13 SALE OF LOUISIANA'S SURFACE WATERS

14 MR. HARRIS:

15 The next agenda item is Discussion of the  
16 Work Group on the Sale of Louisiana's Surface Waters.  
17 I've gotten, and I imagine a number of us have gotten  
18 pretty regularly, requests for information, calls  
19 from people who are interested in our water,  
20 Louisiana surface water.

21 We do have legislation that provides some  
22 guidance on it. Any sale of Louisiana water outside  
23 of the state would require approval of the Senate  
24 Natural Resources Committee, our Senate Natural  
25 Resources Committee, the Governor's Office and state



1 and local authorities. I would imagine those bodies  
2 would look to us for guidance, for information, and  
3 it would be my suggestion to get out ahead of the  
4 curve a little bit and start taking a look at some of  
5 those issues:

6 What we want to do as a state from a public policy  
7 perspective; what are the legal implications; and  
8 certainly what are the technical requirements that  
9 would be need to be addressed. This body has both  
10 the technical expertise needed for that as well as  
11 representation by most of the user groups.

12 The next meeting, which we are going to  
13 have another one in the next six to eight weeks, I'm  
14 going to make a motion to form a working group to  
15 look at those issues, and the end game being a report  
16 back to this body that certainly Senator Chabert can  
17 bring back to his Committee and Representative Bishop  
18 can bring it back to his and I can deliver it to the  
19 Governor. I believe this issue should not be rushed.

20 Before we take a serious look as a state  
21 and taking that step, I think we need to look at all  
22 the implications. And a working group from within  
23 this Commission is the appropriate group to provide  
24 that guidance.

25 I'm not going to make any motion today, but

1 certainly I'm going to reach out to the rest of you  
2 and find out who would be interested, who would like  
3 to participate in that group, and move forward from  
4 there. Go ahead. Are there any questions?

5 SENATOR CHABERT:

6 Chairman, I certainly agree with you.  
7 Speaking on behalf of Legislature, and not  
8 necessarily for but in concert with previous  
9 discussions Representative Bishop and I have had, I  
10 suspect the Committee would do just that. We would  
11 certainly look with a weighted eye on the expertise  
12 of this Committee. At the end of the day, we're  
13 charged with a lot of stuff, but aquifer rights and  
14 surface rights I think are most readily dependant  
15 upon this group for their expertise. I commend you  
16 for getting ahead of this issue.

17 Yesterday afternoon I got a call from a  
18 senatorial colleague from north Louisiana talking  
19 about specifically this very issue. Some of you that  
20 have been in the game a lot longer than I have know  
21 what I'm talking about, but it's an issue that isn't  
22 going away. Certainly fracking and other things,  
23 value on water usage is going up. I'm not someone  
24 that is opposed necessarily to selling that water,  
25 but I certainly don't want to get fleeced for it. If

1 we do, I certainly do not want to sell any resource  
2 that we are not naturally creating an abundant supply  
3 of.

4           So, again, I thank you for wanting to get  
5 ahead of this and will again emphasize this, that  
6 Legislature will be leaning on the expertise of this  
7 group heavily.

8           MR. HARRIS:

9           Thank you, Senator. Any other questions or  
10 comments?

11          MR. BALKUM:

12           Secretary Harris, I think it's wise,  
13 certainly, to form a working group and I'll say that  
14 Wildlife & Fisheries would like to be a partner in  
15 that group.

16          MR. HARRIS:

17           Thank you. I appreciate your willingness  
18 to participate. Are there any questions or comments  
19 from the public?

20          MR. DAVIS:

21           One quick thing. In addition to my  
22 responsibilities with this Commission, I'm chairing a  
23 committee of the Louisiana State Law Institute to,  
24 you know, come up with some draft recommendations for  
25 what the water code for Louisiana would look like.

1 And, needless to say, it's easier to write a code if  
2 you know what you're writing it to achieve.  
3 Empirically, selling water is not something that is  
4 easily done under our laws. If it's something that  
5 as a matter of policy that the state is willing to  
6 investigate that would certainly be, you know, useful  
7 to, you know, put these things on the same track so  
8 we don't work at cross purposes. So, you know, I  
9 would certainly welcome the opportunity to make sure  
10 the work of the Law Institute Committee dovetails  
11 with any working group we create here.

12 MR. HARRIS:

13 Thank you, Mr. Davis. Any other comments,  
14 questions, thoughts? Any from the public? Hearing  
15 none, our next agenda item is Introduction from Water  
16 Institute of the Gulf, President and CEO, Justin  
17 Ehrenworth.

18 INTRODUCTION FROM WATER INSTITUTE OF THE GULF  
19 PRESIDENT AND CEO

20 MR. EHRENWORTH:

21 Good morning, Mr. Chairman. Thank you,  
22 Members of the Commission. It's an honor to speak  
23 with you. I've had the privilege to get to know a  
24 number of you over the years and in a previous life,  
25 but I've been with the Water Institute for the last

1 nine months, so for some of you, this is an  
2 introduction for me. And I was asked to give an  
3 overview of the Water Institute, so I think for  
4 several of you or many of you who have been around  
5 long before there was the Water Institute this will  
6 hopefully not be an overly boring repeat, but a  
7 rehash of something you know.

8 I'll try to go through a few slides and hit  
9 on some of the high points about the Water Institute  
10 and see if there are any questions or comments. The  
11 biggest thing I want to stress before turning to the  
12 slides is that right now in the life of the Water  
13 Institute one of things we're most interested in and  
14 eager to determine is what's the best way to use the  
15 resources that have been developed at the Institute  
16 moving forward. One of the things that's really  
17 built into our DNA and our leadership team is the  
18 desire to collaborate and achieve shared outcomes and  
19 that's something that we are very desirous of. So  
20 I'll ask and -- I'll probably close with this and ask  
21 for advice from this group and anyone else who is  
22 willing to share their thoughts around where we  
23 should be going as an Institute using the toolbox  
24 we've developed over the last five-and-a-half years.

25 Let's see. Is this going to go? I don't

1 think it's going to move forward. I'll move it  
2 myself.

3 MR. REONAS:

4 I'll move it.

5 MR. EHRENWERTH:

6 Okay. Team effort already.

7 MR. REONAS:

8 Absolutely.

9 MR. EHRENWERTH:

10 Great. So this first slide really just  
11 introduces us. So we're a nonprofit, established in  
12 2011/2012. We're just across the street and soon  
13 will be moving to the Water campus. I'm very excited  
14 about that. You might have seen the building we're  
15 going to occupy starting to come up just on the other  
16 side of the I-10 bridge, but we really are an  
17 integrated and interdisciplinary group.

18 So we -- because we're relatively small,  
19 we're around 30 to 40 people, we're able to touch on  
20 a number of disciplines and not get siloed into any  
21 one of them. And that's how we really use our  
22 calling card and how we're able to best put some  
23 really comprehensive and interesting solutions  
24 forward.

25 Next slide, please. You can keep going.

1 I'll try to go through some of this quickly. So  
2 applied research and technical support, really what  
3 we do is a matter of providing services to the state  
4 of Louisiana and to lots of other entities. We've  
5 done work with and for the federal government, for  
6 individual foundations and philanthropies as well as  
7 other groups, and it takes us out into the field.  
8 We're quite well known for our modeling. And, in  
9 particular, the integrated department model was  
10 developed to support the State's Master Plan. And I  
11 think what we've been the proudest of over the past  
12 five-and-a-half years of our life is the support for  
13 the State Master Plan. Next slide, please.

14           This slide really gives you a sense of how  
15 we intend to approach our work. It's not a surprise  
16 to see a circle. We really do see our work  
17 developing coastal solutions in a holistic fashion  
18 where you've got physical sciences, natural sciences  
19 and what we refer to as the human dimension, bringing  
20 it all together and recognizing that any solutions  
21 that are put forward that actually have the chance of  
22 being implemented can even work not only for the  
23 environment, but also for the economy, for the people  
24 who live in south Louisiana and around the state.

25           This next slide gives you some examples,

1 again, of this inner process, the way we like to  
2 think about moving forward with our research work. I  
3 won't go through that same circle, but I will mention  
4 some project examples on the far side of the slide.  
5 So the Master Plan, of course, is first and foremost  
6 when we talk about what we're most proud of. The  
7 Sediment Diversion Plan is also mentioned. That's  
8 something where we spent a great deal of time  
9 supporting the state and continue to do it. The  
10 Louisiana Coastal Atlas, I'll come back to, but it  
11 gives an example of how we tend to look at coastal  
12 change across the state, again, from that fully  
13 integrated holistic perspective.

14 Work in Louisiana, actually, Mr. Chairman,  
15 listening to the first agenda item, the discussion of  
16 the formation of a work group on the sale of  
17 Louisiana surface water, that resonates deeply with  
18 the work we've done in the state. We actually happen  
19 to have a copy of it. We completed a report in May  
20 of this year modeling current and future river needs  
21 to maintain fish, freshwater and forest habitat.  
22 This happens to be in the Lake Maurepas Basin, but  
23 it's something that if it could ever be of use to you  
24 and to the Commission, it's an example of the type of  
25 work that we've done that can very easily, at this



1 stage in its development, be applied to the entire  
2 state or to particular areas in the state. We did  
3 give somewhat of a flavor of the work that we've done  
4 around the state. Now, the next slide I'll start to  
5 get into some examples.

6 We'll skip to the next one and start honing  
7 in a little bit on perhaps what we've become best  
8 known for, which is some of the modeling in the  
9 Master Plan, but, in particular, supporting the  
10 State's Diversion Program. So our role in that is  
11 not to suggest to policymakers what to do or not to  
12 do, but rather to do the science and analysis, the  
13 modeling around what different scenarios will look  
14 like. So one of the projects we're all excited to  
15 see move forward is the Mid-Barataria Sediment  
16 Diversion. This slide I show you where it's located.  
17 I know it's very familiar to you and to all Members  
18 of the Commission.

19 If you go to the next slide, in here you  
20 may actually have to hit the play button if it's  
21 working. You can actually see -- and this goes over  
22 a ten-year period -- what our model demonstrates for  
23 the Mid-Barataria Sediment Diversion will yield in  
24 terms of land and marsh creation over a ten-year  
25 period. I find this to be particularly compelling

1 because you can talk a lot about the science and  
2 analysis and modeling, but for me at least, it's  
3 helpful when you can actually see it, when you can  
4 actually see what the computer models suggest will be  
5 created over that first ten-year period of time, and  
6 I think it's quite compelling.

7           So to the next slide you'll see another --  
8 and this may also require hitting the play button.  
9 It has a little animation to it.

10           MR. REONAS:

11           I'm sorry.

12           MR. EHRENWERTH:

13           That's okay. You can go back and you may  
14 have to -- yeah. There you go. What this does, it  
15 demonstrates -- we're switching gears and mentioning  
16 something else that the Water Institute is quite  
17 interested in supporting the state around -- and that  
18 is the inland flood modeling and real-time  
19 forecasting. And it looks like our animation isn't  
20 working very well, but if it did work, what you would  
21 see is in partnership with Deltares -- and I'll come  
22 back to our arrangements with the Water Institute and  
23 Deltares in a minute or two -- but with that  
24 partnership with the Dutch, what we are now in the  
25 position to do is if we've got the right and most

1 accurate inland flood models, if we had that in  
2 place, we are able to take USGS information,  
3 Netherlands National Weather Service Information, put  
4 it in conjunction with up-to-date flood models and  
5 create animations and graphics like the one that you  
6 see before you.

7           The thing is, if the computer were working,  
8 it would actually take you on a -- it looks like a  
9 drone just flying over a particular location. What  
10 it allows first responders and citizens to do is it,  
11 just like the weather forecast, one, three, five,  
12 seven days out, we can actually run these scenarios  
13 to see to the street level where we expect flooding  
14 to occur. And it really is state-of-the-art from the  
15 modeling as well as the real-time forecasting  
16 technology.

17           And we think that -- or wish we would have  
18 had something like this in place around the  
19 flooding -- the flooding of last year, because what  
20 it does is it allows citizens to consider moving  
21 assets and themselves out of harms way. It also  
22 allows first responders to begin to think about, you  
23 know, where to deploy resources based on what the  
24 model suggests.

25           Just like the weather forecast, it becomes

1 more accurate the closer you are to the event. So  
2 it's an opportunity that we're excited about. And  
3 we're seeing right now a good intention being placed  
4 on this set of issues and, in particular, pockets  
5 around the state. And it's certainly our hope at  
6 some point having up-to-date models throughout the  
7 state and then on top of it, this type of real-time  
8 forecasting becomes a reality for the state of  
9 Louisiana. Go to the next one, please.

10 MR. REONAS:

11 Well, I don't know. It got hung up.

12 MR. EHRENWERTH:

13 I can start telling a joke if you want me  
14 to. Fortunately, this was a flood simulation. It's  
15 not a real flood.

16 MR. REAONAS:

17 There we go.

18 MR. EHRENWERTH:

19 Great. So I'm starting to wrap up, but one  
20 other -- the idea here was to highlight future  
21 scenarios. So I mentioned the Diversion Program,  
22 flood modeling and real-time forecasting. This next  
23 slide, it talks about some nature-based defense work  
24 that we're quite interested in partnering with the  
25 Dutch around this. And the idea really is how do we

1 use -- you've certainly got your gray infrastructure,  
2 your traditional infrastructure to protect critical  
3 infracture and communities, but how do we use nature?  
4 Some people refer to it as green infrastructure.  
5 Others call it nature-based solutions. Whatever you  
6 want to call it, what are the right strategies to  
7 pursue in Louisiana?

8           And one we're very excited about is, we've  
9 created a public/private partnership in Fourchon and  
10 it involves Shell, Chevron, Danos, and a few other  
11 groups, and what we're doing is we're looking at what  
12 to do with the material. Should the Port make a  
13 final decision to dredge to 50 feet, that can create  
14 somewhere in the neighborhood of 20 to 34 million  
15 cubic yards of material, which is a whole lot. I  
16 mean, that's like a gold mine for us in south  
17 Louisiana.

18           So what are the right places, the best  
19 places to put that material so that you're, one,  
20 protecting the critical infrastructure of the Port;  
21 two, you're getting the ecosystem surface benefits,  
22 the environmental benefits from new ditches and  
23 terraces and wetlands; three, the resiliency  
24 benefits. You know, you've got -- you have the  
25 opportunity the protect folks from Fourchon to LaRose

1 by creating some of these new features. And then in,  
2 four, what can we do from a carbonic acid  
3 sequestration perspective. If it ends up being the  
4 case that we introduced by mangroves, you could have  
5 some nice benefits there. You can have a scenario  
6 where you're seeing benefits in all four of those  
7 areas. So we're very interested in seeing these  
8 concepts move forward to fruition and appreciate the  
9 partnership of many people, including Senator Chabert  
10 and others, who have been real leaders and proponents  
11 of this thinking in that part of the state.

12           Holistic Resiliency really is that same  
13 concept. So I won't go into it, but as this graphic  
14 suggests, you know, you have the industry, economy,  
15 infractures, ecosystem, community. How we can use,  
16 again, dredging material working with nature to  
17 benefit all.

18           And then, finally, I'll wrap up with this.  
19 We're not simply focused in [sic] Louisiana. The  
20 vision of folks who created the Water Institute some  
21 five, six years ago was that first and foremost we  
22 would lend our minds and our resources to assisting  
23 the state of Louisiana, but the rest of the vision  
24 goes to -- we're developing such great expertise here  
25 and, by the way, it's not just the Water Institute.

1 We've been working with LSU and every university  
2 around the state where this knowledge has been  
3 created for decades. And the idea is that we can  
4 export. We can export the knowledge and export the  
5 opportunities, the economic opportunities to other  
6 areas. So right now one of our colleagues is  
7 actually in Fiji and he's featured up [sic] on this  
8 slide. And we're doing some important waste  
9 integration work there helping communities around the  
10 South Pacific.

11           And part of the theory is not only are we  
12 exporting the great science and analysis that we've  
13 developed in Louisiana, but that creates economic  
14 opportunities because the Water Institute, if you  
15 think of a project, a lifespan of it, we do a very  
16 short part of the upfront part, science and analysis.  
17 There are lots of opportunities for Louisiana firms,  
18 private sector firms, to come into other geographies  
19 because we've pioneered so much here.

20           The last thing that I'll highlight, I  
21 referred to it a couple of times in my comments, but  
22 recently we've had the opportunity to go into the  
23 Netherlands with Commissioner Dardenne, we've got  
24 Johnny Bradberry, Secretary Pierson, Secretary Wilson  
25 and a number of other folks who were over for this

1 exciting moment where we sign the new MOU with  
2 Deltares. And if you're not familiar with Deltares,  
3 they really are the gold standard internationally of  
4 applied research, a coastal deltaic organization.  
5 And the Water Institute was really created in its  
6 form, and so some five-and-a-half years later we're  
7 able to go over and sign this agreement. A view few  
8 days after we got back, the Governor joined us to  
9 announce it. So it's really come full circle.

10 The Water Institute, part of our hope is  
11 that we continue our deep collaboration with the  
12 Dutch, but then people every now and again say, look,  
13 if you want to figure out how to deal with water  
14 issues you've got to go to the Netherlands and call  
15 the Dutch. We don't like that so much. We work with  
16 the Dutch. You can call us in Louisiana and we know  
17 how to collaborate with them. So the partnership is  
18 quite exciting.

19 And we're in discussions right now with  
20 Deltares about merging their USA subsidiary into the  
21 Water Institute, which is extraordinarily exciting  
22 and it's a great opportunity in Louisiana as well as  
23 our partnership around the world.

24 And I also included seven focus areas,  
25 which I won't go through, but it just gives you a



1 sense of how the Water Institute and Deltares think  
2 we can do so much here at home and in geographies  
3 around the world.

4           And I think with that -- oh, the Mekong and  
5 then I promise I'll really wrap up. This is the  
6 last -- I'll close with this one. We've been doing  
7 work in the Mekong for some time and one of our  
8 researchers came back not too long ago -- and it's  
9 such an appropriate story for what we're pioneering  
10 here -- he said, you know, it's almost like a time  
11 machine. We look at the Mekong River Delta and it's  
12 like looking at the Mississippi River Delta 50 years  
13 ago. You're just starting to see some of the same  
14 challenges that we face here. The dams are being  
15 built and sediment is being -- the system is starting  
16 to feel that sediment starvation. You're feeling  
17 some of the same issues. So we've been engaged by  
18 the Office of Naval Research to do some work there  
19 and are very optimistic that it represents a nice  
20 partnership between what we're doing in Louisiana and  
21 what we can do in other geographies.

22           For more information there's our website.  
23 And with that, I really want to thank you so much,  
24 Mr. Chairman, for the opportunity to speak with the  
25 Commission.

1 MR. HARRIS:

2 Thank you, Mr. Ehrenwerth. Are there any  
3 questions for the Water Institute from the Commission  
4 Members? Thank you Mr. Ehrenwerth. We appreciate  
5 the work you and the Water Institute are doing.

6 MR. EHRENWERTH: Thank you very much.

7 RECENT SCIENCE FROM THE SPARTA AQUIFER

8 MR. HARRIS:

9 The next agenda item is an update on Recent  
10 Science from the Sparta Aquifer by Ben McGee from  
11 U.S. Geological Survey. Thank you, Mr. McGee.

12 MR. MCGEE:

13 I'm glad to be here. Thank you for having  
14 me. My intent today is just to give a current status  
15 on the Sparta Aquifer up in north central Louisiana.  
16 It supplies more or less 15 parishes in Louisiana  
17 with their drinking water, with their groundwater  
18 period, but primarily their drinking water and for  
19 industrial purposes. Matt, are you going to work the  
20 slides?

21 MR. REONAS:

22 I'll work it.

23 MR. MCGEE:

24 All right. You want to try it again?

25 MR. REONAS:

1           Yeah. I'm not sure what was going on with  
2 it.

3           MR. MCGEE:

4           One of things I want to kind of talk about  
5 with the Sparta is with regard to the status of its  
6 water usage. We won't go through all these numbers,  
7 but I do want to point out that the total water usage  
8 for the Sparta per the 2014 water use numbers were  
9 right at 55 million gallons per day and that's  
10 primarily for public supply and industrial usage.  
11 Other usage categories are negligible in the Sparta.

12           We have some preliminary numbers on this  
13 slide that represent to 2015 water use totals and I  
14 had 57.2. So these are going to be a little more  
15 significant here in just a second with the next  
16 slide, but for the Sparta Aquifer, it's sustainable  
17 use is estimated to be about 52 to 56 million gallons  
18 a day. So our current water usage is right in that  
19 window or very near to that window, its sustainable  
20 use.

21           And I really want to put that out there as  
22 good news because we haven't been here in a very long  
23 time with regard to water use in the Sparta. We have  
24 overused the Sparta. We have over pumped the Sparta  
25 for decades and that's created a situation that we're

1 painfully aware of here where our water use is  
2 concerned. So for the first time in a very long time  
3 we're actually close to breaking even with the amount  
4 of water that is naturally coming into the system.

5 Go ahead, Matt.

6 So just to kind of breakdown this water use  
7 history for the Sparta, you can see that it's  
8 fluctuated over the years, but we're down in 2014  
9 now. Like I said, it's just about 55 million gallons  
10 per day and that's right in that range of sustainable  
11 use denoted by the green horizontal bar there.

12 And so up to this point, we've overused the  
13 Sparta to some degree and it has created some issues  
14 that we've been dealing with for quite a while in the  
15 Sparta, namely long-term depressed water levels,  
16 saltwater encroachment in parts of the Sparta because  
17 of the over usage. So we're in a very good place.

18 So when people ask me how we got here, you  
19 know, what's resulted in this good situation, I tell  
20 them good things and bad things. Conservation is  
21 part of the answer and there's certainly been some  
22 conservation implemented in the Sparta that has saved  
23 millions of gallons of water per day. But, at the  
24 same time, we've had a lot of water users, mainly  
25 industrial water users, that have gone out of

1 business and stopped using water, so that's the bad  
2 part of this. So the answer is both good reasons and  
3 bad reasons, but we're here and we'd like to stay in  
4 this zone, if possible.

5 But, as I mentioned in the previous slide,  
6 preliminary water use numbers for 2015 show a slight  
7 uptick in our water usage in the Sparta, just outside  
8 the sustainable range. So I don't know if that's a  
9 trend and we'll see it continue, but it may be and  
10 it's something we want to keep an eye on. Go ahead,  
11 Matt.

12 So in the Sparta Aquifer, these dots  
13 represent the major water users or water users in the  
14 Sparta, the larger circles. It's proportioned to  
15 use, and so we don't have a lot of what I would say  
16 is major water usage, but the ones we do have are  
17 primarily industrial in nature. But we do have a lot  
18 of public supply in rural/domestic use from the  
19 Sparta that are making up these pumping numbers. Go  
20 ahead.

21 So here's the extent of the Sparta. Like I  
22 said, it covers all or part of 14 Parishes in  
23 Louisiana. Some Parishes get all of their water from  
24 the Sparta. Others get a portion. We don't use a  
25 lot of surface water in the Sparta area. We don't

1 have a lot of it available except the Ouachita River  
2 and Red River being the two major sources of surface  
3 water in our area. Go ahead.

4 And so for the next several slides I just  
5 want to highlight some long-term water-level records  
6 that we have collected or are collecting at some of  
7 our monitoring sites around the Sparta as a measure  
8 of how the Sparta is responding to these changes in  
9 water use and what that might mean down the road. So  
10 the first one I want to highlight is Cl-149 up in  
11 Claiborne Parish. Go ahead, Matt.

12 We'll look at the hydrograph grid and this  
13 one I call my poster boy for water conservation. And  
14 so Cl-149 for decades had a declining water level  
15 somewhere around, probably on average of about two  
16 feet a year for decades because of over usage. But,  
17 as you can see, right around 2000 that trend reversed  
18 and water levels have been on the rise since about  
19 2000 at this location. And the primary reason for  
20 that was water conservation efforts that were put  
21 into place in Arkansas.

22 So Arkansas shares this resource with  
23 Louisiana. They were in a little bit more of a  
24 critical situation than we were in with regard to the  
25 Sparta, so they implemented some conservation efforts

1 that you-guys are familiar with that have had a  
2 profound effect not only on this well location, but  
3 that beneficial effect has rippled down into north  
4 central Louisiana and affects other parts of the  
5 Sparta as well.

6 So this is really good news here, that  
7 water levels recovered the way that they have. And  
8 this is the latest information. Water levels are  
9 still continuing to recover because of those  
10 conservation efforts.

11 The next one I'm going to show is over in  
12 Morehouse Parish, and this is getting over to areas  
13 where we have some issues with saltwater  
14 encroachment. So that eastern boundary of the Sparta  
15 there is the saltwater boundary. So that's the  
16 freshwater extent there on the eastern side of the  
17 Sparta, freshwater extent in the Sparta Aquifer.  
18 And, of course, that's controlled by water level  
19 pressure that's exuded in the Aquifer on the  
20 freshwater side to keep that saltwater at bay. And  
21 so the more we pump on the freshwater side, the more  
22 that encourages saltwater to encroach into areas that  
23 were previously fresh. So Mo-5 is a great monitoring  
24 location for that. Go ahead, Matt.

25 So, we've got a checkered past here with

1 Mo-5, Bastrop and in Morehouse Parish. And you can  
2 see that in the early 1980s here there was a pretty  
3 significant uptick in water levels as a result of the  
4 industry switching from groundwater to surface water  
5 at that point. That was International Paper up  
6 there. And then another significant turn-up in 2006,  
7 and that was a result of industry closing down, that  
8 same industry in Bastrop.

9 And so water levels have continued to  
10 recover to some degree whereas before they were  
11 declining. That is a favorable situation for keeping  
12 that saltwater not only at bay, but pushing it out,  
13 actually. It's a long-term process. It doesn't  
14 happen overnight, but increased water levels in  
15 Morehouse Parish and along the boundary of this water  
16 are going to help to keep the saltwater from  
17 encroaching. Go ahead.

18 Toward the center of the Sparta here in  
19 Lincoln Parish and Dubach L-26 -- let's do the  
20 hydrograph there. You can see that like many of the  
21 wells in the Sparta, we experienced long-term  
22 declines in water levels until about 2006, 2007 and  
23 water levels have since leveled off, whereas  
24 previously they had been declining for decades. And  
25 this is primarily the effect of the conservation



1 efforts that were implemented in Arkansas and they  
2 just took a few years to actually manifest themselves  
3 further into the Sparta. And so this is good news as  
4 well. Go ahead, Matt.

5 The next one is down in Winn Parish, in  
6 Winnfield, W-172, again, close to the saltwater down  
7 here at the Sparta. So water levels continue to come  
8 down at this location, but not at the rate they had  
9 previously. So that's more or less good news at this  
10 location as well and that's helping to keep saltwater  
11 at bay in this location too. Go ahead.

12 And then Caldwell Parish, again, right on  
13 the saltwater boundary, Ca-86B. All right. Go  
14 ahead, Matt. Water levels are still going down in  
15 this location, not as much as they had been in the  
16 past, but they are still declining here somewhat.  
17 And so saltwater encroachment monitored by the USGS  
18 through a series of chloride wells, it shows and  
19 confirms that chloride levels are going up in some of  
20 these areas because water levels are coming down and  
21 allowing encroachment to occur.

22 And, so overall, I would say the situation  
23 is pretty good with the Sparta and I say that with a  
24 little bit of reservation because when I tell people  
25 that it's okay, they think everything is fine and

1 forget about it and they go on. And I want to remind  
2 everybody that we're right on the threshold of using  
3 as much water as what's naturally replenishing the  
4 Sparta, so we're right at the break-even point.

5 And I guess the way that I usually say it  
6 to common folk is if the Sparta were in the ER as a  
7 patient, and the patient is no longer bleeding to  
8 death, okay, which is good, we stopped the bleeding,  
9 but there's still a lot of recovery that has to take  
10 place here.

11 And so the good news is we're in a  
12 favorable position with regard to our water usage,  
13 and our saltwater encroachment has been positively  
14 affected in the areas where water use is  
15 increasing -- I'm sorry, where water levels are  
16 increasing, but it's not a time that we can take our  
17 eyes off of it. We're really in a critical  
18 situation. It could go the other way pretty quickly.

19 So this map really shows water levels  
20 rising or staying the same, leveling off through much  
21 of the Sparta, which was very, very different just a  
22 few years ago. Just a few years ago there would have  
23 been red arrows pointing down indicating declining  
24 water levels throughout the Sparta. So it's a good  
25 change. Go ahead.

1           This is a water-level map for the Sparta  
2 and I think it's pretty dramatic actually. It's  
3 showing the deflection in the water level surface  
4 based on pumpage. So you can readily see a very  
5 large Bullseye there centered in Ouachita Parish and  
6 that's resulting from the single largest withdrawal  
7 of water from the Sparta Aquifer for industrial  
8 purposes. And that kind of depression is -- it's  
9 affecting a multi-parish area. And it's drawing  
10 water not only from other locations in Louisiana to  
11 itself, but also from Arkansas into Louisiana, so it  
12 affects a very large area indeed.

13           There are smaller, in cones of depression,  
14 around the Sparta that are a little harder to see  
15 down in Bienville, in Ruston and Minden, Farmerville.  
16 Some of those areas generate their own terms of  
17 depression or deflections in the water well surface  
18 based on the amount of water that they pump.

19           And so decades of over usage have resulted  
20 in a very large hole, if I can say it that way,  
21 depression in the Sparta Aquifer. This graphic  
22 displays residual depression that is resulting from  
23 decades of over pumpage.

24           So our water usage is in a favorable  
25 position. We're using about as much as what comes

1 into the Sparta naturally, but decades of over  
2 pumpage have resulted in water levels being depressed  
3 to a high degree in the areas that you see denoted on  
4 this map. So it's going to take some time. It's  
5 going to take us not over pumping the Sparta and  
6 giving it a chance to recover what it lost over those  
7 decades. So it is going to take quite a while to get  
8 back to the point it was naturally to begin with.

9           And just to touch -- kind of close up here,  
10 but touch on some of the areas of groundwater  
11 concern, which I thought maybe this Commission would  
12 be especially interested in knowing about the status  
13 of, there are three areas of groundwater concern in  
14 the Sparta Aquifer. This is one that's centered here  
15 in the West Monroe area. And the next two slides  
16 would be hydrographs that sort of tell the story  
17 about the situation there in those areas of concern.

18           So here in Ouachita Parish and Monroe, at  
19 Ou-404, you can see that we had decades of water  
20 level declines to some degree right around 2006,  
21 right about the same time that water levels started  
22 to turn around or level off. In Lincoln Parish,  
23 water levels started to rebound here in Ouachita  
24 Parish from conservation measures that were put into  
25 place in Arkansas and some conservation measures and

1 some industries that were closed down in Louisiana.  
2 All of those have beneficial effects where this is  
3 concerned. So currently water levels are recovering  
4 to some degree at this location. Go ahead.

5 The next well is Ou-444 in West Monroe.  
6 The same sort of story. Just about the same time  
7 period, water levels started to recover to some  
8 degree and they are still recovering, not quite as  
9 quickly as they are in Monroe. So in this area of  
10 groundwater concern, water levels are recovering more  
11 or less to some degree there, which I think is good  
12 news. Go ahead.

13 The second area of concern is located a  
14 little further west, right down in Ruston, along  
15 I-20. Go ahead to the next one. And there's two  
16 wells that I think represent that area pretty well.  
17 L-113 in Simsboro, again, water levels declined for  
18 decades. Then in 2011 or 2012 water levels started  
19 to recover to some degree and so that's good news,  
20 something we just saw in Ouachita Parish. Go ahead.

21 And then here in Sibley, L-68, water levels  
22 appear to have more or less leveled off at that  
23 location. So the situation is drastically different  
24 and better than it has been in the past in those  
25 locations. And I think we were right to monitor

1 those locations more closely during those times when  
2 we were overusing the water and keeping a close eye  
3 on it. So it's yielded some very good results.

4 And the last area of concern is down in  
5 Jackson Parish associated with Jonesboro and Hodge.  
6 There's a large industry there that utilizes most of  
7 the water from the Sparta in this location. Go  
8 ahead.

9 And so these two hydrographs show that  
10 water levels are still declining for the most part,  
11 but it is an area of concern that is heavily utilized  
12 for industrial purposes from the Sparta. Go ahead.

13 So Ja-49 is especially close to the mill,  
14 so it's very influenced by nearby pumpage from wells  
15 that supply the mill. But, overall, still declining  
16 a little bit. Go ahead.

17 So just to kind of summarize, I think -- I  
18 don't think I can say this enough, but for the first  
19 time, the Sparta, we're not over pumping the Sparta  
20 in Louisiana currently and that's great. We've  
21 struggled and we've talked about being here for a  
22 long time. And so we're here, but we're on the edge  
23 of the knife here. It could go either way very, very  
24 easily. We could continue to conserve water and move  
25 in a good direction or we could increase our pumpage

1 and go back to where we were. We'll see.

2           The other good news is the conversation and  
3 education investments are paying off. I think this  
4 year will be the, I think, maybe the 12th or 13th  
5 year that I participated in the Claiborne Parish  
6 WaterFest. I'm just about to help Lindsay out with  
7 educating our elementary school kids on water use and  
8 where our water comes from. And that's been going on  
9 long enough now that we actually have a generation of  
10 Louisianans who have been educated on water  
11 conservation, water use, and then taking that message  
12 not only to their friends but to their families. And  
13 I think we're seeing the benefits of that water  
14 education. Kids nowadays and young adults, they're  
15 very aware of the water they use, where it comes from  
16 and the need to conserve it. And I think we're  
17 seeing some of the benefits now, which is great.

18           But, we still need to do some conservation.  
19 We still need to do some education where our water is  
20 concerned and we still need to continue to monitor  
21 our water resources as that's -- I can't think of too  
22 many things more important than water. And we need  
23 to keep our eye on our resources.

24           That's all I've got if there's any  
25 questions.

1 MR. HARRIS:

2 Are there any questions for Mr. McGee?

3 Mr. Davis?

4 BY MR. DAVIS:

5 That was very helpful. Thank you very  
6 much.

7 MR. MCGEE:

8 Sure.

9 MR. DAVIS:

10 I'm glad to hear that we are no longer, you  
11 know, chronically, systemically overdrafting and  
12 that, you know, I think conservation education, you  
13 know, is an important part of that. But if I'm not  
14 mistaken, you know, some of the other drivers are  
15 management efforts being taken place here in  
16 Arkansas, which are more aggressive. And just the  
17 departure of certain water users, one day I would  
18 like to think we'll replace jobs in some of these  
19 places.

20 I would welcome, not today, but, you know,  
21 looking forward, and this goes to you too Lindsay,  
22 what kind of management, you know, options should we  
23 as a Commission being considering? Because, you  
24 know, we'd like to make sure jobs that -- you know,  
25 jobs that have left can be replaced, but we don't



1 want to necessarily get back in the same position we  
2 were in before.

3           And since I think this Commission really  
4 profits from, you know, the kind of guidance from  
5 those -- because you-guys are ahead of many other  
6 parts of the state in having to deal with groundwater  
7 management. There are others, but that would be very  
8 helpful, at least to me, your thoughts, not just  
9 regulation, but what management tools in conservation  
10 education is part of that.

11           MR. MCGEE:

12           I'd be more than happy to share my thoughts  
13 along those lines. I think there's -- and I've  
14 mentioned several times the conservation efforts that  
15 Arkansas has put in place, but I could blow the  
16 whistle -- not blow the whistle -- blow the horn, I  
17 should say, not the whistle, on industries in  
18 Louisiana that have taken it on themselves to  
19 institute conservation measures. And those  
20 conservation measures have resulted in millions of  
21 gallons of water being saved per day. So I can't  
22 underestimate or undersell the efforts that the  
23 entities in Louisiana, private and public entities,  
24 who have taken it upon themselves to implement, save  
25 a lot of water.

1           West Monroe has done a fantastic job. I  
2 think the Commission is aware of the work that Mayor  
3 Norris has instituted there to save literally  
4 millions of gallons of water, recycling some of their  
5 water there. So those are among the examples I think  
6 we have already that we should highlight and  
7 follow-up on, encourage.

8           MR. DAVIS:

9           Thank you. Mr. Chairman, I'm going to have  
10 to leave at noon. I teach this afternoon. I have to  
11 get back to my class.

12          MR. HARRIS:

13           What's the lesson today?

14          MR. DAVIS:

15           Be smart. Be kind to your mom and dad as  
16 always and listen more than you talk.

17          MS. GOUEDY:

18           Mr. Davis, if I could ask you, about Ben's  
19 comments that he made just briefly about the current  
20 conservation measures in place, I think part of your  
21 question also pertains to future --

22          MR. DAVIS:

23           Absolutely.

24          MS. GOUEDY:

25           -- and how we were looking at continuing to

1 reduce our water usage. And conservation education  
2 is clearly one of my top priorities, however, the  
3 Sparta Commission, along with partners in north  
4 Louisiana is working on several different projects --  
5 discussions, projects. I know we have heard plenty  
6 from representatives of the Lincoln Union Initiative.  
7 That is something that is still being evaluated.  
8 With respect to Ouachita Parish, I know right now  
9 there's discussions on working out the possibility to  
10 obtain more gray water to send to the mills to again  
11 get more water usage cut from the Sparta from the  
12 mill. And there's also another project that is  
13 beginning to catch -- be obtained over in Webster  
14 Parish, although on the west side of the Sparta.

15 In north Louisiana we don't have a lack of  
16 ideas on how to create an ever-evolving conservation  
17 effort. That's our long-term goal, but funding the  
18 force [sic] is always our battle or hurdle, I think,  
19 with most Louisiana entities. But that is something  
20 I think you bring an excellent point, in the future  
21 being able to talk about those efforts and where  
22 they're at. But I would hope to see in the next few  
23 years, in a decade I would think, some of these  
24 things put in place, to see that, Mr. Davis.

25 MR. BRASSEAU:

1           One thing I would like to ask in this  
2 discussion would be the area where we saw the large  
3 hole that was drawn in the water flow, not just that  
4 Parish, but as far away as Arkansas, is that the mill  
5 that you were referring to?

6           MS. GOUEDY:

7           That would be Graphic Packaging.

8           MR. BRASSEAU:

9           Is that -- the area that has created the  
10 hole where the water is being drawn from the Aquifer  
11 in many of the Parishes, is that from a single  
12 entity?

13          MR. MCGEE:

14          No. It's multiple entities, both public  
15 supply and industrial.

16          MR. BRASSEAU:

17          Is there a potential to bring, say, river  
18 water to that area and eliminate that big user that  
19 would really move the Aquifers recharge capabilities  
20 that they seem to be --

21          MR. MCGEE:

22          Yes, sir.

23          MR. BRASSEAU:

24          -- and it could be replaced with other  
25 surface water. I think that would go a long way to

1 recharging the Aquifer at a much faster rate.

2 MR. MCGEE:

3 Sure. That scenario has been entertained  
4 in the past, specifically to the areas around Jackson  
5 Parish in supplying surface water from nearby surface  
6 water bodies to the mill in place of the Sparta  
7 Aquifer water. So those have been floated in the  
8 past.

9 MR. BRASSEAU:

10 That's good to hear. Thank you.

11 MR. HARRIS:

12 Any others?

13 MR. DAVIS:

14 The one thing I think -- excuse me. One  
15 thing I want to point out is that the City of Monroe  
16 doesn't use groundwater for their public supply.

17 MR. MCGEE:

18 That is correct. They use --

19 MR. DAVIS:

20 They use Bayou Bartholomew and Bayou  
21 DeSiard. The last number I have seen was around  
22 4 million gallons a day that Monroe City water  
23 produces.

24 MR. MCGEE:

25 That's right.

1 MR. DAVIS:

2 If they were using groundwater, that would  
3 push those numbers and usage way up over.

4 MR. MCGEE:

5 That's right. Just across the river, West  
6 Monroe, does use water -- does get their water from  
7 the Sparta, primarily because of the quality. So  
8 Monroe would use the Sparta, but the quality is not  
9 such that they can utilize it today. They're really  
10 forced to use surface water in their location.

11 MS. GOUEDY:

12 Again, I know that there is some  
13 discussion, especially around Sterlington, North  
14 Ouachita, and some mills coming in that we're not  
15 entirely sure what the source is is what I'm hearing  
16 from our representatives in Ouachita Parish. Do we  
17 know yet what impact those new mills are going to  
18 have?

19 MR. MCGEE:

20 The discussions I've had with Mr. Clampet  
21 on that, the wells that I looked at were in the  
22 Mississippi Alluvial Aquifer, so they're not in the  
23 Sparta. I can't say that all of the proposed mills  
24 are not in the Sparta. The ones that I looked at  
25 were not in the Sparta.

1 MS. GOUEDY:

2 Thank you.

3 MR. FREY:

4 Mr. McGee, refresh my memory a bit. Didn't  
5 Graphic Packaging shift to acquire their surface  
6 water?

7 MR. MCGEE:

8 Yes, sir. That's the conservation effort  
9 that I mentioned related to Mayor Norris in West  
10 Monroe and, so, yes, Graphic Packaging is the single  
11 largest user of water from the Sparta. They  
12 exclusively got their water from the Sparta, but many  
13 years ago, Mayor Norris instituted a program whereby  
14 they took the City of West Monroe's gray water and  
15 cleaned it up to the point that the nearby Graphic  
16 Packaging could utilize it. So they're up to how  
17 many million gallons a day now, Lindsay?

18 MS. GOUEDY:

19 Four or five.

20 MR. MCGEE:

21 Yeah, it's four or five, with the capacity  
22 to go to ten if they just have enough gray water to  
23 process. So we replaced -- or they replaced four to  
24 five million gallons a day out of the ten that they  
25 were pumping. So they replaced half.

1 MR. FREY:

2 You mentioned the mill closing in Bastrop,  
3 which I'm familiar with. I think that same company  
4 operates a mill in Pinebluff, Arkansas. It still  
5 operates that. I'm not sure where they get their  
6 water from.

7 MR. MCGEE:

8 The Sparta goes through there, so they very  
9 well could.

10 MR. FREY:

11 Okay.

12 MR. HARRIS:

13 Ben, you briefly touched on the Union  
14 County Initiative and how they cut back on their  
15 Sparta usage.

16 MR. MCGEE:

17 Well, the Union County Initiative proposes  
18 to pull water from D'Arbonne Lake, which is north of  
19 Ruston, and pipe -- treat and pipe that water down to  
20 Lincoln Parish.

21 MR. HARRIS:

22 I meant in Arkansas.

23 MR. MCGEE:

24 Oh, I'm sorry.

25 MR. HARRIS:



1           Taking water from the river, clarifying it  
2 and sending it to the --

3           MR. MCGEE:

4           Yeah. So Arkansas' conservation really has  
5 shown they're using surface water from the Ouachita  
6 River and replacing that with water that they had  
7 previously used from the Sparta Aquifer and that has  
8 saved a tremendous amount of water and honestly has a  
9 beneficial effect in Louisiana, as it has in  
10 Arkansas.

11          MR. HARRIS:

12           I don't have any other questions.

13          MR. KNOTTS:

14           I have one. Ben, I know you're aware we  
15 built a new reservoir in DeChene near Columbia. The  
16 primary purpose was water supply and you mentioned  
17 D'Arbonne. It kind of dovetails together. Should we  
18 be looking at opportunities for other reservoirs or  
19 water supplies and potentially take people off of  
20 groundwater? I know environmental permitting is  
21 difficult right now, but I'm just wondering if that's  
22 something we should be exploring further?

23          MR. MCGEE:

24           I think so. Given the time frame to  
25 develop a reservoir and to bring it to a point that

1 it could be utilized, I think we have to look at  
2 existing water bodies as well. I don't know if this  
3 is answering your question or not, but we certainly  
4 want to look at what's already in place and evaluate  
5 it for a water source.

6 In my experience, and I've dealt with  
7 several lake commissions on prospective withdrawals  
8 from their lakes with water use and I know that can  
9 be a very sensitive subject for landowners and lake  
10 owners and whatnot. But, you know, just using  
11 D'Arbonne Lake, for example, the amount of water that  
12 they're talking about withdrawing from D'Arbonne  
13 Lake, more water evaporates off the top of D'Arbonne  
14 Lake on a hot, summer day than what they're proposing  
15 to withdraw for public supply. And so I really try  
16 to put that in perspective for people because I think  
17 people can have their imagination run away with them  
18 a little bit where withdrawals from lakes are  
19 concerned and imagine some pretty bad scenarios, but  
20 ] we're not [sic[talking about negligible water here.

21 MR. KNOTTS:

22 I think that's a good point. If the lake  
23 was developed more from a recreation standpoint or --  
24 you can talk more about that than I can, if a lake  
25 has a designated purpose for a water supply, be it

1 residential or industrial. And like in Columbia,  
2 they're not going to have that because they own the  
3 property around the lake. That's the intent of it.  
4 I was just wondering if -- you know, that seems like  
5 at bit of a unique situation that fulfills an  
6 intended purpose, and that perhaps we need to look at  
7 that in the future. It's not a quick decision to  
8 decide on the site of the reservoir and have it  
9 constructed. It's a long process.

10 MR. MCGEE:

11 Yes.

12 MR. KNOTTS:

13 Thank you.

14 MR. HARRIS:

15 Mr. McGee, thank you for appearing here  
16 today and thank you for providing the information.  
17 Good news is always welcome.

18 MR. MCGEE:

19 Thank you for having me.

20 MODELING OF LOUISIANA'S AQUIFER SYSTEMS

21 MR. HARRIS:

22 Our next agenda item, Number 7, Frank Tsai,  
23 with LSU, Department of Civil and Environmental  
24 Engineering is not able to be here today.

25 USGS SURFACE WATER MANAGEMENT

1 MR. HARRIS:

2 So next, also with USGS, is John Lovelace.

3 MR. LOVELACE:

4 Thank you, Chairman. The title in the  
5 agenda is a little bit misleading. It says Surface  
6 Water Management. USGS, in general, doesn't get into  
7 the management business. This is monitoring, and  
8 from some of the previous Commission meetings, it  
9 seemed apparent to me that some of the Commissioners  
10 might not be aware of all the monitoring activities  
11 of surface water there are in Louisiana. So I  
12 appreciate the opportunity to talk to you about that  
13 today.

14 USGS has an extensive statewide surface  
15 water monitoring network with the state, local and  
16 federal partners. Some of the biggest partners are  
17 the Corps of Engineers offices in Vicksburg and  
18 New Orleans. We also work with many state agencies,  
19 many of the agencies that you represent, state,  
20 local, city, some of the flood protection districts,  
21 fresh-water districts, just a big variety of  
22 agencies.

23 We do cost sharing with this, matching --  
24 putting up some federal matching funds against local  
25 funds. So we have roughly 400 sites out that we're

1 collecting data at. Many of these sites are what we  
2 call real-time sites where data are collected every  
3 15 minutes or a half hour or hour. Generally that  
4 information is staged, but some of them are also  
5 providing discharge or water quality information.

6 This is a map showing just where these  
7 sites are. You can see it's a pretty good spread.  
8 Every major stream in Louisiana has a gage or a two  
9 or three or four on it somewhere. You can see the  
10 number of sites in the Baton Rouge area heavily  
11 instrumented in the Amite River Basin, also the lower  
12 Atchafalaya River. And you see our coastal network  
13 there in pink collecting a variety of water quality  
14 information.

15 You've probably driven by our gages many  
16 times and may not have noticed them. In Baton Rouge  
17 just about every bridge over a stream you drive  
18 across is going to have a box that looks like this on  
19 it. That's our instrument in that box. That pipe  
20 going down to the water is still in the well, and  
21 hanging below that used to be floats. Now there's a  
22 pressure transducer sending a signal back up to a  
23 recorder in that box. There's specifically a  
24 transmitter on top of that box sending the data back  
25 to our office. In addition to stage and discharge,

1 we have at a lot of our sites that are collecting  
2 rainfall, wind speed and wind direction.

3           Inside of that box, typically, you have a  
4 battery that's connected to a solar panel and there's  
5 transmission equipment. As I said, many of these are  
6 real-time sites, so the data is beamed back to our  
7 office where it's displayed on the Internet every  
8 15 minutes or so. It gets updated via satellite.

9           Our newer gages are using usually  
10 non-contact radar sensors, so we don't have a  
11 stilling well going down to the water. What we found  
12 during the floods, a lot of debris comes down the  
13 river and they could take out stilling wells. All of  
14 our equipment disappears very quickly. These are  
15 much cleaner, simpler, shooting the signal down to  
16 the water and it's much easier to set up. You can  
17 see the rain gages and the anemometer right there at  
18 the top. I think this is probably at Darlington or  
19 Grangeville.

20           This is what our typical coastal  
21 installations look like. They're out in open water,  
22 typically set up on one of the Ace Navigations. In  
23 this case, it's a channel marker. You can see the  
24 transmitter there in the box. Go ahead, Matt.

25           And like I said, we have about 40 sites out

1 along the Coast. We're monitoring flood water  
2 quality, but also stage out there and there's 25  
3 traditional sites that are just measuring stage use  
4 or discharge. These are pretty heavily used by the  
5 Wildlife & Fisheries, especially to manager oyster  
6 season. There's a lot of freshwater coming down.  
7 Not only Louisiana, but the state of Mississippi uses  
8 our gages too to open and close the oyster season.  
9 And it's also providing important data for diversion  
10 operation as well as looking at marsh health.

11           So typically these near the Coast are also  
12 conditioned to the station. Discharge are also  
13 collecting temperatures, specific conductance,  
14 computed salinity and all of that.

15           The picture on that was one of our  
16 hurricane hardened stations that we put in after  
17 Hurricane Katrina. Pretty much when a hurricane  
18 comes by, it typically wipes up out every gage we  
19 have on the Coast. They could not stand up. They  
20 would -- you know, the winds and waves would knock  
21 them down. So we got federal funds to put in 10  
22 stations, 5 in Louisiana, 5 in Mississippi, that are  
23 set about 30 feet above water. And they are all  
24 still standing, although they're starting to show a  
25 little wear and tear from the elements.

1           And that's just a little bit of the data  
2 that you can get from these besides the stage  
3 information. This is showing wind speed, wind  
4 direction and the barometric pressure. This is at  
5 Caillou Lake when Gustav passed over. And you can  
6 see where the storm passed right over the area. The  
7 blue line there is the wind speed. You can see when  
8 the eye passed over, it dropped down to nothing.  
9 It's very interesting.

10           And we also have these peak-stage gage  
11 sites all around. We typically have them wherever we  
12 have a regular gage, but these are simply pipes with  
13 a graduated staff inside and little bits of cork.  
14 And when a storm may take out our other equipment or  
15 goes down for various reasons, these will give us  
16 that peak. So we get that flood peak just about  
17 every time from these. It's a great little simple,  
18 simple gage.

19           And we're also operating a couple of  
20 nitrate monitors in the Mississippi River at  
21 Baton Rouge, and the Atchafalaya River at Morgan  
22 City, giving us information on the -- basically, it  
23 pulls the nutrients coming down from farm areas in  
24 the Midwest down the river, flowing out into the Gulf  
25 and creating a dead zone every year. We have two of



1 these operating and the data correlates very well  
2 with the spring runoff and generally the size of the  
3 dead zone.

4           Then this is what one of the instruments  
5 looks like. We're collecting gage height and  
6 discharge. We're also collecting nitrate, pH,  
7 salinity, specific conductance, dissolved oxygen, and  
8 turbidity at these sites.

9           So this is what some the nitrate data looks  
10 like and it's there in the yellowed spots. It  
11 correlates a little bit with discharge. What you're  
12 seeing is the annual spring rise and fall or the  
13 seasonal rise and fall of the Mississippi River in  
14 that blue line and some correlation there with the  
15 nitrates. It doesn't always correlate with that. It  
16 really depends on what sort of runoff you get from  
17 the river. Next slide.

18           And also the turbidity information. The  
19 turbidities are the amount of stuff in the water. In  
20 this case, it's generally silt. You're seeing the  
21 water column. This is very important, understanding  
22 how much material is available in the Mississippi  
23 River and the Atchafalaya that's going through the  
24 diversions and it's going to be there to perhaps  
25 build some land around the diversion areas. The

1 turbidity information collected along with discreet  
2 sediment samples from the river provides for --  
3 there's a lot of information about what sort of land  
4 building capabilities we may have around diversions  
5 and what's actually built out of it.

6 SENATOR CHABERT:

7 Can you kind of walk us through that  
8 portion right there in terms of the engagement that  
9 USGS may have with CPRA or the Water Institute?  
10 Mr. Ehrenwerth is no longer with us, but tell us  
11 about how you-guys are communicating that data that  
12 you already have readily available and either  
13 confirming or, you know, disputing some of the -- I'm  
14 trying to be very politically correct in the words  
15 that I choose in reference to the almighty river  
16 diversion.

17 MR. LOVELACE:

18 Well, we just put the data out there and  
19 let people interpret it they way they want. We  
20 provide our interpretations of the data, especially  
21 the sediment information. It's all there. It's  
22 available to CPRA. A lot of our coastal sites are  
23 there in cooperation with the agreement with CPRA.

24 SENATOR CHABERT:

25 So it's a concert, right?

1 MR. LOVELACE:

2 Right.

3 SENATOR CHABERT:

4 You-guys are working together. It's not as  
5 if USGS will say, look, our modeling says X and then  
6 the CPRA comes along and says our modeling says Y?  
7 You know, it's a collective modeling? I mean, that's  
8 what I'm wanting to get at. What happens when the  
9 Water Institute comes in and says, well, actually X  
10 and Y is wrong, we have Z?

11 MR. LOVELACE:

12 Well, as far as --

13 SENATOR CHABERT:

14 And we're talking about multi-billion  
15 dollar expenditures here.

16 MR. LOVELACE:

17 Right. These aren't based -- this  
18 information isn't based on models. This is based on  
19 data we're actually collecting. So it typically is  
20 feeding into the models.

21 SENATOR CHABERT:

22 I guess that's kind of where I'm going. So  
23 this would be a factor or a variable in that  
24 equation?

25 MR. LOVELACE:

1                   Exactly.  Yeah.

2           SENATOR CHABERT:

3                   So both CPRA --

4           MR. LOVELACE:

5                   Is heavily relying on this data.  Both are  
6   discrete sediment samples and the turbidity data to  
7   feed into the models.

8           SENATOR CHABERT:

9                   As well as the private sector?

10          MR. LOVELACE:

11                   Oh, yeah, definitely.  I'll show you that  
12   in a little bit.

13          SENATOR CHABERT:

14                   Okay.  Thank you.

15          MR. LOVELACE:

16                   And, like I said, we're also, as part of a  
17   larger nationwide program, we monitor water quality  
18   of big rivers.  We are collecting samples, sediment  
19   samples, water quality samples for sites, two:  In  
20   the Mississippi River, one in St. Francisville and  
21   Belle Chasse; and on the Atchafalaya River in  
22   Melville and Morgan City, 14 to 16 times a year.

23                   We're also measuring discharge there,  
24   providing a wealth of information taken that can be  
25   used in the models about what's coming down the

1 Mississippi River and going out through the  
2 diversions and into the Gulf as far as that and what  
3 may be impacting marsh health.

4           So I talked about, you know, what data  
5 we're collecting, how we're collecting it, a little  
6 bit of overview of what the data is used for. Well,  
7 DOTD is using the data for highway and bridge  
8 construction. They rely heavy on that for culvert  
9 and bridge design and how high they put their roads  
10 when they're going around flood areas. This data is  
11 used heavily during flood events for both monitoring  
12 and mitigating the floods, future floods. For all  
13 coastal restoration projects this data is feeding  
14 into models.

15           The water availability studies, you can  
16 start looking at the reservoirs. And north Louisiana  
17 is altering its sources of water and we're typically  
18 monitoring stage in those reservoirs so we will  
19 know -- you know, everyone will know what the impact  
20 of pumping is, reservoirs and streams.

21           Ecological studies I know that Wildlife &  
22 Fisheries is using the information to determine -- to  
23 look at suitability for various fish and aquatic  
24 habitat inland and coastal areas. DEQ is using the  
25 data for wastewater management and contaminant

1 transfer studies. The Port Authority and other  
2 groups are using it for navigation. And just a lot  
3 of people, you know, anyone that gets out in the  
4 water often uses this information for recreation.

5 If you go to our local website where we're  
6 serving up all this information, you see all the  
7 real-time sites. They're all arranged by watershed.  
8 There's a map interface that you can look and see  
9 just by the name of the watershed and stream.  
10 Typically you can get the information there.

11 And, Matt, if you click on one of those  
12 site names, it will take you to a page that looks  
13 like this. It's kind of hard to see, but the left  
14 side has all the parameters that we're collecting at  
15 the site, wind speed, wind direction, precipitation,  
16 discharge. It will automatically bring up graphs for  
17 a couple of these things like discharge and gage  
18 height.

19 And the gage height typically looks like  
20 this. This is the Amite River in Denham Springs  
21 about a month ago. It shows about a 5-foot decline  
22 over the 5 or 6-day period. And if you go back up in  
23 that page you may see -- on some of the pages you'll  
24 see the NOAA and Weather Service insignias up there.  
25 And you'll see that it says "National Weather Service

1 station, and basin wide forecast," so the Weather  
2 Service is using a lot of these sites as forecast  
3 sites. And if you click on where it says station  
4 right there, you'll go to the National Weather  
5 Service prediction site, which is taking that stream  
6 flow data and then they're predicting a rise in the  
7 river. So this was the Amite River right before  
8 Hurricane Harvey and they were predicting about an  
9 11-foot rise over the next 5 days.

10 So we all use this pretty heavily. People  
11 that are familiar with this use it pretty heavily to  
12 see, you know, what's going to happen, especially in  
13 the Amite River and any flood-prone areas. I know  
14 during the flood event last -- in August a year ago,  
15 I was watching the gages on the Amite River close to  
16 my house waiting for that pulse of the water to go by  
17 as I was watching the water backing up in the street.  
18 And these gages were telling the story of what was  
19 happening.

20 They also feed into several national sites  
21 including the USGS WaterWatch. There's just a whole  
22 plethora of information as far as routes and floods  
23 and current streamflows. And if you click on any of  
24 these maps, you can see flood and high flow  
25 conditions across the U.S. This, I grabbed it

1 yesterday, it shows parts of Florida. It's kind of  
2 hard to make out, but all those are little gages that  
3 are showing flooding going on due to Hurricane Marie.

4           And then general streamflow conditions  
5 across the state, whether they're high, low or  
6 normal. What this is showing -- that blue area to  
7 the west there is showing a little bit of high water  
8 over in the Sabine River, lower Sabine River Basin.  
9 And up to the northeast, it's showing low water up  
10 there. I guess that's the Tensas Basin, Tensas Bluff  
11 area. That map -- you can also look at some drought  
12 maps.

13           So all these maps are tying back into the  
14 data that's being collected and transmitted back to  
15 all of these sites, the 400 sites from Louisiana. We  
16 also have a SmartPhone App out there where you can  
17 put in the information and you can select a site and  
18 tell it to let you know when that site hits certain  
19 thresholds, maybe high or low water. I know  
20 fisherman use it to see if their boat can go through  
21 certain areas during low water. And other people use  
22 it to see if their house is still flooding.

23           That was it. I just wanted to provide you  
24 with that information, not to promote anything, but  
25 just sort of for awareness.



1 MR. HARRIS:

2 John, I would really like to commend USGS  
3 on the availability of real-time data. It's an  
4 absolutely wonderful website that I can even navigate  
5 with these. It's something I use both personally and  
6 professionally. For a recreational fisherman being  
7 able to go to a station you plan to fish and see, you  
8 know, real-time salinity, temperature, turbidity,  
9 average wave height, it's just truly amazing and I  
10 commend USGS on their website.

11 MR. LOVELACE:

12 Thank you. Any questions?

13 MR. MARLBROUGH:

14 John, do you-guys have the ability to track  
15 the traffic, per se, on specific site locations, like  
16 which ones are being used more than others and which  
17 are being used hardly at all?

18 MR. LOVELACE:

19 Yes. Yes, we do.

20 MR. MARLBROUGH:

21 So you-guys continuously inventory that?

22 MR. LOVELACE:

23 Well, I don't know if we continuously  
24 inventory that. I know we have the capability and  
25 we've done that before. I don't know what -- you

1 know, I don't know if we're doing that on a regular  
2 basis, but I know our IT guys have shown me that  
3 information before, people that are hitting the  
4 sites.

5 MR. MARLBROUGH:

6 And the reason I ask is because Matt and I  
7 had some conversation I think maybe a year or so ago  
8 as it pertains to the funding of sustainability of  
9 this program and having all these gages available to  
10 the public. You know, obviously, up in the northern  
11 part of the state I'm sure the aquifer managers would  
12 like to see their networks expanded versus reduced.  
13 And, certainly on the southern portion of the state,  
14 as these coastal programs are implemented, levees are  
15 constructed, water controls construction is  
16 constructed, you know, hundreds and thousands of CF  
17 of water is pumped out of rivers and into basins, and  
18 those networks are going to need to be expanded  
19 because we're going to have to be able to manage  
20 water elevations, salinity levels, all kinds of  
21 different -- I know from our day-to-day operations, I  
22 mean, I was just talking to his staff on the way up  
23 here and we rely heavily on these gages. We would  
24 certainly love to see the program expanded.

25 So from a funding sustainability issue,

1 you-guys, you're okay as far as that or do you see  
2 the potential to expand some of these gage sites?  
3 And do you do that by shutting down some that are not  
4 being utilized versus -- I mean, how does that work?  
5 Or that's a whole other complicated issue for a whole  
6 other day?

7 MR. LOVELACE:

8 Well, you know, a large portion of the  
9 funding for these sites -- all the sites pretty much  
10 have some sort of other agencies supporting them,  
11 some percentage of the cost. Some are 100 percent  
12 and some are less than that, depending on the  
13 situation. We, you know, are open -- certainly open  
14 to expanding sites. We also think there's probably  
15 some opportunities, you know, to optimize further  
16 deflection in some areas where we're collecting some  
17 redundant information.

18 I know the resilient recovery effort that's  
19 been talked about recently, I think that can bring  
20 together a lot of different local organizations that  
21 would be perhaps looking at sites on a basin-wide  
22 basis and there may be some optimization there. As  
23 you say, every time there is sort of alteration,  
24 things change and data needs to change, especially in  
25 the coastal zone. You know, we're always open to

1 expanding. It kind of just depends on the need and  
2 the location.

3 MR. MARLBROUGH:

4 Well, we certainly do appreciate you and  
5 your staff. We certainly couldn't operate daily  
6 without using these gages, so thank you. And I'm  
7 always interested in talking about how we can expand  
8 and optimize certain data that's being gathered every  
9 day.

10 MR. HARRIS:

11 Thank you, Mr. Lovelace. I appreciate you  
12 coming here today.

13 MR. LOVELACE:

14 Thank you.

15 RECENT ACTIVITY IN THE HAYNESVILLE SHALE

16 MR. HARRIS:

17 Our Agenda Item Number 9 is Matthew Reonas  
18 with the Office of Conservation, Recent Activity in  
19 the Haynesville Shale.

20 MR. REONAS:

21 I'm going to have to trade out duties and  
22 let Ms. Teri handle that. Just a few items for the  
23 record. I wanted to note that we had -- three  
24 Commissioners did arrive after the proceeding  
25 started, so Commissioner Graves and Commissioner

1 Sutcliffe and Commissioner McConnell. So I just  
2 wanted to have that on the record.

3 And, also, just to note, as we always do,  
4 all these PowerPoints are in pdfs and I'm going to  
5 put them on our website and send that out as a  
6 notice. So anything that piques anybody's interest,  
7 they'll be able to go back through and look at them  
8 in a little bit more depth, so I did want to note  
9 that as well. Teri, thank you.

10 So here I wanted to give an update on some  
11 recent energy development activity in northwestern  
12 Louisiana in the Haynesville Shale. And, again, this  
13 is overwhelmingly natural gas production, but what  
14 we've seen is kind of an increase in the number of  
15 permitted wells. And so we thought this would be an  
16 opportune time, as we have done in the past, to kind  
17 of advise the Commission on energy development and  
18 particularly water use in that activity.

19 And I will point out that you should have  
20 in your packets a copy of this PowerPoint. We put  
21 some of the PowerPoints we had available in there.  
22 So this is one of them that is available if you want  
23 to follow along with that.

24 So, again, I'll try and be quick and I  
25 won't go through all the numbers necessarily for

1 review here. We will put these online for closer  
2 inspection, but I will say that this might inform the  
3 discussion on water sales and public waters and that  
4 issue. Again, this is an issue that's come up  
5 recently in our agency and some other agencies around  
6 the state that have an interest in northwest  
7 Louisiana. So this is a relevant topic right now and  
8 one that's probably going to get more and more  
9 interest going forward. So perhaps this particular  
10 subject, that is energy and development of water use,  
11 in that area, is particularly relevant.

12           So Slide 2 here -- I think we were on  
13 Slide 2. I'm sorry, Teri. Slide 2 here is 2009  
14 through 2017's water use for all frac operations.  
15 That includes rig supply as well as for hydraulic  
16 fracture stages. So I'll point out the important  
17 number for us, for the Office of Conservation, is  
18 here, the big, red piece of the pie. That indicates  
19 use, surface water use in this roughly 8-year period  
20 from 2009 to 2017, which includes the main sort of  
21 peak with the Haynesville Shale in 2009, 2010 and  
22 2011, and then sort of the downturn in recent years,  
23 and sort of an uptick over the past year or so.

24           So the important number for us, or the  
25 Office of Conservation with its statutory authority

1 in the realm of groundwater, is that about 84 percent  
2 of that total use has been of surface water. And  
3 this is something that when the Haynesville started  
4 to sort of gear up in 2007 and 2008, that we began to  
5 take a -- there was a lot of interest in the use of  
6 groundwater. But recognizing the limitations of that  
7 aquifer system in northwest Louisiana, the  
8 Commissioner of Conservation at the time, Mr. Welch,  
9 had issued an advisory to many of the oil and gas  
10 companies, the energy companies, requesting that they  
11 utilize surface water if at all possible,  
12 particularly the Red River Alluvial -- I mean,  
13 surface water or if they were going to use  
14 groundwater to utilize the Red River Alluvial over  
15 some of the Carrizo-Wilcox and some of the other  
16 aquifers that peak through that area.

17 So for us, this is a positive development  
18 that over the past -- in the 8 years of fracking,  
19 this water use, that roughly 85 percent of the frac  
20 activity, the fractures themselves, have come from  
21 surface water. And smaller percentages like rig  
22 supply as well have utilized surface water as well,  
23 but it wasn't as well-known. But the big user of  
24 water volumes is the hydraulic fracture process  
25 itself.

1           So we can go on to Slide 3, Teri. Thank  
2 you. Here are numbers for 2017 so far. Again, this  
3 is through early August, so we still -- for this year  
4 we still -- this represents only about two-thirds of  
5 the year. But, again, the important number or the  
6 important graphic here is this huge piece of the pie,  
7 this red -- the majority of the pie, approximately  
8 92 percent, which indicates about 92 percent of the  
9 water use for hydraulic water fracture processes has  
10 been from surface water sources. So the Office of  
11 Conservation feels very good about this number, about  
12 where things are going.

13           Again, the energy companies are heeding the  
14 advisory issued a number of years ago and are looking  
15 to find surface water sources rather than utilizing  
16 groundwater sources in aquifers that aren't as robust  
17 as elsewhere around the state. And, again, we do  
18 have -- I will note here as well that we do have --  
19 this is about 11 or 12 slides, but we have a couple  
20 of dozen more slides on individual parishes as well,  
21 and those are available for request. So, anybody, if  
22 there's an interest in what's going on in a  
23 particular parish, we can send you those and we'll  
24 probably try to put those online as part of this, for  
25 the record for this meeting as well.



1           You can go to the next slide, please. The  
2 numbers for 2017 so far, into early August, about 142  
3 wells and, again, 92 percent surface water. The  
4 numbers -- again, this might sound somewhat shocking  
5 at 1.6 billion gallons, but, again, we're talking  
6 about large quantities of water. And that is a  
7 significant amount, but, again, our interest is  
8 primarily in making sure that that comes from  
9 resources that are largely renewable in that sense.  
10 So, again, surface water. And, again, that's our  
11 main interest.

12           Slide 4, here, this shows all frac water  
13 use and rig supply included from 2009 to 2017. And I  
14 wanted to point out just a few things real quick.  
15 Again, not to get into too much detail, but here is  
16 essentially the peak of the Haynesville Shale right  
17 here. And, again, for the audience, 2011 -- you see  
18 a large increase in 2010, 2011, and then a pretty  
19 steep dropoff. And then what you're seeing is a  
20 gradual uptick, especially last year. And, again,  
21 recognizing in 2017, we still have a third of the  
22 year left to report, so there has been an uptick and  
23 interest in that area. And, of course, we're keeping  
24 it -- the Office of Conservation is monitoring it  
25 closely.

1           I will point out that all of these wells,  
2 they have been submitted into the Office of  
3 Conservation, permitted wells. There's also been a  
4 WH-1 form, which identifies the source of the water  
5 so we can track where they're getting the water from,  
6 what source, not just surface water or groundwater,  
7 but specifically what source, a lake, a river that  
8 kind of information.

9           We can go to the next one, Teri. Thank  
10 you. And, again, the next couple of slides are just  
11 different graphs showing essentially the same thing  
12 more or less. And here's hydraulic fracture  
13 processes alone, again, the mid years between 2010  
14 and 2011 and the dropoff in 2012 and after. And then  
15 a slight rise in 2016, 2017.

16           Next, please, Teri. And again, here's  
17 another way to visualize this water usage from the  
18 previous chart. Again, up, down, and then a slight  
19 increase as well. And that's -- this is use of  
20 surface water and this is groundwater here. So at  
21 the bottom is groundwater use. So, again, you had a  
22 slight bulge in 2009, 2010. And then larger  
23 companies have tried to look for surface water  
24 sources for their needs going forward. And we  
25 certainly are keeping an eye on that in the future.

1           If we can go to the next slide, please.  
2    Again, somewhat similar. The graph here shows -- let  
3    me go back to my notes on this. The graph here is  
4    showing again water, the frac surface water use for  
5    activities. The number of wells obviously have  
6    decreased, but in years groundwater use, again, in  
7    hydraulic fracture per well. So, again, basically  
8    remaining stable across the board. So, again, the  
9    Office of Conservation is encouraging and trying to  
10   keep a close eye on this going forward.

11           We can go to the next one. So here's some  
12   hard data here, the permits issued since January  
13   2015. The Haynesville wells, which are here in red,  
14   are almost all hydraulic fracture. And, again, you  
15   see that fracture very closely to the hydraulic  
16   fracture permits even in blue at the bottom.

17           And hydraulic fracture represents about  
18   two-thirds of the permitted wells in the Haynesville.  
19   Again, it's important to note that when a well is  
20   permitted, it doesn't necessarily mean it's drilled  
21   right then. So there's a lag time. And some wells,  
22   of course, are never drilled even though they're  
23   permitted. So there is a lag time there and the  
24   numbers vary a little bit. But, again, you see a  
25   strong correlation with, again, the peak here. This

1 is 2015. There's a slight decline, and then more of  
2 an uptick right now. Again, we still have a few  
3 months left in 2017 to account for when we do a recap  
4 in the early part of next year.

5 Next slide, please. Again, percent of  
6 permits specific to drilling. So, again, most of the  
7 wells in the Haynesville are going to be hydraulic  
8 fracture wells. Teri, thank you.

9 This, again -- I apologize. This is  
10 difficult to read, but this is essentially showing  
11 hydraulic fracture water usage by parish from 2009 to  
12 2017. And maybe a better option might be to go to  
13 the next slide.

14 Okay. Right. So this is the major  
15 parishes. This is where you see most of the action.  
16 At the epicenter of much of this activity is De Soto  
17 Parish, Caddo, Bossier and Red River over here. So  
18 this is where the majority of activity is going on.  
19 This is where the majority of the water usage is  
20 going on.

21 Teri, can we go back to the previous slide?  
22 So, again, just to point out, here's De Soto Parish  
23 and here are other parishes that have some usage as  
24 well, what we term minor versus major. Your major  
25 areas of activity are here and they're represented

1 obviously by heavy water use.

2           The next one. So, again, your major. And  
3 the next one after that, these are your minor  
4 parishes in the sense of their water use as part of  
5 hydraulic fracture and energy development activities.

6           Again, we'll post all of this online. I'll  
7 take any questions, but we did want to provide all of  
8 this information recognizing that it is an ongoing  
9 issue and that we've seen an increase and interest in  
10 that area and, obviously, a number of agencies  
11 represented here today have an interest in water use  
12 for energy development. And I'll take any questions  
13 as needed that I can answer.

14           MR. PRATT:

15           Matt, thank you. Obviously, with Sabine  
16 River, the players in De Soto Parish, we're seeing  
17 the activity and more and more of it. Chris, I know  
18 your shop is permitting some of the private  
19 landowners with some reservoirs up there. I hope  
20 they are. There's been a rash of private landowners  
21 building reservoirs for fracking we've worked with.

22           Currently we have, I think, about 11  
23 short-term contracts with companies for frac water  
24 supply. We have one that we consider long-term.  
25 It's in five-year increments, and they did put in a

1 permitted pump station. And the permit perspective,  
2 the permitted one, it has the ability to withdraw  
3 about 6.3 million gallons per day. And they don't  
4 plan on doing that for 365 days, but in the event  
5 they did, in perspective, that's the equivalent of us  
6 running our hydroelectric power plant six hours for  
7 the entire year. And we've been running that power  
8 plant for 24/7 quite some time now. So our fracking  
9 is becoming an issue.

10           Some of the private landowners that have  
11 made investments in building frac water ponds or  
12 reservoirs certainly are wanting to cash in a little  
13 bit more. We were in a meeting, and Matt was with me  
14 a couple of weeks ago up there, and they were wanting  
15 us not to sell the water, not knowing the big picture  
16 here.

17           As it is, the recent work -- we're very  
18 fortunate. I remember when the Haynesville first  
19 exploded and they were using the groundwater. It was  
20 causing some really serious problems in the  
21 Carrizo-Wilcox aquifer there. We're very blessed  
22 that we have the Sabine River and Red River on the  
23 east and west sides. So I think the sustainability  
24 of supporting the industry up there, and we're seeing  
25 the resurging, is there. And we constantly, of

1 course, are working with them.

2 And I think we're going to see those  
3 numbers start resembling the 2010, maybe not quite  
4 the volume, but the good news is the efficiency of  
5 the water they're using has vastly improved since  
6 2008 and the amount of water per well is not near  
7 what it was. And as long as they're -- like I said,  
8 the activity there, particularly western De Soto and  
9 northwestern Sabine, which is the hot spot, we're  
10 fortunate to have that resource there and appreciate  
11 working, Gary, with your offices here, and moving  
12 forward with getting those permits that we require of  
13 those entities. And we're always there. Thank you.

14 MR. REONAS:

15 Yes, sir. So, again, just to recap, I did  
16 want to emphasize, I guess, that the Office of  
17 Conservation did support through an advisory that was  
18 issued, support the use of surface water because of  
19 groundwater -- you know, worries about groundwater  
20 use in that region of the state. So the Office of  
21 Conservation is certainly on board with energy  
22 companies looking to surface water sources.

23 And in terms of the use of frac ponds, we  
24 do have regulations on the installation of wells for  
25 that purpose. Those have to be classed as industrial

1 wells, and identified as such and go through our  
2 evaluation process in the Office of Conservation  
3 rather than say converting an irrigation well and  
4 using it to fill ponds and selling that water for  
5 hydraulic fracture water use. So that's a concern  
6 that we have and something that we're trying to  
7 monitor and will continue to monitor going forward.

8 Oh, I did have -- Gary wanted me to kind of  
9 provide a quick recap as well that we are -- we  
10 didn't necessarily talk too much about it for this  
11 meeting, but I guess following on John Lovelace's  
12 comments, that we are continuing to work, with the  
13 advice of the Commission, at the last meeting in  
14 December, on a couple of large-scale regional  
15 projects that the US Geological Survey was embarking  
16 upon, the coastal Lowland Aquifer Survey, a Red River  
17 survey, as well as the Mississippi Alluvial Plain  
18 project. So those we are continuing to work with  
19 USGS on. And, again, as part of the larger effort to  
20 streamline how the state manages its water budget and  
21 collects information, that's a great opportunity,  
22 and, again, we're continuing to work with them on  
23 that as well.

24 MR. HARRIS:

25 Hearing no further questions, Matt, we can



1 move to the next agenda item?

2 MR. REONAS:

3 Yes, sir.

4 AGENCY LEGISLATIVE UPDATE ACT 425

5 MR. REONAS:

6 This is more of a legislative update  
7 session and I'll kick this off. Really we have a  
8 couple of presenters today, one from the Department  
9 of Wildlife & Fisheries, as well as from the  
10 Department of Environmental Quality on a couple of  
11 pieces of legislation that came through this past  
12 session. I'll start today with -- I don't have a  
13 PowerPoint for this, Teri. I'll start today with a  
14 discussion of Act 425, which mandated some  
15 responsibilities for groundwater commissions as well  
16 as provided for some responsibilities for the Office  
17 of Conservation.

18 Just to kind of give an overview of this,  
19 this bill, what became an Act, revisited some  
20 groundwater conservation district reporting under the  
21 old Act 790 of 2012. The goal there was to get  
22 information on groundwater use in these districts.  
23 And, again, the goal here is to -- or the end  
24 recipients were and still are the Water Resources  
25 Commission, the Water Management Advisory Task Force,

1 a couple of legislative committees, and then the  
2 Office of Conservation.

3 This bill, Act 425, or what became Act 425,  
4 is limited to reporting of -- to groundwater  
5 conservation districts and groundwater regional  
6 bodies. There really are only two groundwater  
7 conservation districts in the state, the Sparta,  
8 which Ben McGee talked about a littler bit earlier --  
9 the Sparta Groundwater Conservation District and the  
10 Capitol Area Groundwater Conservation District.

11 Under the previous law, there was some gray  
12 area in terms of the listing of who was to report.  
13 So there was water conservation districts, freshwater  
14 districts, and those were cut out. And, again, there  
15 was -- I think this was a good measure because none  
16 of them had any groundwater responsibilities, one of  
17 those actually being Commissioner Marlborough's Bayou  
18 Lafourche Freshwater District. And that was an  
19 annual back and forth with him, you know, to submit a  
20 letter saying we have no groundwater responsibilities  
21 and so we don't really have anything to report.

22 So really what this is is it ties up the  
23 focus on two groundwater conservation districts  
24 around the state and any future ones that might arise  
25 and then it mandates that these boards, the boards

1 governing these groundwater conservation districts,  
2 adhere to certain policies and procedures such as  
3 open meetings law, the Robert's Rules of Order. They  
4 also restricted use of ad hoc committees and mandates  
5 that any standing subcommittees be composed only of  
6 actual board members.

7           And then it's mandated that two groundwater  
8 conservation districts would submit biannual reports  
9 on May 1st and November 1st, and really this is where  
10 the Office of Conservation gets involved. It  
11 provides for the Commissioner of Conservation to  
12 ensure submission of these reports. If not submitted  
13 timely or it didn't include pertinent information,  
14 the Commissioner could authorize the request for  
15 monthly reports. It also mandated that the  
16 Commissioner of Conservation would develop and issue  
17 a reporting form and checklist for these groundwater  
18 conservation districts based on their statutory  
19 powers.

20           Then so after we kind of went through the  
21 process, after clarifying our interpretation of the  
22 law with the legislative committee staff, we  
23 developed a form and checklist for each district.  
24 And, again, this is simply an enumeration of the  
25 items from the district's statutory powers as

1 delineated by law, which was what was required by  
2 Act 425.

3           So for the Sparta Commission, which is  
4 largely an advisory body with limited statutory  
5 authority, the checklist was very limited. For the  
6 Capitol Area Groundwater Conservation Commission, as  
7 a regulatory agency with extensive authority, the  
8 checklist was obviously somewhat longer.

9           So for us, we accepted comments from the  
10 two entities. We finalized the document and brought  
11 it to the districts and we also published it in the  
12 potpourri section of the October Louisiana Register.  
13 And for your consideration, in each of your packets,  
14 we've included the checklists that we developed and  
15 finalized. So those are there again for your  
16 consideration going forward, particularly as a  
17 recipient of these reports from the Sparta and the  
18 Groundwater Capital Area Commissions.

19           I'll take any questions.

20           MR. DUPLECHIN:

21           Matt, what does it mean published in the  
22 potpourri? Tell us what does that do.

23           MR. REONAS:

24           It's an official publishing of it, a  
25 dissemination of it.

1 MR. DUPLECHIN:

2 Okay. Is that part of rulemaking?

3 MR. REONAS:

4 No.

5 MR. DUPLECHIN:

6 So it's not going to be a rule?

7 MR. REONAS:

8 No.

9 MR. DUPLECHIN:

10 Just suggesting guidelines?

11 MR. REONAS:

12 Guidelines or advisory, based on statutes.

13 MR. DUPLECHIN:

14 Okay.

15 MS. GOUEDY:

16 If I may, I represent the Sparta  
17 Commission, the only other entity impacted by this,  
18 and I have a statement I would like to read into the  
19 record to clarify where the Sparta is on this.

20 As the Sparta Groundwater Commission's  
21 representative on this Commission, I would like to  
22 take this opportunity to put into record our  
23 opposition to Act 425. I want to first establish  
24 that it has been and will always be the desire of the  
25 Sparta Commission to direct our energy and purpose to

1 the conservation and preservation of the primary  
2 source of water for 7 parishes in north Louisiana and  
3 secondary source for yet another 8 [sic] parishes.  
4 We have annually submitted reports in accordance with  
5 Act 790, which until Act 425 was signed into law in  
6 June, required one annual report to include, which  
7 Matt just went through Act 790, so I won't go through  
8 that.

9           While we -- financially or technically  
10 capable of providing certain aspects of these  
11 requirements have been limited, and this is the point  
12 of our contention with Act 425. We haven't had the  
13 capabilities of providing the completed information  
14 for Act 790 once a year, but now we are being  
15 compelled to complete Act 425's checklist not once,  
16 but twice a year. At this point, Act 425 is law and  
17 the Sparta Commission does intend on trying to comply  
18 with the requirements to the best of our ability.

19           With that being said, though, there are  
20 some pointed concerns we would like noted with  
21 respect to the checklist itself. First and foremost,  
22 we do object to the development of these requirements  
23 not following the promulgation process set forth by  
24 the Louisiana Administrative Procedures Act. This is  
25 not just based on the Sparta Commission's opinion,

1 but supported by legal advisors and legislative  
2 advocates working with the Sparta Commission. I  
3 would like to use this opportunity to go on record to  
4 reserve our right to request a public hearing to  
5 further allow for dialogue and transparency from all  
6 aspects of these requirements.

7           Secondly, we wish to raise direct questions  
8 on Section D, now S and G -- I did not receive these  
9 checklists until I arrived this morning -- with  
10 respect to the Sparta Commission's checklist, which  
11 is different than the draft checklist for the one  
12 other groundwater district in the state.

13           Section D requires a narrative description  
14 and status update of actual and projected saltwater  
15 intrusion/encroachment within the groundwater systems  
16 of the Sparta District. The Sparta Commission has  
17 reached out to USGS to discuss the process by which  
18 they might be able to provide this data by the  
19 November 1st deadline and every six months  
20 thereafter. This cooperative endeavor agreement,  
21 potential cooperative endeavor agreement, would  
22 require a sizable financial investment by the Sparta  
23 Commission for the reintroduction of the chloride  
24 monitoring network, which would be monitored and  
25 managed by USGS. The Commission currently cannot

1 make this investment on our own.

2 Section G, now S, requires a summary of any  
3 out-of-state groundwater sales originating from  
4 within the Sparta District over the preceding six  
5 months, showing: (1) volumes of groundwater sold by  
6 parish and vendor, (2) the out-of-state entity or the  
7 entities to which this groundwater was sold, and (3)  
8 the price paid for groundwater.

9 Based on the interpretation of the Office  
10 of Conservation and the interpretation to omit the  
11 water used for beverages, solvents, gasoline, or  
12 other processed items, our technical advisors say  
13 this number is negligible for the Sparta Aquifer,  
14 which raises the question of whether that item even  
15 has a place on our checklist.

16 Lastly, Section H, which is now G, requires  
17 a summary of volumes of groundwater used for (1)  
18 residential, (2) commercial or industrial, and (3)  
19 agricultural purposes within the Sparta District  
20 during the preceding six months. The amounts used  
21 for industrial and agricultural purposes may be  
22 estimated. For residential volumes, the Office of  
23 Conservation will accept numbers generated utilizing  
24 standard USGS formulas for individual consumption.

25 If you are willing to accept numbers based



1 on USGS formula, than it would be appropriate that  
2 the terminology fall in line with that of USGS's.  
3 For instance, USGS doesn't measure water use by  
4 residential and commercial from the Sparta Aquifer.  
5 It is measured by public supply, which includes rural  
6 domestic wells and residential use, and industrial  
7 which would include industrial water use. In  
8 addition, specifically speaking, the Sparta region,  
9 agriculture should not even be a factor in our  
10 reporting requirements due to the fact that there is  
11 virtually no agricultural water use from the Sparta  
12 Aquifer.

13           May I also note that our last report  
14 indicates that there are over 200 water districts  
15 that pull water within the Sparta Aquifer. The  
16 Sparta Commission has neither the manpower nor the  
17 legal authority to obtain usage data from these 200  
18 some odd districts. It is important to note that  
19 these usage numbers could only be obtained and  
20 supplied by an agency with the scientific and  
21 technical ability to obtain and compile such detailed  
22 data, which I have been assured isn't free.

23           The Sparta Groundwater Commission is  
24 currently working to obtain informal estimates as to  
25 the cost of this research and data collection. This

1 might be the appropriate point to remind the Board  
2 and members of the public that are here today that  
3 the Sparta Commission will receive no funding from  
4 the State. We are funded only by the partnerships  
5 with the parish and city governments that make up the  
6 Sparta Commission's membership. The Sparta  
7 Groundwater Commission receives no funds from the  
8 State of Louisiana and has no authority or ability to  
9 obtain funds through a fee structure based on usage,  
10 as similar water districts do.

11           The Sparta Commission wants to comply with  
12 the law. The Sparta Commission wants to work its way  
13 forward as to continue its work of preservation of  
14 the Sparta Aquifer for future generations. Securing  
15 scientific data to gauge the health of the aquifer is  
16 a vital piece to that puzzle. With that being said,  
17 the Sparta Groundwater Commission has been cut at the  
18 knees for far too long with these reports and with  
19 nothing but unfunded mandates sent north from  
20 Baton Rouge. We are open to working with the  
21 Department of Natural Resources and the Office of  
22 Conservation to secure this data, but we feel it  
23 appropriate to formally request financial support  
24 from the Department for the monitoring requirements  
25 in particular, since there is already precedent with

1 a similar partnership with the Union County Water  
2 Conservation Board taking place several years ago.

3 With that being said, we have made great  
4 strides over the last decade in north Louisiana,  
5 reducing our water usage from at its peak 72 million  
6 gallons a day to now at the sustainable level of  
7 54 million gallons a day, give or take. In the 8  
8 years I have worked with the Sparta Commission we  
9 have educated more than 20,000 students through our  
10 education program. We have established partnerships  
11 in our communities based on the desire to preserve  
12 our water supply. It is our desire to continue on  
13 with our accomplishments and much more, but we simply  
14 cannot do that based on these requirements with the  
15 Sparta Commission's current structure. We simply  
16 cannot fully comply with Act 425 and we've tried to  
17 be very upfront about that since this came forth in  
18 legislation.

19 The leadership of the Sparta Commission,  
20 myself included, welcomes an open dialogue and  
21 transparency, I would like all theses points noted  
22 that the Sparta Commission is deeply concerned moving  
23 forward, but we would like to engage in formal  
24 discussion on how we can proceed.

25 MR. HARRIS:

1           Thank you, Ms. Gouedy. Any other  
2 questions?

3           MR. REONAS:

4           Mr. Secretary, if I may respond to a couple  
5 of those points real quick?

6           MR. HARRIS:

7           Certainly.

8           MR. REONAS:

9           One, on the issue of following  
10 Administrative Procedure, Act 425 did not authorize  
11 the Office of Conservation to follow the  
12 Administrative Procedures Act. It did not mandate,  
13 nor did it authorize us to follow the Act. So in  
14 that sense, I just wanted to put that on the record.

15           As to the other point on reporting for  
16 saltwater encroachment, out-of-state water sales,  
17 residential, commercial, industrial, agricultural  
18 use, those are all specifically outlined in Act 425.  
19 The Office of Conservation is just following what the  
20 law mandated us to do in including that in a  
21 reporting checklist. So, I mean, we really have no  
22 control over it.

23           I will note, however, that in the checklist  
24 that we developed, and it's each of y'all's packets,  
25 we did provide this caveat that if the District is

1 unable to provide any requested information, an  
2 explanation and justification must be provided  
3 subject to acceptance or rejection by the  
4 Commissioner of Conservation.

5           Again, I'll point out to the Sparta  
6 Commission if they don't have the staff or the  
7 funding to collect the information, I would think  
8 that would be an easy out, so to speak, for that  
9 group to say that, you know, we don't have the  
10 authority to collect it. And, again, under the  
11 statutes, as simply a largely advisory body, I think  
12 that would be appropriate. However, I'm not on the  
13 Sparta Commission, so I don't really have a say on  
14 that one way or the other, but that's my take on it.

15           I will say, again, that we started this  
16 process in June and July, the Office of Conservation.  
17 We had a certain specific obligation and we've gone  
18 above and beyond what was required by Act 425. We  
19 sought legislative staff clarification. We've copied  
20 district leadership on all drafts and all  
21 correspondence to and from the legislative staff, any  
22 drafts. We provided ample opportunity for comments  
23 throughout the process, which again, we started in  
24 June as soon as the bill was signed into law by the  
25 Governor, and we've made final changes and checklists

1 based on these comments.

2           Again, you know, some of those things are  
3 mandated by the law and we have to follow what the  
4 law authorizes us to do and also not to exceed what  
5 the law authorizes us to do. So I'll leave it at  
6 that.

7           MS. GOUEDY:

8           I will just make one brief response. There  
9 does seem to be some confusion to the point of the  
10 APA and whether this is a rule or not. Our legal  
11 advisor is saying that it is since this is a new law.  
12 If Act 790 had been amended, we are being told in  
13 that case we would not have been -- needed to follow  
14 that procedure, but that since this is a new  
15 legislation that is taking place, it is. But there  
16 does seem to be some confusion on this among legal  
17 minds across the state, so I'm trying to understand  
18 on behalf of the Sparta Commission where we can all  
19 get on the same page with respect to it.

20           MR. ADAMS:

21           This is John Adams, attorney for the Office  
22 of Conservation. We received your comments on that  
23 and did additional research on it, including  
24 contacting the author of the bill. The law itself is  
25 self-authenticating and self-implementing. The law

1     itself sets forth its requirements. We had  
2     absolutely no say in drafting the law or preparing  
3     the law or advising on how the author of the bill  
4     structured the language for that law, but as a  
5     regulatory agency, we're charged with the duty to  
6     implement the law that was passed.

7             I believe the word that you're getting --  
8     you're trying to address in there is the word  
9     promulgated. The statute contains the word  
10    promulgate, which generally entails some rulemaking  
11    process. In this case, there is nothing for us to  
12    implement in our rules. All we're doing is receiving  
13    the reports that are submitted and evaluating those  
14    reports to see if the information contained in the  
15    law is provided in those reports.

16            The checklists that we are supposed to  
17    promulgate we will do by publishing it in the  
18    Louisiana Register in the October edition, which is  
19    right around the corner. Generally, the purpose of  
20    the Administrative Procedures Act is to make sure  
21    that the public and anyone who is an interested party  
22    in the rule that's being promulgated, the rule that's  
23    being put together, has adequate opportunity to  
24    discuss and express any concerns they have with that  
25    rule, although, this situation doesn't involve and

1 doesn't even allow us to implement the APA process  
2 because there's no rule for us to publish in this  
3 regard. The checklist is the only thing that we're  
4 publishing.

5           We have done everything we can to extend an  
6 open dialog between the two regulating parties to  
7 make sure that your concerns are included in the  
8 checklist, and that can be an ongoing process. If  
9 you still have issues that you recognize as a result  
10 of the most recent version released, I believe  
11 yesterday, then we can certainly discuss that prior  
12 to it being promulgated on October the 20th.

13 And even once that is promulgated, we can continue to  
14 discuss it. If there are things in there that do  
15 appear to be redundant, if it doesn't serve a purpose  
16 in us trying to ascertain the additional information,  
17 which are some of the comments that you pointed out  
18 in there, then those things can be redacted. We can  
19 take them out and we can promulgate any form after we  
20 figure out if the one currently being used is  
21 servicing the purpose under the law or not.

22           MS. GOUEDY:

23           Thank you. Thank you for clarifying that.  
24 Most of what you said I've heard before over the last  
25 few weeks through this conversation. Maybe it would



1 be helpful, Mr. Adams, if we were able to speak  
2 following the meeting, maybe in conjunction with some  
3 of our legal advisors.

4 MR. ADAMS:

5 Absolutely.

6 MS. GOUEDY:

7 I think that's where the disconnect is.  
8 We're being advised one thing and Mr. Reonas and  
9 yourself are saying, no, this is how it is. I think  
10 we need to figure out how to meet in the middle and  
11 maybe we can address some of those concerns. I do  
12 appreciate your willingness. I think that one of our  
13 biggest concerns is just this process. And we have  
14 some legal advisors who are saying, wait, slow down,  
15 this is not right, so...

16 MR. ADAMS:

17 I will make myself available and be glad to  
18 meet with you at your convenience.

19 MS. GOUEDY:

20 I appreciate that.

21 MR. HARRIS:

22 Are there any other questions?

23 AGENCY LEGISLATIVE UPDATE ACT 189

24 MR. HARRIS:

25 Matt, please, the next agenda item. We

1 have an update on Act 189, the Scenic Rivers with  
2 Matthew Weigel.

3 MR. WEIGEL:

4 Thank y'all for having me today. I  
5 appreciate the opportunity. I will speak briefly  
6 about the Louisiana Scenic Rivers Program and Act 189  
7 today. The Scenic Rivers System was established,  
8 created by the Scenic Rivers Act in 1970 for the  
9 purpose of preserving, protecting, developing,  
10 reclaiming and enhancing the wilderness qualities,  
11 scenic beauties and ecological regime of certain  
12 streams throughout the state of Louisiana. The  
13 system also preserves aesthetic, scenic,  
14 recreational, fish, wildlife, ecological,  
15 archaeological, geological, botanical and other  
16 natural and physical features and resources found  
17 along these streams. Next slide, please.

18 Currently, there are over 80 streams in the  
19 Louisiana System with approximately 3,000 miles of  
20 waterways. The system may grow from the nomination  
21 and subsequent acceptance of additional streams and  
22 stream segments. And, likewise, we also, you know,  
23 lose streams. They can be nominated for removal.  
24 There is a process.

25 The Department's duties involve complaint

1 investigation. It is often how we find out about  
2 violations of our rules and regulations. Technical  
3 assistance usually deals with erosion or issues on  
4 private property adjacent to our streams. We're also  
5 responsible for the permitting system, you know,  
6 coordinated enforcement action with our enforcement  
7 division, monitoring the streams and development of  
8 management plans of the streams.

9           Activities requiring permits include:

10 Crossings of several types; discharges, point source  
11 discharges; drilling and mining, which is mostly sand  
12 and gravel mining in Louisiana; structures of all  
13 sorts; commercial uses, including activities and  
14 access; water withdrawals; and most recently mooring  
15 of houseboats.

16           Certain activities are prohibited by the  
17 Scenic Rivers Act. They include clearing and  
18 snagging, channelization, reservoir construction,  
19 clear cutting of trees and use of ATVs on system  
20 streams.

21           Many projects fall into clearing and  
22 snagging and/or channelization. The Act defines  
23 clearing and snagging as the removal of most  
24 obstructions within a given reach. And it defines  
25 channelization as the creation of a uniform channel

1 of uniform -- of relatively uniform width and depth.  
2 This is typical of dredging, most dredging projects  
3 or proposals.

4           Being aware of this with certain streams  
5 that came in, they came in with exceptions. Those  
6 exceptions, some of them were able to allow either  
7 clearing or snagging or dredging operations or both  
8 on certain streams. Current exceptions include  
9 exceptions for the West Pearl, Bayou LaCombe and  
10 Tchefuncte to allow dredging operations. Also  
11 exceptions for the Comite River to allow diversion  
12 projects to occur. There are exceptions for Bayou  
13 Chinchuba to allow clearing and snagging, and  
14 exceptions for the Tangipahoa to allow clearing and  
15 snagging and dredging as well, and also exceptions  
16 for Bayou Manchac to allow clearing, snagging,  
17 dredging and flood control projects.

18           Senate Bill 132, which is now actually 189,  
19 aimed to extend the exceptions to Bayou Manchac,  
20 Comite River, Amite River, Tchefuncte River, Abita  
21 River, Bogue Falaya River and the West Pearl River.

22           Here's the language from the actual  
23 amendment to the Act. Of course the language added  
24 has been underlined here and items deleted are struck  
25 through. But first it deals with clarifying clearing

1 and snagging shall be permitted on Bayou Manchac.  
2 And, secondly, it states that clearing, snagging and  
3 dredging shall be permitted on the Amite River,  
4 Tangipahoa River, West Pearl, Tchefuncte, Bogue  
5 Falaya, Abita and Comite rivers.

6           It's important to note that it says "shall  
7 by permitted by the department in accordance with the  
8 requirements and procedures provided for in  
9 R.S. 56:1849." And 189 specifically deals with the  
10 evaluation and permitting of these types of  
11 proposals. It states that "Prior to the activity  
12 commencing, a permit must first be obtained from the  
13 administrator." Secondly, it states that our  
14 decision must be based on certain criteria and lists  
15 those criteria, which include wilderness qualities,  
16 scenic values, ecological regimes, et cetera,  
17 et cetera. And applications which we receive must  
18 address impacts to these criteria. Lastly, it  
19 addresses the denial of permits and how those may be  
20 appealed.

21           Another important provision of Act 189 is  
22 it doesn't become effective until June 30th of 2018.  
23 This was to give us the opportunity for watershed  
24 modeling to be completed. Despite the watershed  
25 modeling results, we still expect any proposals to be

1 quite contentious and it won't be easy for us to make  
2 decisions. We have a lot of the information and  
3 comments to consider.

4 That about does it for my presentation. If  
5 y'all have any questions, I'll be happy to answer  
6 those.

7 MR. BALKUM:

8 Matt, thanks for that presentation. In a  
9 nutshell, what that Act 189 did is it took the  
10 activities of clearing and snagging and  
11 generalization on dredging on these natural streams  
12 and gave the Department of Wildlife & Fisheries a way  
13 to permit that; is that correct?

14 MR. WEIGEL:

15 Correct.

16 MR. BALKUM:

17 Thank you, Matt.

18 MR. HARRIS:

19 Thank you, Mr. Weigel.

20 MR. WEIGEL:

21 Thank y'all.

22 AGENCY LEGISLATIVE UPDATE ACT 371

23 MR. HARRIS:

24 The next item, Act 371, Water Quality  
25 Trading by Amanda Vincent with the Department of

1 Environmental Quality.

2 MS. VINCENT:

3 Hi. Thank you. I'm Amanda Vincent with  
4 DEQ. I'm just going to give you a brief update on  
5 Water Quality Credit Trading. I'm just going to  
6 review some of the points pertinent. I'll talk about  
7 the stakeholder interest we have in this. It talks  
8 about Act 371, also current activities and next  
9 steps.

10 So the stakeholder interest, we're trading  
11 pretty much market-based strategy. It's pretty much  
12 a cost effective means to achieve water quality  
13 goals. Simply put, it's really to have a Source A, a  
14 very high cost X pollutant reduction, but Source B at  
15 a much lower cost can get that X pollutant reduction,  
16 so could that source carry credit to concur to  
17 funding of the source to meet our quality goals.

18 And this is something that in our Louisiana  
19 Nutrient Management Strategy, which was released in  
20 2014, we identified this as strategic action to  
21 explore feasibility of credit trading. And really  
22 we're talking about incentives for voluntary  
23 participation. This would be a voluntary program.  
24 And we're looking at ways we can involve all of our  
25 stakeholders in our watershed community. You know,

1 we're talking about the point sources, the  
2 discharges, also nonpoint sources, and seeing how we  
3 can maybe bring in coastal protection and restoration  
4 activities.

5           So I'll just call this the Pre-Act 371,  
6 which we've had since the beginning of this year.  
7 R.S. 30:2074.B.9, it did allow for DEQ to have a  
8 credit banking system. If you looked at it, it was  
9 to administer a point source to point source banking  
10 system for state's waterbodies where Total Maximum  
11 Daily Load limitations are in place, and limited to  
12 point sources with TMDLs and within a single  
13 watershed.

14           So with Act 371, this became effective  
15 June 23rd of this year. DEQ is authorized to adopt  
16 and promulgate regulations for that and to establish  
17 and administer this program as an inducement to  
18 reduce discharges of pollutants into waters of the  
19 state. And this trading program may include point  
20 sources and nonpoint sources.

21           We also have language here that talks about  
22 nonpoint sources may participate in the program  
23 through a written agreement. And this would be  
24 between the Department and whatever appropriate  
25 governmental entity there is for that nonpoint



1 source. And this is just acknowledging that, you  
2 know, point sources may have a discharge permit with  
3 the Department and that would be the mechanism put in  
4 place for them, but for nonpoint sources we also  
5 wanted some type of agreement.

6 For Act 371, this is all part of the Act,  
7 such regulations shall include at a minimum that  
8 they're going to have this criteria under which  
9 credits may be certified, generated, quantified and  
10 validated. Also, any geographical limitations and  
11 criteria for the monitoring, certifying, et cetera of  
12 the banking credits.

13 Also in Act 371, they must have the  
14 approval of the Department for certifying,  
15 generating, use, banking and sale of banked credits.  
16 The requirements for the maintenance and submission  
17 of any records concerning this monitoring and any  
18 other requirements needed to comply with federal and  
19 state laws and regulations.

20 Also, we have in here language about a  
21 pilot project. It says it may be used to aid in the  
22 development of the program prior to the adoption of  
23 the regs and any such project shall be conducted in  
24 accordance with an implementation plan approved by  
25 the Department.

1           Act 371, you know, currently in DEQ, we  
2 have legislative oversight under R.S. 49:968 through  
3 the House Committee on Natural Resources and  
4 Environment and also the Senate Committee on  
5 Environmental Quality. Recognizing that there are  
6 agricultural interests with this, we also have  
7 legislative oversight by the two -- the House  
8 Committee on Agriculture and Senate Committee for  
9 this Act.

10           So in summary, we're looking at Act 371 for  
11 Water Quality Credit Trading to allow participation  
12 of both point and nonpoint sources, consideration of  
13 across watersheds and also watersheds with or without  
14 TMDLs.

15           Our current activities, we have a small  
16 work group that has been working on this, members  
17 from the Department of Environmental Quality. These  
18 are divisions in our agency; also, Department of Ag  
19 and Forestry, CPRA, USDA, National Resources  
20 Conservation Service and the Water Synergy Project.  
21 And we're basing it on what we call right now draft  
22 guidance. We're basing this on some publicly  
23 available information. There is a National Network  
24 on Water Quality Trading document, which gives  
25 options and considerations for such a program. And

1 that was published in June of 2015. Also, ACWA,  
2 Association of Clean Water Administrators, they have  
3 a tool kit that was released, I believe, early this  
4 year and it has templates or guidance, regulations  
5 and things like that that we use to move forward.

6 So the considerations we're looking at, it  
7 kind of started out with this discussion about  
8 nutrients, but we're seeing this is also something  
9 that other pollutants can be acceptable for this,  
10 something for exploring are nutrients and BOD, that's  
11 biochemical oxygen demand, sediment and also  
12 temperature. And something we're looking at is  
13 ratios to address uncertainty. This is where maybe  
14 you have a point source discharge and you know for  
15 certainty what exactly is coming out of there. But  
16 perhaps with a nonpoint source, maybe it's an  
17 estimate from a model or something, so a way that we  
18 can address that uncertainty and equivalency is a way  
19 to try and find that BOD and nutrients and really  
20 looking at having this program in our State's  
21 watersheds.

22 So next steps, this is a tentative  
23 timeline. We are looking to have stakeholder  
24 interaction in early -- well, in 2018, in early 2018,  
25 kind of like a kickoff meeting. We can bring

1 interested people in and let them know about draft  
2 guidance. We're looking to have it available then.  
3 And we're looking to draft a rule for this. I  
4 mentioned earlier the pilot phase. That's something  
5 we can run in 2018. It's going to be in late summer  
6 of 2018 and we'll get information to form our draft  
7 rule. And, typically, we obviously will have a draft  
8 rule proposed by the end of 2018. And this could be  
9 a formal rulemaking process which would be available  
10 for public review and public comments and then review  
11 those comments and respond to them. And then a year  
12 after our rule is drafted, it would be made a final  
13 rule by the end of 2019.

14 And thank you so much for listening. We  
15 would appreciate the input from this Commission as we  
16 move forward on this.

17 MR. HARRIS:

18 Thank you, Ms. Vincent. Do we have any  
19 questions? Thank you very much, Ms. Vincent. Thanks  
20 for coming.

21 PUBLIC COMMENTS

22 MR. HARRIS:

23 All right. That brings us to the end of an  
24 active agenda. Are there any other issues? Any  
25 public comments?

1 MR. MORVANT:

2 I would like to make a comment. As the  
3 Vice Chairman for the Capital Area Groundwater  
4 Conservation Committee I would like to first of all  
5 thank Ms. Lindsay Gouedy's comments in that without  
6 following the Administrative Procedures Act, the  
7 implementation of guidelines isn't -- to point out to  
8 Mr. Adams, the bill also said, well, it's in the  
9 bill, but in fact those guidelines were not in the  
10 bill.

11 MR. HARRIS:

12 Will you state your name, please?

13 MR. MORVANT:

14 Nelson Morvant. We were given two weeks to  
15 give comments concerning the implementation of  
16 guidelines. Considering the scientific gathering  
17 that they asked and in the bill the language stating  
18 that it had to be appropriate to the information and  
19 satisfaction of the Conservation's Commissioner, it  
20 would be very difficult to provide reports that are  
21 satisfactory. And who would make that decision? And  
22 I would suggest that some type of peers be set up to  
23 review reports or something like that.

24 But as far as the actual implementation of  
25 the guidelines, values in Louisiana's Administrative

1 Procedures Act, I understand Mr. Adams' statement  
2 that he's trying to implement the Act. I understand  
3 that and the Conservation Commission. They do want  
4 to follow the law. However, without being able to  
5 provide the right information, it almost sounds like  
6 an endless circle of providing information to the  
7 Committee and being able to provide the information  
8 the Commission wants. So that's my statement. I  
9 just want to say that without use of some type of  
10 implementation to the Louisiana Administrative  
11 Procedures Act, it will certainly be unsure of  
12 whether or not those are guidelines, as Mr. Duplechin  
13 pointed out, or are they -- is it actual law that has  
14 to be filed. Thank you.

15 MR. HARRIS:

16 Thank you, Mr. Morvant. Are there any --  
17 first, before we go on with public comments, are  
18 there any questions or new business from the  
19 Commission?

20 MR. DUPLÉCHIN:

21 I would like to comment that as Director of  
22 the Capital Area Groundwater Conservation District,  
23 I'd like to take this time to apologize to Ms. Gouedy  
24 for having the Sparta Groundwater Conservation  
25 District and Commission dragged into this reporting

1 requirement. When all this started, we got a letter  
2 and the District got a letter from the Office of  
3 Conservation stating that our report was insufficient  
4 for the first time in six years. And one of the  
5 reports that we were told to look at that satisfied  
6 the needs was the Sparta Commission. Now, all of a  
7 sudden they're having to do all these other reports  
8 as well. So, I'm sorry that we drug y'all into this  
9 and we will work through it together to get through  
10 it.

11 MR. HARRIS:

12 Thank you. Any other question, comments,  
13 new business? Hearing none, are there any  
14 comments -- other comments from the public?

15 MR. GRAHAM:

16 Good afternoon. My name is Henry Graham.  
17 I'm with the Louisiana Chemical Association. LCA is  
18 a trade association with many factors, and several of  
19 our members are obviously users of water within the  
20 state of Louisiana. It's a very important asset that  
21 Louisiana has for encouraging the economic  
22 development.

23 One of the questions that I have and  
24 comments that I wanted to make was simply on the  
25 development of legislation, the recent legislation

1 concerning the reporting. And while we do support  
2 the fact that additional reporting would be helpful  
3 for information purposes, I think we need to  
4 distinguish two situations. One is what is  
5 specifically required in the legislation. What is  
6 specifically required in the legislation technically  
7 can be self-implemented, but often the details are  
8 left to guidance or rules. Now, if you leave it to  
9 guidance, that is what it is. It's not a  
10 requirement. You can suggest an agency to guidance  
11 or through a checklist by just publishing this is  
12 what we think you ought to have. But, if you're not  
13 mandating the agency to do it -- if you're going to  
14 mandate an agency to take an action, in this case the  
15 Sparta or whatever, I think it would be important for  
16 you to use the rulemaking process to identify exactly  
17 where those documents are required and whether  
18 they're required by the legislation that is  
19 authorizing you to do this.

20           It's often and sometimes a temptation of  
21 agencies to go along and expand what was actually  
22 required. And we used to call it -- I hate to say  
23 it, but three years ago when we got in balance [sic]  
24 with previous administrations -- policy dujour, where  
25 you have a policy and you expanded it and you



1 expanded it and you expanded it, but it wasn't really  
2 what was technically required in the legislation and  
3 brought about an Act too.

4           So that's a concern that I'm raising here  
5 because, you know, being an old guy, I won't be  
6 around very much longer. This is shades of 1991  
7 here. And I, having served on the Water Resources,  
8 and working on previous studies, the 1984 study and  
9 what we did in 1988, what we did in 2001 and the  
10 current work, I'm just concerned that sometimes we  
11 lose track of where we are. So I just urge the  
12 Commission to specifically look at the legislation.

13           Now, this legislation -- let's face it,  
14 this legislation was a backup. Really what they  
15 wanted was to restrict industry from participating on  
16 the Commission. They wanted to severely restrict  
17 industry's ability and the users of groundwater from  
18 having any say so, but they couldn't pass that. So  
19 what they passed was a law to confirm what we already  
20 logically feel is needed, providing for some usage,  
21 examined information.

22           I don't think it was intended to punish  
23 Districts who don't have the ability to provide for  
24 the resources to provide the information. So that's  
25 why I just urge you as a Commission to be a little

1 cautious and to give some additional time. You-guys  
2 should take a hard look at the checklist and whether  
3 that information that they're asking and demanding by  
4 November 1st, whether that is actually doable for  
5 these Districts. Thank you.

6 MR. HARRIS:

7 Thank you, Mr. Graham. Any other questions  
8 or comments from the public?

9 ADJOURNMENT OF MEETING

10 MR. HARRIS:

11 Hearing none, do I hear a motion to  
12 adjourn?

13 MR. GRAVES:

14 So moved.

15 MR. KNOTTS:

16 Second.

17 MR. HARRIS:

18 Second by Mr. Knotts. Any objections?  
19 Hearing none, this meeting will be adjourned. Thank  
20 you very much.

21  
22 (MEETING ADJOURNED AT 1:34 P.M.)  
23  
24  
25

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Baton Rouge, Louisiana, this 17th day of October,  
2016.

Laura Quinette, CCR, RPR  
CCR No. 2014011, RPR No. 73367