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1	STATE OF LOUISIANA
2	DEPARTMENT OF NATURAL RESOURCES
3	OFFICE OF CONSERVATION
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5	
6	WATER RESOURCES COMMISSION
7	2ND MEETING, 2018
8	
9	THURSDAY, NOVEMBER 29, 2018
10	11:00 A.M.
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12	LASALLE BUILDING
13	1ST FLOOR - LABELLE ROOM
14	617 NORTH 3RD STREET
15	BATON ROUGE, LOUISIANA 70802
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23	REPORTED BY:
24	LISA M. NEALY, CCR, RPR
25	BATON ROUGE COURT REPORTERS, LLC

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     COMMISSION MEMBERS IN ATTENDANCE:
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 3
    KYLE F. BALKUM
 4
 5
    EDWARD "MICHAEL" BOPP
 б
     Crescent River Port Pilots' Association
 7
     GLENN L. BRASSEAUX
 8
 9
10
    DAVID B. CULPEPPER
11
    NanoFex, LLC
12
13
    MARK S. DAVIS
14
     Tulane University Law School
15
16
    ANTHONY J. DUPLECHIN, JR.
    Capital Area Groundwater Conservation District
17
18
19
     JOHAN FORSMAN
20
    Louisiana Department of Health & Hospitals-Office
21
    of Public Health
22
23
    WARREN L. FOUNDS, III
24
     Sabine River Authority
25
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     COMMISSION MEMBERS IN ATTENDANCE:
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 3
    BRANDON MARK FREY
 4
 5
    KAREN K. GAUTREAUX
 б
     The Nature Conservancy of Louisiana
 7
 8
    LINDSAY K. GOUEDY
 9
10
    JIM T. HARPER
11
12
     THOMAS HARRIS
13
     Secretary of the Department of Natural Resources,
14
    Governor's Office
15
16
    RICHARD P. IEYOUB, SR.
17
     CHRISTOPHER P. KNOTTS, PE, FASCE
18
19
    Louisiana Department of Transportation and
20
    Development, Public Works & Water Resources
21
22
    BENJAMIN J. MALBROUGH
23
    BRADLEY E. SPICER
24
25
    Louisiana Department of Agriculture & Forestry
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COMMISSION MEMBERS IN ATTENDANCE: JOHN PAUL STOSHAK CHARLES SUTCLIFFE б ELLIOTT B. VEGA Department of Environmental Quality GLENN J. VICE JMB Companies, Inc. PATRICK WITTY LED Small Business & Community Services FREDERICK C. ZAUNBRECHER

1	CALL TO ORDER
2	MR. HARRIS:
3	We'll get started.
4	Would you call the roll, please?
5	MR. REONAS:
б	Sure. All right, so, for the roll,
7	Mr. Balkum?
8	MR. BALKUM:
9	Here.
10	MR. REONAS:
11	Mr. Bishop? Mr. Bopp?
12	MR. BOPP:
13	Here.
14	MR. REONAS:
15	Mr. Brasseaux?
16	MR. BRASSEAUX:
17	Here.
18	MR. REONAS:
19	Mr. Chabert? Mr. Cormier? Mr. Culpepper?
20	MR. CULPEPPER:
21	Here.
22	MR. REONAS:
23	Mr. Davis?
24	MR. DAVIS:
25	Here.

1	MR.	REONAS:
2		Mr. Duplechin?
3	MR.	DUPLECHIN:
4		Here.
5	MR.	REONAS:
6		Mr. Forsman?
7	MR.	FORSMAN:
8		Here.
9	MR.	REONAS:
10		Mr. Founds?
11	MR.	FOUNDS:
12		Here.
13	MR.	REONAS:
14		Mr. Frey?
15	MR.	FREY:
16		Here.
17	MR.	REONAS:
18		Ms. Gautreaux?
19	MS.	GAUTREAUX:
20		Here.
21	MR.	REONAS:
22		Ms. Gouedy?
23	MS.	GOUEDY:
24		Here.
25	MR.	REONAS:

1	Mr. Gray? Mr. Harper?
2	MR. HARPER:
3	Here.
4	MR. REONAS:
5	Secretary Harris?
6	MR. HARRIS:
7	Here.
8	MR. REONAS:
9	Commissioner Ieyoub?
10	MR. IEYOUB:
11	Here.
12	MR. REONAS:
13	Mr. Knotts?
14	MR. KNOTTS:
15	Here.
16	MR. REONAS:
17	Mr. Malbrough?
18	MR. MALBROUGH:
19	Here.
20	MR. REONAS:
21	Mr. Rabalais? Mr. Spicer?
22	MR. SPICER:
23	Here.
24	MR. REONAS:
25	Mr. Stoshak?

1 MR. STOSHAK: 2 Here. 3 MR. REONAS: 4 Mr. Sutcliffe? 5 MR. SUTCLIFFE: 6 Here. 7 MR. REONAS: 8 Mr. Vega? 9 MR. VEGA: 10 Here. 11 MR. REONAS: Mr. Vice? 12 13 MR. VICE: 14 Here. 15 MR. REONAS: 16 Mr. Witty? 17 MR. WITTY: 18 Here. 19 MR. REONAS: 20 And Mr. Zaunbrecher? 21 MR. ZAUNBRECHER: 22 Here. 23 MR. REONAS: 24 So a very full house indeed. So, 25 we're...

1 MR. HARRIS: 2 Thank you, Matt. I assume that's a 3 quorum? 4 MR. REONAS: 5 Oh, yes, that is a quorum. Absolutely. MR. HARRIS: 6 7 Very good. 8 INTRODUCTION OF NEW MEMBERS 9 MR. HARRIS: We do have a couple of new members I'd 10 11 like to introduce. Sitting to my right here is 12 Glenn Vice, is replacing Paul Frey as the 13 representative of the Louisiana Land Owners Association on the -- he's on the LLA Board of 14 15 Directors. Mr. Vice is the president and CEO of JMB, who owns interest in over 300,000 acres of 16 17 land in Louisiana, Texas, and Florida. 18 Glenn, would you like to say --19 MR. VICE: 20 Yeah. It's an honor for me to serve. Ι 21 represent Louisiana Land Owners. And I understand 22 I got big, huge shoes to fill with Paul Frey. 23 Thank you. 24 MR. HARRIS: 25 You're welcome. Thank you.

1	Also with us today a new member, Paul
2	Witty, with Louisiana Economics uh, Department
3	of Economic Development. He's the designee of the
4	secretary, and he's also executive director of
5	LED's Community Competitiveness and Small Business
6	Services Division. Welcome. Would you like to say
7	a few words?
8	MR. WITTY:
9	I don't need to say anything. Thank you
10	so much for the opportunity.
11	MR. HARRIS:
12	Thank you for being here.
13	Finally, Ben Malbrough is back with us,
14	formerly an appointment of Representative Bishop,
15	now an appointment of Senator Chabert.
16	Would you like to say anything, Ben?
17	MR. MALBROUGH:
18	Thank you.
19	MR. HARRIS:
20	Thank you for being here.
21	I believe our next order of business is
22	approval of the minutes?
23	ADOPTION OF THE PREVIOUS MEETING SUMMARY
24	MR. REONAS:
25	Yes, that's correct. So we have the

1	did everyone have a chance to review the minutes?
2	It's a transcript, obviously; we have a court
3	reporter here. Are there any corrections or
4	changes that need to be made? Did anybody note any
5	of those? Of course our staff went through them as
б	well, based on our notes, but.
7	MR. SPICER:
8	Make a motion to approve the minutes.
9	UNIDENTIFIED SPEAKER:
10	I second.
11	MR. HARRIS:
12	All in favor?
13	BOARD MEMBERS:
14	Aye.
15	MR. HARRIS:
16	All opposed? Those minutes are approved.
17	Thank you, Matt.
18	WORK GROUP OF OUT-OF-STATE SALE OF SURFACE WATER:
19	MR. HARRIS:
20	Our next agenda item, we have the report
21	from our work group, which was formed last year.
22	And it's been a lot of work done, and I want to
23	thank all of you who participated and and also
24	Seth Irby and and Blake Canfield, who Blake
25	is executive counsel. The mike is yours.

1 MR. IRBY: Great. So we sent you this report this 2 3 week, and we just want to walk through that Power Point on the screen to walk through at a high level 4 the contents of the report, and then open it up for 5 questions. I'm going to talk through a little bit 6 7 about how the study came together, the background, 8 the working group members, and the research that went into it, and then Blake will walk you through, 9 10 uh, really the summary of findings that you'll find 11 as -- as the guts of the report. So, as many of you know, in 2011 --12 13 MR. REONAS: 14 Sorry, Seth. One quick announcement. So 15 we do have copies of the Power Points. We were having some technical difficulties with our other 16 17 projector and screen, but we have it projected there and everybody has copies of the presentations 18 19 as well. So. 20 MR. IRBY: 21 As many of you know, in 2011, the sale of 22 surface water out of state to Texas was considered 23 by the State of Louisiana. At that time, after 24 much research, they decided not to pursue that 25 sale. But in 2018, in January of 2018, this

Commission passed a resolution to form a working group to further study the possibility, implications, and mechanisms for the out-of-state sale of publicly owned surface water in Louisiana and provide recommendations to this group. So we've worked over the last six or eight months to do so.

8 And one of the first things that this 9 group did was narrow the focus to the Toledo Bend 10 area. Because of the proximity to Texas and the 11 likelihood that that's where this will be coming 12 from, the group decided to focus on that body of 13 water.

14 You'll see on the screen the members of 15 this working group. Many of them spent a lot of 16 time outside of our primary meetings, providing 17 research and commentary that went into the development of this report. We had a diverse 18 19 group, we had many different backgrounds, and we 20 felt that it gave us a comprehensive look at this 21 issue.

So the scope of work, we started with research. We looked into all of the current bodies of work on this issue and asked working group members to provide that research. And we met four

1 times, in February, in June, in September and in 2 November. And each time, we would dive into 3 several key questions that we wanted to tackle, and then research took place between meetings with 4 working group members communicating via email. 5 Big thanks to Mr. Mark Davis, who 6 7 provided a lot of outside research and a lot of 8 help to our team as we went through this process. So, you'll see some key questions in the document 9 10 towards with the beginning that we really focused 11 on. We broke them up into four different 12 categories: Process, legal, impacts, and benefits. 13 And the working group sought to find answers to 14 each one of these questions. We assigned them out 15 based on the experience, um, and really interests 16 of the working group members, and the working group 17 members came back to the group and provided their proposed answers. As we got into the last several 18 19 months we started to narrow down that list of 20 questions, and the answers to those questions are 21 really where you find the -- the recommendations in 22 the report.

Before I turn it over to Blake, just a quick look at the outside research that we considered, most of which was the survey of law

1 from other states and a lot of the research from 2 Mark Davis and his students. But as you'll see, 3 very helpful facts on Toledo Bend, and thank you to Mr. Founds for helping us through that process. 4 5 Blake? MR. CANFIELD: 6 7 Thank you, Seth. 8 So, my name is Blake Canfield, executive counsel for the Department of Natural Resources, 9 10 and I'm going to do my best to go through the 11 report's findings, give a summary, and -- and starting off, we have a breakdown of some of the 12 key findings. These are the legal limitations and 13 14 requirements for a sale out of state out of Toledo 15 Bend; procedural requirements associated with such a sale; minimal water level and downstream release 16 17 requirements; benefits of the potential sale; a term on the potential sale -- in other words, the 18 19 time period for which a sales agreement would be 20 good for; precedential value, what maybe effects 21 would this have on other water bodies on future 22 sales proposals within the state; and finally, 23 documentation supporting whatever decision the 24 Sabine River Authority comes to. 25 Starting with the legal limitations, um,

1	I think it's important to recognize that
2	Louisiana's law is is somewhat sparse when it
3	comes to either statutory or case law dealing with
4	sales of surface water. Likewise, most other
5	states do not have any anything comparable to a
6	water sale as such.
7	That being said, we have done our best to
8	identify where the law is unclear, where is law is
9	unclear. We've done our best to draw analogies to
10	similar decision-making processes within the state,
11	as well as how other states, other jurisdictions,
12	handle surface water transfers for non-riparian
13	use.
13 14	use. To begin with, the surface water is
14	To begin with, the surface water is
14 15	To begin with, the surface water is defined as a public thing under Louisiana law.
14 15 16	To begin with, the surface water is defined as a public thing under Louisiana law. This is Civil Code Article 450. And as such, it's
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14 15 16 17 18 19 20 21 22	To begin with, the surface water is defined as a public thing under Louisiana law. This is Civil Code Article 450. And as such, it's also subject to public use. The I think the key is that Louisiana law, despite it being public, has consistently recognized certain nonpublic uses of surface water. Most notably, because Louisiana is a riparian state, the most notable example of this would be riparian use. So under Louisiana law,

recognized as providing a public good, or something
 of public value to the state.

3 It also historically makes sense because, you know, not long ago, agricultural uses were 4 probably the primary and main use that we would 5 associate with surface water use. So that is 6 clearly allowed under Louisiana law. An additional 7 8 example would be, um, water use for, you know, municipal supply. In New Orleans, for instance, 9 10 water has been taken from the Mississippi River for 11 a very, very long time. Again, there was a public good or a thing of public value associated with 12 13 that use.

14 So that is kind of the big picture of 15 where Louisiana law -- how Louisiana law treats 16 transfers and use of surface water.

The Sabine River Authority is actually very unique. They are specifically authorized to sell water from the Toledo Bend reservoir, and it specifically says to sell either in state or out of state, uh, that water. They are also allowed to control it for transfers, for conservation, for other uses as well.

Because there, again, is not a ton of clarity within the law, either statutory or case

1 law regarding limitations, you know, we have looked 2 at other states, and in so doing we found that 3 Sabine River Authority is the, um, is the primary -- about the only example we could find of 4 such an authority to sell the surface water. 5 Again, looking to other legal 6 7 jurisdictions and how they have treated these types 8 of sales, we have found many considerations. Types of challenges to water sales, we have looked at 9 10 those and have highlighted those areas and what the 11 courts have found in other jurisdictions regarding transfers and use of water. And hopefully, through 12 13 highlighting these considerations, it will help 14 both the Sabine River Authority of Louisiana as 15 well as the other decision makers in this process, 16 the Water Resources Commission being one of those 17 decision makers, to identify areas that we need to be aware of, potential legal challenges that may 18 19 arise if a water sale is approved by the Sabine 20 River Authority. 21 Here is a list of some of these 22 conditions. These are, again, primarily conditions 23 that we found are -- run across all riparian states. And one of the sort of common denominators 24

25

for all riparian use is the finding that the use

1 has a beneficial purpose, there's a beneficial 2 purpose to the water transfer. 3 And again, this goes back to this idea of public value. Most states will allow, you know, 4 riparian use, again, because of the public value, 5 so long as it's reasonable and does not damage the 6 7 resource and does not negatively impact downstream 8 riparian users. So, that is very similar, I think here, that you have to have some sort of beneficial 9 10 purpose, it has to be some type of reasonable use. Another consideration, this is specific 11 12 to the SRA, would be that it be consistent with 13 SRA's public purpose, as well as legal authorities. 14 If you, you know, go through -- I'll try to get the 15 exact citation, Revised Statute 38:2325, it lays 16 out many of the public purposes and -- as well as the authorities of the Sabine River Authority. So 17 to the extent that the transfer helps support those 18 19 purposes, that's going to be a positive, um, for, 20 um, you know, supporting a -- a proposed sale. 21 Next, coordination with state natural 22 resource agencies. As I'll discuss a little bit 23 later in this slide, the Public Trust Mandate, the 24 requirement that we protect and conserve 25 environmental and ecological resources of the

1	
1	state, I highly strongly suggest that we need to
2	work with the other state resource agencies when
3	coming to the decision. And so the Sabine River
4	Authority, working with agencies such as DNR, DEQ,
5	DHH, you know, with Wildlife & Fisheries, would be
б	very helpful, just so that it can be shown that
7	we're making sure to meet the public mandate
8	requirements, the protection of the environment,
9	uh, environmental requirements.
10	Other considerations. And these are
11	considerations that are both found in Louisiana
12	case law and in other states who are looking at
13	impacts of any type of withdrawal or any type of
14	transfer on existing water users. That term,
15	"water users," should be considered pretty broadly.
16	So this would not just be other people that are
17	transferring the water out similar to a sale. This
18	could be members of the public recreationally using
19	Toledo Bend, it could be businesses that rely on,
20	you know, customers who recreationally use Toledo
21	Bend. It could be all the many things that SRA
22	does, you know, the benefits that SRA provides. So
23	looking at it from that type of, um, perspective, I
24	think it would be important.
25	You know, finally, one of the benefits

1 that was definitely identified is, uh, for a 2 potential sale out of the Sabine River Authority, 3 is a potential funding source. And insofar as that is your primary or your only benefit, then one of 4 the questions that would likely be asked in a legal 5 challenge is whether or not the Sabine River 6 7 Authority has considered alternatives for revenue. 8 So being able to answer these questions, having considered these questions, you know, we believe to 9 10 be very important. 11 Moving on to the public trust that the 12 state has, in Article IX Section 1 of the State 13 Constitution, the state -- well, first off, water 14 is among the things that the state is required to protect, to conserve, and to replenish to the 15 16 degree possible. And in addition to the public 17 trust mandating supporting many of those considerations that I just went through, there is a 18 19 line of Supreme Court cases and appellate court 20 cases in Louisiana, all flowing from the Save 21 Ourselves decision by the Supreme Court, which sets 22 for what are known as IT factors. And IT is the 23 name of the company whose permit was challenged in that Save Ourselves case. And to summarize it as 24 25 much as possible, the case essentially requires

1 that there be a finding that the -- any impacts to 2 the environment or ecological resources of the 3 state are outweighed by non-environmental benefits, social and economic benefits. But breaking it down 4 5 a little bit more specifically, the case requires that the governmental entity that's making the 6 7 decision on whether to go forward with a project, or in this case with a transfer, has to determine 8 that that transfer is going to avoid real and 9 10 adverse environmental impacts to the maximum extent 11 possible; two, that it -- there's a cost-benefit 12 analysis, essentially, again, where the benefits 13 outweigh the environmental and ecological impacts; 14 and three, that there are no alternative projects 15 or sites or mitigating factors that are measures 16 that could be put into place, um, that would offer 17 more environmental protection without unduly curtailing the benefits. So that is a very, I 18 19 guess I'd say more specific requirement, one that 20 we feel more strongly about because it has been 21 upheld and put forth by, uh, many iterations by Louisiana's courts. 22

Finally -- and I know this is not the answer that any of us wanted. I think when we started, we had hoped that it would be a lot more

1	clarity on this issue, is the fact that there's
2	continuing legal uncertainty. As I started off,
3	when I mentioned the fact that the law is sparse,
4	as you know, many of the laws that do exist in
5	Louisiana are untested. There's not a ton of case
6	law on the statutory provisions that do exist
7	regarding, um, transfers and specifically sales of
8	surface water.

9 The two issues I kind of wanted to touch 10 on, to continuing with legal uncertainties, are, 11 one, as many of you probably know, the State Law 12 Institute created a Water Code Commission, and this 13 committee -- I'm sorry, Water Code Committee, is 14 tasked with studying and recommending comprehensive water law for the state. And that work is 15 16 currently ongoing.

17 And so, I think you can -- you need to be aware of it for two reasons. One, anything that's 18 19 said in this report obviously will be affected by 20 changes to the law that may come out of that 21 committee's report. Two, when the committee comes 22 out with its findings, with its recommendations, it 23 will likely provide additional guidance, for this 24 very issue.

25

And secondly, another issue that was

1 brought up, and in fact in our last meeting, was, 2 you know, whether or not there is a distinction to 3 be drawn with waters that are within a reservoir, stored within a reservoir, as opposed to waters 4 5 that are, you know, in a river that is not dammed, you know, in -- in, I guess, a more natural 6 7 setting. 8 And we did look through the case law and the statutory law and could not find such a 9 10 distinction. The law is essentially silent on 11 that. And we, you know, do not think that the fact 12 there is a reservoir makes the water a private 13 thing. It's still a public thing. But I would say 14 that there is, um, you know, reason to believe 15 because of the highly regulated nature of the water 16 that's within Toledo Bend, the vast amount of data 17 that Toledo Bend -- you know, water on Toledo Bend we already have, suggests that the Sabine River 18 19 Authority may be further along with collecting the 20 kinds of information you would need to support a 21 decision than is the case with most other 22 waterways. So that is something, too, that perhaps 23 deserves additional study. 24

24 Procedural requirements, um, so, the
25 Sabine River Authority of Louisiana is the one that

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1	ultimately has to initially approve or make a
2	decision regarding a water sale, an out-of-state
3	water sale. They have to approve, even if it's not
4	a sale, if it is some sort of agreement for
5	utilization or transfer, that's where it starts.
б	After that, the law requires that the Sabine River
7	Authority's decision find concurrence from the
8	Governor, the Senate Committee on Natural
9	Resources, House Committee on Natural Resources and
10	Environment, the Water Resources Commission, and at
11	least two-thirds of the governing authorities of
12	the parishes within the territorial jurisdiction of
13	the SRA.
14	As I said previously, you know, we hope

As I said previously, you know, we hope 14 15 that this report provides all the different variables and considerations that need to be taken 16 17 into account. And we do think, to the extent that 18 the SRA is able to document the reasons behind its 19 decision and to have gone through these 20 considerations, that will make the job of all the 21 other decision-makers more -- more easy. But also 22 it will make the decision more defensible.

23 One of the issues that created a lot of 24 back-and-forth is the idea of Fair Market Value. 25 The, uh, several AG opinions, um, specifically

1 state that Louisiana Constitution Article 7 section 2 14 requires that surface water -- because surface 3 water is a thing of value owned by the state, that if it is going to be used for anything other than a 4 public purpose, it has to be purchased for fair 5 market value. One of the issues that was 6 7 identified within the study group is the fact that, 8 um, unlike many other items of commerce, surface water is not a commodity. It is not something that 9 you have a large market, uh -- you know, market 10 11 data on to come up with a determination of fair 12 market value in the traditional sense. 13 The thing I will note, however, is that, 14 you know, even within the statute, statutory 15 language that's adopted the fair market value, uh, 16 you know, language of these AG opinions, and the AG 17 opinions themselves, identify that this decision or this determination shall include economic 18 19 development, employment, and increased tax revenue. 20 And I will suggest that, you know, to a certain 21 degree, that broader definition of fair market 22 value does, at least to me, seem like it is a 23 little bit closer to the public value, the public 24 good, that is required in other states. And so, it 25 -- I think it gives a little bit more wiggle room

1	to consider the other the benefits of a
2	potential sale. But, you know, it is, obviously,
3	a a specific requirement that has to be
4	addressed, and at a minimum, you know, staff, um,
5	for SRA should do their best to try to compare any,
б	you know, existing sales, any past sales, sales
7	history from Toledo Bend, any comparable sales from
8	other water bodies that they identify in trying to
9	determine what would be a fair market value for
10	surface water out of Toledo Bend.
11	A major, um, issue when we were dealing
12	with many, many of these considerations were
13	minimal water levels, downstream release
14	requirements. You know, if we're talking about
15	impacts on interested parties, talking about
16	impacts on the environment or the ecology, these
17	minimal water level and release requirements are
18	going to play a large role in determining whether
19	or not the transfer or sale can be supported.
20	One major benefit I think that you have
21	with the Sabine River Authority is that there is
22	already a FERC license where it has gone through
23	the process of public comments and consideration.
24	They do have a drought contingency plan that's been
25	approved by FERC. But, you know, going through the

1	specifics and the report lays out a lot of the
2	specifics again, thank you, Mr. Founds, for all
3	the information on that you know, it's important
4	that any agreement, um, has the ability from the
5	SRA to either curtail or maybe in extreme cases, to
6	stop withdrawals. Because the sale is going to
7	have to be subordinate to larger public good
8	considerations. You know, the based on the
9	information we provided, it doesn't sound like
10	those types of situations arise very frequently at
11	all. It sounds like they do have plans already in
12	place to do this, but it would be important for the
13	agreement to identify that authority within the
14	SRA, either by itself, SRA-Louisiana, or in
15	conjunction with the Texas SRA.
16	And again, like I mentioned, this
17	agreement should consider and mitigate potential
18	impacts to recreational use of the reservoir. So
19	we talked a lot about the impacts it may have on
20	the environment, the ecology, and and, you know,
21	things that we feel, uh, you know, pretty strongly
22	that it it's already able to do.
23	The item that's a little bit more
24	difficult to determine is who has the vested
25	interest of some sort within the Toledo Bend

1	Reservoir, because that would be constantly
2	changing. You know, the people that live long the
3	reservoir, businesses that are there, change over
4	time. So that is something that has to be taken up
5	at you know, prior to the decision being made
б	for a specific proposal.
7	Benefits of the potential sale. Because
8	we do not have a specific proposal to consider
9	in other words, we do not know who it would be that
10	is purchasing the water, we do not know how the
11	water would be used, we do not know the volume
12	amounts that we're talking about, we're really only
13	able to consider the one benefit that would exist
14	across any and all potential sales, which would be
15	the money that would come from the sale. And that
16	is is not necessarily an insignificant benefit,
17	you know, as, uh, we found. The SRA is looking at
18	such a sale as a potential revenue source. The
19	goal, as it was stated, would be for the SRA to
20	track a large water sale to be shared by both
21	Louisiana and Texas's SRAs, uh, that this would
22	still maintain the water reserve. So in other
23	words, the amount of water that is allocated to the
24	Louisiana side would not all be used up within the
25	sale. You'd have a a water reserve for future

use. And it would also not compromise other
 recreational and economic attributes of Toledo
 Bend.

Additionally, what was stated was, 4 5 essentially, the energy contracts that were there, the long-term contract, the energy generation 6 7 contract, had run out, that there was recently a 8 new contract for five years. And there is concern -- and then that contract covers roughly 9 10 about 50 percent, I think, of the funding of SRA-Louisiana. And so, a major concern is, because 11 12 it's such a short term on this new contract, what 13 happens if it is not renewed for purposes of 14 funding SRA. And obviously, a decrease in the 15 funding for SRA will have -- you know, potentially 16 lead to some extreme impacts on SRA and its ability 17 to maintain the reservoir and the parks and a lot of the things that drive the economy up there. And 18 19 Louisiana's failure to agree to such a sale would 20 not necessarily prevent the Texas SRA in the future 21 from entering into a sales agreement itself.

So one concern or consideration from Louisiana SRA is the fact that they may end up experiencing -- Louisiana may end up experiencing all the negatives of the sale without any of the

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2 know, something that has to be, I guess, 3 reconsidered once there's a specific proposal, because there may be other benefits that could be 4 identified which we're not able to identify at this 5 6 point. 7 Term of an agreement. You know, as was 8 mentioned when we were talking about potential 9 impacts, it's important to have a term. If the, 10 you know, the term -- a reasonable term. If a term is too long, then you may have changes in the 11 12 interested parties and people that are affected by 13 this. And that could, you know, have unforeseeable 14 impacts over time. On the other side, if the term 15 is too short, you may not have any interest in 16 signing a -- for any type of sale due to the amount 17 of money that would have to be invested in infrastructure and the like. It also would 18 19 obviously potentially affect the price that would 20 be negotiated. So the term and renewal structure 21 is very important. And correct me if I'm wrong, 22 but (inaudible), I believe you were telling me that 23 the existing contracts for transfers and sales, uh, 24 with SRA were for about 30 years? Does that sound 25 right? With the ability for, like, three to

benefits of the sale. So it is definitely, um, you

1 five-year extensions.

	-
2	Um, another example just by way of
3	example, I guess I should say, the voluntary
4	cooperative endeavor agreement that is at DNR for
5	water transfers elsewhere, says that those
6	agreements are only for two years, with two-year
7	extensions up until a date certain. I think it's
8	December of 2030? I could be wrong on that but I
9	believe that's the time. So trying to find that
10	balance is going to be difficult. But it's
11	definitely something that needs to be considered.
12	Precedential value. When we were going
13	through this and talking about Toledo Bend being
14	the most likely, um, source of water moving out of
15	state, one of the things that is intriguing, or
16	unique, is the unique nature of Toledo Bend. And
17	so it is subject to an interstate compact. You
18	have the, um, Sabine River Compact, which means
19	it's federal law, and and based on some
20	relatively recent U.S. Supreme Court decisions,
21	being within that compact I think actually protects
22	the Sabine River Authority's ability to regulate
23	the water. So long as it's consistent with this
24	compact, it protects it from challenges to
25	interstate commerce violations on the federal

1 So that is, you know, definitely a plus. level. 2 You know, this reservoir is currently operated, as 3 I said earlier, pursuant to a FERC license, so there is a lot more information, a lot more 4 engineering going on in the management of the 5 reservoir than there would be for many other 6 7 waterways. 8 It provides a boundary between the two states. So I think combining all three of these 9 make it a unique waterway. And then also, because 10 of that uniqueness, it may help distinguish it from 11 12 other proposals that you have in other waterways. 13 One of the concerns would be the unforeseen consequences. You know, if a sales 14 15 agreement is entered into by the Sabine River Authority, that probably will be used by someone if 16 17 they want to propose a sales agreement out of Mississippi or out of other waterways. So we felt 18 19 it was very important to be able to document what 20 distinguishes a proposed sale out of Sabine, and 21 specifically out of Toledo Bend, from other 22 waterways so that we can retain as much as possible 23 for the state ability to regulate waters elsewhere. 24 So in summary, you know, there are 25 several legal requirements, many legal

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1 considerations. There's a lack of clarity, as we 2 mentioned earlier, on many of the topics. The Fair Market Value determination is -- is not going to be 3 an easy one, but it's, you know, one that has to be 4 grappled with. The benefits of the sale need to 5 outweigh any potential negative impacts to the 6 7 environment or to ecology. Reasonable term limits 8 on an agreement needs to be placed. A clearly stated authority of the SRA to either curtail or 9 stop sales or transfers is needed in the event that 10 11 you have some overarching, um, public concern that 12 is being affected. You know, the one that 13 obviously pops to mind is a severe drought. That 14 would need some sort of the immediate response. 15 And I, you know, again, mention 16 documenting, um, the decision. Being able to 17 support the decision is paramount, both for it to be legally defensible, as well as it to be 18 19 distinguished from potential proposals in the 20 future, and to retain the state's ability to 21 regulate water transfers or use in other watersheds 22 and even within Toledo Bend, going forward.

23 So, with that, I'd be happy to answer any 24 questions.

25

MR. HARRIS:

1	Thank you, Blake. Thank you, Seth. I
2	would like to point out, I think that was a great
3	description of what this report is. I would like
4	to point out a couple of things that the report is
5	not. It's not a decision, it's not a determination
б	of whether or not the state should sell surface
7	water out of state. It doesn't take into account
8	any, um, of the specifics of any potential future
9	sale.
10	But what it is, is, um, a resource
11	document for decision-makers, including this body,
12	House Natural Resources, Senate Natural Resources
13	and the Governor's Office, to have all of the
14	that we could find all of the potential legal,
15	technical, or public policy questions that should
16	be considered when evaluating the specifics of a
17	potential sale of Louisiana surface waters. It
18	does make some recommendations on important factors
19	that should be considered, and potential legal
20	obstacles that may need to be overcome.
21	But, again, thank you for thank you
22	and thank all of the members who participated, um,
23	and made this, hopefully, a success.
24	Any questions? Chris?
25	I don't know if anyone can operate this

1 better than I can. I hit the "all mikes on." 2 MR. KNOTTS: 3 I'll just talk loud. I have two issues. The first one I'll 4 ask, and I'll ask Mr. Founds if you would correct 5 me if I'm wrong. But the SRAs of both Louisiana 6 and Texas have a built-in compact to sell excess 7 8 waters, (inaudible) excess water. I don't know if "excess" has ever been defined. 9 UNIDENTIFIED SPEAKER: 10 11 We have (inaudible) annual yield and firm 12 annual yield. The firm annual yield is about two 13 million acre-feet. So each half, we just say 14 normally we have about a million acre-feet that 15 Louisiana could sell or that Texas could sell. 16 Average annual yield is about four million 17 acre-feet. Firm yield is what you would have in a period of drought. You know, that you would be 18 19 able to sell. And -- and so, I guess one of the 20 unique -- I heard you, Blake. (Inaudible), and the 21 word "unique" came several times. And it is 22 unique. You know. But, I don't want to get into 23 your part Chris, but, we do have --24 UNIDENTIFIED SPEAKER: 25 That -- and that's what the Sabine River
1	Compact is. It assures the competing sharers of
2	the waters, once it hits the state lines, between
3	Texas and Louisiana, that Texas and Louisiana share
4	equally.
5	MR. KNOTTS:
6	My point was, this study focused on our
7	share of that excess and the and Texas we know
8	can take their share.
9	MR. CANFIELD:
10	Correct. Yes, so, obviously we did not
11	seek to, uh, you know, look into or research the
12	Texas authority. I do know that they have, um, you
13	know, more laws, tighter regulations generally.
14	Not necessarily talking about Sabine, but just
15	generally, regarding water use and water
16	regulations. So, yeah, this focuses solely on the
17	Louisiana share, the Louisiana allocation of the
18	Sabine.
19	MR. KNOTTS:
20	So, I know you specifically said it was
21	focused on Toledo Bend, but I I can think of two
22	instances, one in the Houston area, and I can
23	remember a second one where Texas came to try to
24	get Mississippi River water through Louisiana.
25	More recently, and I can remember this because we

1	
1	had a coordinated response, they went through the
2	state of Arkansas and then asked just above the
3	state line to pull over all because the last
4	two, I believe I know the Sabine River and the
5	Arkansas one, maybe the last Texas one, I can't
6	remember were off the Dallas area. In
7	engineering circles, it's well known that Dallas
8	intends to get to Toledo Bend by 2050 or sooner,
9	and have a series of reservoirs north and south of
10	a conduit line. That's where that Arkansas water
11	was going. And did anything in the research lend
12	some light as to what our legal response could be
13	to stop them from pulling Mississippi River water?
14	Even if it goes through Arkansas.
15	MR. CANFIELD:
16	Right. So, you know, one of the reasons
17	that we focused specifically on the Sabine River
18	Authority, and despite the fact that I mentioned
19	all the unknowns, was that there are more
20	(indiscernible) than Sabine, that you do have that
21	compact that gives you a little bit more clarity,
22	um, especially regarding interstate commerce.
23	But the there's still a requirement
24	for several levels of approval for any out-of-state
25	transfer from Louisiana. The challenge, I think,

1 you know, as far as the scenario you brought up 2 with Arkansas, is that it's not something we would 3 directly be able to effect through some type of regulatory process. It would have -- likely have 4 5 to be in that case some type of, like, lawsuit to try to fight that. 6 Yeah. 7 MR. KNOTTS: 8 Right. Yeah. And so Arkansas, just through the relationship with other water-based 9 10 commerce compacts, reached out to us, but, you 11 know, if I'm pulling the water -- somebody's 12 pulling the water out above me, it's a resource I 13 don't have available to me. And I know Mark and I 14 have talked about this several times. We don't 15 really have right now -- I don't think we have a 16 real good, tight plan to defend that. 17 MR. CANFIELD: Yeah, the Mississippi --18 19 MR. KNOTTS: 20 Yeah. 21 MR. CANFIELD: 22 I couldn't disagree with you. I don't 23 know if --24 MR. KNOTTS: 25 We're not going to solve anything.

1 UNIDENTIFIED SPEAKER: 2 And, where the flows hit in the 3 boundaries between Texas and Louisiana, it's only 36 feet per second or something. You know, so it's 4 a small amount. And that's what kind of -- but 5 that small amount is what governs all of this 6 7 stuff. 8 UNIDENTIFIED SPEAKER: So if I could, Mr. Chairman, I want to 9 10 make a motion, or you want to keep discussing about it, we can -- there are a couple of things I'd say. 11 12 MR. HARRIS: 13 I think we have a few more questions. 14 UNIDENTIFIED SPEAKER: 15 Why is Texas not using their water, their 16 share, why they want to buy ours --17 MR. CANFIELD: So there are -- and this is me definitely 18 19 going beyond my level of expertise, so a huge grain 20 of salt understanding of this, is, is Texas law 21 regarding water transfers, to transfer water 22 outside the basin the surface water is coming from 23 requires, um, I guess, permitting or approval above 24 and beyond what would be required within the base, 25 the reservoir, or the basin. And so, it sounds

1	like it's just way more difficult, if not
2	impossible it may be like if you read the
3	law, it says you can do it and you have to jump
4	through all these hoops, but it also sounds like
5	maybe in practice, it's nearly impossible. And
6	there is some talk, though, of that law being
7	changed or revised in the future. But I'd be happy
8	to be corrected by anyone more knowledgeable.
9	UNIDENTIFIED SPEAKER:
10	But I mean, it's not an infinite thing.
11	If we don't do it, Texas will.
12	MR. FOUNDS:
13	I think it is in their plans. Toledo
14	Bend is a water conservation project for them.
15	They will enact and Chris, maybe you've heard
16	this before, I think you mentioned it. 2050 is
17	probably by 2050 before they come to Toledo and try
18	to use it as a (inaudible). So, several things we
19	we can go on and on and on about this all day,
20	but, um, Texas does use part of their water. They
21	don't use as much out of the reservoir as Louisiana
22	does. We sell about 27,000 acre-feet a year on the
23	Louisiana side. And the bulk of that is it to two
24	industries. It's, um, International Paper is a box
25	plant, and then we have the Cleco (inaudible)

1 plant, that's an energy plant, that takes the bulk 2 of the water out of the -- from the -- you know, 3 it's about 80 percent of the water sales out of Toledo Bend for Louisiana. And then, um, they have 4 about 3,000 out of Toledo Bend. So we're probably 5 about ten times more. The amount of water is 6 7 minuscule compared to, we're talking about 8 (indiscernible), it's miniscule to what's in Toledo Bend. This firm -- firm annual yield. And then 9 10 down below a diversion canal, we have a diversion 11 in the southwestern part of the state. We take 12 about twice as much there from selling to industry 13 as what the Texas side of it. So they are taking 14 their share, they're just taking with -- but this 15 amount is, you know, just a small fraction of this 16 firm annual yield.

17 A couple things I would like to say, just for so the commission knows, and certainly the 18 19 audience, this focused -- I'd like to -- once 20 again, you did a great job talking about it. We 21 narrowed the -- I think the focus was going to be a 22 statewide deal but we narrowed it to Toledo Bend 23 because the obvious sale is going to be to the west 24 of us. It's probably not going to be to 25 Mississippi or Arkansas. So the easiest place to

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1 get it would be a reservoir. Somebody that is 2 holding it, that has it, and in quantities that you 3 could build pipelines and get to it and all that. So, that's probably why we, you know, narrowed the 4 focus to Toledo Bend. And of course you mentioned 5 several times that we're under FERC license, which 6 7 is, you know, a lot of these things we're talking 8 about, environmental impacts and all this stuff, we're in bed with ourselves now. We're in bed with 9 10 Wildlife & Fisheries. We don't do anything without going through all these -- these -- one point I 11 12 want to make is Sabine River Authority is a 13 self-funded agency, so we operate on the funds that 14 we're able to drive. We don't come to Baton Rouge 15 asking for funds. So, I'm sure -- I wasn't there 16 when this past water sale came and everybody looked 17 (inaudible), you didn't worry about whether or not you had power sales from Toledo Bend. You could 18 19 operate everything you need to with water sales. 20 That didn't go through. Our power sales right now 21 are, um, like you said, Blake, about 40 percent of 22 our revenues to operate the authority. Water sales 23 are increasing. And, um, again, all of our decision is then on a water sale out of Louisiana. 24 25 We don't have this for a water sale in Louisiana.

1	We just, we just go to the table and say here's our
2	price, and we sell it. You know, that's the way we
3	do it every day. Been doing it for 40 years,
4	selling water. But, um, I did want to make those
5	two points. And the point about of us asking is
6	there a difference between stored water and running
7	water because there is certainly a price to have
8	stored water. A FERC license is a price at close
9	to a million dollars a year, that somebody has to
10	come up with and meet all these obligations and
11	stuff.
12	So, the river authority would look to
13	this as a sale. I think we've learned a lot this
14	past year of, you know, if there ever was a sale
15	again, if there is or someone comes from the
16	other side of the river and asks for it, I think we
17	got a good group working here. I'm certainly glad
18	to see that it's here with the people that have the
19	knowledge to deal with it. I think there are a lot
20	of legal issues that have been brought up through
21	the years. 50 years ago I think that the folks
22	that were sitting down here when we created the
23	river authority, they gave it totally to the body.
24	And through the years it was changed to what we
25	have today, with this list of people that would

1 have to approve any water sale. And I'm not saying 2 that's bad. I think certainly having a Water 3 Commission is good thing. Um, but, um, those were just a couple of points. 4 5 I think the deal about having the reservoir, with the stored water, there is a price 6 associated with that. The stored water is also 7 8 what feeds our diversion canals now, both on the Texas side and the Louisiana side. So, the Sabine 9 10 River Diversion Canal would only be good when the 11 river had water in it. Fifty years ago, so if you 12 were in a drought, those companies would have to 13 find water somewhere else. We do control the 14 Sabine River now from the dammed water. We keep it 15 at whatever level we want to keep it with, with 16 this stored water. So, the benefit to the state, 17 certainly, is obvious. You know, anybody that is in South Louisiana and sees a new plant going in, 18 19 that's -- it's there because they have the water 20 available to it. 21 So, again, we can go on and on about 22 this. 23 Mr. Chairman, I would like to make a 24 motion that we accept this report. 25 MR. HARRIS:

1 And at the appropriate time. Thank you. 2 I believe we have a couple more questions, I 3 believe, Mr. Davis? 4 MR. DAVIS: 5 I just want to make a point of clarification, because the question was raised 6 7 about the Mississippi River and also why Texas 8 doesn't use their own water for this. Um, those, quite frankly, have to be answered. And the 9 10 question about Texas is because Texas law wouldn't 11 allow interbasin transfers of this sort right now. 12 That could change. But also, the only sale we've 13 ever seen proposed was the one a couple of years 14 ago. And that was not the state of the Texas. 15 Those were water brokers. Private people who 16 wanted to buy water so they could sell it as a 17 commodity. Texas does not allow it. No state that I am aware of allows that because that is a 18 19 speculative purpose. Public purpose -- and, you 20 know, wide definitions of that. And I think that's 21 an issue that we would have to deal with. So if 22 Texas came to us with a deal to make, my guess is 23 there's some -- there's greater latitude. But when 24 somebody wants to come and essentially privatize a 25 public resource, those are different rules. And

1 that's one of the reasons that -- it was easier to 2 come to Louisiana, where there's less law, less 3 history, and ask for our half of the Sabine to mark it as a commodity than you could in Texas. I don't 4 believe Texas would have allowed it. 5 Also, the issue of the Mississippi, I 6 7 mean, for example, interbasin transfers in Arkansas 8 are allowed with surplus water, however you define that. They do not have a mechanism for declaring 9 10 surplus in the Mississippi, in part because it's 11 such a -- it's a national river. So that proposal would likely not go much of anywhere. But it's 12 13 there for a reason, to essentially flush out the 14 conditions upon which water brokering might begin. 15 And that could happen in Louisiana. And it doesn't 16 have to be a pipeline and it doesn't have to be 17 Texas. Keep in mind the Great Lakes ended up with a compact in 2008 because of a proposal for tankers 18 19 to come in from around the globe, fill up, and 20 leave. And they wouldn't get paid a penny, really. 21 So I'm just saying that you have to -- the 22 fundamental thing that we should always keep in 23 mind is, why is it valuable? And if it's valuable 24 enough for someone else to go to this trouble, then 25 maybe we should ask why is it not more valuable to

1 us? Or are we putting the right value on it. 2 Texas covets water and -- and our rivers, in part 3 because they need water to grow. Water for agriculture, water for industry, and without water, 4 5 they can't grow. Some of you may or may not be aware of it, but about three or four weeks ago the 6 7 state of Utah got a letter from Moody's, the bond 8 rating folks, saying, You're a really strong state, great financial fundamentals, but you are growing 9 10 beyond what we think your water budget allows, and 11 we're starting to worry that you're growing beyond 12 the ability for you to repay bonds because there 13 won't be enough water there to sustain your growth. 14 They either will stop growing or start 15 conserving more, or they're going to import water. 16 Those are the things we just need to know. We have 17 a natural advantage and we have -- again, these laws do not compel wisdom. But they do compel at 18

19 least an ordered approach to thinking about things 20 that public -- that are fundamentally public. And 21 that, I think, is what we always have to keep in 22 mind when we are hearing these proposals. And one 23 is in a very special spot, because they are 24 required to generate their own revenue. And if 25 that's the hand we've dealt them, we can't except

1 them not to play it. That's part of the 2 conversation I think the rest of the people of 3 Louisiana have to think through, is our -- are the ways we're approaching it, do they make the most 4 5 sense? So I think this is one of the things that 6 7 is on the table. I mean, Pat Forbes will tell us 8 about the Louisiana Watershed Initiative, which is another -- and again, the work that the Louisiana 9 10 Law Institute and my shop are doing with the water 11 code, all look at these things. But I just wanted 12 to give you an idea of why the Mississippi is in 13 play. Let's be very clear about that. The 14 Mississippi river is in play in the minds of many. 15 And there's a difference between a sovereign coming 16 to us and asking for water for a clearly public 17 purpose and essentially a private interest trying to privatize it. And that is one of the reasons, I 18 19 think, as Blake noted, you have to understand the 20 fundamentals of each proposal. The answer isn't 21 always the same, but the questions you have to 22 answer are. Thank you. 23 By the way, thanks for the holiday cheer. 24 MR. HARRIS:

Are there any other questions or

25

1 comments?

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MR. FORSMAN:

3 I just want to comment, there are several stakeholders identified in the report, and they 4 should be considered for any decision. I didn't 5 see anything about supply in there. And we have, 6 7 in the two parishes, we have over 25,000 people 8 that depend directly on the Toledo Bend reservoir for the drinking water and five public water 9 10 systems. And only one of those can partially supplement the groundwater. I think that is pretty 11 12 important as far as a stakeholder group. If 13 something would happen to the resource, they have 14 to move. It's as simple as that. Or we'd have to engage in some other large-scale water (inaudible) 15 16 operations. And I would hope that is in the 17 report, as well as a guidance document for decision making. 18 19 MR. HARRIS: 20 Thank you. Karen? 21 MS. GAUTREAUX: 22 And I want to commend all of the people

who put together this report that indicates the complexity of all of these issues. It's a great job of explaining the many things that had to be

1 looked at. One of the things that -- I think Blake 2 had said in your overhead, sales outweigh the environmental benefit. And I think the 3 environmental benefit must outweigh the sale. I 4 mean, the overall benefits. 5 One of the things that I think we keep 6 7 coming back to is that issue of access, in terms of 8 what is the access to the state. And I know the example of the Sabine River, um, we know that 9 10 little tweaks -- that area is not, um -- doesn't 11 have the benefit of a lot of rivers flowing through 12 it, and a little tweak upstream could have 13 environmental impacts. And we know that the oyster 14 population is an example. We would be happy to 15 help with any of the tools that we have to look at 16 those flow issues. 17 Again, I'm really glad that this report points out the many considerations that have to be 18 19 taken. And also, I was thinking from the budgetary 20 standpoint, also I agree with Mark, if this is 21 driving sales and (inaudible), we have a duty to 22 look at how that public resource is funded. 23 MR. HARRIS: 24 Thank you, Ms. Gautreaux. Are there any 25 other questions from board members?

1 MR. DUPLECHIN: 2 I have one comment. I'm glad that this 3 Commission decided to finally go ahead and address this problem. As most of you know, I used to work 4 for Dallas Conservation. And back in about 2005, 5 some individuals in the Dallas area approached the 6 7 Department of Environmental Development. Giving 8 y'all all the money in the world for the water in Toledo Bend. And we figured it out, and it came 9 10 out to pennies for a million acres, over a 50-year 11 period. And ultimately, the state decided not to 12 pursue this. They rattled their (inaudible), said 13 they had gone to the, um, some of the big players 14 on some other things, and said, um, We told the 15 mayor of Dallas we didn't get our way with this new 16 stadium, we were going to change the name of the 17 team to the Arlington Cowboys. So. But unfortunately the state didn't 18 19 knuckle under. Louisiana didn't knuckle under. 20 And earlier, as Mark said, they're looking to get 21 water out of the Toledo Bend to send down to 22 Houston. Big water (inaudible) in Houston. But 23 I'm glad we've finally moved ahead with this and 24 are looking at it as an issue (inaudible). 25 MR. HARRIS:

1	Any other questions or comments? Are
2	there any questions or comments from the public?
3	Hearing none where we are right now, we have a
4	motion on the floor to approve this report as
5	filed, um
6	MR. STOSHAK:
7	I second.
8	MR. HARRIS:
9	We have a second. All in favor, signify
10	by saying aye.
11	BOARD MEMBERS:
12	Aye.
13	MR. HARRIS:
14	All opposed?
15	The motion carries. Thank you.
16	LOUISIANA WATERSHED INITIATIVE
17	MR. HARRIS:
18	Our next agenda item is Patrick Forbes,
19	Louisiana Office of Community Development. He's
20	going to give us an update on the Louisiana
21	Watershed Initiative.
22	Good morning, and thank you, Mr. Forbes,
23	thank you for being here.
24	MR. FORBES:
25	Good morning. Thank you for having us.

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     Is this on? Y'all hear this?
 2
          MR. HARRIS:
 3
               To the best of my ability to turn it on,
 4
    yes, it is.
 5
          MR. FORBES:
               Okay. I'm joined by Alexandra Carter,
 6
 7
     who leads the Watershed Initiative for us.
                                                  I'11
 8
     just talk a little bit until slides start showing
     up up there.
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10
               As everybody here knows, the state was
     whacked in 2016 by two major floods that impacted
11
12
     56 out of 64 of our parishes with presidential
13
     disaster declarations. Shortly thereafter, the
14
     Governor got several of our agencies together and
15
     said, We have to do a better job of managing flood
16
     risk.
17
               We have been talking and working since
     then to accomplish that objective --
18
19
               It sounds like I'm on a microphone now.
20
     All right.
21
          MR. REONAS:
22
               Yeah, sorry about that.
23
          MR. FORBES:
24
               And -- oh-oh. Okay.
25
          MR. REONAS:
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1	Is that good?
2	MR. FORBES:
3	That's good. I'll just move my head
4	back.
5	And so we have been working to accomplish
6	that objective. One offshoot of that, one result
7	of that, is the Louisiana Watershed Initiative.
8	The purpose of the Watershed Initiative is is
9	multifaceted, but it is primarily to reduce flood
10	risk for the state, to ensure the continued natural
11	function of the waterways in the state while we do
12	that; to do that economically, efficiently, and
13	wisely; and to move the state towards managing
14	flood risk on a watershed basis rather than our
15	current approach, which is a jurisdictional basis.
16	Thank you. So, that concludes my
17	presentation.
18	(Chuckling)
19	So, why a watershed initiative? I've
20	touched on this already. We really can't
21	reasonably expect to manage flood risk around
22	jurisdictional boundaries. Water does not respect
23	jurisdictional boundaries, as we all know, if I'm
24	stating the obvious. And so we're going to have to
25	start working together on that, in ways that we

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1 haven't in the past, quite frankly, if we're going 2 to manage flood risk appropriately and efficiently. You can look at some jurisdictional 3 boundaries we have in the state, alongside some of 4 our watershed boundaries. On the left, you can see 5 the Regional Planning Commissions. Not a terrible 6 7 match, but it's certainly not perfect. And then 8 you can see the parishes on the right. And it becomes quite clear that we're going to have to 9 10 work a lot more closely together within these 11 watersheds if we're going to be effective at doing 12 this. 13 Our mission, again, reducing flood risk 14 and improving flood plain management across the 15 state, including maximizing the natural and beneficial functions of the flood plain. 16 17 So we have sort of a dual approach to this right now. First, aligning all the pieces 18 19 that are in place. And of course, that is where 20 the state agencies that the Governor has tasked 21 with this, which I will say are Transportation & 22 Development, Mr. Knotts sits on the council with us, CPRA, um, GOHSEP, and Wildlife & Fisheries. 23 24 And we are also engaged in other, uh, obvious 25 partners, DEO, reaching out to Aq & Forestry, FPNC,

1	all of whom are spending money on things that
2	impact this. And that goes to this alignment,
3	looking at not only state resources, but local
4	resources, federal resources, to make sure that we
5	align those and ensure their most efficient use and
6	application. At the same time, we have to move
7	towards this watershed-based approach to flood
8	plain management.
9	Just for purposes of timeline, I will hit
10	a few things here. Alluded to the floods already,
11	to the work we started doing at the Governor's
12	request. In May of this year, um, the Governor
13	actually signed an executive order that created the
14	Watershed Council from those agencies that I just
15	mentioned. And so, we have been working for nearly
16	two years now and and continue that process, and
17	it continues to evolve.
18	Strategic areas of focus. None has
19	priority over the other. Every one is critical to
20	successful implementation of this process, and they
21	are all completely intertwined with each other.
22	Data, I will start with. It has been one
23	of our initial focuses. And that in essence means
24	figuring out what data we have, what the gaps are,
25	what modeling capability we have, what the gaps are

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1 there, and how do we make that more uniform across 2 the state so that local, regional, state, federal 3 agencies are all working together with a common playbook and a common set of facts around what the 4 5 flood risks are. We have, uh -- some areas are obviously 6 7 better than others in terms of what data we have 8 relative to river stages, rainfall, all the different data that we would need to do this work. 9 10 Capability and capacity. Again, this varies widely around the state, depending on what 11 legal jurisdiction you go to, how much capacity 12 13 they have and how much capability they have to take on something like this. You can't do this -- we 14 15 recognize quite clearly we can't do this without 16 having be -- be not only engaged, but led from the 17 local level. So part of this, um, initiative is to build that capacity and capability at the local 18 19 level so folks have tools and resources available to them to make the smart decisions that -- that 20 21 they can make with those resources. 22 Funding. Um, we have, this year, been 23 allocated \$1.2 billion specifically for mitigation 24 of future flood risk. This is based on the 2016 floods. We have yet to receive the guidance 25

1	related to that funding from HUD, so we can't start
2	spending it yet. We can't even present a plan to
3	HUD to start spending it yet, because they have to
4	tell us the rules first. But we know that money is
5	coming. But that's not the reason for this
6	initiative. We got started on this before that
7	money was ever appropriated, because we have to be
8	better at managing flood risk in this state.
9	And there are other funding sources.
10	There are other federal funding sources. Every
11	parish in this state, every city in this state,
12	spends money on trying to manage and reduce flood
13	risk every year. How we marshal all those
14	resources and marshal them through a science-based,
15	engineering approach, that's what makes the
16	difference in helping us get better at this.
17	Integrated planning. We're not going to
18	get anywhere without starting to plan around these
19	watersheds. And that means top to bottom, again,
20	including local, state, federal resources, private,
21	public, it's all hands in the cook.
22	Engagement. Of course, we haven't done
23	this before. This is probably the biggest part of
24	the undertaking so far, is engaging with folks at
25	the local level, at the federal level, in other

1	states, um, so that we can learn from them where
2	they have been, what mistakes they've made. But
3	the engagement piece is really going to be one of
4	the biggest drivers, because this is a mindset
5	change for everybody in the state. So we've got to
6	be able to educate, we've got to give people the
7	resources they need to be able to start making
8	those smart decisions.
9	And then standards. This goes to the
10	data. If we're going to have people trying to

11 manage a watershed together across their 12 jurisdictional boundaries, they're going to have to 13 have some common set of standards that they have 14 agreed to, whether that's standards for the 15 modeling that they do, or the data they collect, or the ordinances that they institute in their 16 17 watershed. So, creating a common set of standards for everybody to use as they see fit, is going to 18 19 be critical.

Existing efforts. We have written an action plan to the best of our knowledge, um, based on what we expect the Federal Register notice to say, but of course we can't finalize that until we get the Federal Register notice. We are working towards statewide modeling. I'll talk to you in a

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1 moment about a listening tour that we just did 2 around the state that was largely focused on 3 speaking with engineering firms, university folks, about the data and models that exist out there now 4 and what their experiences are. Again, data 5 improvement and engagement. 6 7 We went to eight cities around the state 8 in a little over a month. These were all-day meetings, except we engaged in three different 9 10 meetings. The mornings were taken with, um, technical folks, engineers, professors, just really 11 12 hearing from them what their experiences were, what 13 their knowledge is already around the watersheds in 14 which they operate. But then we also talked to 15 local officials, implementation officials, 16 inspectors, folks like that, and then we talked to local officials at the end, because we know the 17 buy-in and contribution from all those folks is 18 19 going to be important. 20 Again, the morning sessions, we made each 21 one a little bit different. And so, um, we had 22 those on, um, webinars, and I think they're still

available -- so that folks can go back and watch

- 24 them. Each one gives a slightly different
- 25 technical angle of everyone around the state so

1 that we can have specific conversations. 2 What we heard on engagement, first and 3 obviously, locals want to be involved in this process. We understand, and the Governor has said 4 from the very beginning that this cannot be a 5 top-down driven approach. It's going to have to 6 7 engage the local folks, and that's clear and 8 obvious for so many reasons. There is a need for that capacity-building at the local level. There 9 10 is tons of local expertise in some places, in 11 others, not so much. And so, again, with capacity 12 building, we've got to make sure that's available. 13 We can't have haves and have-nots across the state 14 in terms of flood management because a particular 15 community or watershed doesn't, um, happen to have 16 the resources available to them, or the expertise. 17 And the jurisdictions were very supportive of the outreach at the local level. 18 19 Next steps. We're pulling everything that we have taken from this listening tour, 20 21 synthesizing that into a report that will help 22 us -- help guide us for what the next steps are. 23 This will be an evolving process; we've never done

24 it before. So this will continue to evolve,

25 continue to require engagement at every level.

Next steps will likely be another round of listening tours, but with individual -including public individual meetings, so we can start together and put -- from folks who live in these watersheds.

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MS. CARTER:

7 I was just going to add for the 8 Commission that we were really successful. Right? So we spent all day with -- with engineers and 9 10 architects and planners, and -- and what Pat is 11 getting at is the first step of this is to model 12 the state. Right? To get all the data on the 13 ground. And before we have the money to do that, 14 we've engaged with all of the people who would be 15 interacting with these models. Right? So we're 16 introducing them to the idea of decision-making at 17 a watershed level. And so, it wasn't just, like, you know, we have this money, we're going to do 18 19 these models, and here you go. You know, it was, 20 we went down at the local level, talked about the 21 models, talked about the initiative, about this 22 transition in thinking. And at every stop, we 23 heard great, great things about what we were 24 proposing. And a lot of times we heard "Thank you, 25 thank you" -- and this is because of the people we

1	were engaging. Right? And largely, it was
2	modelers. It was engineers. It was public works
3	directors. It was planners. And we we have to
4	shift from that. Right? We're going to shift and
5	start engaging with developers and the building
6	community. But we started knowing we needed this
7	group of scientists and the experts in the field
8	that were going to be interacting with these models
9	and making the decisions, or helping to make
10	decisions based on the models' outputs.
11	And so, you know, it's a lot of meetings,
12	but they were really successful. And I think it's
13	going to mean, once we're finished with the models,
14	that they they'll be used. Right? That they'll
15	actually be utilized by locals, because from the
16	very beginning their input was brought in to the
17	process and they feel and I mean, I had people
18	tell me too, "This is like a democracy. You're
19	actually getting our feedback."
20	So it was very successful. It was a
21	laborious effort on the state's part to engage,
22	but and even though it's the first time we've
23	done it, it was very well received. You know, we
24	all understand that there's limits to that, but
25	it's exciting for the state to to be out there

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1 on the front lines talking about, thinking about 2 flood risks at a watershed level and how we change 3 the way we think. 4 MR. FORBES: 5 Yeah, our biggest fear has so far been that this change of approach is going to be 6 7 resisted, because it's a change and people tend to 8 resist change. But this round of listening tours gave us exactly the opposite impression. Everybody 9 that came there said, "This is great. Do more." 10 11 And so it's, um -- it was really 12 eye-opening for us. Now, granted it was a 13 self-selected audience, but, um, still, the 14 response so far has been amazing. 15 MS. CARTER: And I'll just add that we're not naive to 16 17 think that the conversations that we've had with developers aren't difficult. But the idea is that 18 19 the models are going to help to reduce the tensions 20 we already experience between communities and 21 developers. Right? Because you inject truth. 22 Right? And so there isn't as much fear and 23 confusion about the ramifications of local 24 decision-making if we can provide them with the 25 tools to make smarter decisions.

1	So there is a conversation that we think
2	we can have with both sides of the table and find a
3	really plausible, effective middle ground that
4	acknowledges the existing natural environment.
5	MR. HARRIS:
6	My apologies for not properly introducing
7	you, but would you identify yourself, please?
8	MS. CARTER:
9	Yes. My name is Alex Carter. I'm the
10	resilience planning manager with the Office of
11	Community Development.
12	MR. HARRIS:
13	Thank you.
14	MR. FORBES:
15	Okay. Modeling and procurement. As
16	we've been discussing, this is going to require
17	essentially hydrologic and hydraulic models across
18	the state. We're planning to pay for that out of
19	the \$1.2 billion. But how do we go about doing
20	that? It it's not a simple question. What we
21	heard was, um, the folks at the local and regional
22	level absolutely want to be engaged in development
23	and procurement. We understand there are economies
24	of scale to having folks do a larger watershed. We
25	also know that we can't have probably one firm do

1 We also don't want to do 59 different all. 2 contracts and tiny models and worry about how to --3 how to, um, put those together. So, um, this is still a work in progress 4 5 as we move towards how we're going to do this. But this is one of the very next steps for us, will be 6 7 procurement of modeling. We have a model for it, 8 if you will, on the Amite River basin, which we funded a couple of years ago. And that product 9 10 will be out in the next couple of months, I think. Next step will be establishing how we go 11 12 about that at the state/local partnership level 13 to -- to procure those services. 14 On data, um, what we heard was 15 establishing those standards that I talked about 16 earlier, how critical that is, and we're starting to understand that even establishing standards is 17 not simple, because every single topography, as 18 19 it -- as they differ from coast up to hillier 20 country, um, drives some of those -- where some of 21 those standards have to go to. So there's a --22 there's a trick to it. 23 Live model with QA/QC and continued 24 updating. Um, why the data and -- and the 25 standards and models are needed, and then focus on

1	using funds efficiently. I can promise you, the
2	Governor made it clear from the very beginning, and
3	everybody at these meetings made it clear, that it
4	doesn't make sense for us to get \$1.2 billion and
5	spend half of that on data and modeling. We've got
б	to be able to go implement some things that make
7	the people of the state safer from floods. And so,
8	we've got to be efficient in how we go about
9	procuring and using these services.
10	On policy, um, we heard that some
11	guidance and models from the state will be helpful
12	to locals. Nobody we don't there's no need
13	for us to go re-invent the wheel every time
14	somebody wants to write an ordinance or a standard
15	for their watershed. And so some help, by
16	providing options for them that they can choose
17	from, would be effective. Enforcement, potentially
18	from the state or from the watershed jurisdiction
19	that may be created. And then best practices
20	and and model ordinances made available to the
21	locals.
22	Minimal framework for watersheds to
23	follow. In other words, what does a watershed plan
24	look like for for that entity that is working
25	together to develop it. Funding decisions, help

1	with as that entity, as that watershed, as that
2	group of parishes and cities, if you will, gets
3	together and talks about what projects are we going
4	to build, what ordinances are we going to do, some
5	guidance about how to make those decisions so that
6	they are fact-driven, engineering-driven,
7	science-driven.
8	Integrating local plans with state plans,
9	and, um, and specific pre-disaster planning. I
10	think that's the, here we are post-flood, we're
11	coming up with a new way to manage flood risk. The
12	effort needs to be pre-flood, obviously, which is
13	where we're trying to go now. We want to ignore
14	the floods of 2016 and plan for all the disasters
15	that may come at us. We can't plan for disasters
16	that have already occurred.
17	On projects, we heard a couple of
18	different things. One, we want to go start
19	spending some money now. Two, that's difficult at
20	times because we don't have the data, we don't have
21	the models out there to help us in a lot of cases.
22	So, um, we've got to sort of look at projects from
23	two different perspectives. Ones that we call "no
24	regrets projects," which have a very high potential
25	of reward with very low potential of risk, but then

1	also those that we know we're going to need
2	modeling and better data on before we can go make
3	decisions about big investments. And even then
4	some smaller investments. There are a lot of
5	things that we've seen was we've gone around the
6	state that help us understand that even things that
7	seem like a no-brainer, are not. They can have
8	impacts upstream and downstream. They can be
9	detrimental both to water quality, but also to
10	flood risk, and so, we've got to have that model in
11	place for a lot of things, but we've also got to
12	figure out some things that we can go do now that
13	are going to start making folks in Louisiana safer.
14	Funding through sound criteria. So this
15	goes back to the standards that we talked about.
16	We're going to have to help locals. We're also
17	going to have, at the state, level criteria for
18	deciding about projects. We have got to
19	depoliticize the process in the same way that
20	CPRA's work in coastal Louisiana has depoliticized,
21	to the extent possible, investments in in
22	coastal land laws. We've got to do the same thing
23	here, and that means getting objective criteria in
24	a place that people can use to do that.
25	MS. CARTER:

1 I was just going to add, when we talk 2 about program alignment as the other, sort of, half 3 of this at the state agency level, that includes taking this criteria that's watershed initiative 4 based and incorporating it into all the agencies' 5 philosophies. 6 7 So as funding is expended at all levels 8 across the state, these criteria are being met, so smarter decisions are being made with state dollars 9 10 beyond this point, not just in isolation for this 11 initiative, but throughout all the agencies that 12 are participating. 13 MR. FORBES: 14 Yep. That goes to back to the whole 15 funding thing. We are spending money all over the 16 state all the time, and doing that in a way that's consistent with what we learned through this 17 process, is going to be part of the future funding 18 19 resource. The \$1.2 billion, we're going to spend it, we're going to be done with it, and it's 20 21 probably not coming again. But every other penny 22 that we spend, keeping it aligned with the 23 strategies that we developed through this process, 24 will make us better and mor efficient as we go, 25 forever.

1 Next steps. Modeling, we've already 2 alluded to. Engagement strategy and project 3 evaluation --4 MS. CARTER: And I would just, I would add, too, we're 5 also developing a regional capacity building grant 6 7 program, so as we will be reaching out to, you 8 know, regions in January, February, and March, and discussing what they have in terms of capacity to 9 10 be at (inaudible) with us and providing them with the resources they need to actively engage, so we 11 can get and start building that coordination at the 12 13 regional level to start facilitating this type of 14 thinking and decision-making and strategizing. But 15 it'll help that we're going to talk with them about 16 their -- their procurement strategy for the models 17 in their region, to bring them that -- we'll be discussing all these different things and also 18 19 providing them an opportunity to have resources at 20 their ready, so they can continue to actively 21 engage with us, and that communication is 22 maintained, and they're not, you know, suffering as 23 a result of the time we need to spend with them to 24 make sure we're meeting their needs. 25 MR. FORBES:
1 I want to talk about this Project 2 Evaluation Criteria and Round 1 Application, just 3 because we get a lot of questions from folks. People have projects they want to do right now. 4 So, we -- we are compiling lists of projects that 5 people have sent us. And that's helpful to us 6 7 because we can look at the sorts of things that 8 people are thinking about right now, stage of readiness of those projects. But we will also do 9 10 an announcement of availability of the funds so 11 that folks can send formal applications when we get 12 to that point. 13 But if people have projects they're 14 working on at the local, state level, whatever, 15 that they think might be appropriate, we're glad to 16 take those now and start taking a look at them. 17 MS. CARTER: And I'm just going to add, all of these 18 19 different strategies are going to be proposed at 20 the next council meeting on January 30th. So 21 you'll be able to -- some of those will be posted 22 online for public comment as well. And that, um, 23 for the project criteria and the Round 1 24 Application, we're planning to do a webinar. So we 25 have, like, 2,500 people that are on our mailing

1	list. We're going to blast this information out,
2	the notice of funding opportunity, and then have a
3	webinar that walks through the application, the
4	criteria, and get where we can answer those
5	questions in advance of the the window opening,
б	so we can sort of provide as much information on
7	the front end to reduce any confusion during the
8	application process and release some of that
9	pressure. So there will be more information
10	coming.
11	MR. FORBES:
12	Any questions?
13	UNIDENTIFIED SPEAKER:
14	Do you see a problem with permitting
15	this, (inaudible), for any these projects with the
16	Corps of Engineers?
17	MR. FORBES:
18	I think anybody who is familiar with the
19	Corps of Engineer's permitting processes knows that
20	that is a challenge we'll have to address, yes.
21	MS. CARTER:
22	And they are a partner, so they have been
23	working with us.
24	MR. FORBES:
25	Sure. Yeah, we've had the Corps, FEMA,

1	USGS, all those guys are are working with us
2	now. And they all recognize that they have a role
3	in this. They also all recognize that this is a
4	seed change, not only for Louisiana, but most
5	places in the country are not taking this approach.
6	And so they're extremely eager and have been
7	extremely supportive in helping us advance this
8	idea. So hopefully that's going to pay some
9	dividends.
10	MR. HARRIS:
11	Ms. Gautreaux?
12	MS. GAUTREAUX:
13	First of all, I had an opportunity to go
14	to the Baton Rouge planning session, and I was
15	incredibly impressed by the level of interest in
16	the public and the receptivity of the staff. I
17	mean it was truly an impressive meeting. I want to
18	get to, um I'll just mention two things well,
19	three. Number one, I think having the strong
20	science foundation is going to be critical in being
21	able to have a good base foundation, set the
22	precedent, and have projects that do a little bit
23	about what you know, as we're expecting.
24	On the permit front, um, I really want
25	to, and I'm sure you plan on doing this, but, um,

1	make sure that there is, like CPRA has, a public
2	process. Not only the announcement, but when
3	there's, um, projects are pre-selected, there's an
4	opportunity for public input, because we were told
5	a few times, in certain settings, Well, don't
6	worry, when it goes up for a permit, you'll have an
7	opportunity to comment on the permit. But in fact,
8	some things might not require certain permits that
9	are very well worth the public being aware of and
10	an opportunity to comment on.
11	The third thing, um, are you this is
12	a a quandary I'm seeing more and more. A local
13	planning group will say okay to certain
14	developments that may be, say, within vast lands,
15	within hurricane storm surge zones. Are y'all
16	coordinating with the local planning and zoning
17	commissions in your work?
18	MR. FORBES:
19	Yeah. I think and Alex, feel free to
20	jump in but I mean, that is going to be
21	absolutely critical at the local level, is when
22	these parishes get together and decide, Okay, we're
23	going to have certain development codes here, well,
24	it's not going to be okay for one to allow those
25	codes to be ignored and one to follow them. And

1	that's the whole point of managing that as a
2	watershed. And so it will be critical.
3	Now, how does that happen? Does it
4	happen by a watershed entity created in law? Or do
5	they cooperate? These are questions that have to
6	be answered.
7	MS. CARTER:
8	And I would just add that we we have
9	engaged the planning department directors, their
10	staff, floodplain managers, in that afternoon
11	session at the listening tour. It was geared
12	specifically towards them. And we were also
13	engaged with a lot of the associations, and the
14	American Planning Association was one of them. We
15	continue to reach out, um I think we'll be doing
16	a session with them specifically about the
17	initiative. But that, in the coming months, we'll
18	continue to reach out and discuss with them how
19	this is going to impact them. And in my previous
20	work, that was what it involved, primarily. So
21	that's where the rubber meets the road.
22	So, um, we absolutely want to make sure
23	that they remain engaged and we're using their
24	input throughout the application.

MR. HARRIS:

1 Ms. Gouedy? 2 MS. GOUEDY: 3 If I could just make a brief statement. 4 Thank you, guys, for your presentation. I, too, participated in the Monroe listening tour, very 5 well received, and was at your last council 6 7 meeting. I spoke with you briefly afterwards. 8 I hope that y'all move forward, especially into the modeling, that you sit back and 9 10 are able to, um, take it outside of the parish. Of 11 course we know these watersheds don't really follow our boundaries. So, if we have parishes creating 12 13 their own modeling, we have it within the startup. 14 We have 16 parishes, and I've got several parishes 15 doing different water-related things. But they --16 they're all intertwined, they're all connected. 17 But the studies are -- they're different. I would encourage y'all to -- to consider 18 19 a way to, as you just alluded to, whether it is a development of watershed, and we've got districts 20 21 galore throughout the state, so I feel like there 22 is something you can tap into. But when it comes to funding, when it comes to the modeling, and 23 24 especially my neck of the woods, I would strongly 25 encourage some way to -- to link the region, not

1 just within the parish. 2 MR. FORBES: 3 Absolutely. It will not be done by an individual parish. The modeling will be done on a 4 watershed basis. It's the only way we can approach 5 It's similar to if -- if we look at the Amite it. 6 7 Basin modeling that we're just about to complete, 8 obviously we've got five, six parishes there. They -- they -- um -- each of them may have 9 10 modeling work going on within their parish, but it's all going to have to feed to the master model 11 12 for the Amite River Basin. If that makes sense. 13 MS. GOUEDY: 14 Yes. Good. 15 MS. CARTER: 16 And just to build on that, we did hear a 17 lot of times that the models were really limited, because they were project-focused. Right? They --18 19 they're developed in response to a project. These 20 models are different because they're developed at 21 the watershed level and they're intended to be able 22 to knit together. So the boundary issue shouldn't 23 be an issue. In discussing with our modelers, even 24 just establishing the boundaries of the contracts 25 themselves, they've advised, even that isn't going

1 to matter, because contracts should be able to knit 2 together. 3 MR. HARRIS: 4 Mark? 5 MR. DAVIS: Just to follow on that, because, you 6 know, we've talked about some of the water code 7 8 work that, you know, the -- is going on in the Louisiana Law Institute and, you know, we have our 9 10 own issues that come up here. I think one of the challenges we're going to have as we do all of 11 12 this, is we're trying to manage without data. Or the data we have is not matched up with the other 13 14 data sets that we have. And so, you know, I realize that, you know, for funding purposes, you 15 16 may need models with a certain amount of band 17 width. But if we can coordinate a bit, say we're -- we're raising everyone's vote, because 18 19 again, the idea that, again, in-stream flows are 20 the only things that matter, or that, you know, 21 coastal issues are the only ones that matter, and 22 right now we have models for the coast, we have 23 models for in-stream flows, we have some models for 24 groundwater, and they have yet to be actually 25 plugged together in a useful way, even though it's

1 often exactly the same water. Um, you know, we 2 would be delighted, um, to be partners in any way 3 in making sense out of that. MR. FORBES: 4 5 Okay. Thank you. UNIDENTIFIED SPEAKER: 6 7 This looks like a very comprehensive 8 project. Do you have a certain time frame in mind that you would see any accomplished goals? 9 10 MR. FORBES: 11 Yeah, I -- I'll let Alex talk to the --12 the immediate time frame. I'll tell you about the 13 CBDG money, which is that we have to get it spent 14 within six years. So, um, that's one piece of it, 15 but it's not the whole thing. 16 MS. CARTER: 17 Right. And there are multiple tracks, So there's a project track, so we're 18 right? 19 looking at, you know, breaking ground on projects 20 as soon as we can. Right? And that's why we're 21 developing all the criteria, the webinars, 22 everything we can, before we even can send in our 23 action plan. So that is going to happen as soon as 24 possible. 25 So we have a technical group that's just

1	focused on projects. We have another technical
2	group that is just focused on data. And the data
3	has two different tracks. It has a data track that
4	deals with collecting and monitoring and retaining
5	data in a smart and efficient way, and it has a
6	modeling track that deals with management and
7	procurement and how we get these models done in a
8	very efficient and timely manner so we can form
9	long-term projects.
10	We'll have a strategy for data for the
11	modeling and procurement by January of '19. We'll
12	have over the resilient I keep wanting to say
13	resilience, but it's regional, the regional
14	capacity building program, so people can be at the
15	table. And we might be hiring staff right?
16	in these regions so that somebody is there to
17	answer the phone and engage and identify community
18	leaders, partners, expertise, that also needs to be
19	involved at a local level to build capacity for
20	this type of work. Or support capacity. I mean, I
21	think a lot of regions, and Pat alluded to this, is
22	a lot of people are doing a lot of great work
23	already. We have to understand that so we don't
24	duplicate those efforts.
25	And then in terms of so that was

1	projects, data. Engagement. So, we've done the
2	listening tours, we're going to reaching out to
3	regions about procurement. Right? You want them
4	to be at the table talking about these contracts so
5	you don't isolate them from the process, um, in
6	January. So we'll start that then, in anticipation
7	that none of these contracts are going to hit the
8	ground until March, or the summer. So everybody
9	will have enough time to really understand and ask
10	questions, and we'll get the feedback.
11	But that there was one other thing.
12	I'm losing my train of thought.
13	MR. FORBES:
14	Modeling and engagement.
15	MS. CARTER:
16	Oh, engagement strategy. So y'all talked
17	a lot about Texas and your neighboring people who
18	are who are sharing our interests. Right? We
19	heard a lot about that. And it's not unique.
20	Right? We share a lot of watersheds with Texas,
21	Arkansas, Mississippi. And so, what we need to do
22	is understand their relationship to their
23	watersheds and bring them in, to understand how
24	they affect our our watersheds.
25	And so we'll have an interstate summit

1	in, um which is going to be like a one-day
2	listening tour. And these tours are really
3	effective in the way they were built up. We're not
4	going to re-invent the wheel, we're doing something
5	similar. Bring in the states around us in March.
6	And then in February we're going to be doing a best
7	practices summit, because we want to learn
8	because we're not the only ones doing this. Around
9	the country, other states have had, sort of,
10	adaptations of this. They're usually more narrowly
11	focused. We have a unique opportunity from a large
12	amount of funding to do a lot at once. And that's
13	going to make it's going to depend on us being
14	able to manage a lot of pieces simultaneously. So
15	we'll be having the best practices summit in
16	February. That'll form our interstate summit with
17	our neighboring states in March. And then we're
18	looking to have a federal summit in the summer,
19	where we, after we've done that and the models are
20	on the ground and projects are being approved and
21	contracts are being issued, we're going to sit down
22	with the federal partners and say, Look, this is
23	all the things that are going on in Louisiana, how
24	can we help with your goals, and how can you help
25	us meet our goals. We need it to change in the

1	short time to make this work better for everybody.
2	And then long-term, to make it work better for
3	Louisiana on the regional level. So we're actually
4	making decisions at a watershed level.
5	So we have a lot of immediate things that
6	we are planning, but, like, I think shovel-ready,
7	we're looking at spring and summer, for both models
8	projects. But I think this is bigger than that.
9	And that's the important thing, is we don't lose
10	focus on the longer-term goal, that's shifting the
11	way we manage water.
12	MR. HARRIS:
13	Okay, the board is clear. Thank you so
14	much for coming here today.
15	MR. FORBES:
16	You bet. Thank you for the opportunity.
17	Our, as I said earlier, our biggest challenge right
18	now is engaging with people and helping educate
19	folks about what we're trying to accomplish and
20	what that's going to take and who all needs to be a
21	part of it. So this is a big help for us as well.
22	There are other ways to stay engaged with us. We
23	have a website and social media sites, and you can
24	keep up with us, you can get emails from the
25	website about what we're doing if you like. But

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1 thank you for having us. 2 MR. HARRIS: 3 Thank you. MISSISSIPPI ALLUVIAL PLAIN (MAP) STUDY 4 5 MR. HARRIS: Our final agenda item for the day, we're 6 7 very fortunate to the have Jeannie Barlow with USGS. Dr. Barlow is the assistant director of the 8 Lower Mississippi and Gulf Water Science Center, 9 10 including Texas, Arkansas, Alabama, Louisiana, and Mississippi. 11 12 Welcome and thank you, Dr. Barlow. 13 DR. BARLOW: 14 Thank you guys for having me. Can you 15 hear me okay? Great. 16 So, while Matt is kindly loading the 17 presentation, I'll just go ahead and intro. I'm going to give you an update on the USGS study in 18 19 the Mississippi alluvial plain, in which we are 20 using a stakeholder-driven approach to optimize 21 monitoring and modeling in the Mississippi Alluvial 22 Plain, largely targeting the alluvial aquifer. 23 So a lot of what you just heard, I was 24 really excited about, you're probably going to hear 25 in this talk too. We are also trying to move into

1 kind of a participatory science world. And I am 2 very thankful that we are, because I think it will 3 really allow us to do a lot more meaningful 4 science. 5 Thanks, Matt. For those of you who won't be able to see, hopefully I think you've got your 6 7 packets so you can see your figures there. 8 So the USGS has been embarking in those large regional groundwater availability studies for 9 10 some time, and now we have, you know, 50, 60 11 percent of the nation covered in these models. 12 We've just started one in the Mississippi Alluvial 13 Plain that started in FY-17. And what is unique 14 about this is that we are actually trying to start 15 with our stakeholders and partners to find out what 16 they actually need this model to do, and then use 17 that information to design it. This study is slated to go through FY-21. We are working with 18 19 over 60 people from across the nation, so it's not just coming out of our water science center which 20 21 covers five states in the southeast region. These 22 people come from everywhere. So we're trying to 23 bring all the experts to the table to answer these 24 local questions. And we also have a large group of 25 local, state, and other federal partners that we

1 meet with quite regularly. 2 So, we all know the alluvial aquifer is 3 one of the most used aquifers in the nation, and this is largely because of irrigation withdrawals 4 for agriculture. However, when we look at --5 however, this has had a result of water level 6 7 declines in the alluvial aquifer, and there is 8 concern that this might be reaching an unsustainable level. So, we look at the water 9 10 budgets of the three most-used aquifers for irrigation in the nation, we do notice that the 11 12 alluvial aquifer is rather unique. So I have some 13 pie charts there, and what the colors are showing 14 you there, is the green and red represent recharge 15 and runoff, and the big blue areas are 16 evapotranspiration. So basically, 17 evapotranspiration is lost to us, but the green and red areas represent water that we can actually use. 18 And you'll notice that the alluvial aquifer is 19 20 unique in that it has a larger area of those green 21 and red colors, so we have more water available to 22 us. 23 So, often, it's really a distribution 24 issue. And that's a good thing. That gives us 25 opportunities. So what we are doing here is we've

1	started with an existing hydrologic model. We're
2	using that model to help guide data collection
3	efforts through data worth and uncertainty
4	analysis. For example, when we started out, we saw
5	that uncertainty that we had in the model's ability
6	to predict water levels was related to actually the
7	uncertainty in our understanding of
8	groundwater/surface water exchange. So that
9	movement of water between the stream bed, both
10	groundwater going to the streams and water from the
11	streams going back to the aquifer.
12	And so that led us to start a very large
13	geophysical mapping campaign, where we are trying
14	to better understand the fabric of those stream
15	beds that really control how much water can move
16	between them. Right? And also, the fabric of the
17	aquifer itself. Because we need to understand that
18	to know how water can move through it. And that
19	can be very difficult when you just have boreholes
20	to look at it and you're trying to connect the dots
21	in an alluvial system that's very heterogeneous.
22	So, we're also using the model to help
23	guide water level monitoring efforts, so where
24	we're going to collect water level data and how

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frequently. And we're also moving into more

1 advanced water use monitoring. So we're starting 2 to collect water use data on a realtime basis so 3 that we could really understand this data, because water use is such an important driver of the models 4 5 since it's one of the largest, um, kind of, 6 outputs. 7 We developed a water budget model as 8 well. And this helps us to parse out things like 9 runoff, evapotranspiration, and recharge, and there's also a surface water model that we're 10 11 developing that will basically allow us to route that surface water over from the land surface to 12 13 the stream, and then the interaction with the 14 aquifer itself. 15 And then finally, all of this will be 16 linked in a web-based decision support system that will be linked to an economic model. And so this 17 is really going to help us get at the cost, which 18 19 oftentimes in the, at least the hydrologic world, 20 we're able to tell you a lot about the water, 21 right, but we can't really tell you about the value 22 of it or how much that might cost. So we want to 23 link those two things together, and we do have some 24 economists on our team helping us to do that. 25 So all of these pieces and parts have to

1 work together, and it is an iterative cycle. And I 2 really liked the use of a living model, because we 3 very much see this as a living model. We don't want to develop a model that's just going to be put 4 5 on a shelf. So I'm going to give you just a couple of 6 7 updates on some of the monitoring and mapping 8 efforts that we're currently working on. And I'll start with the water use monitoring. 9 10 I think this is pretty exciting, because 11 right now, the Mississippi Alluvial Plain is pretty 12 much leading the nation in water use monitoring. 13 We have a network -- and this is over -- over 14 50-something sites across the Mississippi Alluvial 15 Plain. We're having to work with the producers, 16 and the producers are welcoming us to their land, 17 allowing us to add data collection platforms to their meters, so that we can actually see their 18 19 data on a realtime basis. And this lets us understand more the drivers of water use, so the 20 21 climatic drivers of water use, but also what it 22 allows us to do is have much smaller stress periods 23 in our model. We'll be able to eventually get to 24 estimating daily water use. That's our goal right 25 now.

Another exciting data collection component that is going on right now is our geophysical mapping to help better understand the hydrogeologic framework, which is very important when you're trying to develop a model like this, especially in an alluvial system where it varies so much from place to place.

8 And so, we are using geophysical methods that are much like an MRI, that really allow us to 9 10 see the subsurface, which can be quite difficult. 11 And one method that we are using is airborne 12 geophysics. And we've started that here recently. 13 And this really allows us to cover a lot more 14 ground in a much shorter amount of time, much less 15 money per the area that we are surveying.

16 But we can also do this on land, so we 17 tried out -- before we went to the air, we did try out several methods on the ground, before we spent 18 19 a whole bunch of money sending an airplane up for collecting data. So we've done this on the land 20 21 surface, we can do this in the water, with 22 waterborne geophysical methods. For example, we 23 did this on the Ouachita River recently, and here 24 is some of the data that we got back on the 25 Ouachita. And what these colors are showing you is

1	basically, um, you can kind of relate it to the
2	permeability of the materials, or what those
3	materials are. So the bluer colors are lower
4	resistivity, and that's going to correlate with
5	more fine-grain materials like a clay, so water is
6	not going to want to move through those. And the
7	redder colors are more coarse-grain, correlate with
8	sand. And I am not a geophysicist, but this is the
9	color scheme that they like to go to. I think it
10	should be opposite, actually, so.
11	But here, it's really interesting, with
12	the Ouachita we see that actually it's made up of
13	most what we're interpreting to be clay, so there's
14	a low potential for groundwater/surface water
15	exchange here. So now we know that. And then the
16	other parts of the Ouachita that have a higher
17	potential for groundwater/surface water exchange.
18	And I'll talk about a few scenarios that
19	we've already analyzed, but this could be useful as
20	you're thinking about projects or management of
21	your resource, to know where these areas are.
22	We're also finding that these geophysical
23	mapping data collection efforts not only benefit
24	the model and that was our main purpose, was to
25	collect data for the model. But because we are

1 using the stakeholder-driven approach and we're 2 constantly talking with our stakeholders about what we are doing, we've been able to find a lot of 3 additional benefits to this data and put it to use, 4 and we want to do that here in Louisiana as well. 5 For example, we're using it for our 6 7 purposes to look at things like recharge, 8 groundwater/surface water exchange, and update the framework itself, but it's also being used to help 9 10 guide infrastructure projects, such as a 11 groundwater transfer and injection project pilot 12 site that is currently going on in Mississippi. So 13 the data that we are collecting is helping them to 14 site where they are going to put the extraction and 15 injection wells, which has been really helpful. 16 The data is also being used by the Corps 17 of Engineers to look for places in the streams where we could actually add weirs and enhance 18 19 recharge back into the aquifers. So again, 20 that's -- we want places that have a -- more 21 potential to have groundwater-surface water 22 exchange. 23 And this is really exciting. We've been 24 working with the Corps testing our capability to

survey the Mississippi River levee itself. And our

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1	results have been very comparable to the Corps'
2	cone penetrometer results, which are just one point
3	value; right? But now we're able to help them
4	connect all those dots along the levee and we're
5	going to talk to them now about potentially doing a
6	fire levee. And there's a lot of benefit to that.
7	Currently, we do have a helicopter in the
8	air. It is flying the entire Mississippi Alluvial
9	Plain. But I will say it's not the southern part
10	of that that goes over the coastal aquifers, but we
11	do hope to get to that part eventually, so it is
12	within our scope.
13	You can actually, in your handout, you'll
14	see there's a little link there where you can go
15	and see the flight lines and where the helicopter's
16	going to be and what region it's in right now. So
17	we have that set up. And this may not work, but
18	this is a video of the helicopter recently. And
19	you can kind of see this torpedo-like thing, which
20	we were quite concerned about, but that is what is
21	being flown over and collecting all the geophysical
22	data. It's an electromagnetic tool.
23	So finally, I wanted to end with kind of,
24	Well, why are we doing this? You know, what's the
25	practical application of all this effort, this

1	helicopter in the air and everything? And I think
2	the practical application is that we can work with
3	our partners to help them provide that, kind of,
4	sound, scientific foundation for making management
5	decisions. That's not what we do. As the USGS, we
б	are here to provide the science. But we can work
7	with our partners to make sure that we are doing
8	that science in a manner that's helpful to them,
9	rather than just kind of doing the science to them.
10	So, for example, in the Mississippi
11	Delta, we recently went through an exercise where
12	we held several workshops. We met with all the
13	local experts that had project ideas for
14	alternative water supply scenarios. We gathered
15	all that information into one place and we started
16	to work with those technical experts to develop
17	scenarios for the model to be able to analyze those
18	scenarios. And our primary goal was to be able to
19	take the output from the model in each of those
20	scenarios and feed it into an economic model in
21	order to get the cost per acre-foot of additional
22	water that you would see from that scenario, to
23	really help them to kind of see what's the value of
24	each of these projects.
<u>م</u> ۲	

So we looked at different scenarios.

1	Looked at some that would decrease groundwater
2	withdrawals for instance, irrigation efficiency.
3	So, using, like, your polypipe planner and your
4	pole selection, soil moisture sensors and things
5	like that. We looked at in-stream weirs to
6	actually increase the amount of surface water that
7	would be available to use for irrigation to switch
8	from groundwater to surface water. And we also
9	looked at tailwater recovery and on-site farm
10	storage, again, to add additional surface storage
11	to get off of the groundwater system.
12	Another scenario we looked at was
13	interbasin transfer. Again, this is another;
14	you're adding surface water hoping that the
15	producers will use the surface water rather than
16	the groundwater.
17	And then we also looked at this project
18	to actually extract water from one place, an area
19	where we have plenty of water, near one of our
20	larger streams, the Tallahatchie River, and convey
21	it over to where the water level declines are the
22	most severe, and directly inject it back into the
23	aquifer.
24	So basically what we did, we did kind of
25	a relative comparison. So we run a base scenario

1	for 50 years. And if you imagine your water level
2	is at one point when you start that scenario, and
3	after you pump for about 50 years, it's at another
4	point. Right? It's lower. And then we would run
5	the alternative scenario. Now, all the alternative
б	scenarios are essentially adding water to the
7	system in one way or another. So that alternative
8	scenario, after 50 years, is probably going to have
9	a slightly higher water level.
10	And the difference between that
11	alternative scenario and the base scenario is what
12	we're calling the water level response. That is
13	the amount of water that you gain from that
14	scenario. And then we're feeding that information
15	into a very detailed economic model that has all
16	the costs for the project, and that gives us the
17	cost per acre-foot of water level response.
18	This is a very busy table, but this
19	table, which shows you various iterations of the
20	scenarios we didn't just look at each scenario.
21	We ran about 27 total, because, like, for each of
22	these, we wanted to look at different things like
23	adoption rate. We can't assume for these surface
24	water augmentation projects that 100 percent of the
25	producers are going to switch from groundwater to

1	surface water, so we had to look at various rates
2	of adoption. And for the enhanced aquifer recharge
3	scenario, we looked at different amounts of
4	injections, or injecting different amounts of water
5	into the ground, because of course, as you're
6	injecting more, that requires more pump stations,
7	which is going to increase the cost of the project,
8	so we're trying to find that sweet spot there.
9	So this information was then used by a
10	task force in Mississippi to help them kind of work
11	on, Hey, what projects do we want to move into
12	pilot stage on? And based on this information,
13	that's why the groundwater transfer one reason
14	why the groundwater transfer injection project went
15	forward into pilot phase. So that is currently
16	going on now. They will start construction, I
17	think they're hoping in next month.
18	But the other thing that we definitely
19	realize, was that there's not at silver bullet
20	here. There was not one scenario that fixed all
21	the problems. So it's going to take a combination
22	of efforts to really come to a sustainable water
23	resource (indiscernible). And so, our next phase,
24	we are moving into optimization. So instead of
25	telling the model what to do, we're going to tell

1	the model, Okay, here's the constraints, here's the
2	things we got to have, here's some possible
3	options. You run that, and then it will give you a
4	suite of options to consider. So that's kind of
5	where we're moving now, working in conjunction with
6	the Mississippi Alluvial Plain water availability
7	study that I just described.
8	So, that's all I have today. I will
9	say and I should have said this in the
10	beginning this study, the lead is Wade Kress.
11	His email is there and the web page for the study
12	is there as well. He is always very open to emails
13	or questions. If you have any, feel free. And if
14	you have any for me, feel free to ask now.
15	MR. HARRIS:
16	Any questions or comments from the
17	public? Thank you very much, Dr. Barlow. Thanks
18	for coming.
19	Is there any new business or anything any
20	board members would like to discuss? Do I hear a
21	motion to adjourn?
22	UNIDENTIFIED SPEAKER:
23	I move we adjourn.
24	UNIDENTIFIED SPEAKER:
25	Second.

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MR. HARRIS: Hearing no objection, this motion carries. The meeting is adjourned. Everyone, I hope you have a Merry Christmas. (Whereupon, the meeting was adjourned.) б

1 CERTIFICATE 2 This certification is valid only for a transcript accompanied by my original signature and 3 original required seal on this page. 4 I, LISA M. NEALY, Certified Court Reporter in and for the State of Louisiana, as the 5 officer before whom this meeting was taken, do hereby certify that this meeting was reported by me б in the stenotype reporting method, was prepared and transcribed by me or under my personal supervision, 7 and is a true and correct transcript to the best of my ability and understanding; 8 That this meeting was reported by me in the 9 stenotype reporting method, was prepared and transcribed by me or under my personal supervision, 10 and is a true and correct transcript to the best of my ability and understanding; 11 That the transcript has been prepared in 12 compliance with transcript format guidelines required by statute or by rules of the board, that 13 I am informed about the complete arrangement, financial or otherwise, with the person or entity 14 making arrangement for deposition services; that I have acted in compliance with the prohibition on 15 contractual relationships, as defined by Louisiana Code of Civil Procedure Article 1434 and in rules 16 and advisory opinions of the board; 17 That I have no actual knowledge of any prohibited employment or contractual relationship, 18 direct or indirect, between a court reporting firm and any party in this matter, nor is there any such 19 relationship between myself and a party in this matter; that I am not related to counsel or the 20 parties herein, nor am I otherwise interested in the outcome of this matter. 21 22 23 24 LISA M. NEALY, RPR, CCR 25 Certificate No. 23040