1	
2	
3	WATER RESOURCES COMMISSION
4	
5	
6	Report of the second regular meeting held by the
7	Water Resources Commission
8	on Wednesday,
9	June 5, 2013 in Baton Rouge, Louisiana.
10	11:00 A.M.
11	
12	LaSalle Building - First Floor
13	LaBelle Room
14	617 North 3rd Street
15	Baton Rouge, Louisiana 70802
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

1	IN ATTENDANCE:
2	MEMBERG OF THE MATER RECOURGES COMMISSION.
3	MEMBERS OF THE WATER RESOURCES COMMISSION:
5	HON. SCOTT A. ANGELLE, CHAIRMAN
6	HON. JAMES WELSH, COMMISSIONER OF OFFICE OF
7	CONSERVATION
8	JONATHAN "JAKE" CAUSEY, LOUISIANA DEPARTMENT
9	OF HEALTH & HOSPITALS
10	PAUL "JACKIE" LOEWER, JR., RESIDES AND WORKS
11	IN THE AREA UNDERLAIN BY THE CHICOT
12	AQUIFER
13	TED McKINNEY, SPARTA GROUND WATER
14	CONSERVATION DISTRICT
15	JIM PRATT, EXECUTIVE DIRECTOR OF THE SABINE
16	RIVER AUTHORITY
17	VINCE SAGNIBENE, LOUISIANA DEPARTMENT
18	OF ENVIRONMENTAL QUALITY
19	BRAD SPICER, DEPARTMENT OF AGRICULTURE AND
20	FORESTRY
21	HON. GLENN BRASSEAUX, MAYOR OF CARENCRO,
22	LOUISIANA MUNICIPAL ASSOCIATION
23	CHRIS KNOTTS, DEPARTMENT OF TRANSPORTATION
24	AND DEVELOPMENT
25	

1	MEMBERS OF THE WATER RESOURCES COMMISSION (CONTINUED):
3	MICHAEL ROONEY, LOUISIANA RIVER PILOTS
3	ASSOCIATION
5	
6	PAUL SAWYER, DEPARTMENT OF ECONOMIC
7	DEVELOPMENT
	LINDA ZAUNBRECHER, LOUISIANA FARM BUREAU
8	EVE GONZALEZ,
9	PAUL FREY,
10	JERRY GRAVES,
11	
12	WATER RESOURCES COMMISSION STAFF:
13	JOHN ADAMS - STAFF ATTORNEY, CONSERVATION
14	GARY SNELLGROVE - DIRECTOR, ENVIRONMENTAL
15	DIVISION
16	MATTHEW REONAS - EDUCATION AND MARKETING
17	REPRESENTATIVE
18	THOMAS VAN BIERSEL - HYDROLOGIST
19	JIM DEVIT, DEPUTY GENERAL COUNSEL
20	* * *
21	
22	
23	
24	
25	

1	SPEAKERS:
2	
3	MATTHEW REONAS - DNR EDUCATION AND MARKETING
4	REPRESENTATIVE
5	
6	US GEOLOGIC SURVEY - LOUISIANA WATER SCIENCE CENTER
7	JOHN K. LOVELACE - REPORTS SPECIALIST
8	
9	TULANE UNIVERSITY INSTITUTE ON WATER RESOURCES
L O	LAW & POLICY - MARK DAVIS AND CHRIS DALBOM
11	
12	CAPITAL AREA GROUND WATER CONSERVATION COMMISSION
13	JOEY HEBERT - CHAIRMAN CAGWCC
L 4	
15	PUBLIC COMMENTS BY:
16	JIMMY JENKINS
L 7	A. HAYS TOWN
18	
19	REPORTED BY:
20	ESTELLA O. CHAMPION, CRR,
21	BATON ROUGE COURT REPORTERS
22	* * *
23	
24	
25	

1	INDEX
2	MEETING IS CALLED TO ORDER7
3	AGENDA ITEM 1 - ROLL CALL7
4	CHAIRMAN ANGELLE - WELCOME TO NEW MEMBERS8
5	AGENDA ITEM 2 - ADOPTION OF THE MEETING11
6	SUMMARY FROM 12/5/12
7	AGENDA ITEM 3 - UPDATED ON MAJOR ISSUES12
8	AND ACTION RECOMMENDATIONS
9	AGENDA ITEM 4 - POTENTIAL IMPACTS OF THE45
LO	TARRANT REGIONAL WATER DISTRICT VERSUS
11	HERMANN IN THE RED RIVER COMPACT CASE
12	REPORTED ON THE UNITED STATES SUPREME
13	COURT
L 4	AGENDA ITEM 5 - RECENT ACTIONS BY CAPITAL77
15	AREA GROUND WATER CONSERVATION COMMISSION
16	AGENDA ITEM 6 - REVIEW OF THE OFFICE OF97
L 7	CONSERVATION AND GROUNDWATER EDUCATION
18	EFFORTS
19	AGENDA ITEM 7 - PLANNING FOR WATER107
20	RESOURCES MANAGEMENT CONFERENCE, FALL 2013
21	ADDED AGENDA DISCUSSION - CONSIDER A111
22	RESOLUTION REQUESTING RESOURCES TO FUND
23	THE DEVELOPMENT OF A MASTER PLAN
24	AGENDA ITEM 8 - PUBLIC COMMENTS118
25	REPORTER'S CERTIFICATE126

1	CHAIRMAN ANGELLE: Good morning. We'll go
2	ahead and call the June 5, 2013 Water Resources
3	Commission to order and ask staff to call the role.
4	MR. ADAMS: Please step up when I call your
5	name.
6	MR. DAVIS: Scott Angelle.
7	CHAIRMAN ANGELLE: Here.
8	MR. ADAMS: Kyle Baulkum.
9	Glen Brasseaux.
10	MR. BRASSEAUX: Here.
11	MR. ADAMS: Jake Causey.
12	MR. CAUSEY: Here.
13	MR. ADAMS: Gordon Dove.
14	Paul Frey.
15	MR. FREY: Here.
16	MR. ADAMS: Eve Gonzalez.
17	MS. GONZALEZ: Here.
18	MR. ADAMS: Jerry Graves.
19	MR. GRAVES: Here.
20	MR. ADAMS: Charles Killebrew.
21	Chris Knotts.
22	MR. KNOTTS: Here.
23	MR. ADAMS: Hal Leggett.
24	Jackie Loewer.
25	MR. LOEWER: Here.

1	MR. ADAMS: Ted McKinney.
2	MR. McKINNEY: Here.
3	MR. ADAMS: Eugene Owen.
4	Jim Pratt.
5	MR. PRATT: Here.
6	MR. ADAMS: Michael Rooney.
7	MR. ROONEY: Here.
8	MR. ADAMS: Vince Sagnibene.
9	MR. SAGNIBENE: Here.
10	MR. ADAMS: Paul Sawyer.
11	MR. SAWYER: Here.
12	MR. ADAMS: Brad Spicer.
13	MR. SPICER: Here.
14	MR. ADAMS: Jim Welsh.
15	COMMISSIONER WELSH: Here.
16	MR. ADAMS: And Linda Zaunbrecher.
17	MS. ZAUNBRECHER: Here.
18	MR. ADAMS: We do have a quorum.
19	CHAIRMAN ANGELLE: Thank you, sir.
20	Certainly want to welcome to the Water
21	Resources Commission five new members: Mr. Glen
22	Brasseaux representing the Louisiana Municipal
23	Association, Mr. Chris Knotts representing the
24	Department of Transportation Development, Mr. Michael
25	Rooney, representing the River Pilots Association,

```
Mr. Paul Sawyer, representing the Department of
1
2
    Economic Development, and Ms. Linda Zaunbrecher
3
    representing the Louisiana Farm Bureau.
                    I'll give each of you an opportunity if
4
5
    you want to make a comment or two, starting with
6
    Mr. Brasseaux.
7
               MR. BRASSEAUX: Well, it's an honor to be
8
    here this morning.
9
                    Just a little background: I'm from
10
    downtown Carencro. I have been involved with the
11
    Louisiana Rural Water since about 2004, serve on the
12
    DHH Committee of Certification since about 2005, and I
13
    am the past president of the Louisiana Municipal
14
    Association.
15
               CHAIRMAN ANGELLE: Welcome, Mr. Brasseaux.
    Appreciate the opportunity. We've had to work together
16
17
    on a variety of issues and I know that you will be a
    great asset to our teams.
18
19
                    Mr. Knotts.
20
               MR. KNOTTS: Yes, sir. Thank you.
                    I am Chris Knotts. I am the Chief of
21
2.2
    Public Works and Water Resources at the Department of
23
    Transportation and Development, and it's an honor to
24
    serve and look forward to it. Thank you.
25
               CHAIRMAN ANGELLE: Thank you, Mr. Knotts.
```

```
Again I've enjoyed my relationship with you as well.
1
2
                    Mr. Rooney with the River Pilots
3
    Association.
              MR. ROONEY: Yes, sir. I'm Michael Rooney
4
5
    with the New Orleans-Baton Rouge Steamship Pilots,
    current President. Honored to be here, glad to serve
6
7
    with you, and look forward to doing so.
8
              CHAIRMAN ANGELLE: Thank you so much, Mike.
9
    Appreciate it.
10
                   Mr. Paul Sawyer.
11
              MR. SAWYER: Thank you, Mr. Chairman.
12
                    Paul Sawyer, Director of Federal
13
    Programs, Louisiana Economic Development. Look forward
14
    to working with you.
                           Thanks.
15
              CHAIRMAN ANGELLE: Paul, you all have done a
16
    great job and I appreciate all the work that you've
17
    been helping us over the years in my career over at
18
    DNR, and we've always enjoyed a great relationship.
19
    And certainly your history on a federal level has
20
    provided great opportunities for Louisiana. So again,
21
    welcome aboard.
22
                    Ms. Zaunbrecher from the Farm Bureau.
23
              MS. ZAUNBRECHER: Yes. Our family grows rice
24
    in southwest Louisiana. The water is very important to
25
    us. I also served on the initial groundwater
```

```
1
    commission. And I serve as third vice president of the
2
    Louisiana Farm Bureau.
3
               CHAIRMAN ANGELLE: Great. Thank you so much.
4
    Appreciate it. Certainly the Farm Bureau has been a
5
    really great partner to have.
                    We'll go to item number 2, which is the
6
7
    adoption of the meeting summary from the December 5,
8
    2012 meeting.
9
                    Mr. John Adams.
10
               MR. ADAMS: Thank you, Mr. Chairman.
11
                    Each of you should have received by
12
    email about a week and a half ago a copy of the minutes
13
    from the previous meeting. There has been one minor
14
    editorial change. I believe there was a Ph.D. that was
15
    removed from someone's name. That's the only change
16
    that was made since those minutes were submitted to
17
    you.
18
                    At this time staff would request a
19
    motion to accept the minutes.
20
               CHAIRMAN ANGELLE: Sure.
21
                    Motion by Spicer, second by Sawyer.
                    Any objections to the motion?
22
23
                    Any discussion?
24
                    Hearing none, that the motion is
25
    adopted.
```

issues and action recommendations from the report that we actually issued last year, and I think the Office of Conservation is going to lead us through that portion of the agenda.

MR. REONAS: Yes, sir. My name is Matthew Reonas. I work with the Office of Conservation on a variety of projects, including public relations, education and research issues.

At the last commission meeting in December, the office committed to the development of an update on the major issues and action recommendations

When we initially scoped this out, it was about 15 pages. It now stands at about 40. It's a solid document, filled with the most up-to-date information available on all of these issues. We have a few final edits to make, but it will be ready for distribution to all interested parties within the next few weeks.

identified in the Commission's March 2012 Interim

Report to the Louisiana Legislature.

Here I would like to take a few minutes to run through some of the major highlights of this update. Some of the material will be discussed in additional presentations as noted in the agenda, and of

course all the full detailed accounting will be available in the report when it's ready shortly.

One of the most important developments over the past year has been the implementation of an expanded water level and chloride level monitoring program through the U.S. Geological Survey.

The Department of Natural Resources was able to secure roughly \$3 million in federal petroleum violation escrow funds to expand the state's monitoring program in anticipation of expanded energy development in the state. DNR has since worked very closely with USGS to establish approximately 200 new water level and some 40 to 50 new chloride level monitor levels around the state. It is a work in progress, of course, but one that we think is going to pay off in a big way by providing a baseline of knowledge for future resource management and decision-making.

CHAIRMAN ANGELLE: And I would encourage members to just jump in. It's an informal presentation. If you have questions you want to ask of Matthew, please feel free to do so. I want to jump in at this particular point in time.

You said that currently the particular program that we were able to secure the funding was to add an additional 200 you said?

```
1
               MR. REONAS: Approximately 200, yes, sir.
2
               CHAIRMAN ANGELLE: So to an inventory of how
3
    many; do you know?
               MR. REONAS: I believe it was some -- I'm not
 4
5
    sure right off, sir.
               CHAIRMAN ANGELLE: Does anybody with the
6
7
    Office of Conservation know how many monitoring sites
8
    there were prior to our securing this, what we had? If
9
    not, let's kind of go on and somebody with the Office
10
    of Conservation can be working on that answer as we
11
    kind of go through the presentation. It seems to be a
12
    pretty substantial increase in the number of monitoring
13
    wells.
14
               MR. REONAS: It's almost a hundred percent
15
    increase, yes, sir.
16
               MR. GRAVES: Mr. Chairman, I have a question.
17
    It's more curiosity. I notice the coastal parishes
18
    don't contain any monitoring wells. Is that due to
19
    their proximity to the sea or ...
20
               MR. REONAS: Yes, sir, these would be for
    groundwater monitoring aguifers, yes, sir.
21
               MR. GRAVES: So there's no point in putting
2.2
23
    them in coastal parishes from a monitoring standpoint?
24
               MR. REONAS: That's right, yes, sir.
25
                    Here in this slide in particular we show
```

the existing water level monitoring well network in green, and the expanded network or the ongoing development of the network here in red. So as you can see, across the state it's very comprehensive. Again it's almost doubling in the size of the current network, and it's particularly focused in areas where there's specific challenges, where we expect future energy development.

As you can see, this band through the Tuscaloosa, Marine Shale, also up here in north Louisiana and those various shale places as well. But it's really going to expand our eyes into all the state's groundwater aquifers, which is a remarkable accomplishment.

CHAIRMAN ANGELLE: And do you have a timetable on when the additional 200 come on, assuming they don't all come on at the same time?

MR. REONAS: USGS has been in the process of developing, going out in the field developing which wells are going to be worthwhile, which ones are not feasible. That should be — they are in the process right now of narrowing that down. Within this next quarter most of these are going to be in operation and in a position to —

CHAIRMAN ANGELLE: Okay. And let me ask you:

```
Do we have any additional wells that are in operation
1
2
    today?
3
              MR. REONAS: I would have to ask USGS, yes,
    sir. But I think most of them have been identified.
4
5
              CHAIRMAN ANGELLE: Who for the state is
    managing this contract?
6
7
              MR. REONAS: I am, yes, sir.
8
              CHAIRMAN ANGELLE: Okay. So you are not
    aware as of today if any of the new additional 200
9
10
    wells which we entered into a contract for, you are not
11
    certain as to which ones are on, and you can get that
12
    information?
13
              MR. REONAS: I can get that information for
14
    you, yes, sir.
15
              CHAIRMAN ANGELLE: I would like for that
    information to be emailed to members of the Commission,
16
17
    and then I would like on a monthly basis for you to
18
    update as I'm assuming there was some start-up work
19
    associated with this.
20
              MR. REONAS: Yes, sir.
21
              CHAIRMAN ANGELLE: And so there was some
22
    delay perhaps, but we should be getting to a point
23
    where on a monthly basis more and more will be coming
24
    on?
25
              MR. REONAS: Yes, sir. We're in the second
```

2.2

quarter of the contract right now, finishing up the second quarter, so -- and again, all that was a lot of field work, getting out in the field testing wells, seeing which ones were viable, which ones were not in a position to be used. So at this point right now the collection, the network is pretty well established.

CHAIRMAN ANGELLE: Some summary -- I don't want the commission members to have to wait until the next meeting to get updated on this.

MR. REONAS: Yes, sir.

CHAIRMAN ANGELLE: I think it would be fair for you to provide that information. I'm assuming you're going to be providing it on your website for the public to know as well.

But again, just some little format that shows how many we had, how many we now have, and what are the plans as we move forward, so commission members can be informed.

Thank you very much.

MR. REONAS: Yes, sir. Thank you.

Here in this slide, showing the chloride monitoring well network, again in green as it currently exists, and then the red is the expanded network; of course here in southwest Louisiana where there are known saltwater challenges, around the Lake

```
Pontchartrain area; here in Franklin Parish as well
1
2
    where there are some saltwater issues around Winnsboro.
3
    So this is really going to expand our knowledge of what
    saltwater issues or what saltwater is doing,
4
5
    encroachment issues and things of that nature in the
    state.
6
7
              CHAIRMAN ANGELLE: Okay. I see you have, I
8
    quess that's kind of a high density of green in what
9
    appears to be East Baton Rouge Parish.
10
              MR. REONAS: Yes, sir. USGS has and Capital
11
    Area Ground Water Conservation Commission already have
12
    an solid representation here in East Baton Rouge
13
    Parish, so that was an area where we didn't feel that
14
    there was any need for additional saltwater or chloride
15
    monitoring wells.
16
              CHAIRMAN ANGELLE: So in that instance, we do
17
    have adequate monitoring we feel like?
18
              MR. REONAS: Yes.
              CHAIRMAN ANGELLE: And the question is
19
20
    whether or not we have adequate management responses to
21
    what this data is showing us?
22
              MR. REONAS: Correct, yes, sir.
23
              CHAIRMAN ANGELLE:
                                  Some of the data
24
    consistently shows in that area that we have a
25
    saltwater problem that's growing in that area.
```

1 MR. REONAS: Yes, sir. 2 CHAIRMAN ANGELLE: So we're getting that data 3 from these type, and then the idea that we would take 4 the data and management would then be able to respond 5 to that. Correct? MR. REONAS: Yes, sir, that's correct. 6 7 CHAIRMAN ANGELLE: All right. 8 MR. REONAS: USGS, their upcoming model 9 should be coming out this summer, from the last 10 information I had, on saltwater encroachment here in 11 the Baton Rouge area. 12 CHAIRMAN ANGELLE: I wouldn't be quoted as 13 saying when you think the USGS report is going to be 14 coming out. And I don't want to be offensive to USGS, 15 but this schedule has slipped I think at least four 16 times since I started asking questions. Hopefully we 17 can get a little bit more information on that during 18 the course of this meeting. 19 MR. REONAS: Yes, sir. 20 Next slide, Brandon. 21 This slide refers to the current 22 situation at the Sparta Aquifer System in north central 23 Louisiana. As we highlighted the update, the 24 groundwater levels continue to improve across the 25 aguifer system. Of course we would like to credit the

Sparta Commission for all of their hard work in the area to raise awareness. As they well know, it's an ongoing effort to educate the public and the local political leadership about the value of the Sparta and the best ways to manage the system.

This slide shows the improvement in wells monitored by the Arkansas USGS from 2004 to 2013 in the area just across the state line, in the Sparta Aquifer area across the state line. USGS here in Louisiana has indicated to us that they are developing some additional graphics for the Louisiana side of the Sparta for later this year.

I would like to utilize this just to point out that, in these Arkansas monitored wells, there has been tremendous improvement in water levels across the board in those monitored wells. And in two cases these are Louisiana wells: The Spencer, which from 2004 to 2013 has shown an almost twelve-foot increase in water level; and then at Junction City, which is in Claiborne Parish here, which has shown almost a 22-foot increase from 2004 to 2013.

Of note that should be pointed out
here -- and this you can see it a little bit better in
the actual report -- but this is the opening of the
Sparta reuse project, the West Monroe Wastewater Reuse

```
1
    Facility in West Monroe, which could -- I don't think
2
    it's there yet -- but could cut the groundwater use in
3
    the Sparta up to 10 million gallons a day.
                                                 This was
    funded -- and you can see it right here and there's a
4
5
    slight bump across the board. This was funded by a
    joint effort from federal, state and local funds, and
6
7
    we feel it's a great example of cooperation on a major
8
    water infrastructure project. It was actually
9
    recognized by American City and County Magazine as such
10
    a project and actually received a Crown Community Award
11
    from the editors for problem-solving innovation at a
12
    local level. So that's certainly a great model for
13
    future work here in Louisiana.
14
              CHAIRMAN ANGELLE: Mr. Ted, is that the
15
    Graphics Packaging program in West Monroe?
16
              MR. McKINNEY:
                              That's correct.
17
              CHAIRMAN ANGELLE: I'm assuming Graphics
18
    Packaging was a willing participant in terms of using
19
    gray water?
20
              MR. McKINNEY: It was.
                                       In fact, Dave Norris,
    the Mayor of West Monroe, and Graphics Packaging were
21
2.2
    the ones really pushing this issue, and it was very
23
    obvious with the cone of depression in the Ouachita
24
    Parish area -- it's similar to what occurred in the El
25
    Dorado area -- that something would have to be done.
```

1 May I add a little caveat to this 2 particular situation? 3 I really am very appreciative, as has already been mentioned here, about the accolades that 4 5 this particular project has been awarded. Mr. Commissioner, you're aware of the 6 7 fact, as Mr. Snellgrove and I talked briefly this 8 morning, about the issue in Union Parish, about the use 9 of Sparta water for fracking purposes. The point I 10 want to make, Mr. Chairman, is at this point we make 11 accolades with this particular issue and other issues, 12 but at the same time we turn around and we abuse that. 13 And this is early on in our meeting for me to bring 14 this subject up, but we abuse that issue by going and 15 taking the Sparta water to frack with. And as you already addressed in that situation, it doesn't make 16 17 sense when you've got a 12,000-acre lake within the same neighborhood as the fracking that's going on. 18 But these accolades are great. This was 19 20 a great project. It has great potential. It will make 21 the Ouachita area recover. There's no doubt about it. 22 CHAIRMAN ANGELLE: Thank you. We'll give you a chance to address that issue a little bit later. 23 24 MR. McKINNEY: Appreciate it. 25 COMMISSIONER WELSH: Mr. Ted, you probably

```
are referring to the recent compliance action we have
1
    taken in regard to the Union Parish. I issued a
2
3
    two-page letter of questions to the company involved,
    and I believe the answers of why Lake D'Arbonne water
4
    was not used should be forthcoming today. I think the
5
    deadline for answers was today, so ...
6
7
              MR. McKINNEY: Appreciate you for doing that.
8
              COMMISSIONER WELSH:
                                    Thank you, sir.
9
              CHAIRMAN ANGELLE: And I'm assuming,
10
    Mr. Commissioner, just to follow up on that particular
    subject matter, the guidance document that you put out
11
12
    as I recall maybe in late 2008-2009, perhaps 2009, on
13
    the use of groundwater for hydrofracking was industry
14
    by in large responded in a very, very positive way. As
15
    I recall some numbers on a report seeing that as much
    as 85 percent, 75-85 percent was surface water.
16
17
                    Was there a recent situation that
    Mr. McKinney is referring to?
18
19
              COMMISSIONER WELSH: Yes, sir. In Union
20
    Parish a company was drilling and developing the brown
    dense, which is a nonconventional gas that takes
21
22
    fracking. Over the last actually two years, when we
23
    would have unitization hearings, I would have a
24
    dialogue with the representatives of the company and
25
    explain our policy of using surface water if at all
```

available, and it was a verbal commitment to do that if 1 2 at all possible. 3 And then we found out very recently that 4 they had contracted to use some groundwater, and that 5 was, you know, not according to the policy. And it's a matter under investigation right now. So that's what 6 7 we're talking about. 8 CHAIRMAN ANGELLE: So you believe that it's 9 more of an isolated situation as opposed to a wholesale 10 change from where we were? 11 COMMISSIONER WELSH: Yes, sir. Again there's 12 three areas that are mainly fracking: Of course the 13 Haynesville shale, the brown dense zone in northeast 14 Louisiana, and the Tuscaloosa Marine Shale north of 15 Baton Rouge. So that is the only area that I've seen 16 where surface water is not being emphasized. 17 CHAIRMAN ANGELLE: Okay. Thank you. 18 All right. 19 MR. REONAS: Okay. Move to the next slide. 20 Staying in north Louisiana, 21 Mr. Chairman, the next two slides show water level 22 measurements in two areas of interest. In south Caddo 23 Parish, the Office of Conservation declared a 24 groundwater emergency in the Keithville and Ellerbe 25 Road areas of south Caddo Parish almost two years ago

now.

2.2

Here we utilized two sets of monitor well data, one from LSU Shreveport's Red River Watershed Management Institute; the other, which is following from USGS. The first slide basically starts at ground zero for the emergency situation here in June, and you can see the baseline, the severe drop through the summer months of 2011.

Next slide, Brandon.

The second slide starts a few months later in September, late September of 2011. But of note, both show the seasonal rise and fall; the rise in the winter months and the fall in the summer months, as water use increases during the summer and lessens again in the fall. So you can see the cyclical rise and fall in both of these graphs, which again are in the upcoming update. Here they both generally show an improvement in water levels which we've noted across the board.

Rainfall levels this past fall and winter and early spring were back to normal in the region, but the areas now, northwest Louisiana, Caddo Parish is now listed as in the abnormally dry category on the most recent U.S. Drought Monitor Report. So the emergency order and its water use restrictions in the

```
area will remain in place until we see longterm
1
2
    significant recovery.
3
                    We are actually in the process of
4
    developing an awareness effort in Caddo Parish on this
5
    very issue, and I'll discuss that in a later
6
    presentation.
7
               CHAIRMAN ANGELLE: Can you go back to the
8
    previous slide.
9
                    So the straight line is the baseline,
10
    and everything, everything above the baseline, every
11
    graph above the baseline is a graph of a different
12
    well, a different monitoring well?
13
               MR. REONAS: Yes, sir.
14
               CHAIRMAN ANGELLE: So the more separation you
15
    have between the baseline and the graph is a good
16
    thing?
17
               MR. REONAS: Yes, sir. And as you can see,
    in the fall/winter of 2011, early 2012, you saw the
18
19
    increase. In the summer months you saw the decrease
20
    again that dipped down. And then again in the winter,
    this past winter you see, and early spring you see the
21
2.2
    increase again. And again the general trend is a
23
    trajectory upwards showing recovery either through
    natural means, adherence to our water-use restrictions
24
```

according to the emergency order, or a combination

1 thereof. 2 So we feel very confident about where we 3 are at with the situation, but it still requires -it's still a very tenuous situation without that. 4 5 CHAIRMAN ANGELLE: Have you shared this particular graph and some summary as to where you are 6 7 today with the elected leadership of Caddo and Bossier 8 and DeSoto? 9 MR. REONAS: Yes, sir. We send that out on a 10 monthly or -- every month or every six weeks with the 11 most recent information, most water well test -- most 12 recent water well test data. So we have that online, 13 it's available. We keep in constant contact with the 14 elected officials. 15 CHAIRMAN ANGELLE: Do you know if the elected 16 leadership of northwest Louisiana has seen this graph? 17 MR. REONAS: Yes, sir, they have received it. 18 CHAIRMAN ANGELLE: Thank you. All right. 19 MR. REONAS: Moving to the next slide, this 20 highlights the success of the Surface Water Management Act which was passed by the legislature in 2010 and 21 re-enacted in 2012. This act has proven a very useful 2.2 23 tool in managing water needs for energy exploration and 24 development in the state.

It's strictly volunteer, but the program

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

this?

has received a very good response from industry and has a strong record of success in evaluating proposed surface water usage through a collaborative review process managed by DNR. Between 2012 and 2013, April 2013 -between March 2012 and the end of April 2013, DNR has received 26 applications under the Surface Water Management Act and entered into nine cooperative endeavor agreements. 15 of the applications have also received administrative clearance and been sent back to the industry, to the corporations for finalization. This graph, which again is in the report, shows the location of the withdrawals from 2010 through 2013. A full review of this whole program is available in the update. But again you can see it by year: 2010, 2011, 2012 and 2013. And again it kind of shows the regional breakdown of where these surface water cooperative endeavor agreements have been established. CHAIRMAN ANGELLE: Okay. So I'm a little surprised by the location, but that could just be my own ignorance.

I see down in southwest Louisiana -- and

I guess that maybe I should ask Mr. Pratt to help me on

```
1
              MR. PRATT: Sure.
2
              CHAIRMAN ANGELLE: I'm a little surprised
3
    that in Lafayette and what looks like St. Martin there
    are a number of -- when there's really no
4
5
    hydrofracking. I realize it's for other uses as well.
6
              MR. REONAS: Yes, sir.
7
              CHAIRMAN ANGELLE: Now maybe, are some of
8
    these as well in the Calcasieu -- what is it called
9
    Mr. Pratt, the channel?
10
              MR. PRATT: Well, we've got our Sabine River
11
    diversion canal system. But those are all -- I believe
12
    most of those are east of those. We've got some there
13
    in Calcasieu Parish, but the majority of those are
14
    outside of our range there.
15
              CHAIRMAN ANGELLE: So the ones in northwest
    Louisiana again instinctively make sense to me.
16
17
              MR. REONAS:
                            Right.
18
              CHAIRMAN ANGELLE: The ones in the Florida
    parishes instinctively make sense to me.
19
20
              MR. REONAS: Right.
21
              CHAIRMAN ANGELLE: Are we talking about
2.2
    farming operations?
23
              MR. REONAS: In southwest Louisiana, I
24
    believe it's actually mostly pipelines, Mr. Chairman.
25
              CHAIRMAN ANGELLE: Pipelines?
```

```
1
              MR. REONAS: Yes, sir.
2
              CHAIRMAN ANGELLE: Do you want to --
3
              MR. REONAS: Dr. Thomas Van Biersel manages
4
    the program.
5
                    Thomas.
              CHAIRMAN ANGELLE: Okay.
6
7
                    Good morning, sir.
8
              MR. VAN BIERSEL: Good morning, sir. My name
9
    is Thomas Van Biersel. I'm the hydrologist with the
10
    Department of Natural Resources.
11
                    What you see there are all the water
12
    withdrawal associated with two pipeline installations.
13
    So it's either tied to pressure-testing the pipeline or
14
    it is tied to drilling underneath water bodies. So
15
    you're looking at one pipeline that went from Texas to
16
    Plaquemine and one pipeline to I do believe Lafayette.
17
              CHAIRMAN ANGELLE: So water associated with
    the construction of that line?
18
19
              MR. VAN BIERSEL: Correct.
20
              CHAIRMAN ANGELLE: Not for the transportation
21
    of water?
2.2
              MR. VAN BIERSEL: Correct. Technically
23
    speaking, that water pretty much usually goes right
24
    back into the water body.
25
              CHAIRMAN ANGELLE: Correct. I think this is
```

```
really good data. I appreciate your putting it
1
2
    together by year. And obviously showing the geographic
3
    location I think helps us kind of get an idea of what's
4
    going on.
5
                    How many you said -- thank you, sir.
    How many? You said there were a total of how many that
6
7
    were executed?
8
              MR. REONAS: Since March of last year, 26
    applications have been sent in to DNR. Again we have
9
10
    entered into nine cooperative endeavor agreements and
11
    15 have received administrative clearance, so ...
12
              CHAIRMAN ANGELLE: So that's since March of
13
    last year?
14
              MR. REONAS: Yes, sir.
15
              CHAIRMAN ANGELLE: That does not
    contemplate -- I want to make sure I'm understanding --
16
17
    that does not contemplate the 2010-2011 numbers?
18
              MR. REONAS: Correct.
19
              CHAIRMAN ANGELLE: It does not?
20
              MR. REONAS: Correct. We could get those
21
    numbers for you.
2.2
               CHAIRMAN ANGELLE: Well, if you could just to
23
    revise this particular graph for next meeting?
24
              MR. REONAS: Uh-huh.
25
              CHAIRMAN ANGELLE: In addition to having
```

```
water withdrawal locations, maybe have the number of
1
2
    contracts or cooperative endeavor agreements by year as
3
    well.
4
              MR. REONAS: Yes, sir.
5
              CHAIRMAN ANGELLE: Thank you.
                    I'm assuming it's down? Since
6
7
    Haynesville activity is down, I'm assuming the number
8
    of contracts per year are less than requested what they
    were, say, a couple of years ago?
9
10
              MR. REONAS: Yes, sir, I believe that's the
11
    case.
           Thomas?
12
              MR. VAN BIERSEL:
                                 The number this year is
13
    actually up. It's relative to the fact that last year
14
    we sent a letter, the Attorney General sent letter to
15
    some of the operators about some of the withdrawals
16
    that had been done without cooperative endeavor
17
    agreement. And so the 15 that Matthew mentioned are
18
    actually post-act agreements in this case.
19
              CHAIRMAN ANGELLE: I think that's very
20
    important. I want to -- especially regarding
21
    Mr. McKinney's inquiry.
22
                    What was the connection point for the
23
    Attorney General to know who to send those letters to
24
    for people who you believed were withdrawing water?
25
              MR. DEVITT: Jim Devitt, Deputy General
```

```
1
    Counsel with DNR.
                    What happens is, between Thomas and I,
2
3
    we identify, using department records, withdrawals of
    water for hydrofracking. We put together a list, we
4
    send that to the Attorney General's office.
5
    Attorney General issues a letter informing that
6
7
    operator of our surface water program.
8
               CHAIRMAN ANGELLE: So the source of your
    information is a WH1?
9
10
               MR. DEVITT: Correct.
11
               CHAIRMAN ANGELLE: So when a WH1 -- which is
12
    a well history report -- when a company says -- and
13
    they have to identify --
14
                    As I appreciate it, Mr. Commissioner,
15
    they have to identify the source of their water.
16
                    When you get that, you doublecheck to
    see -- if it's a public source, you doublecheck to see
17
18
    if you have a cooperative endeavor agreement.
19
               MR. DEVITT: Correct.
               CHAIRMAN ANGELLE: If you don't, you provide
20
21
    that information to the Attorney General and they have
    sent letters. And as a result there has been an
2.2
23
    increase in the number of applicants based on --
24
              MR. DEVITT: Correct.
25
               CHAIRMAN ANGELLE: Good job.
```

1 MR. McKINNEY: Mr. Chairman, I have a 2 question regarding this. 3 The gas leaching mining in the Arcadia area, would that not have been noted on here somewhere, 4 5 the amount of surface water and groundwater that was 6 used? 7 CHAIRMAN ANGELLE: On this particular graph, 8 I don't know. Are they using surface water or 9 groundwater in that incident? 10 MR. McKINNEY: They were using both; using 11 Sparta to start out with, until we met them. 12 MR. VAN BIERSEL: Correct. So far for the 13 nonparticipants, what we have used is a record of the 14 We just in this case, when we asked the Attorney General to issue a letter, it's either coming from data 15 16 from the WH1 files or from the Section 10 permit for which we issue reviews. 17 18 CHAIRMAN ANGELLE: Let me jump in. Let me 19 just try to help with the question here. 20 When you look at this map, do you see a particular spot/dot that would represent what you think 21 2.2 would be the area where surface water is being used for 23 the leaching of these caverns? 24 MR. VAN BIERSEL: No. 25 CHAIRMAN ANGELLE: And that's in what,

1 Bienville? 2 MR. VAN BIERSEL: Yes. 3 CHAIRMAN ANGELLE: In Bienville. So are you aware if there is a cooperative endeavor agreement for 4 5 surface water by the folks who are creating caverns for gas storage in Bienville Parish? 6 7 MR. VAN BIERSEL: No, I'm not aware of it. 8 CHAIRMAN ANGELLE: So what I'm hearing you say is that you are of the belief that they are, in 9 10 fact, using surface water in part. 11 MR. McKINNEY: Well, they were, were using 12 some creek water, and they were using primarily Sparta 13 water until we met with them a year or so ago. And 14 they was not aware of the water issue in that part of 15 the country. The biggest concern was how do you dispose of the brine that that creates, not where do 16 17 you get the water from. 18 So they have entered into agreement with 19 the City of Arcadia, and they -- both reproducing 20 plants there and a local creek, and they are using at maximum around 4 million gallons a day. But I think 21 2.2 that project is about in its final completion stage. 23 They mined two domes, huge domes. But anyway, I just 24 saw your graphic here and I didn't see a dot there. 25 CHAIRMAN ANGELLE: Could very well be that

```
1
    their surface water they are using is from a private
2
    source, and if it is --
3
              MR. McKINNEY: It's from a local creek.
              CHAIRMAN ANGELLE: Well, let me just say, if
4
5
    it's from a private source, it would not be subject to
    a cooperative endeavor agreement from the state.
6
7
                    If you do have information that you
8
    believe that surface water that is being removed from a
9
    public body, consistent with the Attorney General's
10
    opinions, you need to provide that information to us.
11
              MR. McKINNEY: Okay.
12
              CHAIRMAN ANGELLE: All right.
13
              MR. REONAS: Moving on. The next slide shows
14
    energy development in Louisiana. This is relating to
15
    the use of both ground and surface water; hence its
16
    inclusion here. It shows activity in Louisiana, energy
17
    development activity in Louisiana from 2008 through
    2012, particularly the growth in horizontal drilling or
18
19
    hydraulic fracture techniques. The difference is very
20
    important as far as oil wells tend to consume large
21
    amounts of water than traditional vertical wells.
22
    Today most of this activity has been combined in the
23
    Haynesville shale area of northwest Louisiana.
24
                    On this chart you can see the rise in
25
    horizontal wells, the red line, started here, through
```

1 the boom in 2009 and 2010, and then the decline 2 following the collapse of natural gas prices in 2011. 3 As you can see, the number of horizontal wells, again the red line, tracks almost exactly with 4 5 the number of wells in the Haynesville shale, which is the black line. So you can see the correlation very 6 7 closely here with these two lines. 8 CHAIRMAN ANGELLE: So one would deduce that 9 nearly all of the horizontal wells are in the 10 Haynesville? 11 MR. REONAS: Yes, sir, that would be a 12 correct deduction. 13 Likewise, the green line here shows the number of vertical wells in the state and reflects the 14 15 dominance in that 2009 through early 2011 period of 16 horizontal wells, the increase in drilling activity using those hydraulic fracture techniques. Again the 17 18 key points here, the crossover point, so to speak, in 19 the early fall of 2009 and the dominance of horizontal 20 wells over vertical wells, and then again the crossover point on the back end of the Haynesville shale boom 21 2.2 here in 2011 when vertical wells would have resumed 23 their traditional position. 24 CHAIRMAN ANGELLE: I think this is a great 25 graph. I would just point out for members for your own

significant spread between the green line and the red
line in 2008 -
And I'm assuming, Mr. Commissioner, that
vertical wells tend not to require a whole bunch of
water than maybe kind of more of a rig supply; is that
correct?

COMMISSIONER WELSH: Yes, sir, that's
correct.

CHAIRMAN ANGELLE: So in 2008, again looking
in the 2008 area, the big difference, members, between
the green line and the red line is that the primary
choice of exploration was a vertical well, which is
something that our fathers and grandfathers were more

observation, if you go back to 2008 and you see the

And then now, because of I'm assuming a collapse in commodity prices for natural gas, there is in 2012 not as much interest in the horizontal exploration of natural gas wells and perhaps more interest in a vertical well approach, and in 2012 you

accustomed to. And then you begin to see in 2009 those

exploration went way down at the same time horizontal

numbers get really close together as vertical well

well exploration went up, and you actually see the

25 see that separation begin again.

graphs cross in 2010.

```
1
                    So the observation to me is that the
2
    challenging part for you all to manage was really in
3
    2010 and 2011, and it would appear like the water
    resource management has -- while important in those
4
5
    areas, it is not as challenging as it was in 2010 and
    2011.
6
7
              COMMISSIONER WELSH: That's correct. You
8
    might find interesting also, we had a hearing yesterday
9
    where one of the major companies in the Haynesville
10
    announced they were going to drill 47 new wells based
    on longer lateral technology is advancing. So that's,
11
12
    as far as development, that's good for natural gas.
13
    And they think they can -- that longer laterals can
14
    make up for the lower price now.
15
              CHAIRMAN ANGELLE: Is it public record as to
16
    who that company is?
17
              COMMISSIONER WELSH: Yes. Encounter. (?)
18
              CHAIRMAN ANGELLE: Encounter?
19
              COMMISSIONER WELSH: Yes.
              MR. REONAS: The next slide shows the rig
20
21
    count -- again some more comparative numbers -- shows
22
    the rig counts from 2008 up through April of this year,
23
    April of 2013. And again you can see the peak, the
24
    rise through -- in 2010 the peak up to over 190 wells
25
    on average, and then the decline down through
```

2.2

160-some-odd in 2011, and then back down to about roughly 120 average through 2012, and a little bit slightly lower than that currently, the current average to date in 2013.

I think the important thing that we stress in here in the update is the fact that we have a strong framework in place for handling energy development needs going forward. Again we mentioned the Surface Water Management Act, which has been very successful; and we've also had a number of administrative and reporting provisions implemented by the Office of Conservation which provide another set of practical management tools. These include the issuance of water use advisories, operator education and outreach efforts, water sourcing requirements for hydraulic fracture operations, and aggressive enforcement of groundwater use notification, and sustainability evaluation mandates.

These measures worked well during the peak of the Haynesville shale when we had approximately 80 percent of the hydraulic fracture wells in the area utilizing surface water resources rather than the local aquifers.

Closing on that --

You can go ahead and move to the next

slide.

Before I turn the floor back over to you, Mr. Chairman, I would like to run through some of the major achievements from the list of recommendations in the March 2012 interim report.

As you well know, there was an extensive set of recommendations, and the full review of progress towards all of these specific recommendations is, will be forthcoming in the update report that will be ready within the next few weeks. I would just like to run through a few of the highlights right off, though.

As noted earlier in the presentation,

DNR has completed the contract with USGS for a

three-year monitoring program which is currently

underway. I'll get to you the most recent status on

that and copy all the other commissioners as well.

I did look through my notes very quickly. The number of wells, the existing network as I thought, was under 200 wells with the implementation of this program. So it is almost a hundred percent increase in our network or coverage of test wells in the state.

We also have reached an agreement with the Louisiana Geological Survey to install several new gauging stations and update approximately 50 existing

gauges to monitor surface water discharge around the state, primarily in areas where we expect expanded energy development in the next few years. We're really excited about this work.

The information that we gather from these programs will establish a scientific foundation for all future resource management decisions. It should be noted, however, that these are time-limited programs. It's a three-year window we have here. So this is an important issue that we need to continue to look at moving down the road in terms of finding a longterm source of funding.

Related to this issue of resource management, the Office of Conservation completed a major audit of Compliance and Water Well Owner

Notification Regulations in 2010 and 2011. We issued new water well driller regulations for notifications in November of 2012. These new regs simplify the notification process and provide Conservation staff with a tool for more efficient enforcement.

The Office of Conservation also has tightened our evaluation procedures for new water wells by implementing a water-use evaluation checklist. This went into effect last summer. In general, the Office of Conservation is continuing that process of

transition and revision for the entire water well 1 2 program that began with the transfer from the other 3 program from DOTD in 2010. The Office of Conservation also has 4 5 reviewed its Groundwater Emergency Response Contingency Plan, reviewed that with the Governor's Office of 6 Homeland Security and Emergency Preparedness, GOHSEP, 7 8 and added additional language on the routing of such 9 emergency decisions through that agency for multiagency 10 cooperation. I'll offer a review of Office of 11 12 Conservation education efforts in a later presentation, 13 and I'll also follow that with a brief review of plans 14 for a mini-conference on state water issues, resource 15 management issues for later this fall. Again, that 16 will be later on in today's meeting. 17 Again, a full review of progress towards 18 the complete and extensive list of recommendations here 19 from the 2012 interim report will be released shortly. And on this note, Mr. Chairman, I would 20 21 like to turn the floor back over to you. 22 CHAIRMAN ANGELLE: Thank you very much. 23 I'm assuming that once that's released, 24 you will mail copies to each of the members? 25 MR. REONAS: Yes, sir. We will have hard

```
copies as well as electronic copies.
1
2
               CHAIRMAN ANGELLE: And it's a factual report
3
    of the steps that have been taken to implement the
    recommendations that were made?
4
5
               MR. REONAS: Yes, sir. Yes, sir.
6
               CHAIRMAN ANGELLE: Okay.
7
                    Members, any questions?
8
                    All right. We thank you very much.
    Appreciate it. Keep us informed.
9
10
               MR. REONAS: Yes, sir, we will.
11
               CHAIRMAN ANGELLE: And we will now go to
12
    Item 5. Pleased to welcome Mark Davis.
13
                    Is mark here yet?
14
                    While Mr. Davis makes his way to the
15
    table, he is the Director of the Tulane University
16
    Institute on Water Resources Law & Policy. I've had
17
    the opportunity to work with him in a variety of
18
    capacities, and certainly a great talent that we have.
19
    And we're happy to have you from Indiana to Louisiana
20
    in a permanent way, sir.
21
                    So again, welcome to the Water Resources
2.2
    Commission.
                  The topic of your presentation is
23
    Potential Impacts of the Tarrant Regional Water
24
    District versus Hermann -- is it Hermann -- in the Red
25
    River Compact case report on the United States Supreme
```

1 Court. 2 Welcome, sir. Thank you. 3 MR. DAVIS: Thank you, Mr. Chairman. It's a 4 pleasure. Commission members. 5 I would also like to introduce Chris Dalbom, who is a colleague of mine at the institute, 6 7 and he has been working with us on the Tarrant -- and 8 not just the Red River, but other compact issues. 9 if there are questions that I can't answer, he probably 10 can. 11 CHAIRMAN ANGELLE: Thank you. Welcome, sir. 12 MR. DAVIS: Well, first of all, I think most 13 of you are probably generally familiar with the notion 14 of these interstate compacts that Louisiana has joined 15 into. We have really two, the Red River and the 16 Sabine. 17 And the Red River Compact is one that 18 has been in existence since 1980. It was negotiated in 19 1979 between Arkansas, New Mexico -- I mean Arkansas, 20 Oklahoma and Texas and Louisiana. The notion was it would allocate the waters of the Red River so as to 21 2.2 avoid conflict and confusion. Indeed, one of the 23 purposes of the compact is to promote interstate comity 24 and remove causes of controversy between each of the

affected states governing the usage, control and

distribution of interstate waters.

While obviously we wouldn't be in the United States Supreme Court if it was working all that well for those purposes. And I think one of the things we have to realize is that the nature of the dispute is one that was not necessarily envisioned by the drafters of the compact; but as a member of the compact, Louisiana has a very important interest in both tracking the argument of the case and understanding the outcome of the case when it does come down, which could be in a matter of months.

And what we will be doing at Tulane is we'll be doing a more detailed analysis of the actual outcome of the case. So rather than speculating on what the implications might be, we'll be able to give the Commission a more detailed and explicit explanation.

A little bit of background: The Tarrant Regional Water District is a water utility and it provides water to a portion of north central Texas that includes Fort Worth.

Texas has long recognized that it could not continue to grow without the importation of water. If you go back to Governor Connally's water plan in the 1960s, it recognized that Texas would need to bring in

2.2

at that time they thought around 13 million-acre feed from the Mississippi River.

Their needs haven't gotten any less important. And the history of how this case came to be is pretty colorful -- we don't have to go into it here -- but it involved efforts to buy water from Oklahoma that Oklahoma was originally willing to sell; and then Oklahoma came to the realization that this was really a strategic asset and that, quite frankly, if growth was so dependent upon it in Texas, perhaps that was growth that ought to come to places where the water was.

The fundamental issue is whether, you know, neighboring states are intended to be water mines for those states that have more aggressive growth plans.

The current lawsuit began in 2007 when Tarrant sued Oklahoma, arguing that the Red River Compact gave them a right to 25 percent above the minimum flows of what is called Reach II.

Now Louisiana is not really interested in Reach 2. We have interest in Reaches III, IV and V of this compact. So we're not explicitly involved in some of the linguistic interpretation that comes out of this lawsuit that is specific to this region, some of

2.2

its subbasins. But there's enough here that is of general application and how the treating of this compact as a whole is going to be construed and interpreted that it's going to be of profound important to Louisiana as it charts its water stewardship future.

CHAIRMAN ANGELLE: Did Tarrant claim that they had a right to this as a county within a state that was subject to the compact?

MR. DAVIS: They are claiming — there were two arguments that could be made here. One is that the compact, in addition to giving them 25 percent minimum right of flow, they thought that that gave them a right to get it from anywhere they could get it, including Oklahoma. Oklahoma said, You have a right to 25 percent, but you have to find that 25 percent within your boundaries.

one that involves the United States Constitution and the dormant commerce clause. And the dormant commerce clause — for those of you who have not spent your free time studying the Constitution — essentially holds that water — that things that, you know, could be major influencers of interstate commerce can be the sole province of the United States government; and water, since 1982, is one of those. It's an article of

commerce according to the United States Supreme Court in the Sporhase v. Nebraska case, a case that came after the negotiation and approval of this compact.

And the idea there is what happened in the Sporhase case that is of some interest here is that, when states try to keep other states from accessing their water, they can't just say: It's our water, you can't have it. Even if your law says it's a public thing, it doesn't necessarily mean you can prohibit the export of water under all conditions.

And that's one of the other issues that has arisen in this case is whether or not the commerce clause of the United States Constitution confers a right upon Texas to go into Oklahoma or other neighboring states — and this is one of the issues that would be of great interest to Louisiana — and essentially force them to open themselves up to water marketing. How that would exactly happen, the courts have never figured out or said, but this would be one of the illuminating cases.

The lower courts, the trial court and the Tenth Circuit Federal Court of Appeals, agreed with Oklahoma's interpretation, saying that even though you were given 25 percent over minimum flows, that does not mean you have the right to go into neighboring states

to get it. And secondly, they concluded that the compact grants the signatory states -- and this is another important factor for Louisiana -- the right to actually put restrictions on exports of water that perhaps the commerce clause wouldn't allow.

Now that was not one of the things that the drafters could have known because, when they drafted, they had no idea that the Supreme Court in 1982 could declare that water of all sorts, not just navigable water, even groundwater, are articles of commerce and that they could not just be put out of reach for any and all purposes. But this is one of those things that, as creature of federal law, they may be able to do that, and Louisiana may as well.

Texas sought review by the United States Supreme Court, and the Solicitor General of the United States also thought this was important enough from a compact instruction issue, and to make sure that we didn't get too far off, you know, walk the commerce clause plank unnecessarily, and urged that the Supreme Court take the case. The Court did, the case has been argued, and now we are waiting determination.

I need to reveal, just for disclosure purposes, that I was one of the -- and Chris as well -- were both amici, which means friends of the court. We

2.2

urged that essentially the lower court interpretation was correct in the brief that we filed with the Supreme Court.

The key implications for Louisiana here:
There are a couple of things that we need to start with which is, what's different between our situation and
Texas and Oklahoma? First of all, we're in a different posture because we're not involved in the same reach of the river and the same provisions of the compact that are the subject of the litigation. So it means that determination of this case is not necessarily determinative of our rights and responsibilities.

Secondly, we have a very different legal tradition. We are essentially a riparian state, which means we have never actually been in the water-marketing business. We've never allowed people to come and take surface waters and divert them and put them to private uses as a feature of law. That is not the law, you know, in Louisiana. It is the law in Oklahoma and Texas, which is a prior appropriation —both prior appropriation jurisdictions; and that means you gain rights by taking water from surface streams, putting them to use, and the notion of wasted water is water that is not utilized. That is a very different tradition and essentially one that views water as

something to be exploited commercially.

So that was -- it's one of the other traditions that we do not share, so how a riparian state's traditions would be respected by the courts under this compact is something that hasn't been explored but could be muffed. On overly broad decision by the Supreme Court could essentially change Louisiana state law, and that's one of the things we have to be mindful of.

We also have a very important interest in the case in a number of other ways: The issue of whether or not there are barriers to out-of-state sales that offend the commerce clause, because Louisiana obviously to this point has not gotten into the business of water marketing. We certainly have people, as Mr. Pratt knows, who have expressed an interest in taking Louisiana water.

One of the things, when we look at Act 955, I mean, that is essentially the beginning of a new approach to water management in Louisiana. Apart from just traditional riparian rights where people who live or own land next to flowing waters could use the water, we're now allowing people to come to the state and enter into cooperative endeavor agreements, which are effectively a regulatory type scheme which allows water

to be used, not only in different places, for but different purposes, including consumptive purposes, and that's a new feature in Louisiana.

So is there anything that would prevent a Texan from saying: Well, you sell it to the guy in Caddo Parish for fracking, you can't now say you won't sell it to me, you know, for drinking in Houston and San Antonio or wherever. The question here is whether or not, you know, Louisiana's interest has been well expressed enough to draw a line at our boundaries for any purposes.

The second issue is whether or not the compact gives us rights to draw lines that constitutionally we might not be. That's a very important one because, quite frankly, roughly half of our waters in Louisiana are covered by compacts, between the Sabine River Compact and the Red River Compact, which cover not just the main stems of those rivers, but their tributaries, means things like the Ouachita River and all those that flow into the Red and the Sabine which have similar — that compact has provisions, you know, may give Louisiana rights that we don't really recognize in our civil code and revised statutes.

On the other side, it may create

1 obligations that we've never really recognized fully 2 just by looking at Louisiana case law and Louisiana 3 statutes. 4 CHAIRMAN ANGELLE: Do you want to maybe give me a little bit more information on perhaps obligations 5 and responsibilities that it might impose upon us? 6 7 MR. DAVIS: Well, for example, if the Supreme 8 Court concludes that, you know, Texas wins, and they conclude that they have the right to go into other 9 10 states, and if they do not narrowly define how they are interpreting the compact and limiting it only to Reach 11 12 II, but also perhaps to Reaches III, IV and V; if they 13 were to say that you can find your 25 percent anywhere 14 essentially within this compact region, then Louisiana 15 might find itself obliged to become a water marketer. 16 CHAIRMAN ANGELLE: But would not Louisiana then also receive a right to get 25 percent from Texas? 17 MR. DAVIS: Well, that's true. But if Texas 18 19 had the 25 to get, they wouldn't necessarily be going 20 first to the neighboring states and fighting these 21 fights. 22 CHAIRMAN ANGELLE: I understand that, but --23 MR. DAVIS: The short answer is yes, 24 Mr. Commissioner, that these are not one-way 25 arrangements.

2.2

But as one Tarrant commissioner noted in the press, you know, a couple of years ago, that they viewed Oklahoma as the Kuwait of water, you know. You can only imagine how they view a place like Louisiana which has a slightly more water than Oklahoma.

There's essentially places that have lots of water and places that don't, and places that have it will be the targets if they are not planning otherwise.

MR. LOEWER: Just for our information, it's four states and Texas has 25 percent, is it equally distributed or not?

MR. DAVIS: They each have 25 percent above the minimum flow.

Now Louisiana has a certain right to a certain flow at the border, so that's part of the minimum flow. So as I say, the mechanics of the compact, you know, work differently as it flows. But it's quite possible that lawyers and judges who don't really understand the lay of the land can write opinions that are broader than they may wish them to be, and that's one of the things that we have to look at. And it's one of the reasons — and I want to commend the state of Louisiana and Attorney General — they briefed this case. They joined in to make sure

that Louisiana's perspectives were understood. They weren't sitting back waiting, you know, for the opinion to come out before educating the Court. We'll see how well the education process went.

CHAIRMAN ANGELLE: This would seem to have some impact, not only on a variety of obvious issues of industry and agriculture, but certainly would also have a potential impact on coastal resource issues.

MR. DAVIS: I think that's absolutely right; and it's one of the things that I think, you know — states do have rights to protect their water for vital state interests. Even that 1982 case recognized that water is something special. They just used to think of it as really, really special, and that states had unlimited abilities to define how water would be used, the waters that were within their states.

That's no longer really the slam dunk that it was before, and so I think what we now are looking at is how does Louisiana — and this is one of the important lessons — is that the states that actually articulate why their waters are important, have programs, laws and policies that are consistent with those values are the ones that will have the best shot of defending or pursuing their rights in the world that's coming.

The one thing I think we can guarantee is that this is not an anomaly. In fact, Texas is in the midst of litigation in the United States Supreme Court against New Mexico over the Rio Grande River. This is something that they live with every day; every Western state lives with this every day. Increasingly Southeastern states like Georgia are living with this every day because they have grown beyond their water budgets. And rather than accept the fact that there are limits to growth or needs for conservation, they are looking for other places to get their water.

Those are the realities, and that's why

Those are the realities, and that's why these compacts are so vitally important because they essentially create the law of the river. It may not be the law that most of us are familiar with, it may be largely understood by a handful of people like, you know, the members of the Red River Compact Commission; but we all have to be well aware of it, because when we're talking about framing new water laws and policies, as the legislature has asked this Commission to do, it's asked the Louisiana Law Institute to do—which I sit on that water committee as well—that you can't do that if you're only looking at your own casebook, if you're only looking at your own statutes.

It's very, very clear that federal law

1 is increasingly an important piece of the legal and 2 policy architecture, and that's one of the things this 3 case is going to remind us of. So rather than being surprised by it, we have to become more well versed, we 4 5 have to know both when we expect to defend our interests and again when we may wish to prosecute them; 6 7 because the outcome of this case will probably have 8 some bearing on how the Sabine River Compact is going 9 to be interpreted. It will probably, as I say, 10 determine not only how we manage the Sabine River itself and the Red River itself, but its tributaries. 11 12 And there's another case, again the one 13 I just mentioned that Texas is pursuing against New 14 Mexico, because one thing you all probably know since 15 you're pretty skilled at what you do and you know that 16 the notion that there's a big difference between 17 surface water and groundwater, which the law presumes 18 and once was culturally well accepted, is 19 hydrologically a mistake. 20 Many of our surface waters are 21 completely integrated with groundwater features: 22 Sometimes they feed the groundwater, sometimes they are fed by the groundwater. And one of the issues that 23 24 Texas is bringing against New Mexico under the Rio 25 Grande Compact is that they are violating their terms,

1 their promises to deliver the amount of water that 2 Texas is entitled to by allowing groundwater 3 withdrawals, because if you withdraw water from the aguifer, that lowers the water levels in the rivers. 4 5 Hydrologically that's not very hard to understand; legally it's a different planet. And we 6 7 need to know that because Louisiana, up to this point, 8 has completely treated those as different resources. We do not respect the hydrologic connections or 9 10 essentially the functional differences the way that we 11 really should. 12 We don't even treat -- we treat flowing 13 waters as though they are public things. We treat 14 groundwater that feeds public water as essentially it's 15 a fugacious mineral waiting capture, and quite frankly, 16 the state gets paid nothing for it. 17 So those are the kinds of things that I 18 think we're going to learn from these cases that are 19 coming down from the Supreme Court in the next few 20 I think that it's absolutely clear that the months. 21 lessons that are already taught: Cross-border 2.2 water-demanding conflicts are here, and they are going 23 to come more frequently. 24 Preparation in regard to policy law and 25 programs is going to improve the odds of the players;

and the more prepared you are, the better the chances that you're going to be the winner in this fight. And I would suggest -- and this is perhaps viewed as self-serving -- but I think good lawyering matters.

The one thing that we've seen is that the compact language itself doesn't say much. It's the background documents which explain the negotiations and what the parties intended essentially that give context, and that's really where the lawyering takes place, is what has really informed the courts in coming down in favor of Oklahoma.

I think that we also need to realize that, when you're dealing with things of this value, that again, if you wait until the last minute to ask yourselves the questions about rights, duties and obligations, you're probably going to be playing someone else's game; and that's one thing I think Texas can -- we can draw that from the Texas experience.

And I think it's also absolutely critical for us to realize that the nature of these compacts, they are nothing but contracts; and you can write a good contract, you can write a bad contract; you can have contracts that are easily enforceable and ones that are not. And it's one of the things that Louisiana is going to have to think about as it goes

forward.

2.2

Since we're the downstream state in so many of these things, one day there will be some kind of arrangement on the Mississippi River. That's almost inevitable. There's just too much at stake to let that river system go — with 31 states contending for its waters and Louisiana and its coast and its navigation and its agriculture and its water supply — for municipalities and industry being left, you know, up for grabs. Louisiana is going to have to find a way to get ahead of that game and steer that conversation, and you're going to have to decide where you really want these disputes to be heard.

This one, we have a Red River Compact Commission. That's not where this is being resolved. Texas has decided this is going to be handled in the courts. This was not going to be handled through mediation, arbitration, conciliation or anything else. The choice of forum can make a huge difference in the outcome you will get.

So I would urge that Louisiana -- the lessons so far from the Tarrant case is, A, be prepared. Be clear about the value that water has to you and make sure that your laws, policies and programs back it up; and prepare for conflict. Only by

```
preparing for conflict can you avoid it and ensure
1
2
    that, when it does come, it's handled in the most
3
    appropriate forum and the most appropriate way.
                    That's how we see it at this point.
4
    We'll wait for a couple of months to see what the Court
5
    actually says, and then we would be happy to come back
6
7
    and report to you again.
8
                    Chris, do you have anything you would
    like to add?
9
10
               MR. DALBOM: I think you covered it pretty
11
    well. Good job.
12
               MR. DAVIS: I passed the audition.
13
               MR. LOEWER: Mr. Chairman, I'm Jackie Loewer.
14
    I have a question.
15
                    Thank you for that report.
16
                    What should we have in place that we
17
    don't have that would protect us?
               MR. DAVIS: Well, right now Louisiana has
18
19
    essentially the water laws it had, you know, when we
20
    developed our civil code. We have two civil code
    articles that really define how surface water is used,
21
2.2
    and it recognizes that water use is for people whose
23
    property adjoins water or that the water travels
    through.
24
25
                    It's one of the reasons for the Attorney
```

General's opinions, when the fracking came, and the issue was whether or not it was okay to take surface water and put it to use outside of that range. We've only had four cases ever dealing with the use of surface water for any of these purposes, lots of drainage cases; and not one of those cases references a statute or a civil code article. I can't tell you how good that jurisprudence is.

I will also tell that you right now it is still the law in Louisiana that groundwater is a separate creature from surface water. I think that that is something that ultimately has to change. We need to be managing water as a strategic resource, one that we understand and manage in the most scientifically informed manner possibly.

And I think we also have to recognize that water is, in fact, a strategic asset that has value. Right now, if someone comes to the state of Louisiana and wants surface water — for example, a mining operation or let's say I wanted to take it to another community 20 miles away for drinking water — I may have to come and do a cooperative endeavor agreement, pay a small amount of money; but if I go to groundwater, I don't pay anybody anything, even though it may be exactly the same water.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

The price that we saw being offered for the Sabine River, the water a year ago, is very different than the price that we've traditionally been charging, even under these cooperative endeavor agreements. We don't really have a notion of what the price points should be. And when the price point is different as to whether you're taking from a lake, a river or an aquifer, you're at war with yourself. The states -- and we're one of the very few states in the United States that have not actually taken a shot at more holistic management of water. good news is some states have done it and done it wrong. It's hard to undo. We're in a position I think we can be informed by that, and that's what I would strongly urge this Commission and the State of Louisiana to embark upon. As I say, compacts can be done well or poorly, statutes can be done well or poorly. We have to build in flexibility and value as we do this. But again, if we don't, we'll find that someone else is doing the planning for us, and it may not be someone you want. CHAIRMAN ANGELLE: Mr. McKinney. MR. McKINNEY: There's a very simple illustration for those of us that's in the farming

business. It so happens my family is in the soybean and rice business up in the Stockyard, Arkansas area. Very simple, we've all experienced it: My neighbor upstream captures his water to fill his reservoirs. I have to wait until he has filled his so I can fill mine. My neighbor below me is the same way.

It's of the utmost importance that we as a state and me as a neighboring farmer respect the guy above me and the guy below me; but we must not ignore the fact -- and I'm sure you're quite aware of this -- that for us here in the state of Louisiana -- and Mr. Commissioner, I brought this up in a recent meeting that we had with you and the delegation from Arkansas -- we must not ignore the fact that we have to work with the people of Arkansas and the people that the adjacent Mississippi River flows through.

Fortunately for the State of Louisiana, the Mississippi flows through and out of Louisiana, so there is no one below Louisiana, and there are many other issues where waters flow out of Louisiana. But we must in some form or fashion have a cooperative understanding of what's coming in and what we're going to do with it. So I just use that as a very simple example. And I don't even remotely begin to understand the complexities of dealing with water, and I'm sitting

1 here on this commission. 2 But when you start talking about, as 3 you're talking about in the Tarrant County situation, we can easily begin to see how difficult this can 4 5 become, and it's been going on for centuries apparently. But I just wanted to bring that simple 6 7 little illustration, Mr. Chairman, as to what we need 8 to think about in dealing with our neighboring states. 9 MR. DAVIS: I think that's a very good point. 10 The best way to deal with neighboring 11 states is to know what your deal points are so you'll 12 know again: Do we have surplus water? 13 There's nothing that says Louisiana 14 can't and shouldn't share water; but we have no idea 15 how much we need, when we need it, what sources we 16 should count in determining that water budget. 17 don't really know if we're going to be dealing with upstream states. And these issues are coming up now. 18 19 After the big floods in the Mississippi 20 two years ago, there was a move on the Missouri to say, 21 flood control should be the only thing that we manage 22 this river system for. And the only way you can manage 23 it for flood control is to take water out of the 24 system. The bucket can only be so big. 25 Well, the only place you're going to put

those waters now would be in an another reservoir system, one that states like Colorado, New Mexico and Nevada would be delighted to advocate for and, in fact, are advocating for.

Now, without high water, occasional big water, you don't have a delta. If you don't have a delta, you essentially lose the land mass, the fisheries, all the things on the lower end.

If we're not in a position to articulate what kind of rivers we need, or aquifers, then we can't expect other people to figure it out for us.

So I think we have to understand that we're going to be in a very robust negotiation where our future and our prosperity and where, you know, in a world in which as some people have said, water is the new oil -- well, that doesn't mean oil is going away -- it just means that water is going to have a value that we have not ascribed to it in well over a hundred years; and that places that have water are going to be either those that prosper, or they will be essentially the mines that fuel the prosperity of others.

And that's the threshold determination that Louisiana has to make. It's the one that Oklahoma has made and that they are defending in the United States Supreme Court. It's the one that the Great

Lakes states have made; where they now, by virtue of a compact of their own, prohibit the export of water, not just to other states, but to other countries.

They were experiencing the arrival of tankers from around the world that were filling up and going to sell water wherever. This is not something off in the future. This is already happening. And as a water-rich state, we have been allowed to ignore the urgency that our neighbors ascribe to these waters. I think we would do that at our peril if we continue it.

CHAIRMAN ANGELLE: Mr. Knotts.

MR. KNOTTS: Yes, I just want to provide a little more information on the Red River Compact.

I don't want to call it a conflict; but as Mr. Davis pointed out, we do have issues with the neighboring states. In fact, the Arkansas issue, there's a couple of streams that we monitor on a quarterly basis to make sure they meet the minimum flows as prescribed in that compact.

The last few years, with some of them being drought years, we have notified the state of Arkansas that they were not fulfilling their requirements to the state of Louisiana as per that compact. We've traded a few letters with them. And depending on their current or their response back to

us, we've already notified the Attorney General as to how that may be resolved. But I think that again is going to be another issue to test the resiliency of that Red River Compact.

And Mr. Spicer and ag and forestry are involved also as I believe the case was brought to our attention by farmers in the state of Louisiana not getting the water flowing down from Arkansas.

MR. DAVIS: That's a very good point. And I just got back from a trip to Vietnam where we were looking at how the Mekong River is managed. Same basic issues, and they have the same issues of trans-boundary; but it's not another state, it's another country.

And the one thing you have to realize is that it's very hard to come up with arguments, facts, data and things to convince someone whose job it is to not be convinced that your arguments are compelling, and that's where you often find yourself. It's not because Arkansas wishes Louisiana ill; it's that Arkansas has a job of putting Arkansas first.

And so it's hard to find someone who is in the position with the decision-making responsibility to actually do what Louisiana wants. And it's one of the reasons I think that Texas went to the Supreme

```
Court or it went the courts, because they realized that
1
2
    at least that way there would be a resolution.
3
                    I find that generally the courts are
4
    pretty uninformed about water issues, particularly when
5
    you get into things like Louisiana's interests. I
    mean, I'm a big believer in the judiciary system, but I
6
7
    don't believe in giving them questions that they don't
8
    handle well if you haven't teed them up with great
9
    clarity and care.
10
               MR. FREY: Question on the case, Mr.
11
    Chairman.
12
               CHAIRMAN ANGELLE: Yes, sir.
13
               MR. FREY: Back to the case, Mark, you said
14
    you filed a curiae. Who all did file? That's AG's
15
    office, Tulane?
16
               MR. DAVIS: There was an amicus brief from
17
    law professors and political science instructors, not
18
    just from Louisiana, but elsewhere, and we signed onto
19
    that brief.
20
                    And the State of Louisiana, through the
21
    Attorney General's Office, I believe joined with
2.2
    Arkansas in filing a brief.
23
                    So, if you look at the way the briefing
24
    fell out, there were a number of friend of the court
25
    briefs in favor of Texas, all from within Texas; and
```

then there were a number of friend of the court briefs for Arkansas that came from all sorts of places, because that was essentially the one that was trying to defend to the maximum extent possible state sovereignty over water.

But I want to just alert you that the notion of state sovereignty over water is a diminishing concept. It's very difficult for us — and this is what we see, if you will, in an Atlanta. If you don't know it, I'm sure that those of you who work on fisheries issues and the like, agriculture issues, Apalachicola is collapsing as a fishery. One of the reasons they believe that's happening is the amount of water being held out of the Apalachicola River by Georgia for the benefit of Atlanta.

They have been in litigation, they have been in negotiation for over 20 years. When push comes to shove, it's very, very difficult for a court to conclude that the interest of millions and millions of people will be subordinate to a town of a few thousand and a fishing economy. It's a rough place to be. You don't want to let it get that far. And that's one of the reasons that Louisiana I believe has to frame its positions, not only in terms of its own history, heritage and culture, but national and international

```
1
    significance economically, ecologically and culturally.
2
              CHAIRMAN ANGELLE: Thank you very much. A
3
    couple of questions.
4
                    What is the date, original date of the
5
    Red River Compact?
              MR. DAVIS: It was negotiated in 1978 and
6
7
    approved by Congress in 1980. And for the most part
    it's worked pretty quietly.
8
                    Would you agree with that, Chris?
9
10
                    It's been largely out of the public eye.
11
              MR. KNOTTS: For the vast majority of its
12
    existence, it's been very quiet and worked amicably.
13
              CHAIRMAN ANGELLE: I'm assuming members who
14
    are on that are federally appointed?
15
              MR. DAVIS: Well, each state has
    commissioners, and you'll find that compact commissions
16
17
    can include the federal government's commission members
18
    or not.
19
                    The Delaware River is a very powerful
20
    river compact, and the federal government has a vote.
21
                    For the most part the Red River is one
22
    that there's not really, at least that I can tell --
23
    maybe in practice, you can inform me Chris -- they
24
    don't vote on a lot of things. They don't resolve
25
    things by a vote of the compact members because
```

essentially that would require the governors of each of 1 2 those states to make those votes. 3 CHAIRMAN ANGELLE: But the compact itself is an instrument of a federal law? 4 5 MR. DAVIS: Yes, it is now federal law, which is one of the reasons that you can kind of get away 6 7 from all those issues of the commerce clause, because 8 this is not state law conflicting with federal law. 9 This is federal law that may have enshrined state law, it may give states powers or affirm powers as they 10 11 existed at a point in time. 12 CHAIRMAN ANGELLE: And as you said, we often 13 think of a compact as the law of the river. I thought 14 that was good. 15 You indicated that perhaps about half of the surface water in the state is subject to compacts, 16 17 and you spoke to the Sabine as well as the Red River. 18 MR. DAVIS: Uh-huh. CHAIRMAN ANGELLE: Is there any other ones? 19 20 MR. DAVIS: No, not at this time. 21 And I think the interesting thing is 2.2 whether or not the notion of groundwaters, tributaries 23 may find its way in as a result of this other case on 24 the Rio Grande Compact. CHAIRMAN ANGELLE: So for members of the 25

```
staff, I think it would be appropriate for us to begin
1
2
    to look at trying to get briefed here at the Commission
3
    level about the vital statistics of both of those
4
    compacts.
5
                    If we could work with you, Mark? I know
6
    you've got a lot going on, but to the degree that we
7
    could have perhaps a couple pages --
8
               MR. DAVIS: Sure.
               CHAIRMAN ANGELLE: -- on that, that would be
9
    helpful.
10
11
               MR. DAVIS: We would be happy to do that.
12
               CHAIRMAN ANGELLE:
                                  Thank you.
13
                    And to the degree that the staff can get
14
    for members of the Commission both the Tulane brief and
15
    the State of Louisiana Attorney General brief and get
    that out to members of the Commission, I think that
16
17
    would be good. To the degree that you can post those
18
    on the internet --
19
               MR. DAVIS: We probably can do that this
20
    afternoon.
               CHAIRMAN ANGELLE: Great. I think that would
21
2.2
    be really, really helpful.
23
                    And from my standpoint it appears that
24
    the last two years of this Commission has really been
25
    more about, in my mind as I just kind of reflected on
```

your comments, more about enforcement, more about 1 2 regulation of drillers and trying to just kind of, if 3 you would, jump into the area that was the low hanging fruit that everybody could in a sense agree to. And it 4 5 appears that, as I've taken my own notes here, that there needs to be more of a policy arm here in this 6 7 situation. 8 So again, I think your presentation was 9 We appreciate both of you being here with excellent. 10 us from New Orleans, and safe travels back. We look 11 forward to reaching back to you again. 12 MR. DAVIS: Thank you very much. It's a 13 pleasure to be here. 14 CHAIRMAN ANGELLE: Thank you very much. 15 appreciate it. 16 MR. DALBOM: Thank you. 17 MR. PRATT: Mr. Chairman, comment, please. 18 CHAIRMAN ANGELLE: Yes, sir. 19 MR. PRATT: This rings true, of course, the 20 activities that we've had on Toledo Bend over the past few years, the interest of water in Texas driven very 21 2.2 much by these cases over the Red River. 23 What I think we should think about here 24 on the Commission and for our task force is the fact 25 that the day is coming that, if we do not have a

2.2

legitimate allocation and plans on how we're going to manage our resources in Louisiana, then the federal government will come in and tell us how to do that.

And I believe where we're missing the gap, Mr. Chairman, is the fact that you've got the state of Texas particularly that has been making water plans for over a hundred years. They have in their plan to come and get Toledo Bend water in 2060. And if we have no plan in Louisiana on how we are going to use those resources, then we are in a very weak position strategically on that.

And so particularly with the Red River and the Sabine, which are the multi-state compacts, the compacts are good. The one on the Sabine was approved by Congress in 1953 I believe, and it's worked thus far well. We did have some kinks during the drought of 2011-2010. Particularly there's a guaranteed minimum flow. But that becomes even farther. When you start looking at the allocation of that water and the use of that water -- which Texas has not typically tapped into their allocation yet -- but when they do, and they will maximize that, and then they are going to look at what's remaining there, which is Louisiana's allocation.

But if Louisiana does not have a plan or

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

2.2

23

24

25

a use for that water, then we will be in a very weak position. And I think you can look beyond just the Sabine River, but also all of our other streams and tributaries all the way to the Mississippi River; and if we have no plan, if we have nothing on record, then we will be at their mercy. Thank you. CHAIRMAN ANGELLE: Well said. Okay. We'll go to Item Number 5, and it's a report by Mr. Joey Hebert, Chairman of the Capital Area Ground Water Conservation Commission. Mr. Hebert, welcome, and thank you for being here. MR. HEBERT: Thank you, Mr. Chairman. I am Joey Hebert, current Chairman of the Capital Area Ground Water Commission. My term ends in December, so I'm off the hook then. So normally you'll have Mr. Tony Duplechin here to give you the updates for continuity purposes. Of course Mr. Owen is on your Commission, so he's not here either. So I'm third fiddle. But upside of that is I don't know much, so it won't take too long to give you an update, so go easy on the questions.

had a meeting in March where we adopted a management

plan for the 1500-foot sand and the 2000-foot sand in

Since your last meeting in December, we

2.2

terms of the saltwater intrusion there.

The 1500-foot sand was a bit straightforward. The saltwater is controlled primarily by one pumping center, and the Baton Rouge Water Company is installing a scavenger well to intercept that saltwater movement and we believe that that will control saltwater in that sand. They are on track to install that well by the end of this year. It should go operational in 2014. We're very anxious to learn from that well as to how this saltwater scavenger technology will work.

That leads me to the 2000-foot sand where, as you know, we're all anxiously awaiting the USGS model publication and so, as you mentioned earlier, that a few times we very sternly asked them for a very hard and fast date as to when that would be issued, and they were very diligent about giving us a firm date of sometime this summer.

So we'll look forward to sometime this summer that the formal issuance of the model for these two sands; and of course as they go on, this is a ten-year study to look at all the sands in the Baton Rouge aquifer system.

We're not waiting for the model to be published before we take action. We pushed them very

hard to give us at least preliminary results that they were sure of so that we could take action. So in our March meeting, we took those actions I described based on preliminary information from the USGS models.

While we think that the solution there in the 1500-foot sand may be our solution, the action that we took for the 2000-foot sand, which was a reduction in the pumping cap that had been instituted several years before, we reduced that a bit more. We believe that's a first step. We believe there's a lot more action that will need to be taken in the 2000-foot sand, and hopefully during this calendar year we'll be able to know with some confidence what those actions might be and adopt those actions. So we're not waiting for the model to be issued formally as these sands are modeled to go ahead and take action.

So that was our major action for since your last meeting. Our path forward on that is pretty straightforward. The science is difficult. Some of the remedial technology is new. We're going to need some help, so we reached out with the Department of Natural Resources and signed an MOU that will afford us an opportunity to call on that staff to work with us, to help us identify appropriate remedial actions. We believe that will be a big help.

So by no means are we done. We've got a long ways to go just in the 2000-foot sand, and then we have to model the rest of the sands and determine what the appropriate pumping limits might be, and in some cases where we need to do active remediation, what that might look like.

So any questions, I'm glad to defer those to someone else.

CHAIRMAN ANGELLE: Well, we appreciate the fact that you're here, and certainly understand that you are serving in a voluntary capacity.

I have a few questions and I'll get them on the record, and perhaps you can bring these back to the folks, a couple of things.

meeting, it was my recollection that USGS testified publically that, although they were not finished their report, the report indicated to them, or the data that they had actually already been able to put together, that what was happening in the area that you have responsibility to manage was not sustainable. That was the testimony of the USGS.

And then in a letter dated January 14, 2013 that was authored by Commissioner of Conservation to Mr. Duplechin, the Director, he specifically

requested two things. One of them was recognition of unsustainable pumping centers at the Lula Street pumping station and the industrial district requiring actions; and then two, the general discussion of management actions available.

As I appreciate it, you all have responded with a draft of some of the things that you indicated you were doing I think at the March meeting. The recognition of the unsustainable pumping centers at Lula Street pumping station and the industrial district requiring corrective action as again suggested by USGS, you've not taken any action on that to my knowledge; is that correct?

MR. HEBERT: Well, I believe there was a response letter from DNR after that.

The idea of sustainability means, if you keep doing what you're doing, are you going to have a result that you don't want? And so obviously in the 1500-foot sands, if we don't make any changes, we're going to have a result we don't want; we'll have saltwater in a public supply wells and we needed to take action. And so once those actions are taken, that's where the question mark becomes.

CHAIRMAN ANGELLE: So the fact that you've taken those actions or the fact that you suggested

1 those actions, I should say, would it be your position 2 that sustainability is in question, is going to be 3 compromised without action? MR. HEBERT: If I understand your statement 4 5 correctly, what we believe is that, with the action that we adopted in March, which is the scavenger well 6 7 for the 1500-foot sand near that Lula Street pumping 8 station, we'll protect that public supply location. So those users who desire to have the water will be able 9 10 to get the water, with of course the public supply 11 being served first. So in that sense it would be 12 sustainable. So sustainability depends on what is 13 implemented. CHAIRMAN ANGELLE: Well, I guess my question, 14 15 how do you all define sustainability? 16 MR. HEBERT: Sustainability is a difficult 17 term to define. I would define it that those users who 18 desire to use the water have it available, with the 19 primacy on public supply. 20 It's a broad definition; it's a 21 difficult term to reconcile. It's more of a 2.2 socioeconomic type of term, in my opinion, to define. Others may have different opinions; but in my 23 24 experience, that seems to fit. 25 CHAIRMAN ANGELLE: Okay. One of the things

2.2

that I think I'm a bit concerned about is -- and perhaps maybe you can look at how we might resolve this -- I got your comments from the March 19th meeting as far as what you're doing in the 1500-foot sand.

If sustainability is the goal and yet you are having a hard time defining sustainability, I then kind of struggle with your recommendations, what are your recommendations trying to achieve? And I know that you have a pretty distinguished career in the private sector in knowing that, in order to get resources from the board of directors, the board of directors want to clearly understand what the goal is, what resources are needed to achieve the goal, and how are they going to have it.

And so as I've tried to lead the state through this discussion, the chief word in my mind has to be sustainability. It was the same issue that we had and continue to have in a great way in the Sparta; sustainability was questioned. We could not continue to do what we were doing in that area. And through a variety of management efforts, we were able to measure the deficit, if you would, the deficit of daily use versus the ability for that system to recharge itself. And as a result management then took steps to close

```
1
    that gap. Okay?
2
              MR. HEBERT: Yes.
3
               CHAIRMAN ANGELLE: And again, I realize that
4
    you're here in a voluntary capacity, and as so all of
5
    us are as well in this particular role.
                    So my concern is, if sustainability is
6
7
    the goal, but it's kind of out there loose for you, and
8
    you've got some recommendations here, would it be your
9
    opinion that those recommendations that you are in the
10
    process of implementing are, in fact, designed to
11
    achieve sustainability?
12
              MR. HEBERT: Yes, sir. And I think in the
13
    way that you described the solution, the example that
14
    you gave, yes, sir, I think that's compatible.
15
                    Obviously the danger we have with the
16
    1500-foot sand is saltwater entering the Lula Street
17
    pumping station. And so the action that we have taken
18
    for that sand, which is a scavenger well, will allow
19
    that well to continue to serve the public.
20
              CHAIRMAN ANGELLE: Okay. I appreciate that.
21
                    So my question I think that I would have
22
    to Conservation staff and to others: Do you know what
23
    science you used to basically say the scavenger well
24
    is, in fact, the solution and will result in
25
    sustainability?
```

MR. HEBERT: We're primarily, the Capital 1 2 Area Ground Water Commission is primarily using the 3 USGS model. 4 The Baton Rouge Water Company also 5 reached out to some private modelers to do similar models, and there was great agreement between the 6 7 various models. So computer modeling is our primary 8 science tool that's helping us. 9 CHAIRMAN ANGELLE: Okay. Have you made that 10 available to the Office of Conservation? 11 MR. HEBERT: I believe so. 12 CHAIRMAN ANGELLE: All right. So my concern 13 there again is, as we all have a responsibility -- we 14 all either sought the responsibility or others have put 15 us in the position to have some responsibility on this -- which I believe is, as I certainly believed two 16 17 or three years ago, that the Sparta issue was, if we're now going to number them, it was 1-A, and this was 1-A 18 19 as well in terms of where I kind of just see the 20 correspondence and whatnot in term of challenges. 21 So what I would ask for, 22 Mr. Commissioner, what I would ask for, for us all to 23 look at here on the state level, is whether or not those recommendations and those stated actions by the 24 25 Capital Area Ground Water Conservation Commission, in

2.2

fact, number one, are synonymous with achieving the goal, that they are compatible with achieving the goal that in a sense we've asked the patient — in your letter of January, we've asked the patient to do a self-assessment and they have come back and said, this is what we're going to do.

While I believe that you put your best product forward, I think we have a duty and a responsibility to make certain that the science that you are proposing as a solution, that it's not disputable. None of us want to be here saying that Baton Rouge now has to use water from a different source because we didn't ask the right questions.

And so I think it would be important, Mr. Commissioner, that you all look at the recommendations that they so indicated that they are doing both in the 1500-foot sand and the 2000-foot sand to determine that we agree that the self-assessment, the diagnosis and the plan to improve is again non-disputable. And to the degree that it is, I think we need to know about it; and then also, to ask them to put timelines on the various things.

Because I'm reading this particular document. There are a number of things that you are doing. It would be important to me to be able to know

what the timeline is for that. And again, everybody 1 wants the same goal. I know you want the same goal, 2 3 and I hear that. You're doing a great job in your role and I appreciate that, as you appreciate the work of 4 5 this Commission. But I do believe that it's important 6 7 that we hear from you today and that we verify -- we 8 trust and we verify that the things that you are doing or plan to do are, in fact, what will solve the problem 9 10 in this area. 11 MR. HEBERT: Yes, sir. That's wonderful. 12 And as we learn, keep the feet to the 13 fire, because we have to. Some of the science is new. 14 The scavenger wells are going to be a new thing. We're 15 going to have to read and react to that. So definitely encouraging. You're welcome to help. 16 17 CHAIRMAN ANGELLE: Okay. All right. Very good. 18 19 Somebody said earlier today that USGS 20 was here? 21 Yeah, I know you're sitting in the back 22 trying to camouflage yourself; but you're more than 23 welcome to come up to the microphone at this point if 24 you could. 25 Thank you, John Lovelace. I appreciate

1 it. 2 MR. LOVELACE: Thank you, Chairman. 3 CHAIRMAN ANGELLE: Appreciate you, sir. 4 Appreciate your being here. 5 I understand that things are going well on the monitoring, the implementation of our monitoring 6 7 program, that you're working well on that with our 8 staff here. On this particular issue, the 1500-foot 9 10 and the 2000-foot sand, again I think there was some 11 concern that, if we keep doing what we're doing, we're 12 going to keep getting what we got. 13 Now that might be from a rude, crude way 14 to express wisdom, but it was from I guess, you know, 15 an older guy, but I got it when he said it that way. 16 And I see you shaking your head, so I appreciate you 17 understanding. 18 MR. LOVELACE: That is accurate. 19 CHAIRMAN ANGELLE: Thank you. 20 I have a concern, my concern today is 21 that there is an issue that was brought forth at the 2.2 December meeting; I think again everybody has kind of placed all of their bets, if you would, on the USGS 23 24 study. And I've got a tremendous amount of respect for

the work that you do, and I realize that you're in a

bureaucracy that has rules and resources are limited, so forth. We want to urge again how important it is to complete this particular study.

But my concern is that, while that is happening, in spite of the fact that it wasn't complete, you were confident enough to say in December that sustainability was a question that you had for this particular region and that there needed to be some perhaps more aggressive steps.

And I want to commend the Commissioner in January for following up immediately to Groundwater Commission as a frontline of defense to Capital Area saying, What are you going to do? What are your management actions? And in a sense I think what he was saying is, if I don't get something from you, then I think what I was reading between the lines was that the Commissioner was going to have to basically do some things himself based on that comment that you made. And I appreciate your honesty and transparency there.

What we need help with, I believe, is making certain that the recommendations -- again while you are still in the study portion of it -- the recommendations that are being made are going to hopefully be scrubbed and ought to be doubly scrubbed. This is not something that I think that we can take any

chances with -- that you would also help and provide any sense of help that you could on whether or not these recommendations are going to be enough within the timeframe as we continue to see the area grow and grow and grow and if the Lula station becomes challenged or compromised, the meeting is not going to be in Baton Rouge with a hundred people in the meeting. It's going to be more I would say one that's going to be much more challenging.

So while I appreciate the work that the Capital Area Ground Water Conservation Commission has done, my concern is that we just don't allow that to be all that is necessary, and that we scrub it and reach out to USGS in ways and put timetables on the steps that are necessary, so that we can manage to the degree that we have the authority to manage and to be able to answer those questions I think that the stakeholders around the area are asking us.

MR. LOVELACE: Okay. A couple of comments.

You mentioned the Lula station, and that is not part of what we're doing on the model right now. That is in the 1500-foot sand and our focus has been in the 2000-foot sand.

As Mr. Hebert stated, the Baton Rouge Water Company did contract with an LSU professor and

another organization to develop two separate models of the 1500-foot sand; and the Baton Rouge Water Company, with the blessing of the Commission, is moving forward on strategies to mitigate that issue in the 1500-foot sand to protect the Lula Street station there.

Our model has been focused on the 2000-foot sand. The primary issue there is saltwater moving towards the industrial district. It's a longer term issue. The saltwater is not at the industrial district. It may not get there for several years, maybe a couple of decades from now, but it is very certainly moving towards that area. So there is time, there's time to work on a solution for that.

And since the December meeting, we have been working with Capital Area. Although the report hasn't been finalized, they came to us, wanted to look at some mitigation strategies. So we sort of pushed the report aside for a little while and concentrated on running some scenarios with the model, looking at scavenger wells, looking at changes in pumping in the industrial district, and we did several of these scenarios. We didn't exactly put the report to the side, but it was in review and there wasn't a whole lot of work on it.

During the course of doing this, one of

2.2

the last scenarios that we ran with the scavenger well, we discovered a little issue with the model. Some of the results didn't look quite right. And after looking pretty hard at it, we decided that one of the parameters in the model was not reasonable; and it basically caused us to recalibrate the model and go back and make some major changes in it, and we have done that.

It did change the results a good bit; not so much going towards the industrial district. But in some other areas of the Baton Rouge, mainly where there are public supply wells, the saltwater configuration movement is different now. We had actually -- some of the locations that we had been looking at for scavenger well turned out not to be good locations now.

So in any case, we've made these big revisions to the model. It looks, in my mind, a lot better, a lot more realistic. We have a much stronger model than we had before. We have revised the report, moving forward with it. I just got the revised copy yesterday. I have been looking at it here, trying to get it off to our regional reviewer this week.

CHAIRMAN ANGELLE: I'm sure you want to share a copy with all of us.

MR. LOVELACE: Not quite yet.

I am very anxious to share these results with everybody. We have been meeting with a small group of the Capital Area folks and talking with them, trying, showing them some of these results, so they could move forward with their strategies. And, you know --

CHAIRMAN ANGELLE: I guess my concern is this, my concern restated would be: While I understand that they are waiting, but I also understand that the doctor, being USGS, has said that the patient is not sustainable, but we're still waiting on test results to come in or a report to be put together by analogy here, that as the schedule slips, as so it does in the work that we all do, I don't think that any of us can have a situation where we are aware that sustainability is a problem and yet all of us say, Well, we have to wait on Moses to come down with the tablets to better tell us what we need to do here.

MR. LOVELACE: Well, I can say they are not so much waiting on us right now. In some ways they are.

CHAIRMAN ANGELLE: Well, that may be the case, but his previous testimony was pretty, pretty clear to me that they were, in fact, waiting for

2.2

additional information from you.

And I don't want to get into that other than to say that it's important to us that, to the bits and pieces that we do know, that we're able to present those and get action as a result, as opposed to -- I mean, I have a tremendous amount of confidence in you that the report that you have is in the red zone, ready to be delivered to the end zone. I hear you, I hear you.

And again, this is absolutely no reflection on you personally. You know how I feel about you personally.

I have zero confidence that the federal government will be able to deliver that report within the next twelve months, and it's just my own concern. If that is in fact the case, many of us again have put all of our money placed on that bet and I think the window is going to close on us.

You can't say anything or you can't fix that, but I need you all to be able to be given as much information as you can that's not debatable that can be released, so that Capital Area Ground Water Conservation District can take the actions that they need to take.

MR. LOVELACE: Okay. Understand.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

2.2

23

24

25

The work is going to come out. I think the power, though, is going to be in some of these additional scenarios that we run, hypothetical scenarios, where we're looking at combinations, reduced pumping and scavenger wells. And a little bit of that is in the report, but they asked us last time we met to run some more scenarios, those particular scenarios. We said, We need to stop, we need to get this report finalized before we can do that. But that's where it's -- and those things are pretty quick, you know, quick to do. You can get results, but we want to get this thing out first, so ... CHAIRMAN ANGELLE: Let us be the generation of leaders that solved this problem that has been growing since the late 60s, and that we have the fortitude and the courage to basically take the steps that are necessary to ensure that the resource is sustainable.

We have a huge opportunity in this area from an economic development standpoint in my mind, just incredible opportunity to take advantage of things that are going along the Mississippi River corridor, and this is one of the things that we've just got do make sure we've got right.

1 Thank you very much. 2 Any other questions or comments? 3 Okay. Thank you all very much. 4 Appreciate it. 5 MR. LOVELACE: Mr. Chairman, you did have some questions about the network, the status of the 6 7 network earlier. I can answer those. Sure. Please do. 8 CHAIRMAN ANGELLE: MR. LOVELACE: The wells, we are currently at 9 10 about 183 wells that we started monitoring water levels 11 in quarterly, and we're installing recorders in another 12 15 wells. Some of them we've already got the recorders 13 in, but we have 15 wells selected that we're going to 14 put recorders in that will be collecting hourly data, 15 so we can get this nice continuous record throughout the year at those wells. So right now we're at 198, 16 17 that's wells that we've added to the network and that 18 we are currently going to. 19 And I wanted to make it clear that these 20 are not new wells that we've gone out there and 21 These were all existing wells. installed. Some were 2.2 industrial wells, some were public supply, some were 23 domestic, some were wells that we at USGS or DOTD own. 24 But anyway, that's where we are on that. 25 MR. McKINNEY: I have a question on that,

```
1
    please.
2
              CHAIRMAN ANGELLE: Yes, sir.
3
              MR. McKINNEY: Does that include any of those
4
    Arkansas wells, those seven or eight wells?
5
              MR. LOVELACE: Yes. Yes. We've rolled that
    into the network. Some of those wells, there was some
6
    redundancy there in what was going on with Arkansas
7
8
    monitoring and the monitoring that we had going with
    DNR and with DOTD, looked at all that and trying to
9
10
    make it more evenly distributed.
11
              MR. McKINNEY: I probably need to clear that
12
         They are not in Arkansas. These were some wells
13
    that Arkansas was monitoring in Louisiana.
14
              MR. LOVELACE: In Louisiana, yes.
15
              CHAIRMAN ANGELLE: Any other questions?
16
                    Thank you, John. Appreciate your being
17
    here.
                    Item number 6 is a Review of the Office
18
19
    of Conservation and Groundwater Education Efforts.
20
                   Are these efforts specifically in East
21
    Baton Rouge Parish and Caddo? Is that correct?
22
              MR. REONAS: Yes, sir.
23
              CHAIRMAN ANGELLE: Thank you much.
24
              MR. REONAS: All right. I would like to take
25
    this opportunity -- again, Matthew Reonas with the
```

23

24

25

1 Office of Conservation. 2 I would like to take this opportunity, 3 Mr. Chairman, to point out the recent release of the draft version of the Louisiana Environmental Literacy 4 5 Plan by the Louisiana Environmental Education Commission, which I would recommend to all of you if 6 7 you haven't had a chance to review it. It's a good 8 starting point in talking about environmental education 9 in the state. 10 To begin with, it's important to note 11 here that the state is in the process of adopting a new 12 set of science education guidelines for primary and 13 secondary education, known as the NGSS or Next 14 Generation Science Standards. Some of you-all may be 15 familiar with those. 16 The emphasis in these from my 17 conversations with the Department of Education will be 18 on watersheds, the human impact on water resources, 19 environmental decision-making and management, and real 20 life analysis of problems, technologies and solutions. 21 I think there is a tremendous

life analysis of problems, technologies and solutions.

I think there is a tremendous

opportunity here to develop a curriculum, a surface and a groundwater curriculum statewide that meets these needs, but we need some basic knowledge first. What is being taught in the classroom already, from working

2.2

here in East Baton Rouge, it's a mixed back bag; not a lot in some cases; and in some cases individual teachers take a more active role in talking about water and water resources.

One curriculum is needed: How teachers can best receive or utilize what we end up developing and what the exact process will be for development.

My vision is for a comprehensive science-in-your-own-backyard curriculum that will include virtual classrooms and virtual field tours, learning environments on relevant issues here in Louisiana, and a training program to go along with it to reach out to teachers.

We've committed money to very successful coast and wetlands educational programs in the state, and I firmly believe that water resource education, surface and groundwater education in particular, deserves some attention as well.

I've had a chance over the past few months to talk with a number of my colleagues in our sister agencies, and I've tasked myself with organizing a meeting on this matter for later in the summer. I'll be in a position to report more definitively on the subject at our next Commission meeting.

Right now I would like to give you an

update on our efforts here in Baton Rouge, the Water-Wise in BR campaign. This project emerged out of Commissioner Welsh's order from last May, part of what mandated, quote, an aggressive education and outreach effort, end quote, on the Southern Hills aquifer system.

Our focus has been entirely on resource awareness, the nature of the system, the uses of groundwater here in Baton Rouge, and some of the challenges that we are managing, particularly saltwater encroachment. We are very fortunate to receive the support of the Baton Rouge Area Chamber and the Baton Rouge Area Foundation in our efforts.

We started with a Comprehensive parish-wide survey, public knowledge survey on groundwater issues that was conducted in early December of 2012. In fact, at the last meeting, the last December 5 meeting, I reported some of the preliminary findings. This is it. It's online at our Water-Wise site, which is going to be posted here shortly on the screen.

From there we moved — basically what the survey showed was, as we somewhat expected, some major deficiencies in basic knowledge about the resource and challenges to the resource. So we've

1 decided to really focus on, take that information and 2 focus the curriculum development in those areas, as 3 well as the public-awareness side, on those specific 4 issues. 5 From there we moved along two parallel Development of a specialized educational 6 lines: 7 curriculum for middle school and high school science 8 teachers here in East Baton Rouge Parish, along with a teach-the-teacher or train-the-teacher workshop and the 9 10 development of a general public awareness campaign. 11 We worked with a former science content 12 trainer from East Baton Rouge public schools to develop 13 a curriculum for earth and environmental science 14 teachers -- all of this in online -- a curriculum that 15 was rated as, quote, excellent by the state science 16 consultant with the Department of Education. 17 Here is our earth science lesson, complete with maps, graphs, statistics from USGS --18 19 very hands on, very topical, very locally focused, 20 again science in your own backyard. Here is the environmental science lesson 21 2.2 plans. Again these are online. 23 We hosted a workshop in February, 24 February 1st, at the Capitol Park Museum just across 25 the way, featured a keynote lecture from Jason

Griffith, a hydrogeologist with the US Geological Survey here in Baton Rouge.

We had three different curriculum training sessions and field tours of the Baton Rouge Water Company pumping station and the Entergy co-gen plant on Gulf States Road. Eighteen public, private and parochial schools were represented in the audience, so we were very pleased with how that turned out. We are continuing to work with local school systems here to develop additional training opportunities moving forward.

On the public awareness effort, we made a push during Groundwater Awareness Week in March securing proclamations from Governor Jindal and Mayor Holden, and launching a series of billboards around the parish and developing other media, including a full back page spread in The Advocate.

Here we also, for classroom distribution, we developed a classroom poster featuring again relevant information on the Southern Hills aquifer system, challenges, particularly saltwater encroachment, usage numbers, statistics, the historical background of water usage in East Baton Rouge Parish, groundwater usage; and again that went to all the teachers that we've had the chance to work with so far.

1 Okay. Thank you. 2 In preparation for Groundwater Awareness 3 Week, we also launched our Water-Wise in BR website, waterwise.dnr.la.gov, approximately 40 or so pages of 4 information. It's an interactive website where we 5 actually took the survey that we ran back in December, 6 7 took those same questions and put those on the website 8 to let viewers work their way through the system. Right? Answer each question, see where they stack up 9 10 against the respondents who actually took the survey. Of course we also have just a straight 11 12 information section as well where people can go through 13 and answer specific questions that they have. 14 And these are a few sample pages from 15 the website, again very graphic and a lot of 16 information, statistics on usage, management issues, 17 the law as it relates to groundwater usage in the 18 state. 19 And at this point in time I would like 20 to recognize in particular our IT staff here in DNR, 21 Rizwan Ahmed and Pat Derozan and Damien Smart 22 especially for their commitment to this project. 23 I had a very rough vision in my mind. 24 I'm no graphic designer or computer website designer, 25 developer. I had a very rough vision for what I

2.2

wanted; but the staff here, our IT staff really brought this to fruition. So I would really like to acknowledge them and all their hard work in taking my very limited vision and turning it into a really viable and informative product.

We're also in the process of developing several traveling exhibits for distribution in parish libraries over the summer and into school libraries in the fall. We're in discussions for additional educational opportunities. And we also have a commitment from the Baton Rouge Water Company -- and this is all in the next few months -- for additional messaging on parish water bills, which again is a great opportunity to reach out to individual consumers of water.

Next slide, Brandon, please.

Caddo Parish and northwest Louisiana is another area where we are working to develop an educational effort similar to the one here in East Baton Rouge. Of course we have the Groundwater Emergency Order in place in south Caddo, so we have a particularly relevant interest in that particular neck of the woods.

Although it's facing different resource management issues than here in Baton Rouge, we believe

2.2

sort of a similar process focused on public awareness, especially in the Keithville-Ellerbe Road areas, those areas of interest, along with a parish and a region-wide education on ground and surface water resources and resource management, we really believe this can be equally as successful.

As noted earlier, the current and expected near-term water demands and available water resource supply in the south Caddo Parish areas of interest necessitate a continuation of the emergency order and the water usage restrictions presently in place. Our goal is going to be to expand and improve the education efforts for local citizens affected by those restrictions, while also providing additional educational opportunities to local school children on basically water science basics and water resource management generally in the region.

We want to enhance knowledge on the Carrizo-Wilcox aquifer and Upland Terrace aquifer systems or aquifers. We want to encourage adherence in those areas of interest, adherence to the water restrictions. We want to improve classroom access to these issues with tailored lesson plans, much as we have done here in East Baton Rouge.

Our proposal has been endorsed by the

1 Caddo Parish Commission. We've been in discussions with them the whole way through, along with the Greater 2 3 Shreveport Chamber of Commerce, who -- and this is their quote -- quote, realize the importance of a 4 5 reliable and sustainable supply of water for economic growth and job creation in our area, end quote. 6 7 We are currently in discussions with 8 some of the major corporate interests in the area to develop the necessary funding, and we feel very 9 10 positive that we will be able to launch this effort over the next summer months, next few months, a 11 12 timeframe that we established for ourselves back 13 earlier in the late winter, early spring. 14 Mr. Chairman, any questions that I can 15 answer on those particular points? 16 CHAIRMAN ANGELLE: Thank you very much. 17 I just would add for the Commission members to know that, in our report that we put 18 19 together last year that we delivered to the 20 legislature, one of the component parts of the program 21 in fact is education. 22 MR. REONAS: Yes, sir. 23 CHAIRMAN ANGELLE: And to my knowledge, 24 through a team effort, this is the first time in the 25 history of the state that we actually have a formalized

program. We're beginning to work with school-age 1 2 children to bring to them the importance of water 3 resources, conservation and do the right thing. So I certainly appreciate it. I know 4 5 we've got a long way to go. Seems like you're taking some right steps and I appreciate that you all took the 6 7 time to brief us on that. 8 I want to commend the Commissioner for that as well. 9 10 Any comments? 11 Good. Thank you very much. 12 Item number 7 is, I know one of the 13 other goals was to have some kind of management 14 conference; and it appears that item 7, you have 15 information on that. 16 MR. REONAS: Yes, sir, I do. 17 If it's all right to move on to that, I'll go ahead and go in that direction. 18 19 Again, as you note in the Commission's 20 2012 interim report to the legislature, one of the 21 recommendations called for the implementation of a 22 stakeholders conference, quote, designed to seek best 23 management practices for sustainability and protection 24 of our water resources, end quote, and I would like to 25 report positively on the development of this conference for the fall of 2013.

Our goal -- and this may be ambitious -- is to do no less than secure a framework, a process or outline for creating and implementing a statewide comprehensive water resource management plan for resource protection and sustainability. And we do not intend to have a final report or plan come out of the conference. Rather what we would like to have is a framework for the development of such a plan as our end result. And I would like to emphasize that again, that this is more planning for the future, developing a roadmap, a process forward for getting towards that statewide plan.

Our main interest initially is educating stakeholders. And it's a long list -- if you can go back into the early, into the interim report and look at it -- it's a long and inclusive list of people with interest in water resources in this state. Our main interest is in educating these stakeholders on the challenges of creating such a plan, challenges basic to any process like this: Securing funding, developing the research and scope, gathering input from interested parties.

We'd also like to present the DNR and Office of Conservation approach to this process,

something that we've been working on for quite a long time in terms of talking with all our interested stakeholders, talking with relevant folks, developing this process, and how we envision tackling the challenges and obstacles presented by the endeavor of creating such a plan.

From there we would like to have a very focused — using that as the starting point, we would like to have a very focused set of working sessions on topical issues, sessions in which stakeholders themselves take on the major issues as we see them and as they see them, offer their input and guidance and help us understand their major concerns and the parameters for their involvement and ours. For us, the Office of Conservation, this will be an opportunity to hear the people involved in water issues on a daily basis in this state: Agriculture, industry, navigation, energy, coastal, conservation, all these issues.

Our end goal from this conference is to have a path forward that we can present to the Water Resources Commission upon closing the conference and incorporating comments and information from there on out that we can report at the following WRC meeting and then present that to the Commission as our

then present that to the Commission as our

1 recommendations for moving ahead on a larger 2 comprehensive statewide plan. 3 CHAIRMAN ANGELLE: So you've already developed a list of potential stakeholders that you 4 5 want to be a part of this? MR. REONAS: Yes, sir. We've talked about 6 7 stakeholders. We've talked about sessions, panel 8 sessions, working sessions. 9 It's still in the early stages, but we 10 feel very confident about where we're going to be able 11 to go and being able to present this a good deal 12 beforehand for comment and discussion, and then have 13 this focus conference at the tail end of that, that 14 will again focus on the specific issue: How do we move 15 forward on the statewide comprehensive plan? 16 CHAIRMAN ANGELLE: Very good. 17 Anybody have any comments on that? MR. SPICER: I would like to make a comment. 18 19 I think prior to the meeting, way in 20 advance, your stakeholders ought to have a detailed 21 structure of the items that you want to include in the 2.2 master plan for the state. I think that would be a 23 guide for them to start focusing before they get to a 24 couple-of-day meeting, so they could really get into 25 the real issues of managing the state's water.

1 MR. REONAS: Right. 2 MR. SPICER: So if that could happen, I think 3 that would really advance the conference. MR. REONAS: Yes, sir. I think that's 4 5 probably the most appropriate approach, because we're talking about a very complex and incredibly diverse set 6 7 of interests at play here. And so I think when we do 8 have this conference, we're going to provide a very 9 focused type agenda, issues that we need to hear, we 10 need to talk about, and we need input from all those stakeholders. And again, if they don't have advanced 11 12 notice, I don't think we're going to get the results 13 that we need. 14 MR. SPICER: Thank you. 15 CHAIRMAN ANGELLE: It might be a good idea to also call for -- I don't know what's the right one, if 16 17 it's a brown paper or a white paper or a gray paper or 18 whatever paper may be from a variety of stakeholders on 19 their good ideas that we could again, you know, have as 20 a part of this. Any questions for Matt on that 21 Okav. 22 item? 23 Okay. Very good. 24 I do want to add an item on the agenda, 25 to Consider a Resolution Requesting Resources to Fund

```
the Development of a Master Plan. And so if I could
1
2
    get a motion and second to just, by two-thirds vote, to
3
    amend the agenda by that.
               MR. PRATT: I'll move that.
4
5
               CHAIRMAN ANGELLE: Motion by Mr. Pratt,
    second by Mr. McKinney, motion to extend the agenda to
6
7
    include that item.
8
                    And so you all are aware that the state
9
    has --
10
                    Well, any objections to that motion?
11
                    Hearing none, that motion is adopted.
12
                    You all have or are aware that the state
13
    from time to time has invested resources in the
14
    development of master plans for the management of its
15
    natural resources; and so this is one, this is
16
    Louisiana Plan for Sustainable Coasts. This is one
17
    that was for the Atchafalaya Basin, and those were put
    together with the use of financial resources, getting
18
19
    good ideas, and then building towards a future.
20
                    And so what I would like to suggest,
    inasmuch as the state's coastal plan does specifically
21
22
    indicate that surface and groundwater management plan,
23
    I'll read from this particular document I have in front
24
    of me:
25
               "Whereas the comprehensive master plan for a
```

sustainable coast concludes that because of the critical importance of fresh water for such purposes that a surface and groundwater management plan should be developed to ensure that the state secures a sustainable use of these valuable resources into the future."

Now that was in their particular need. I think there could be another group saying the same thing for agriculture, one for industrial, one for power generation, one for human consumption.

And so what I would just simply ask is that we would adopt a resolution asking the state and a variety of its agencies that may be working towards a solution with the litigation involving BP or fines that are being imposed by BP, that they would consider providing to us a revenue stream so that we might be able to now get serious about the development of this plan which is going to take some time.

We kind of have begun to nibble at the edges. We over the years have done a better than before job, if you would, of managing the resource. I think it's time that we move into that area. And so it would be important to me that staff would put together what kind of budget, what would be a time plan to take on such a task; and that we would submit it to those

```
folks who sometime in the future may be the recipient
1
2
    of the source of funds that would seem to be an
3
    appropriate use to do what we're doing here.
                    So it would be a resolution that again
4
5
    I'll draft and get to you, but authorizing us to submit
    a request to the powers that be -- and will include as
6
7
    many powers as possible -- to fund a master plan for
8
    surface water, groundwater. I want to make sure we're
    consistent with what Mr. Davis said.
9
10
                    Certainly entertain any questions. I
11
    think it's the right thing for us to do at this time.
12
               MR. PRATT: I would make that motion,
13
    Mr. Chairman.
14
               CHAIRMAN ANGELLE: Motion by Mr. Pratt.
15
               MR. SPICER: I'll second.
               CHAIRMAN ANGELLE: Second by Mr. Spicer.
16
17
                    Any objections?
18
                    Hearing none, that motion is adopted.
19
                    Go to Item Number 8, public comments,
20
    and we'll open it up to anybody.
21
               MR. McKINNEY: Mr. Chairman, before we go to
2.2
    that just a moment quickly, if I may.
23
               CHAIRMAN ANGELLE: Yes, sir.
24
               MR. McKINNEY: You mentioned a moment about
25
    sustainability. You know we talked quite a bit about
```

25

1 that about that when we were having hearings on the 2 There was a very extensive report released in 3 2001 dealing with Sparta, in which at that time they said that, for sustainability for the Sparta, we needed 4 to be at 52 million gallons a day of withdrawal. 5 Well, the report was released here just 6 7 a few months ago regarding the USGS and DOTD regarding 8 their five-year report, and in there it stated that the Sparta parameter or the withdrawal at that particular 9 10 time now is at 59 million gallons a day. So we're 11 still 7 million gallons short of our daily withdrawal. 12 Regarding what I mentioned very early on 13 in this meeting, Mr. Commissioner, regarding this 14 particular issue up in Union Parish, those people have 15 already withdrawn 17 million gallons of Sparta water 16 out of that according to the news media. 17 The point that I wanted to make early on -- and I'll repeat it again, just like Mr. Matt made 18 19 a moment ago here -- we have over the last three 20 years-plus been dealing with fifth graders up there on our water fest. Some of you in the audience I think 21 2.2 have participated in those water fests over a period of 23 time.

the kids in turn teach their parents -- as

For us to try to teach these kids and

Mr. Chairman, you said about the safety belts in the 1 2 automobile I remember one time -- for us to allow 3 industry -- and I'm not knocking industry by any means. But when water is available, as it was 4 5 in this case, on the surface to do what they did, and then go and extract this from the Sparta to frack these 6 7 particular wells, it is a total slap in the face to 8 these kids, to all of the other people who have dedicated all of the energies and everything that they 9 10 have put forth over these past years to try to save the 11 Sparta, including the people in El Dorado and including 12 this Commission. 13 So I appreciate you, Mr. Commissioner, 14 for holding them to the fire -- but keeping in mind 15 that the deal has already been done -- but please, I 16 comment again to you, thank you and your commissioners 17 and all your people you work with for getting onto them 18 and trying not to allow this to happen again. 19 fact surface water is readily available right at their 20 fingertip, there is absolutely no reason to tap into the Sparta when people have given all this energy and 21 22 effort to try to save it. 23 And I thank you. 24 COMMISSIONER WELSH: Mr. McKinney, in 25 response again, we're anticipating receipt of a letter

1 today answering the two pages of questions regarding 2 what happened with the Lake D'Arbonne situation. 3 I'll be happy to share all that with you, and we're investigating it as I speak. 4 5 MR. McKINNEY: Appreciate it. Thank you. COMMISSIONER WELSH: Mr. Chairman, before we 6 7 go to public comments, I have one item I would like to 8 briefly mention. 9 CHAIRMAN ANGELLE: Yes, sir. 10 COMMISSIONER WELSH: This is a house 11 concurrent resolution that we just received from the 12 legislature, House Concurrent Resolution 150. It's by 13 Representative Pylant and Representative Garafalo and 14 Senator Thompson. 15 It deals with -- it's urging the Office 16 of Conservation, in consultation with this Commission, 17 to study, report and make recommendations on the 18 availability of qualified water well drillers, water 19 well driller licensing requirements, and their impact 20 on the rates charged for the drilling of water wells, and to submit a report and recommendations to both the 21 2.2 House and the Senate Natural Resources Committee by 23 February 15 of 2014. 24 So like I say, this is a new item.

want to assure you that we intend to do that and give a

1 timely report. And we will likely -- we don't have a 2 specific plan, game plan at this time, but we probably 3 will be using the ad hoc advisory committee, as well as the Louisiana Water Well Drillers Association for 4 5 information, in addition to the DNR database and the former DOTD database to get all this information. 6 7 CHAIRMAN ANGELLE: Is there some concern that 8 there are simply not enough drillers? 9 COMMISSIONER WELSH: There was a concern over 10 the number of drillers. There was a concern over 11 whether or not the testing: What constitutes a 12 qualified driller. There were a number of things that 13 ultimately may influence the cost of drilling water 14 wells. 15 So the HCR 150, every member up here at the table, at the front table has a copy of this. It's 16 17 online, and I urge you to look at it, and we're going 18 to do our best to get that report. 19 Thank you. 20 CHAIRMAN ANGELLE: Thank you. 21 Okay. So we'll open up a period of 2.2 public comment. If anybody wishes to make a public 23 comment, come forward. Come forward please and 24 identify yourself for the record. 25 Mr. Jenkins, it's good to see you, sir.

And I want to thank you for your service to the State 1 2 of Louisiana as a former Secretary of the Department of 3 Wildlife and Fisheries. 4 MR. JENKINS: Can you turn that light off? 5 CHAIRMAN ANGELLE: We've got you in a spotlight? 6 7 Can you get some help here? Just turn 8 it the other way. 9 Thank you, sir. 10 MR. JENKINS: Thank you, Mr. Chairman. 11 My name is Jimmy Jenkins. I'm a retired 12 businessman and I have been in Baton Rouge since dirt. 13 And I would like to just make a simple man's overview 14 of what's going on with the water system, the drinking 15 water some here. 16 My friend Mr. Town and I, who is almost 17 as old as me, about three years ago got to looking at 18 the groundwater/drinking water situation and the 19 aquifer in Baton Rouge; and it's obvious that these 20 commissions, you included, have been knowing about this 21 situation for at least fifty years. We've gotten all the old reports, all the old graphs, all of the twenty 2.2 studies that have been made time and time and time 23 24 again which says saltwater is encroaching, saltwater is 25 encroaching. And now it's almost up to the major wells

in Baton Rouge, and what have we done? Nothing. Had 1 2 reports, education, da-da, da-da, da-da. 3 I'm here to say this is how simple it There's 160 million gallons a day being taken out 4 of Baton Rouge. 80 million goes to drinking, 5 80 million goes to industry. The water table in Baton 6 7 Rouge in that period of time has decreased 250, going 8 towards 300 feet. There are no more Artesian wells. The wells along the south end of the town here have 9 10 gone to salt and more are going every day. 11 Now the simple answer to this question 12 Somebody has got to guit using water so that it 13 can be replenished, the aguifer can replenish itself. 14 So the question in my mind: Is it going 15 to be 400,000 people here drinking river water, or is 16 it going to be industry pumping water out of the river? 17 I mean, everybody south of here pumps water out the river. It can be done. I know it costs 18 19 a nickel a gallon or something more to do it. 20 The Baton Rouge Water Company tells us, 21 if we have to go to river water, it's going to triple 22 the cost of drinking water in Baton Rouge. We don't need to do that. We shouldn't have to do that. Let 23 24 Exxon raise gas a penny a gallon and solve the problem, 25 and the paper mills, and whoever is using all the

1 water. 2 And as far as the education is 3 concerned, I think one item for your education program would be to let the 400,000 people in Baton Rouge know 4 that, if we don't do something soon, we're going to be 5 drinking river water. 6 7 And I would like to thank Mr. Angelle 8 for running a nice meeting, and I think he's adding new blood to this situation, and hopefully we're off to a 9 good start to get something done in my lifetime. 10 11 Me and Mr. Town have been here all our 12 lives. Our children are here, our grandchildren are 13 here, and even our great grandchildren are here. 14 have a vital interest of seeing that those people don't 15 have to drink river water. 16 And I thank you for your time. 17 CHAIRMAN ANGELLE: Thank you, sir. Appreciate your comments. 18 19 Ouestions? 20 Thank you very much. 21 MR. JENKINS: Thank you. 22 MR. TOWN: Thank you, Mr. Chairman. 23 My name is Hayes Town of Baton Rouge, 24 Louisiana. I am with the Baton Rouge Citizens to Save 25 Our Water.

2.2

I'm going to be a little more specific, although brief.

We were really pleased when the Commissioner on January 13 wrote a letter to Capital Area Ground Water Commission asking them to recognize the unsustainability of pumping stations at the industrial area and Lula, also asking them to propose management solutions.

I went to their technical meeting after that and I went to their board meeting after that. They refused to recognize the unsustainable situation that the Commissioner asked them about. And I forced the issue and they still said they didn't know what sustainability meant. As you recognized from the testimony, it was a problem for them.

I'm here about the future for the children. The gentleman spoke about your law problems, spoke about the future. The problem isn't the future but today. And our water problem is in the future, but we need to do something about it now.

The recommendations that they made, putting in the saltwater intercepter wells, the people that did those studies, two people, said that those wells at best would be good for fifty years, at best, and they are not sure about that.

1 Fifty years is not very long for the 2 children to be here in Baton Rouge. 3 And then on the other hand, they 4 suggested that Exxon reduce their pumpage by 5 2 million gallons a day by 2014. That's less than 10 percent of the total pumping in the 2000-foot sand, 6 7 so that's not going to stop this wave of saltwater 8 coming towards the industrial area. And even then they 9 are going to go down and get that same water from the 10 1200-foot sands. And then what you'll see is the 1200-foot sand 20 or 30 years from now will be 11 12 challenged. 13 So we can't just do nothing or just keep 14 doing what we're doing. We have to get industry to use 15 some of their water from the river. 16 The people were talking about the well 17 drillers using river water and stream water and lake 18 water so that the towns in north Louisiana could have 19 their water. Well, it's the same way in Baton Rouge: 20 We need industry to use river water and save this fresh 21 drinking water. It's called for in the Constitution 22 for the people of this state. 23 Thank you very much. If I could answer 24 any questions I would be glad to. 25 CHAIRMAN ANGELLE: Thank you, sir.

```
Appreciate you being here. Appreciate your comments.
1
2
                    Anyone else?
3
                    Anyone else wishing to make public
4
    comments?
5
                    Any comments from members of the
    Commission?
6
7
               MR. PRATT: Mr. Chairman, just announce that
8
    the Sabine River Compact Administration will be meeting
9
    tomorrow at 2:00 and then again at 8:30 on Friday
10
    morning in Bossier City at the boardwalk at the
11
    Courtyard Marriott. Staff will be there, but if
12
    there's anybody from north Louisiana here that may be
13
    interested in tuning into the compact issues, then that
14
    one will be meeting this week.
15
               CHAIRMAN ANGELLE:
                                  Thank you, sir.
                    Any other announcements?
16
17
               MR. McKINNEY: I make one comment I neglected
    to mention a moment ago.
18
19
                    The Sparta Commission held its second
20
    annual clay shootout last Saturday and was very
    successful to raise money for the purpose of education
21
22
    and conservation.
23
                    I didn't say that we don't get any other
24
    funds from the state. I remind you again.
25
               CHAIRMAN ANGELLE: You chose to leave that
```

```
out because your memory is failing or you just happened
1
2
    to be nice today?
3
               MR. McKINNEY: Old age.
               CHAIRMAN ANGELLE: Okay. I see no other
 4
5
     signs for comments.
6
                    We entertain a motion to adjourn?
7
                    Motion by Mr. Spicer, seconded by
8
    Mr. Sawyer.
9
                    Any objections? Any discussions?
10
                    Hearing none, the meeting is adjourned.
                     Thank you very much for your public
11
12
     service.
13
                     (Whereupon at 1:36 PM the meeting
14
                     adjourned.)
                               * * *
15
16
17
18
19
20
21
22
23
24
25
```

1 STATE OF LOUISIANA 2 PARISH OF EAST BATON ROUGE 3 REPORTER'S CERTIFICATE 4 5 I, ESTELLA O. CHAMPION, Certified Court Reporter and Registered Professional Reporter in and 6 7 for the State of Louisiana, Certificate Number 76003 (in good standing), as the officer before whom this 8 9 proceeding was taken, do hereby certify that on June 5, 2013, the foregoing 124 pages were reported by me in 10 11 the Stenotype reporting method, that said transcript 12 was later prepared and transcribed by me or under my 13 personal direction and supervision and is a true and correct transcript to the best of my ability and 14 understanding; that I am not related to counsel or to 15 the parties herein, nor am I otherwise interested in 16 17 the outcome of this matter. 18 Baton Rouge, Louisiana, this 14th day of 19 June, 2011. 20 21 2.2 ESTELLA O. CHAMPION, CCR, CRR 23 24 25