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WATER RESOURCES COMMISSION

Report of the first regular meeting held by the
Water Resources Commission
on Wednesday,
December 5, 2012 in Baton Rouge, Louisiana.
11:00 A.M.

LaSalle Building - First Floor
LaBelle Room
617 North 3rd Street
Baton Rouge, Louisiana 70802

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IN ATTENDANCE

MEMBERS OF THE WATER RESOURCES COMMISSION:

HON. SCOTT A. ANGELLE, CHAIRMAN

KYLE BALKUM, DEPARTMENT OF WILDLIFE AND FISHERIES

JONATHAN "JAKE" CAUSEY, SECRETARY OF THE DEPARTMENT OF
HEALTH & HOSPITALS

JERRY VAL GRAVES - PORTS ASSOCIATION OF LOUISIANA

CHARLES KILLEBREW, PH.D., GOVERNOR'S OFFICE ON COASTAL
ACTIVITIES

HAROLD "HAL" LEGGETT, LOUISIANA CHEMICAL ASSOCIATION,
LOUISIANA MID-CONTINENT OIL & GAS ASSOCIATION,
LOUISIANA ASSOCIATION OF BUSINESS AND INDUSTRY
AND THE LOUISIANA PULP & PAPER ASSOCIATION

PAUL "JACKIE" LOEWER, JR., RESIDES AND WORKS IN THE
AREA UNDERLAIN BY THE CHICOT AQUIFER

SENATOR GERALD LONG, CHAIRMAN OF THE SENATE COMMITTEE
ON NATURAL RESOURCES

TED McKINNEY, SPARTA GROUND WATER CONSERVATION DISTRICT
BOARD OF COMMISSIONERS

EUGENE OWEN, CAPITAL AREA GROUND WATER CONSERVATION
DISTRICT

MEMBERS OF THE WATER RESOURCES COMMISSION: (CONTINUED)

JIM PRATT, EXECUTIVE DIRECTOR OF THE SABINE RIVER
AUTHORITY

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IN ATTENDANCE (CONTINUED)

VINCE SAGNIBENE, EX-OFFICIO OF THE DEPARTMENT OF
ENVIRONMENTAL QUALITY, DESIGNEE
BRAD SPICER, DEPARTMENT OF AGRICULTURE AND FORESTRY
JAMES WELSH, COMMISSIONER OF CONSERVATION

WATER RESOURCES COMMISSION STAFF:

JOHN ADAMS - STAFF ATTORNEY, CONSERVATION
GARY SNELLGROVE - DIRECTOR, ENVIRONMENTAL DIVISION
MATTHEW REONAS - EDUCATION AND MARKETING REPRESENTATIVE

US GEOLOGIC SURVEY - LOUISIANA WATER SCIENCE CENTER

JOHN K. LOVELACE - REPORTS SPECIALIST

PUBLIC COMMENTS BY:

WILLIAM FONTENOT, STAKEHOLDER
REBECCA TRICHE, EXECUTIVE DIRECTOR OF THE
LOUISIANA WILDLIFE FEDERATION

REPORTED BY:

ESTELLA O. CHAMPION, CRR, BATON ROUGE COURT REPORTERS

1 CHAIRMAN ANGELLE: Good morning. We'll go
2 ahead and call the December 5th Water Resources
3 Commission meeting to order.

4 And I would ask that Mr. Adams call the roll.

5 MR. ADAMS: Yes, sir. Thank you.

6 As I call your name, please sound off.

7 Scott Angelle?

8 CHAIRMAN ANGELLE: Here.

9 MR. ADAMS: Kyle Balkum?

10 MR. BALKUM: Present.

11 MR. ADAMS: Bo Bolourchi?

12 Jake Causey?

13 MR. CAUSEY: Present.

14 MR. ADAMS: Elliot Colvin?

15 Gordon Dove?

16 Paul Frey?

17 Eve Gonzales?

18 Jerry Graves?

19 Dan Hollingsworth?

20 Jimmy Johnston?

21 Charles Killebrew?

22 MR. KILLEBREW: Here.

23 MR. ADAMS: Hal Leggett?

24 MR. LEGGETT: Here.

25 Jackie Loewer?

1 MR. LOEWER: Here.

2 MR. ADAMS: Gerald Long?

3 SENATOR LONG: Here.

4 MR. ADAMS: Ted McKinney?

5 MR. MCKINNEY: Here.

6 MR. ADAMS: Eugene Owen?

7 Jim Pratt?

8 MR. PRATT: Here.

9 MR. ADAMS: Vince Sagnibene?

10 MR. SAGNIBENE: Here.

11 MR. ADAMS: Kelsey Short?

12 Brad Spicer?

13 MR. SPICER: Here.

14 MR. ADAMS: And James Welsh?

15 MR. WELSH: Here.

16 MR. ADAMS: Mr. Chairman, by my count, that's
17 twelve members present. Eleven are required for
18 quorum, so we do have conform.

19 CHAIRMAN ANGELLE: Thank you very much. I do
20 appreciate it.

21 I want to just thank the staff and the board
22 members. Many of you are aware that on March 15 I
23 think it was, earlier this year we delivered to the
24 Louisiana Legislature a very confidential report that
25 was supported by a stack of appendices. I think the

1 report was a well done report, a report that helped I
2 think many folks kind of go through a very, very tough
3 issue and get a better understanding, and will serve I
4 believe as a good reference point for many of us.

5 So I'm very, very appreciative of the staff.
6 I know members of the staff worked extremely hard to
7 meet the deadline, and I'm extremely grateful to
8 members of the Commission for your kind words in
9 support of that.

10 And then going on to Item 3, I would simply
11 say that -- well, before I do Item 3, there are a
12 couple of members that are here that were appointed to
13 this Commission when I believe it was the Groundwater
14 Resources Commission, before it was changed, and I
15 think this is the first meeting that we've since had.

16 And so that would be Dr. Leggett, as well as
17 Jake Causey I believe, so I want to welcome both of you
18 for being appointed in the roles that you are expected
19 to fill here. Both of you obviously have served the
20 people of Louisiana in a great fashion and we look
21 forward to your continued service.

22 In addition to that we have with us today
23 Senator Gerald Long, who is the Chairman of the Senate
24 Natural Resources Committee, as well as Mr. Jim Pratt,
25 who are here with us as a result of Act 471 of 2012.

1 I want to take this time to recognize Senator
2 Long, a great friend of the Department of Natural
3 Resources, the Department of Environmental Quality, the
4 Department of Wildlife and Fisheries in his role as
5 Chairman and certainly a leader in a lot of ways.

6 So, Senator Long, thank you for your
7 leadership and being a friend to the environment of
8 this state and your work there. And certainly we
9 worked well with you on Act 471 to expand this
10 commission, which was here to known as the Groundwater
11 Resources Commission, to a new name and gave it some
12 additional subject matter jurisdiction -- to a new name
13 called the Water Resources Commission.

14 And so both Mr. Pratt, I believe, right? In
15 your role, as Chairman of the SRA -- as Chairman; is
16 that correct, or president?

17 MR. PRATT: I'm actually the executive
18 director.

19 CHAIRMAN ANGELLE: Yeah, we want to make sure
20 we get that right -- Executive Director of the SRA, and
21 Senator Long are both here as a result of their being
22 named in Act 471 of 2012. So we welcome both of you
23 all.

24 And certainly with Senator Long, I'll defer
25 to you to give you a chance to make some comments.

1 SENATOR LONG: Mr. Chairman, thank you so
2 much.

3 And I think all of us understand the gravity
4 and the importance of what we are doing. I have often
5 heard others -- and certainly it's not original with
6 me -- but I believe we can all agree that in the next
7 five, ten, fifteen, twenty years that water will be a
8 major component in what we do in Louisiana to drive the
9 economy and to establish a lifestyle that our people
10 expect. I want to thank you first of all for your
11 participation.

12 I also want to express appreciation to the
13 Legislature. When we brought this bill, there was
14 enthusiastic support. I wish that Chairman Dove were
15 here. But Mr. Chairman, on behalf of all that we
16 served with in the Legislature, we are truly excited
17 about what this commission will do.

18 And I remind you that we're one of only nine
19 states that does not have a comprehensive master water
20 plan. The goal of this senator is to move to that
21 direction, so that in a matter of just a few years we
22 will have a comprehensive water management plan that
23 will direct the needs of the state of Louisiana for
24 years to come.

25 I'm honored, Mr. Chairman, to serve with you,

1 and thank you for allowing these comments.

2 CHAIRMAN ANGELLE: Thank you much.

3 Appreciate it.

4 I do also want to recognize Mark Davis with
5 Tulane for his assistance when we were putting this
6 together, this report. We called on Mark on a couple
7 of occasions, and I know Mark is in the audience. I
8 don't want to embarrass you, but I do want to thank you
9 publicly for your efforts. And certainly USGS was
10 very, very helpful as well, and I do want to
11 acknowledge them publicly as well.

12 Having said that, I believe that -- are we
13 going to have a presentation on Act 471 and then swear
14 in the new members? Is that how you want to do it?

15 MR. ADAMS: Yes, sir.

16 CHAIRMAN ANGELLE: We'll go to Item 3 and ask
17 for the staff to just make a presentation on 471 so the
18 members understand how the jurisdiction of this
19 commission has somewhat been modified.

20 MR. ADAMS: If you could go to slide 6 for
21 me, please.

22 As the Chairman was pointing out, the 2012
23 legislative session passed Act 471 -- the Governor
24 signed the bill and made Act 471. There's a few things
25 that it did and a few things that it kept the same.

1 Essentially, by way of overview, the Water
2 Resources Commission will continue to be housed and
3 will continue to be staffed by the Office of
4 Conservation which is within the Department of Natural
5 Resources. The name, however, was changed to recognize
6 its expanded role. The act also changed the name and
7 expanded the role of the Groundwater Management
8 Advisory Task Force.

9 As I said, the scope of authority has been
10 expanded; and, in order to accurately capture the
11 interests that are reflected in its new authority, the
12 membership has also been expanded.

13 To be more specific, prior to Act 471, the
14 primary role of the Groundwater Resources Commission --
15 which the name has now been changed to the Water
16 Resources Commission --

17 And I'm going to go ahead and apologize in
18 advance. I have been saying Groundwater Resources
19 Commission for so long that I can assure you I will
20 continue to use that from time to time, even though it
21 has been changed to the Water Resources Commission.

22 Under the previous law, the Water Resources
23 Commission's authority and some of their duties
24 included the approval of rules and regulations
25 promulgated by the conservation districts, the review

1 of contingency plans developed by the Commissioner of
2 Conservation in response to groundwater emergencies.
3 The Commission has the authority to direct the
4 Commissioner of Conservation to establish regional
5 water resources management bodies and to receive
6 reports and submissions from the various water
7 management bodies.

8 After Act 471 the role includes evaluating
9 the state's surface water resources, including the
10 current and projected demands; to conduct an inventory
11 of the state's surface water supplies and identify
12 technical research and previously developed
13 information; to identify potential future deficit areas
14 and study alternatives to surface water use, including
15 treatment, transmission systems and reclamation; and to
16 investigate incentives for conservation and the use of
17 alternative technologies, including public education
18 and conservation programs.

19 To oversee those duties, some additional
20 members were appointed, specifically two ex officio
21 members: The Executive Director of the Sabine River
22 Authority -- that's Mr. Jim Pratt -- and the Executive
23 Director of the Louisiana Public Service Commission --
24 and that's Eve Gonzales, and she wasn't able to make it
25 today.

1 There's an appointment made from a list of
2 three submitted by the Ports Association of Louisiana.
3 There's a representative of the Louisiana River Pilots'
4 Association. There will be a representative of the law
5 schools chosen from a list whereby each law school
6 submits a nominee to the Governor and the Governor
7 selects one of those nominees. There is an appointee
8 who represents residential consumers that's appointed
9 by the Chairman of the House Natural Resources and
10 Environment Committee, as well as a residential -- a
11 representative of residential consumers appointed by
12 Senator Long of the Senate Natural Resources Committee.

13 And then as non-voting members that do,
14 however, count for quorum when they are present but do
15 not count against quorum when they are not present, is
16 the Chairman of the House Committee on Natural
17 Resources and Environment and Chairman of the Senate
18 Natural Resources Committee.

19 Those are the changes that were implemented
20 by Act 471.

21 CHAIRMAN ANGELLE: A couple of questions.

22 So it seems like the Groundwater Resources
23 Commission, when the Legislature originally set it up
24 and spoke to it, gave it some authority to approve some
25 of the rules, some of the things; for instance, if the

1 Commissioner of Conservation saw fit to create an area
2 of critical concern, the Commission had the authority
3 to review some of those things.

4 MR. ADAMS: Yes, sir.

5 CHAIRMAN ANGELLE: Okay. And so while we
6 changed the name of this particular commission from
7 Ground Water to Water Resources and we gave it some
8 additional authority, it's my understanding that the
9 authority on surface water is limited to, at this
10 point: To try to provide an inventory; try to gather,
11 if you would, be an information-gathering place, so
12 that we could serve as maybe an epicenter of
13 information; but at this point the Legislature has not
14 given to the Water Resources Commission any authority
15 to regulate surface water. Is that correct?

16 MR. ADAMS: Yes, sir, that is correct.

17 CHAIRMAN ANGELLE: Okay. So as we move
18 forward into 2013 and we drive agenda items, it would
19 be good for us to reach out to other folks on what kind
20 of, you know, surface water issues, both getting input
21 from the commission members and from other
22 stakeholders -- certainly, you know, knowing the vital
23 statistics of volumes would be important -- but I think
24 we're going to need to reach out to a variety of
25 stakeholders to make sure that we drive an agenda that

1 is consistent with our authority.

2 You know, I want to stay away from
3 regulation-driven ideas at this point because the
4 Legislature has make it very clear that it reserved
5 that right to themselves until such time that maybe we
6 demonstrate that is necessary.

7 MR. ADAMS: Yes, sir.

8 CHAIRMAN ANGELLE: Okay?

9 All right. Any questions for staff on this
10 item?

11 Okay. Mr. Owen, I want to welcome you to the
12 meeting. And let the record reflect Mr. Eugene Owen is
13 here.

14 Okay. Very good. Having said that, we go to
15 Item 4, installation of new officers.

16 I think we need folks to raise their right
17 hand and swear to attend the meetings with no
18 compensation.

19 MR. ADAMS: Yes, sir.

20 The members have actually already signed and
21 submitted to the Office of Boards and Commissions their
22 sworn oaths of office. So our purpose here would
23 simply be to recognize that the rolls have been updated
24 with that new membership and acknowledge their
25 presence.

1 So, yes, sir, Mr. Jim Pratt representing the
2 Sabine River Authority is one of the members to be
3 recognized. Senator Gerald Long representing the
4 Senate Committee on Natural Resources is to be
5 recognized. Mr. Jake Causey representing the
6 Department of Health and Hospitals is to be recognized.
7 And Mr. Harold Leggett is a representative chosen from
8 the LCA, LMOGA, LABI and LPPA, and he is to be
9 recognized as well.

10 So the record will reflect that our rolls
11 have been updated to accept those new members.

12 CHAIRMAN ANGELLE: Great. Thank you.

13 Certainly want to, Mr. Graves, welcome you to
14 the committee. We had a chance to welcome --

15 MR. ADAMS: My apologies, sir. I didn't see
16 Mr. Jerry Val Graves sitting over there.

17 He too has been appointed by I believe it's
18 the Riverboat Pilots' Association.

19 MR. GRAVES: Ports Association of Louisiana.

20 MR. ADAMS: -- the Ports Association of
21 Louisiana. Yes, sir.

22 I'm going to go ahead and update the roll
23 right now to reflect that, not only are you here in
24 attendance at the meeting, but to recognize that your
25 appointment as of this time has also been accepted.

1 MR. GRAVES: Thank you.

2 CHAIRMAN ANGELLE: We want to welcome you,
3 Jerry, and appreciate the service. Look forward to
4 working with you.

5 MR. GRAVES: Thank you very much. I look
6 forward to it.

7 CHAIRMAN ANGELLE: Okay. Very good.

8 Item 5 is adoption of the meeting summary
9 from January 19, 2012.

10 So at that point it time, it's basically
11 adopting the meeting summary as opposed to minutes, but
12 pretty much the same thing?

13 MR. ADAMS: Yes, sir. The meeting summary
14 just doesn't go into quite as much detail as the
15 minutes do, although it serves the exact same purpose
16 and it fulfills the same requirements.

17 CHAIRMAN ANGELLE: Motion by Mr. Spicer,
18 seconded by Vince -- how do you pronounce that?

19 MR. SAGNIBENE: Sagnibene.

20 CHAIRMAN ANGELLE: I need to buy a vowel over
21 there. Vince. All right.

22 Any objections to the motion to adopt the
23 meeting summary from January 19, 2012?

24 Hearing none, the motion is adopted.

25 Item number 6 is a summary of the March 15,

1 2012 Interim Report to the Legislature. Obviously we
2 referenced that earlier and we're going to go into that
3 item, and I would ask staff take that up now.

4 MR. REONAS: Okay. Thank you.

5 Daryl, could we go to slide number 12.

6 CHAIRMAN ANGELLE: Excuse me just one second.

7 MR. REONAS: Yes, sir.

8 MR. WELSH: I would like to make a brief
9 housekeeping announcement.

10 We went to some effort this morning to get
11 our wi-fi system in this room hooked up so you can be
12 online, and I'm going to give you how to get into that
13 system right now.

14 Or is that going to be announced?

15 I can give it to you.

16 MR. REONAS: Yes, sir. Go ahead.

17 MR. WELSH: If you go to your sign-in on your
18 iPhone or whatever, and user ID will be dnr\dnrwifi,
19 password is dnr.2011. So that's all you have to do,
20 and we use that -- that's a system that we use
21 especially in this room for special meetings. So feel
22 free to use it. It's free, a public service from the
23 office of DNR. Thank you.

24 MR. LOEWER: Would you repeat that one more
25 time? Not the whole speech.

1 CHAIRMAN ANGELLE: The free part. The free
2 part.

3 MR. WELSH: It is free.

4 Okay. DNR -- user ID dnr\dnrwifi, W-I-F-I,
5 password dnr.2011.

6 CHAIRMAN ANGELLE: Thank you,
7 Mr. Commissioner. Go ahead and proceed.

8 MR. REONAS: All right. Thank you.

9 In response to House Concurrent Resolution
10 number 1 of 2010, the Groundwater Resources Commission
11 and Office of Conservation, DNR worked to put together
12 an interim report to the Legislature on groundwater
13 issues, and this spanned most of 2010 and 2011 and into
14 the first part of this year:

15 Interviews with commission members
16 representing a wide array of different constituents and
17 interest groups, two public workshops that were held in
18 September of 2010, public comments, a raft of those
19 accepted through regular mail and electronic means.
20 The draft report was ready in October of 2011, and that
21 went through a rigorous public meeting process around
22 the state, Ruston, Alec, Crowley, Shreveport, Baton
23 Rouge. Final draft was released for comment and review
24 in December of 2011, a year ago this month. And then a
25 two-day public meeting was held in January of 2012 to

1 take further comments; the final report being delivered
2 to the Legislature in March of 2012.

3 And a very impressive document all around,
4 identified a lot of the current major issues in terms
5 of groundwater management, but also touching on surface
6 water as well; and then put together a strong list of
7 recommendations for administrative and legislative
8 action.

9 Among the current major issues was the
10 identification of a rather inadequate monitoring
11 network of groundwater resources in the state; of
12 course coastal restoration of saltwater intrusion along
13 the coast. The Sparta Aquifer System in north central
14 Louisiana continues to be an area of ground water
15 concern; saltwater encroachment here in the capital
16 area or Southern Hills, Baton Rouge aquifer; and
17 southwest Louisiana, especially dealing with rice
18 agriculture, high water usage and saltwater intrusion.

19 Southern Caddo Parish, the temporary ground
20 water emergency conditions there which have somewhat
21 abated; issues dealing with the Toledo Bend Reservoir
22 drawdowns and sale of water. Among the other current
23 major issues, a lack of a real understanding or
24 conception of water withdrawal management in the state
25 surface water and how to manage it. Also surface water

1 quality management was identified of as a major issue.

2 Safe drinking water supply continues to be a
3 major -- an important concern across the state.

4 Another major issue was water conservation and public
5 outreach over -- public outreach and awareness about
6 conservation generally.

7 And then last, basically an assessment, the
8 need for assessment and knowledge, continued knowledge
9 about the sustainability in the state's major aquifers;
10 basically trying to get a handle on what the
11 groundwater resources were and how we can move towards
12 a sustainable model in the future.

13 Among the major recommendations: Monitoring,
14 essentially resource metrics data, hard numbers.

15 Auditing: Regulatory compliance and program
16 effectiveness, especially out of the Office of
17 Conservation.

18 Education: This is a big one dealing with
19 resource conservation; just basic awareness about
20 ground water and surface water resources. And then
21 also of course education about regulatory compliance on
22 certain issues.

23 Registration: Water well driller and
24 owner/user responsibilities, a major attempt to sort of
25 update what we know about water wells and their use in

1 the state.

2 And then the evaluation: Essentially
3 assessing resource sustainability, aquifer and ground
4 water and surface water sustainability into the future,
5 giving us again a way to measure where we're at.

6 Also on the list of recommendations,
7 investigation of incentives towards resource
8 conservation: How to build a program that will
9 encourage major consumers of both ground and surface
10 water to conserve or move to alternative sources for
11 their consumption.

12 Next on the list, enforcement: Basically
13 regulatory compliance, how to educate folks that we
14 regulate, how to best work with them to mitigate any
15 negative actions on their parts, how to regulate their
16 actions and how to provide them with enough information
17 that they will meet state law and state regulations.

18 Last of course, or next on the list,
19 emergencies: Emergency water crises; basically working
20 towards response coordination among the various state
21 agencies that have responsibility in this area -- DEQ,
22 DNR, Health and Hospitals, Agriculture and Forestry,
23 Wildlife and Fisheries, and other assorted agencies.

24 And then of course tying in with that as
25 well, collaboration: How to build a multi-agency

1 management plan, how to bring the different water
2 stakeholders together into a systematic framework in
3 the future.

4 And then last, one of the major
5 recommendations was expanded governance; that is, new
6 legislation and working with the Legislature to educate
7 them, legislators, about what the major issues are and
8 how best to perhaps pursue policy for the future.

9 Okay. On that, I'll turn it over to Mr. Gary
10 Snellgrove.

11 MR. SNELLGROVE: Yes. Thank you, Matt.

12 CHAIRMAN ANGELLE: So let me just make sure.
13 You kind of identified the items that were in the
14 report, and now that's what was done?

15 MR. REONAS: Yes, sir.

16 CHAIRMAN ANGELLE: And now you're going to
17 take the individual ones, Mr. Snellgrove? Is that
18 right?

19 MR. SNELLGROVE: That is correct.

20 If you look in your packet I provided, the
21 title of this report that I'm going to go over with you
22 is Groundwater Sustainability Management
23 Recommendations. It's dated December 5, today. It's
24 an update to the legislative recommendations that were
25 provided in the report, and this will give you an

1 update as to where we are currently with actions
2 towards those items.

3 CHAIRMAN ANGELLE: Good. I think this is
4 good. I would encourage all members, as you always do,
5 to be particularly engaged in this part of the agenda.
6 The report to the Legislature not only identifies
7 issues, but it also recommended some action items. And
8 once received by the Legislature, the department and
9 office went to work on trying to execute those
10 particular action items.

11 And so I'm pleased, Mr. Snellgrove, that
12 you're going to take us through it and tell us what
13 we've done, what's on the to do list, what remains to
14 be done, and where are we short with regards to either
15 resources or ideas, and what do we need to do to better
16 get there. So I think there will be a lot of meat on
17 the bone right here.

18 MR. SNELLGROVE: Thank you, Chair.

19 Okay. So I'm kind of going off line with the
20 Power Point.

21 But, Daryl, if you would like, you can go
22 ahead and continue as I move from each different
23 category, first being monitoring, which is on the
24 screen currently.

25 I'm going to go off of what's on the handout

1 that I provided earlier.

2 So the first item was for the agency to seek
3 funding to be able to improve on the statewide
4 monitoring network.

5 So very pleased to update you on this item as
6 that is a critical aspect of us moving forward with
7 managing the resources in the state. We have been
8 successful in securing a three-year agreement with USGS
9 that was effective July 1 of this year. And as of this
10 week, I have been provided a draft work plan that will
11 initiate the full network improvements, and we expect
12 that that will be finalized by Friday of this week,
13 December 7.

14 CHAIRMAN ANGELLE: So this particular issue
15 when we go back and look -- I know the report addressed
16 that over the last 25 years or so, maybe 20 years or
17 so, the monitoring network that the state had out there
18 developed to be its canary in the coal mine, if you
19 would, on issues had diminished. And one of the things
20 I think that came out as a result of these meetings
21 over time going out throughout the state was that we
22 really didn't have a network of monitor wells that was
23 robust enough for us to properly manage the resource;
24 which was, you know, a scary observation, but one that
25 was necessary to at least be brought out publicly.

1 I know that we worked together and were able
2 to find some financial resources to be able to engage
3 USGS.

4 Based on that, do you feel that once this is
5 established we will be back into the right area of
6 margin where we would have an adequate monitoring
7 program?

8 MR. SNELLGROVE: Certainly the scope was to
9 get us back to a point where we're filling in gaps of
10 data. The state had a more robust monitoring system;
11 but then as funding dwindled and the budget dwindled,
12 so did the monitoring.

13 So what we're doing here is we're
14 revitalizing that past effort and getting back into
15 areas where we once were, and now we can use as a
16 background; and then we can assess where we are now,
17 being as that three years is time that we see in
18 improving this network, so we can then assess again,
19 see where we need to fine-tune it even further.

20 So is this the endpoint of having that full,
21 comprehensive monitoring plan in place? Probably not,
22 I think. But it is definitely a beginning; it's a step
23 in the -- a huge step in the right direction to get us
24 the metrics that we need to be able to make those
25 decisions and fine-tune as we go.

1 CHAIRMAN ANGELLE: And we did it for -- as I
2 recall, we were able to find a funding source which was
3 from I think a petroleum violation escrow fund that we
4 from time to time have access to with approval from the
5 federal government, and we were able to use that to
6 fund this for a three-year period of time?

7 MR. SNELLGROVE: Yes, sir.

8 CHAIRMAN ANGELLE: So your statement today is
9 that we are improving, expanding the monitoring network
10 for groundwater in the state of Louisiana and we have
11 the funding sources to do that for the next three
12 years?

13 MR. SNELLGROVE: Correct.

14 CHAIRMAN ANGELLE: Okay. Very good.

15 MR. SNELLGROVE: Okay.

16 The second item on there, on the list under
17 monitoring for metrics was to also -- not only is it
18 necessary for us to understand what's happened in the
19 ground water, in ground water aquifer systems in the
20 state, but it's also equally important to understand
21 what's happening on the surface, with surface water
22 supplies, so that we can understand where we have the
23 availability to, say, have alternatives from ground
24 water to the surface.

25 So we were able to also here of late,

1 recently engaged in a three-year agreement with the
2 Louisiana Geological Survey to develop a work plan,
3 which is currently being processed and developed, to
4 address needs on surface water monitoring. As the
5 state had gaps of information in the ground water
6 aquifer systems, so does the state have gaps as well on
7 surface.

8 So this effort is going to provide for
9 pursuing data and information on stream quantity and
10 availability as a resource under this program with LGS.

11 CHAIRMAN ANGELLE: Are you able to focus --
12 and when you take a look at the major issues,
13 obviously, you know, capital area, major issue --
14 there's going to -- you know, by all accounts
15 everything that I've seen, there's going to be a need
16 to bring surface water into a solution in the mix here
17 in the capital area.

18 In the Sparta there has been some talk and
19 folks have been, you know, pursuing to supplement
20 ground water issues there with surface water.

21 I'm assuming that the network monitoring plan
22 that you have at a minimum, while there certainly are
23 some additional areas of concern, that you are focused
24 on getting data from the areas of concern in a more
25 detailed way than other areas. Would that be correct?

1 MR. SNELLGROVE: Yes, sir.

2 Pursuant to the work plan that's being
3 developed will be certainly considerations for areas of
4 the state where, A, we have a lack of information, but
5 also where we have a population density where there
6 will be a greater need for the potential or real use of
7 surface water resources, as well as for anticipated
8 activities in the oil and gas industry, such as for
9 frac supplies. So that's part of the criteria that is
10 going to go into developing the work plan to place or
11 install these new stations.

12 CHAIRMAN ANGELLE: Right. Right.

13 Obviously we want to have information in
14 those areas where we already know are identified as
15 major issues comparable to other areas. You know,
16 not -- everybody ought to be treated fairly, but we
17 ought not have the equal amount of monitor wells in
18 each parish if there are no known areas of concern in a
19 particular parish.

20 MR. SNELLGROVE: That's correct. And we have
21 funds but they are limited and not endless. So
22 obviously we're going to need to prioritize that and we
23 are focused on that effort.

24 CHAIRMAN ANGELLE: Good, good.

25 MR. LEGGETT: Mr. Chairman?

1 CHAIRMAN ANGELLE: Yes, sir. Go ahead.

2 MR. LEGGETT: Gary, I assume that there is a
3 lot of coordination going on because -- and as you
4 know, there's a lot of information with DEQ, Wildlife
5 and Fisheries on water quality and monitoring stations
6 all across the state. And I make that assumption -- I
7 wanted to publicly give you an opportunity -- but I
8 make the assumption that there's swapping of all the
9 state information, so we're not redundant at some of
10 our sites or whatever we end up in contract with with
11 USGS?

12 MR. SNELLGROVE: Point well taken.

13 We have staff -- Thomas Van Biersel is with
14 the department, project management oversight of this
15 effort -- and, you know, I feel confident that the
16 agency -- you know, knows where all the resources are
17 current and that we don't duplicate any efforts; and
18 that's a point well taken, sir.

19 MR. LEGGETT: It's a softball, easy one.
20 Thank you.

21 MR. SNELLGROVE: Yes, sir.

22 MR. BALKUM: Gary, I have a question.

23 With the potential with the Tuscaloosa Marine
24 Shale taken off with expansion of surface water
25 monitoring efforts, would it expand more into the

1 Florida parishes where we could see intensive use of
2 those surface water resources?

3 MR. SNELLGROVE: Florida parishes are
4 certainly on the radar for adding to the network. I've
5 had briefings with Thomas earlier this week and saw
6 somewhat of a draft plan there that focuses in on those
7 areas that have been identified as the three major
8 plays: Of course the Haynesville shale, the Brown
9 Dense in the northern part of the state, as well as the
10 Tuscaloosa Marine Shale across the central belt,
11 including the Florida parishes.

12 MR. BALKUM: And I would just like to -- for
13 the record, Wildlife and Fisheries sees this as a very
14 important component of our management plan as we
15 encourage users in some areas to use less ground water,
16 to focus on surface water, we want to make sure that
17 fish and wildlife, recreational use is not impacted.
18 We've worked closely with Thomas and with DEQ as well
19 and think through our cooperative endeavor and
20 agreements that we're making some strides and look
21 forward to working with you all in the future.

22 MR. SNELLGROVE: Yes, sir. Thank you.
23 Likewise here.

24 MR. WELSH: Gary, let me add something here.
25 As Commissioner of Conservation, I attend

1 most of the Oil and Gas Unitization Hearings and we've
2 extended our policy of encouraging the use of surface
3 water. At every hearing I will get the witnesses that
4 are testifying to basically make a -- address that
5 issue, and they usually make a commitment that they
6 will definitely use surface water in lieu of ground
7 water if at all possible.

8 It's a policy that we started up in the
9 Haynesville, northwest Louisiana and we've extended it
10 to both the Tuscaloosa Marine Shale, which is an area
11 across central Louisiana, and then up into the Brown
12 Dense, lower Smackover development up in northeast
13 Louisiana. So that policy seems to not be causing any
14 heartburn at all to look for surface water.

15 MR. CAUSEY: A comment I wanted to make was,
16 when you're talking about looking at surface water
17 alternatives, to make sure that we're looking at it
18 comprehensively.

19 One thing we saw this year, especially during
20 drought, was with the Mississippi River, Plaquemines
21 Parish was having to get water from upriver due to
22 saltwater encroachment. So we're talking about capital
23 area, Florida parishes, et cetera looking at surface
24 water, combine that with drought, and, you know, other
25 areas having to move upriver to collect water, so I

1 think we should make sure that -- I mean, that's
2 occurring now -- you encapsulate that into the entire
3 picture.

4 CHAIRMAN ANGELLE: Yeah, I think Jake, those
5 are great comments because, you know, one of the things
6 that we look at is we go back to 2008 and we are
7 beginning to develop the Haynesville shale, we had a
8 massive, massive use of ground water, and the
9 Commissioner issued a guidance document requesting --
10 because he didn't have the authority to mandate to the
11 energy companies -- but he issued a guidance document,
12 and it was such that -- that guidance document was, you
13 know, in all cases please use surface water, and that
14 worked in a very big way.

15 I don't know if today we'll see some of those
16 statistics, but I recall seeing a number as high as 75
17 or 76 percent of the water that was being used in the
18 Haynesville was coming from surface water. And that
19 was good in a moment, and it kind of, you know, solved
20 that one problem at that one time.

21 And then we began to deal with the entire
22 surface water issues; and, well, wait a minute. Now
23 you maybe checked the box over here, but what do you
24 have here? And then you get into a drought situation,
25 and of course working with folks on the commission.

1 Learned very quickly that all we did was we did some
2 good, but it wasn't comprehensive.

3 And I think that's the wisdom of Senator Long
4 and Representative Dove and other members that said,
5 Let's begin to look at this in a holistic way, and that
6 when we, in fact, encourage surface water, you know,
7 what are the implications to our other resources? And
8 that takes a huge collaboration. And so I think -- I
9 appreciate you making those comments because they are
10 absolutely accurate.

11 MR. SNELLGROVE: Okay.

12 Moving on to the next item under monitoring,
13 it was recommended that the state take administrative
14 action to establish ground water production reporting
15 requirements for nondomestic water well owners,
16 especially in areas where the metrics show that
17 conditions are less favorable or not necessarily
18 sustainable.

19 And so part of the response to that, the
20 action is going to be, you know, we're going to need to
21 see some of the metrics obviously first. In these
22 areas where we know we need to improve the monitoring
23 network, we've got that action item in place now. And
24 so once we get that data, we can start to then develop
25 a plan, a work plan to address that need to move on

1 that recommendation.

2 CHAIRMAN ANGELLE: Can you give me an example
3 of what you're addressing here? I know what you're
4 addressing, but a nondomestic water well would be a
5 commercial well?

6 MR. SNELLGROVE: Yes, sir, it could be a
7 commercial public supply well or wells. It could be an
8 industrial water well, an agricultural water well.
9 Those would be the primary categories of well use that
10 would fit into that recommendation.

11 CHAIRMAN ANGELLE: Got it. Okay.

12 MR. SNELLGROVE: And likewise, the fourth
13 administrative item, you know, also is depending upon
14 additional data and this improved surface water and
15 ground water monitoring network in order to take
16 action. So our anticipated date is January of 2014.
17 Once we get action, again start to get the data and we
18 begin to get production data, then we'll be able to
19 look at improving or developing and implementing this
20 sustainability grading -- aquifer sustainability
21 grading and prioritization ranking system. That was
22 the fourth recommendation.

23 CHAIRMAN ANGELLE: So in that one we would be
24 looking to give a, if you would, maybe a letter grade
25 or some -- you know, I know we had a lot of

1 conversation in our two-day meeting that we had earlier
2 that, you know, one size doesn't fit all, that aquifers
3 are different and we have to have a different approach
4 and, you know, what we need to do in the capital area
5 may be different than what we do in southwest Louisiana
6 or wherever, just fill in the blank.

7 I was particularly interested in trying to
8 make sure that we could put, if you would, some grade.
9 And again, you know, we are all kind of familiar with
10 letter grades. That may not be the best way to do
11 resource management. But I do believe it's important
12 that we can establish, because right now we either have
13 a critical area or it's good, and I think the truth
14 lies somewhere between all of that.

15 So I'm hopeful that we can look at best
16 management practices maybe from other states and try to
17 determine if there is, in fact, some letter grade or
18 something that we can put so that folks who are having
19 concerns get to use that grade, if you would, as help,
20 as a call for help in their particular areas.

21 MR. SNELLGROVE: Yes, sir. Yes. So whether
22 it's some type of grading system or classification
23 system, that is certainly part of the expected outcome
24 of the upgrades and improvements that we're making with
25 the ground water monitoring effort with USGS.

1 As we are getting, we are going to be
2 getting -- also, along with additional data, ground
3 water quality and ground water level data, we are also
4 going to be getting more frequent reports. During the
5 three-year term, we're going to be getting annual
6 reports, instead of every five years. So this will be
7 also critical for us to manage more -- I won't say real
8 time -- but getting data more timely so that we can
9 have production and usage data closer in time to the
10 water level and water quality data.

11 It should start to come together as a total
12 package in order for us to be able to assess and
13 evaluate each of the individual aquifers to establish
14 some type of prioritization and grading system.

15 MR. MCKINNEY: Gary, let me ask you a
16 question.

17 Senate bill 502 which requires annual reports
18 by various districts, Sparta being one of them, where
19 does that fit in with all of this? If USGS is already
20 doing it, why are we duplicating this information?

21 MR. SNELLGROVE: Well, the USGS, they are
22 focused on reporting water usage statewide, similar to
23 what they have been providing every five years in their
24 report, water use in Louisiana.

25 So it's not necessarily going to recap what

1 the Office of Conservation has done or the Water
2 Resources Commission has done, or in your case say the
3 Sparta Commission has done to implement their
4 legislative authority with regard to water management.
5 So I think the annual reporting you're referring to is
6 going to be covered here in a little bit, but it's more
7 in line with each individual agency or governing
8 entity's role in reporting to the Legislature their
9 accomplishments and actions towards their legislative
10 mandates.

11 So moving -- Daryl, please, next slide.

12 The next category for recommendations in the
13 report was for auditing. And the first item under
14 auditing was to -- for the agency to continue
15 aggressive implementation of water well notification
16 compliance audit procedures.

17 We had somewhat of a major milestone, which
18 was another recommendation, but I'm going to use it in
19 this discussion right here. We were able to promulgate
20 here in November regulations that require water well
21 drillers to ensure that water well owners have complied
22 with notification requirements such that the agency
23 will get this information in advance of wells being
24 installed, such as, you know, large public supply,
25 industrial wells, and even irrigation wells; so that we

1 can evaluate those locations and those proposed uses to
2 make sure that sustainability in that local region and
3 area is going to be maintained; or, if there are some
4 issues, that it provides for the ability of the agency
5 to require certain actions be taken by the well owner
6 if they are going to pursue installation of those wells
7 to mitigate any of these adverse impacts.

8 CHAIRMAN ANGELLE: Give us an example,
9 Mr. Snellgrove, of what this rule allows for or would
10 flesh out that hereto before was not happening.

11 MR. SNELLGROVE: Yes, sir.

12 Well, the big picture is that we have
13 multiple well owners throughout the entire state of
14 Louisiana, and many of these well owners are
15 one-and-done type of outfit: They need a well, they
16 put the well in, and they may never need to put another
17 one in in their lifetime, or they have staff that come
18 and go. And so it becomes a management problem for the
19 well owner, especially not necessarily so much for the
20 industrial, but for the irrigation guys, for instance,
21 and perhaps for some of the public supply we found in
22 different applications, they just weren't aware that
23 they had to comply with these rules and regs.

24 So we had this large domain of water users
25 that are required to comply, and they still are

1 required to comply with evaluation and notification
2 requirements.

3 CHAIRMAN ANGELLE: Because the Legislature
4 passed a law that said well owners have to comply,
5 right, going way back when?

6 MR. SNELLGROVE: That's correct. That's
7 correct. And that is still part of the management
8 strategy that is necessary.

9 However, the difficulty was in implementing
10 enforcement and in getting the word out to these owners
11 that they have something to comply with, and so that
12 was backing us, the agency, up in its ability to
13 evaluate, fully evaluate new installations throughout
14 the state.

15 So the idea and the recommendation recognized
16 that we have a smaller subset of those who are involved
17 in the process of installing water wells and in the
18 management of ground water systems in the state, that
19 being the drillers. So we go from maybe a domain of a
20 couple thousand, three, four thousand per year of well
21 owners that have to comply to now maybe up to, you
22 know, 300, 400 registered, licensed water well drillers
23 that become the regulated entity, in part also with the
24 owner.

25 So it made sense, it made sense of course to

1 the Commission for the recommendation -- and to the
2 agency as well -- as implementing the requirement in
3 now chapters or Title 56 and 43 that the drillers have
4 a responsibility now, an obligation to ensure that the
5 well owner has complied, so the agency can do its job
6 and evaluate these locations prior to the wells being
7 installed.

8 CHAIRMAN ANGELLE: So rather than having a
9 person who traditionally might do this one time in
10 their life, perhaps using a driller who obviously does
11 it multiple times in a month and would be more familiar
12 with it, and so you're asking the driller -- just I
13 want to try to make it very clear for the folks here --
14 you've required by rule that a licensed driller -- and
15 to be a driller in the state of Louisiana, you have to
16 be licensed; right?

17 MR. SNELLGROVE: Correct.

18 CHAIRMAN ANGELLE: So, if folks are playing
19 by the rules, we've got licensed drillers who have to
20 provide information to you on behalf of their well
21 owner. Is that correct?

22 MR. SNELLGROVE: Okay, the way the regulation
23 is written is before the well owner -- before the well
24 driller, the driller, can install the well and begin
25 construction of the well, he must be provided proof

1 from the well owner that this agency has responded to
2 the notification requirements before he drills.

3 Now if he drills and it's found that the well
4 owner has not received the response from the agency
5 that allows for the well to continue to be installed,
6 then both the well owner and the well driller are now
7 in violation of the regulation.

8 CHAIRMAN ANGELLE: All right. So we're using
9 the driller in a sense to say -- in a sense helping to
10 protect the well owner from receiving one of those
11 letters I know that we had to send out sometimes back
12 by saying, you need to get your clearance from the
13 state and I can help you do it. Because obviously the
14 driller is motivated to make it happen because they are
15 in the business to drill wells. And so you would
16 expect that that system that you went to would
17 eliminate -- that's not the right word -- would
18 minimize, lessen the number of wells that are being
19 drilled that you have no knowledge of.

20 MR. SNELLGROVE: That's correct.

21 CHAIRMAN ANGELLE: Which allows us to manage
22 the resource in a more appropriate sustainable fashion.

23 MR. SNELLGROVE: Yes, sir.

24 CHAIRMAN ANGELLE: I want to compliment you
25 on this because it's something that I know that we have

1 for the longest tried to get there, and it took some
2 weaving and bobbing. So that rule is now the rule of
3 the land?

4 MR. SNELLGROVE: Yes, sir. Effective
5 November 20.

6 CHAIRMAN ANGELLE: That's my birthday. I
7 appreciate it.

8 MR. SNELLGROVE: Oh, very timely.

9 So, yeah, we're also very pleased that this
10 is in place because it's going to tremendously improve
11 our ability to audit, whereas before -- and that's
12 where the wording here is about the update on this
13 aggressive notification compliance audit procedure.

14 Before we were having to go through two
15 database systems to establish whether or not a well
16 owner -- and there were thousands of them -- over a
17 certain period of time has complied with their
18 requirement to send in this notification form. Whereas
19 now we can -- we now can audit much more efficiently by
20 just going to one database and going to the driller
21 notification forms that we received.

22 See, on the back end of this -- let me
23 explain that as well -- all wells that are drilled in
24 the state of course have to be drilled by the licensed
25 driller; but he is also required, the driller is also

1 required to provide, after installation of the well,
2 within 30 days, he's also required to submit a water
3 well registration form to demonstrate as-built location
4 and construction materials that were used, you know,
5 for the well.

6 So that system has been in place for, you
7 know, since the mid 80s and has gone through its own
8 auditing and enforcement. So it's a good -- it's a
9 system that's been there. So it's up and running and
10 drillers are aware of it and they are complying with it
11 for the most part.

12 So that gives us now just a much better
13 avenue to ensure that all regs for water well
14 notification and registration are being complied with.
15 So point being, whereas before we were pursuing very
16 heavily or very comprehensive an
17 time-and-labor-intensive audit system, we're going to
18 back down a little bit off of that. We're no longer
19 going to continue to pursue the audit in that fashion.

20 So we're in the state right now where we're
21 digesting what is now in place, November 20 being the
22 date that it was finally promulgated; and we're going
23 to come up with a new system, and that will improve our
24 ability to quicker, more quickly and more effectively
25 audit.

1 CHAIRMAN ANGELLE: Good. Smart.

2 MR. SNELLGROVE: So the next recommendation
3 under the auditing year is for consolidating the
4 database -- the registration and notification database
5 systems. We still currently have two systems.

6 And so after the recommendation was made, the
7 agency met with our information technology staff and we
8 began discussions, and we came up with a conceptual
9 design to develop this system to integrate it and bring
10 it as under one. Those discussions continued and we
11 look to June of next year, you know, to be able to
12 perhaps have this implemented and in place, provided
13 that we have funding, that funding is still available.

14 So, Daryl, next one please.

15 The next area of recommendation that was
16 provided in the report is for education.

17 And I guess at this time it's appropriate for
18 me to introduce Matthew Reonas who was here earlier
19 providing some of the information that you received.

20 The agency was in a position to fill an
21 education and marketing representative position, and
22 Matthew is serving in that capacity for the agency and
23 hit the ground running literally.

24 And we -- I'll go through this list here.
25 And so anywhere where I, you know, refer to an

1 education and marketing representative, that is Matt,
2 and he is serving in the capacity to assist the agency
3 with developing, implementing and maintaining a robust
4 water conservation public awareness education, outreach
5 and stewardship program.

6 That's part of what we've had in meetings
7 past with the Groundwater Resources Commission, have
8 long identified the need to have this in place; and so
9 we're very fortunate to have this opportunity and have
10 Matt on our team so that we can, you know, truly and
11 earnestly pursue this activity.

12 CHAIRMAN ANGELLE: I want to welcome Matt to
13 the staff, and we are very lucky to have someone with
14 your credentials.

15 And I want to thank you Senator Long, because
16 I went to Senator Long on this issue.

17 You recall, members, we had talked about in
18 our January meeting that we really couldn't be serious
19 as a group if we identified all these issues and we
20 didn't have anybody on the field playing offense every
21 day; that, you know, the ability to regulate and
22 monitor and those things were all fine, but it was an
23 opportunity for us to begin to change through
24 education, and we needed to do that, and we were able
25 to here at the department. As I recall, Commissioner

1 Welsh, we were able to, not grow the staff in terms of
2 numbers, but basically kind of change and re-prioritize
3 some things, and I want to thank you for your help, and
4 certainly Senator Long helped us make that happen.

5 And so I'm saying perhaps for the first
6 time -- it may be sometime in the past there was -- but
7 certainly for the first time in a long time I would say
8 we're putting an offense on the field where it's going
9 to be working with, you know, school-age children, as
10 well as a variety of other folks, on conservation; that
11 while we can't maybe get through, achieve all of our
12 goals through conservation, we certainly can do a lot
13 of good through it.

14 So, Matt, thank you very much and turn it
15 over to you.

16 MR. REONAS: Thank you.

17 Well, I will say I got my start in
18 government, Office of State Parks, and worked several
19 years there, and Office of Tourism. So I have been
20 literally all over the state from one end to the other
21 and back again, and I do have at least the conception
22 of the different regions and cultural modes of each
23 part of the state and some of the needs and
24 requirements of those specific areas. So I'm very
25 appreciative to be here.

1 My background is in education. I've taught
2 at LSU and UL-Lafayette, but I really enjoy doing
3 outreach and working in state government, working with
4 the different constituents across the state. So I'm
5 very appreciative to be here.

6 I'll go through kind of the list here as
7 well. But it's on the Power Point slide 18 which we're
8 on. I sort of grouped those together. But if you all
9 can follow me, I'll kind of run through sort of where
10 I'm at and sort of where we're going with this.

11 One of the main things that the Ground Water
12 Commission identified was the establishment of sort of
13 a mandatory statewide ground water and surface water
14 education program. And really, when I first came on
15 board, it was a real interesting time, of course; and
16 so one of my first priorities was really to evaluate
17 where we were in terms of education, both the different
18 state agencies, local organizations and agencies that
19 were involved with it.

20 DEQ, agriculture and forestry, wildlife and
21 fisheries, Sparta Commission, the Soil and Conservation
22 District folks have water education programs in
23 different capacities, and so there is a lot of overlap.
24 And to me that's one of the things that was most
25 interesting from an organizational point of view was

1 how much overlap there was and how many different
2 players were involved in this.

3 So I'm still, to be quite honest, having come
4 on board here in late August, I'm still in the process
5 of really trying to network and evaluate where we're
6 at, who the major players are, what programs are out
7 there and how we can interface together in sort of
8 moving water education forward.

9 I have been talking a good bit with the
10 Department of Education in regards to where
11 conservation education/water education is going in the
12 future. And if you review the content standards,
13 grade-level expectations, there's a lot of leeway in
14 what science teachers, earth science teachers,
15 environmental science teachers can bring into the
16 classroom.

17 Now my question immediately was how much is
18 actually being taught in the classrooms regarding
19 either ground water or surface water. And one of the
20 things that we kicked around in the office is actually
21 putting together -- rather than just relying on our
22 probably fairly accurate estimate, was actually putting
23 together a survey that we could run through science
24 teachers in the state through the Department of
25 Education -- and that's something that we're still

1 exploring -- but that would give us I think a better
2 sense of where conservation education is right now.

3 As best as I can tell from just very informal
4 conversations with a lot of teachers, there's not a lot
5 of water education that's going on. A lot of it is
6 very, very, focused on the hydrologic cycle. But in
7 terms of conservation, basic understandings of
8 aquifers, there's not a lot out there in the
9 classrooms; and I think that's a place we can explore
10 in the future as a place for growth.

11 Now, I also talked with the Department of
12 Education. There are new national science content
13 standards coming down, and those are going to really
14 focus -- in terms of education, are really going to
15 focus on: Environmental management, environmental
16 decision-making, man and the environment; that is, how
17 man interacts with his environment. And those are
18 really going to be the main areas of focus in terms of
19 exploring, I guess, water, water conservation; that is,
20 how has man impacted his environment? How in the
21 present day, in a real life situation, do we manage
22 these resources?

23 And I think this is an opportunity for the
24 Water Resources Commission to really make a statement
25 in terms of working with the Department of Education,

1 of us working with the Department of Education and
2 moving forward on these particular points; that is,
3 providing real life scenarios. I mean here in
4 Louisiana, of course, we're dealing with ground water
5 and surface water issues on a day-to-day basis, and I
6 think this is -- what better way to train future
7 scientists and engineers, geologists, just better
8 citizens all around, but to give them examples of where
9 these very specific issues come into play: Water
10 management, taking care of the environment, decisions
11 that we make or have made in the past that impact our
12 future?

13 So those are all sort of the premises that
14 I'm working under as we move forward. And if you all
15 please bear with me here, I've only been here again
16 since -- I'll state my case -- since late August. So
17 there is a lot of work left to do, but I do feel like
18 we're on the right track.

19 So those content standards are very
20 important. They are coming down. They will be coming
21 down from the feds in the upcoming year.

22 I'm not sure how much -- I think the best, I
23 guess the best opportunity, the best route to take is
24 to provide, right, work with teachers and provide
25 lesson plans based off those content standards and help

1 them build opportunities in the classrooms.

2 Again my background, a lot of it has been in
3 working with teachers in terms of professional
4 development, and so that would probably be a major
5 focus of mine is to essentially, you know, teach the
6 teacher or provide opportunities for teachers to expand
7 their knowledge. And any support we can get from the
8 Water Resources Commission will be greatly appreciated.

9 As probably most of you all are probably very
10 well aware, teachers and school administrators are
11 under very intense pressure to keep the schedule, to
12 keep to their lesson plans; and I think it's going to
13 be incumbent on us to get out there and provide them
14 opportunities to provide them lesson plans, provide
15 them curriculums. So that's essentially where I'm at
16 at this moment in terms of the broader statewide
17 program.

18 In terms of working with other agencies,
19 there's certain projects that of course have taken
20 priority -- and I'll talk about those in a minute --
21 but I'm still in the process of meeting a lot of the
22 other players in state government, evaluating those
23 programs. And we've had a lot of successes.

24 The Sparta Commission has done great work.
25 As I noted, the Soil and Conservation Districts,

1 depending on where they are at, have done a lot of good
2 work. And agriculture and forestry, with Project Web,
3 wildlife and fisheries with the Louisiana Environmental
4 Education Commission, there's a lot of opportunities.
5 And I'm in the process right now of trying to evaluate
6 how I can work with all those different players and
7 sort of build for the future.

8 Of course environmental quality, with their
9 wellhead protection program, they have done a great job
10 as well. So those are all areas -- as you can imagine,
11 it's a broad, a broad scope; but I'm at this point
12 trying to word towards building that into a
13 comprehensive framework in my division.

14 So that's essentially where we're at on sort
15 of the education front. There was also an interest, as
16 we move down the list, in getting local governments,
17 parish governments in particular, more involved. And
18 we're in the process right now -- earlier this fall we
19 requested from local parish governments to appoint --
20 usually police juries -- to appoint a point person, a
21 contact person that we could go to on water
22 conservation issues.

23 And for us it was dealing also with sort of
24 emergency management, as well as conservation and
25 education. We need -- to get into the local level, we

1 need to have a person we can go to. And that was the
2 goal behind sort of building this parish-level network
3 that would provide us with information on what's going
4 on locally in certain parts of the state, what programs
5 are available locally, and how we can work down the
6 line to provide them with educational materials,
7 informational material dealing with our various
8 regulations, all of this.

9 We've had a pretty good response from the
10 parish level, but we've got to stay aggressive with it
11 in terms of notifying them as to really what our
12 expectations are, how they can help us and how we can
13 help them. So we're still at a point right now where
14 we're working towards building this network and trying
15 to educate our partners at the local level.

16 Especially in rural areas, as you can imagine
17 in many of the rural parishes, they don't necessarily
18 have a set water management person. In more urban or
19 suburban areas, there usually is a set environmental
20 engineer, a water management person that you can go to.
21 In rural areas oftentimes it falls to a contracted
22 engineer; right, an engineer that just works for the
23 parish on an as-needed basis that might have the most
24 information about, right, what's going on with local
25 wells and things of that sort.

1 So it's been an interesting challenge for us,
2 but we are moving forward with sort of building that
3 parish-level contacts, that set of parish-level
4 contacts.

5 All right. And sort of moving down the list,
6 I guess, I wanted to talk a little bit about one of the
7 programs that we're in the midst of right now.

8 This is last on the slide. It's not really
9 on our list of recommendations, on the list of
10 recommendations, but it's last on the slide.

11 Oh, it's on the agenda, right. Okay.

12 It's the "Water-Wise in BR" public awareness
13 campaign.

14 Of course, saltwater intrusion in the capital
15 area was a major issue that was identified by the
16 Legislature, by the Ground Water Resources Commission.
17 In May earlier this year, Commissioner Welsh, in
18 response to a public hearing, had issued an order
19 requiring essentially two things:

20 One, reporting on ground water usage; and
21 two, the development of a ground water education and
22 awareness program here in Baton Rouge.

23 When I came on board in August, this was sort
24 of priority one for me, looking at what the major
25 issues are, where we're at with this, and how we can

1 build a public awareness and outreach program. So I
2 really did, as Gary said, hit the ground running in
3 terms of trying to wrap my head around what the major
4 issues were, what people knew about saltwater
5 encroachment, basically what people knew about ground
6 water here in the Baton Rouge area, whether or not it
7 was even on their radar. And I think that goes a long
8 way in shaping a public awareness campaign.

9 I broke it down to really two sort of
10 components. One was an educational component; that is,
11 trying to develop a curriculum that we could get into
12 the classroom that dealt with resource awareness here
13 in the Baton Rouge area. And we're working on right
14 now a teacher workshop that's scheduled for February
15 here in Baton Rouge at the Capital Park Museum across
16 the way. We're focusing primarily on the East Baton
17 Rouge teachers of earth and environmental science.
18 We've got a curriculum specialist on board, the former
19 science content trainer with the East Baton Rouge
20 Parish schools. We're organizing field tours. We have
21 keynote speakers on board. And then we're again going
22 to be able to develop or have this curriculum ready,
23 right, for teachers; that is, have them in the
24 workshop, have the curriculum demonstrated and lesson
25 plans demonstrated, and then have that ready for them

1 to take back into the classroom.

2 And of course it's dealing with primarily
3 resource awareness: What is the Southern Hills or the
4 Baton Rouge Aquifer? What are some of the issues
5 facing it?

6 Just this morning we actually -- I guess
7 going back to the subject of metrics or data -- just
8 this morning we got in some of the preliminary numbers
9 from a survey we ran on this very issue, and those
10 numbers are kind of interesting as to what people
11 actually know about Baton Rouge, where they get Baton
12 Rouge water, where they get their water from, what they
13 know about saltwater intrusion or any other threats to
14 ground water usage.

15 So those numbers are really interesting and
16 they are going to help us shape the second part of the
17 campaign, which is largely aimed at public awareness
18 about the resource; that, look, Baton Rouge gets all of
19 its water right from the Southern Hills aquifer. So
20 this is a major point of public awareness, getting
21 people to know about.

22 One of the most interesting numbers I
23 thought -- and I was a little bit surprised at this --
24 was among the respondents to the survey, only about
25 fifty percent of the respondents identified the Baton

1 Rouge aquifer or ground water as the source of their
2 drinking water. So that means about roughly -- and
3 again statistics are always I guess malleable -- so
4 that says that roughly half of the population right in
5 Baton Rouge doesn't really have a good conception of
6 where they get their ground water from, and that's a
7 big number.

8 To me that's actually a little bit
9 surprising. I thought it would be -- actually I
10 thought more people would probably say the Mississippi
11 River than anything. So I guess there's less awareness
12 that we need to work on than I initially expected, but
13 still half the population needs that education, needs
14 to become aware of like how important ground water is
15 to their daily existence, rather than just saying,
16 well, I get my water out of the tap.

17 So that's a process, a program that's
18 underway right now. Water-Wise in BR, we're going to
19 have a set of web pages with educational material.
20 We're trying to roll this toward National Ground Water
21 Awareness Week in March where we can have some public
22 service announcements, engage with the media, and then
23 also hopefully develop some traveling exhibits that we
24 can get out into the schools, into public libraries.

25 So for me that's where a lot of my time has

1 been spent of late, but we also are moving forward on a
2 lot of other fronts. And I'll just say that my job
3 description when I came on board was rather daunting,
4 but we're taking it a piece at a time and trying to
5 move forward on a lot of different fronts.

6 CHAIRMAN ANGELLE: Thank you, we
7 appreciate --

8 MR. MCKINNEY: Mr. Chairman --

9 CHAIRMAN ANGELLE: I want to welcome you
10 again, and obviously we'll be looking forward to, at
11 the next presentation, some of the tangible things that
12 we are doing as we are, you know, working with other
13 agencies, working with the schools, working with a
14 variety of folks.

15 And I realize that it's a big task; it takes
16 a special person. You are that special person. We
17 have a lot of expectations that you would be able to
18 find a way to seek volunteers, to seek folks who are
19 passionate about this subject matter.

20 The option of us having a hundred people on
21 staff to go out and do this doesn't exist. So we've
22 got to be smart, we've got to think it through, and
23 we've got to make sure that at the end of it we don't
24 just throw up our hands and say we can't make this
25 work. We have to have offense on the field and you are

1 our offense.

2 Mr. McKinney.

3 MR. MCKINNEY: Mr. Chairman, Matt and I have
4 spoken very briefly.

5 For those of you in the audience that's not
6 familiar with the Sparta Commission's educational
7 program, we have a young lady that's been on board now
8 about four years -- she is the only paid employee of
9 the Sparta Commission -- Lindsay Gouedy. She this past
10 year has been able to get all fifth graders in
11 Bienville Parish and Lincoln Parish to attend a one-day
12 Sparta event held at our local parish park.

13 You have to realize, people, to take on all
14 the fifth graders in a parish and transport them to one
15 particular location, feed them, house them, restrooms,
16 blah, blah, blah, all that kind of stuff, takes quite
17 an endeavor. But we have been there, done that, doing
18 that. And here again, with 16 parishes compromising
19 the Sparta Commission, we are desperately finding that
20 the money that's coming in to us to help fund that is
21 way, probably less than fifty percent of what it used
22 to be five or six years ago. The police juries and
23 municipalities that voluntarily contributed to that
24 cause are simply just drying up. Fortunately the City
25 of Ruston is still contributing its \$5000 original

1 pledge.

2 We have two other Sparta members here today:
3 Rick Hohlt, the editor of the Lincoln Parish newspaper
4 is here, and Carol DeVille who is serving on our
5 commission, she's here. And there may be someone else
6 out there from the Sparta Commission; I'm not aware.

7 But education is the way; we found that out.
8 We see that from the response that comes back from the
9 kids because, if you can get a generation -- believe it
10 or not, if you can get a generation, even if they can
11 contribute something to their parents -- anything, you
12 know, cut the water off, whatever -- it helps.

13 But we've got a long ways to go because, even
14 with 16 parishes -- and we've only been able to get the
15 superintendents of schools to do two -- look how many
16 more we've got to go. We worked over in West Ouachita,
17 in the Monroe area, but here again not all of them. It
18 takes time, money and a lot of effort, and we have had
19 to recently this past year devote a lot of our energies
20 to trying to raise money. We've never been able to do
21 that before -- had to do that before, we're now having
22 to do that.

23 We don't have the funds to pay Ms. Gouedy
24 probably much more than this year and that's it. So we
25 hate to stop a train that's in motion on education, and

1 that's what you're going to have to be aware of. Once
2 you get it going, you've got to keep it going, guys.

3 CHAIRMAN ANGELLE: Yes. Lindsay I think made
4 a presentation at one of our meetings. Very
5 impressive.

6 We would be perhaps interested, as we, you
7 know, schedule our next meeting perhaps in north
8 Louisiana, to have her on the agenda and to have her
9 make a presentation about that Bienville event so we
10 can learn more about -- and perhaps she has some
11 baseline of what people knew before, what they knew
12 after.

13 And I think you're absolutely right. I'm
14 reminded of the buckle-up seat belt campaign. As a
15 father of five, I learned to buckle my seat belt, not
16 from my parents, but because I came from a generation
17 of, you know, that wasn't an important deal; but my
18 children were learning about buckling up at school and
19 they were coming home and, you know, they were doing
20 it. And of course I picked it up. And I think we can
21 do some of that with conservation if we are reaching
22 out to those fifth graders.

23 MR. McKINNEY: I think it will be safe to say
24 I'll volunteer here.

25 CHAIRMAN ANGELLE: Yes, I appreciate you

1 doing that. Let's make a note of that as we build the
2 next agenda.

3 Thank you.

4 MR. SNELLGROVE: Commissioner Angelle, I need
5 to digress a little bit on the agenda. Mr. John
6 Lovelace is here and we have him on there to give more
7 information, a little bit more detail on the aquifer
8 monitoring network.

9 CHAIRMAN ANGELLE: Right.

10 Would John be able to speak to us today on
11 the Baton Rouge study?

12 MR. LOVELACE: I can just give you an update
13 on it.

14 CHAIRMAN ANGELLE: Okay. So we'll go ahead
15 and talk about the monitoring network first.

16 MR. LOVELACE: Okay.

17 Since about this time last year, I have been
18 working with the DNR ground water staff to come up with
19 a plan to fill some of those data gaps that were
20 identified in the statewide ground water management
21 plan, and we came up with really five elements that we
22 wanted to address that would give us what we thought a
23 very comprehensive look at the assessment of ground
24 water in Louisiana.

25 The first element was to enhance the water

1 level network. We have a state-wide water level
2 network through a program with DOTD and some smaller
3 networks with the U.S. Army and Capital Area Ground
4 Water Commission, the Sparta Commission. At one time
5 we had a network about double the size that it's been
6 the past twenty years. It kind of dwindled back in the
7 mid 80s, and we're trying to get that back up to where
8 it was and really blanket the state, blanket the
9 aquifers with good coverage so we know, you know,
10 what's going on at major pumping centers and recharge
11 areas and in about 45 different aquifers, named
12 aquifers around the state.

13 Currently we have some aquifers where we do
14 no monitoring, some of the smaller ones; and even some
15 of the larger ones we don't have a lot of water level
16 monitors out there.

17 What this information is going to give us is
18 we go out to these wells quarterly -- we're targeting
19 200 new wells to add to the network -- we'll go out and
20 measure water levels at those wells quarterly and that
21 will give us an idea of how water levels in the
22 aquifers are changing at specific wells over time. So
23 you can look at annual fluctuations and over time you
24 get the long term fluctuations.

25 The second element of this goes kind of hand

1 in hand with the water level monitoring. It's to
2 update our potentiometric maps. One thing that the
3 management plan found is that a lot of the
4 potentiometric maps, water level maps of the aquifers
5 are way out of date. Some of them haven't been updated
6 since 1980. There are some aquifers where we've never
7 produced a map of water levels. And what these are
8 really is a contour map showing how the water levels in
9 the aquifer are affected by pumpage.

10 As many of you know, water in aquifers
11 typically enters the aquifer in recharge areas and
12 moves down into the deeper portions of the aquifers,
13 usually it gets pumped out at the some point. But so
14 the water levels, there's gradients in the aquifers,
15 and the water moves from areas of high gradient to low
16 gradient.

17 These potentiometric maps give you a little
18 snapshot showing what these gradients are, and they
19 define -- with these maps you define cones of
20 depression in the aquifers. You can look at the maps
21 made at different times for the same aquifer and see
22 how these cones of depression change, how water levels
23 in the aquifers are changing.

24 So we're proposing to update potentiometric
25 maps for 45 aquifers in the state on a ten-year basis.

1 We're going to try to rotate and do all the aquifers
2 every ten years, so we never have anything that's more
3 than ten years out of date.

4 The third component is more chloride
5 monitoring. As most of you know, there are saltwater
6 encroachment issues in several aquifers in the state:
7 In the Sparta, in the Chico, some of the Jasper aquifer
8 system in central Louisiana, the Southern Hills
9 aquifers here in the Baton Rouge area, some of the New
10 Orleans aquifers. And we're going to -- well, for
11 example, the Chico aquifer system, we currently have
12 about seven wells that we're monitoring chloride in
13 across this very large expanse of saltwater interface.
14 We're going to be adding to this network, building on
15 it and putting more -- monitoring more wells in some of
16 the areas where we know that there's encroachment
17 occurring but just don't have good data.

18 The fourth element is specifically to address
19 impacts of shale fracturing, shale or other rock
20 fracturing. And what we want to do there is identify
21 impacts, water quality impacts of hydraulic fracturing.
22 So there's three shale plays -- I'm not sure if the
23 Brown Dense is really a shale -- but we're looking at
24 monitoring wells, approximately a hundred wells
25 statewide in these areas where there's hydraulic

1 fracturing currently ongoing or planned in the future.
2 We're going to primarily monitor water quality at
3 domestic wells and we'll be looking for any water
4 quality changes that could be associated with the
5 fracturing.

6 For fracturing, there's a variety of
7 chemicals that are in the frac fluids. They are there
8 to keep the little cracks opened up, to make sure that
9 the gas and petroleum continues coming up. There's
10 biocides, there's pH stabilizers, there's corrosion
11 inhibitors, there's friction reducers. There's a whole
12 variety of chemicals, and a lot of them are
13 hydrocarbon-type things that would be health risks.
14 And there's already been issues in other areas of the
15 country with some of these things showing up in
16 domestic wells or other wells, either through blowouts
17 at the frac wells or leaking casings, leaking casings
18 in the domestic wells, or through surface spills. So
19 we're going to be coming up with some analytical
20 schedules and we'll be sampling approximately a hundred
21 wells in these areas annually.

22 And the fifth component sort of ties a lot of
23 the water level information together, and that's to do
24 annual water use survey. As Gary mentioned, we have
25 been doing this on a five-year basis since about 1960,

1 compiling data for all different uses of water around
2 the state. We're going to start doing this annually.

3 One thing you see when you're collecting it
4 every five years is that, well, you don't know what
5 happened between those five-year compilation events,
6 and every once in a while that fifth year is a year of
7 an extreme drought like in 2000, so you would expect
8 more water to be used during those years.

9 So the water use really ties into what we see
10 in the water levels. The more water that's pumped,
11 obviously, or less water, the water levels in the
12 aquifers fluctuate, and the same thing with stream
13 flow. We have seen in the frac areas that some of
14 these streams are getting pumped pretty heavily, and
15 we've actually I think seen some negative flows in some
16 streams up in northwest Louisiana.

17 So as we compile this data that shows us, you
18 know, where and when the water is being used, we can
19 tie it back to the water level and stream flow changes
20 that we see through these other aspects of the
21 monitoring.

22 CHAIRMAN ANGELLE: On the monitoring program
23 that we are contracting with your agency for --

24 MR. LOVELACE: Yes.

25 CHAIRMAN ANGELLE: -- trying to get a better

1 understanding of what we perhaps have had over the last
2 several years and what we are projecting to have here,
3 would you say what we had in the past, as it was scaled
4 down over the last 20 years, was primitive, basic?

5 I'm trying to understand, you know, when we
6 spend a half a million dollars over a three-year
7 period, or whatever that amount is, are we going from,
8 you know, poor to better? Are we going from primitive
9 to great?

10 In your estimation, how would you describe
11 what we have now and what we're going to?

12 MR. LOVELACE: Parts of what we have now are
13 pretty good for some areas, and then they are bare
14 bones for other areas. And some areas primarily to the
15 water levels there for the chloride, its net monitoring
16 is very bare bones, and it's inadequate in some areas.

17 The Chico, New Orleans, some of the Southern
18 Hills where we just don't have anything, we're just not
19 monitoring. We know there's saltwater there, but we do
20 no monitoring of it just because we haven't had the
21 budget for it.

22 CHAIRMAN ANGELLE: Neither the state or your
23 agency has not had a more robust budget for it.

24 MR. LOVELACE: Yes. So really this is, it's
25 going to be a huge enhancement to what we have had. I

1 would say what we had was basic. It was the best we
2 could do with what we had. We're almost doubling the
3 water level network, adding half again for the
4 chlorides. Obviously we're quintupling the water use
5 information.

6 The water quality is something that's
7 completely new, and to me, that's sort of a state
8 health risk, public health risk, so that we will be
9 addressing there to see if there are these water
10 quality impacts. So it's going from something, you
11 know, very basic, to something that I think it's going
12 to be pretty robust.

13 CHAIRMAN ANGELLE: Good.

14 MR. OWEN: In spanning the monitoring
15 networks, are each of these wells that you are adding,
16 are they reserved solely for monitoring, or are they
17 producing wells that you may take out and service,
18 rest, and then monitor?

19 MR. LOVELACE: It's a mixture of wells, of
20 producing wells and a whole variety of wells. Some of
21 them are owned by USGS and they are monitored
22 observation wells, or observation wells owned by other
23 people.

24 For instance, for the water levels, we
25 monitor a lot of Baton Rouge Water Company wells,

1 because they are the only game in town for a lot of it.
2 So the wells, we monitor public supplies. We do call
3 in advance, ask them to shut these specific wells off
4 for a period of time to allow the water levels to come
5 up to what we consider static position, a static water
6 level that gives us an idea of where the water level
7 would be when the well is not pumping.

8 So some of the wells are owned by industries,
9 public supplies. We go to irrigation wells. There's
10 some domestic wells. There's a whole variety.

11 For the chloride monitoring, a lot of those
12 wells are either our wells, USGS wells that were
13 constructed specifically for chloride monitoring, or
14 they are privately owned wells that are in production.
15 So we need them to be producing so we can get a sample.
16 All the domestic wells that we are going to sample for
17 the Frac-and-Packs, those would all be in-use domestic
18 wells.

19 A big part of this is going out and finding
20 the wells. We're not putting any new wells; they are
21 all existing wells. And the water levels especially,
22 you can't always get a water level out of a well. So
23 very much of this originally is field investigation of
24 finding the appropriate wells to use.

25 MR. BALKUM: Mr. Lovelace, will the surface

1 water gaging network, will those be hourly readings?

2 MR. LOVELACE: We're not doing the surface
3 water gaging network. It believe that is the Louisiana
4 Geological Survey.

5 CHAIRMAN ANGELLE: Okay. Thank you very
6 much.

7 Any questions for Mr. Lovelace on the
8 proposed monitoring network?

9 MR. CAUSEY: One question.

10 CHAIRMAN ANGELLE: I'm sorry.

11 MR. CAUSEY: One question I would have, and I
12 know, I believe it's something that we've looked at
13 over the years and I'm not sure how much it's being
14 utilized now is -- and I think we have struggled
15 with -- in that in our drinking water program, we do
16 have some 2000 wells or so in our inventory that we are
17 monitoring roughly every three years for quality. But
18 I think in years past we struggled to correlate, you
19 know, that well with a DOTD registration number versus
20 possibly a USGS number, et cetera.

21 And so I know that, you know, we've made a
22 lot of efforts, and I have at least over half of those
23 that we've been able to identify with a proper
24 registration number; we've been making efforts as we
25 can to make that complete.

1 How much of the data that we use are you all
2 able to use? And I think going forward making sure
3 we're able to use a hundred percent of it I think would
4 be beneficial.

5 MR. LOVELACE: I did get a retrieval of data,
6 major ions from health and hospitals, and I've been
7 using it to look at specifically the chloride
8 concentration data to look at where we should be
9 monitoring for saltwater encroachment and plotting
10 up -- like you said, there's the well registration.
11 The well numbers don't always match. DHH and DEQ and
12 EPA have one system, the state has a system -- not the
13 state -- the DOTD, DNR are using a different numbering
14 system, and we even have a system, fifteen-digit ID
15 system that we use.

16 Some of your data has both the numbering
17 systems on there, but I'm not really relying on that
18 right now. All your data has latitudes and longitudes
19 attached to it, so I can plot those up and, you know,
20 just I'm looking at the concentrations that way rather
21 than on specific wells.

22 MR. WELSH: John, one thing I want you to be
23 aware, that we are very active with the national
24 groups -- interstate oil and gas, compact commission,
25 ground water protection council -- and together they

1 operate the national registry of the chemical
2 composition of frac water. So there's a wealth of
3 information there and we'll be glad to furnish you
4 anything we can.

5 MR. LOVELACE: Yeah, that's the Frac Focus?

6 MR. WELSH: Frac Focus.

7 MR. LOVELACE: Yeah, I have been using that.
8 I haven't been looking at specific information in
9 there, but I'm looking, using that to look at the
10 common compounds and trying to tailor the lab analysis
11 to that. Lab analysis, especially when you get into
12 looking at organic compounds, can get pretty expensive.
13 So we're trying to come up with a list of indicator
14 compounds more than targeting specific compounds that
15 are used in there.

16 CHAIRMAN ANGELLE: Okay. Mr. Snellgrove, I
17 guess turn it back over to you, if you want
18 Mr. Lovelace to go into the other issue now, or how do
19 you want to handle that?

20 MR. SNELLGROVE: Sure, while he's here.

21 If, John, if you can go ahead and just
22 provide an update to the Commission as to the USGS
23 efforts on completing the simulation model and the
24 scenario reports for the different usage in the Baton
25 Rouge area with regard to saltwater encroachment and

1 water levels.

2 CHAIRMAN ANGELLE: John, this is -- by all
3 accounts you can understand, this is a big deal. I
4 mean, I know you realize the significance of this issue
5 when we take a look at the fact that, when we were
6 putting together our report to the Legislature in March
7 and we identify certain issues, you know, capital area
8 concern was just, you know, out there in a very, very
9 bright way. And as I just kind of recall, there were a
10 couple of hearings. And when we drafted the report, we
11 indicated to the Legislature that it was our
12 understanding in about October that USGS would have a
13 report. And in my conversations at that time with the
14 Commissioner, that report was I think going to be the
15 basis for some action items based on some sound science
16 here. And I know I was briefed here a couple of weeks
17 ago that there is a delay in that report being
18 completed, and I'm sure you will, you know, give us
19 reasons for that.

20 From my standpoint -- again, there are a lot
21 of issues out here that various folks from time to time
22 bring up at this meeting -- I'm going to be engaged in
23 a significant way with the Commissioner in trying to
24 see what we might be able to do in advance of what I'm
25 now being told may be a March delivery date.

1 And certainly we want to do everything on
2 sound science, and nobody is at all suggesting that we
3 move away from sound science. But my instincts tell me
4 that waiting until March for some action out of
5 whatever -- whether it's local government, whether it's
6 state government, whether it's the capital area -- that
7 I personally would say that I'm leaning more towards
8 that than not having that.

9 So having said that, I'm particularly
10 interested in hearing where we are on this major
11 report.

12 MR. LOVELACE: Okay.

13 I understand this is, as you said, is a big
14 deal and we're trying to expedite things as much as
15 possible.

16 I don't have a complete draft in hand yet.
17 I'm still relying on our -- waiting for the modeler.
18 He did give me the bulk of it a couple of days ago.
19 There's some things that still need to be added to the
20 report.

21 Once we have it in hand, we're going to try
22 and review it very quickly and get it approved. The
23 USGS has very strict policies on not releasing
24 information before it's been approved by the Director
25 of the USGS. He has given approval authority to four

1 people across the U.S. to approve our reports. Ours is
2 in Denver.

3 Before it goes to him, I have to have two
4 peer reviews of it.

5 We've lined up peer reviewers to look at it:
6 Have someone locally here who is very familiar with the
7 aquifer system that's going to look at it, and we have
8 someone else lined up who is a ground water modeler,
9 knows the aspects of the modeling. The modeling is
10 very complex and that's what's taking the time, more
11 time with the model.

12 We just ran into little issues with the
13 model. As we have been generating the results,
14 generating the figures for it, we're looking at things
15 and saying, oh, this may not quite be right. Let's
16 make sure that this is okay.

17 But anyway we're hoping to have a complete
18 draft by the end of next week, all the text, tables,
19 figures together, that I can look at and assess before
20 I hand it out to the colleague reviewers to make sure
21 that we're not giving them an incomplete package.

22 They, you know, typically give them four to
23 six weeks to look at it. Depending on what their
24 schedules are, it's usually doable in that period.
25 It's going to come back. We'll have an editorial staff

1 look at it. They make all these little editorial
2 tweaks before it goes to our approving official in
3 Denver.

4 So all that together takes a little time, and
5 that's where we are with it.

6 CHAIRMAN ANGELLE: While you can't tell us,
7 you are not in a position to tell us what's in the
8 information that you've seen, what are the kind of
9 things that you are generally looking for?

10 What is, I guess, the scope of this model,
11 and what is it that -- you know, we certainly don't
12 know what the answers are. But what are the questions
13 I guess we're asking in this very comprehensive review?

14 MR. LOVELACE: Well, what the goal of this
15 initial phase of the model as it's become was to model
16 salt water encroachment in the 2000-foot sand and to
17 model water level changes in both the 1500-foot sand
18 and the 2000-foot sand over time.

19 The model is supposed to give us a picture of
20 what's happened in the aquifer over time, and we can
21 use it to predict what will happen in the future by
22 matching up past information that we have,
23 observations, all the data that we've collected. By
24 matching that with the model output, we come to the
25 point where we can say that the model is accurately

1 representing what's really going on out there or
2 reasonably accurately. At that point we call it a
3 calibrated model.

4 To get to that point we run the model through
5 hundreds of iterations and do all sorts of parameter
6 estimations, because there's lots of different
7 parameters that go into it, and we try and minimize the
8 error from the model output and our field observations.
9 And for field observations we're using the water level
10 data collected in wells set back since 1940 and
11 chloride data collected in wells.

12 So we've got the model to a calibrated state
13 and we started running -- we chose five hypothetical
14 scenarios to look at what will happen over the next 40
15 years. And one of the scenarios was we called it
16 status quo. It was simply we're going to keep
17 conditions the same, all the pumping conditions the
18 same as they were in 2007 for the next 40 years. What
19 happens with water levels and saltwater, saltwater
20 especially, in the 2000-foot sand?

21 And the big issue in the 2000-foot sand is
22 industry. The industrial district is, there's a major
23 cone of depression there. Basically all the water
24 movement is toward that cone of depression. So the
25 saltwater that's originating at the Baton Rouge fault

1 is moving northward towards that area and we have been
2 monitoring it. There's not a whole lot of monitor
3 wells between us -- between the fault and the
4 industrial district. In fact, there's a big gap
5 between downtown and say the Exxon area.

6 So the question was how long is it going to
7 take to get there? Where is it going? If we wanted to
8 put in another monitor well, where would be the best
9 place to put it? Those are some of the questions we're
10 trying to answer with that.

11 We ran another scenario: What would happen
12 if there was reduced pumping in the industrial
13 district? Reduced by a certain amount, roughly about
14 half of what Exxon is currently pumping, does that make
15 a difference in the saltwater?

16 We ran a scenario with no pumping in the
17 industrial district beyond 2007. What happens with the
18 saltwater?

19 And there was another -- let's see. Those --
20 we also ran a scenario where there was a scavenger well
21 or an interceptor well essentially between the fault
22 and the industrial district. If there was one well
23 there pumping saltwater out, what would be the impact?
24 Would it slow or stop the saltwater movement?

25 And the fifth scenario addressed water level

1 changes in the 1500-foot sand if Georgia-Pacific --
2 there was some concern that Georgia-Pacific was
3 exacerbating the saltwater issue in the 1500-foot sand.
4 As you may know, there's a major public supply pumping
5 center in the 1500-foot sand and saltwater is moving
6 rapidly towards that.

7 Georgia-Pacific is up in the northeast --
8 northwest part of the parish. There's some thought
9 that their pumping may exacerbate that saltwater
10 movement. We can't create the saltwater part of that
11 with a model in its current state, but we can look at
12 the water level impacts. If Georgia-Pacific stopped
13 pumping from the 1500-foot sand, how much would water
14 levels change here in the Baton Rouge area? And would
15 that really -- based on that, you kind of get an idea
16 of what would be the impacts to the saltwater movement.

17 Those are the scenarios we ran and those will
18 be the principal model results.

19 We have a contract in place with Capital Area
20 to further enhance this model over the next five
21 years -- actually have a ten-year plan -- to model all
22 the sands and saltwater encroachment, saltwater
23 movement in all the sands. And this year we'll be
24 specifically looking at the 1500-foot sands. So we've
25 already started putting together the files for that,

1 the input files.

2 As soon as we get the report finished, we
3 will be moving ahead more rapidly with that.

4 CHAIRMAN ANGELLE: Okay. If you're not able
5 to answer this question, I certainly respect that.

6 From the data that you've seen and your
7 historic knowledge of the area, are you prepared to say
8 that the current volume, regardless of where it's
9 coming from -- this is not about the user, this is
10 about a group of users -- that the current volume of
11 pumpage is not sustainable relative to saltwater
12 intrusion? Are we going to have to reduce the pumpage
13 to solve the saltwater intrusion issue?

14 MR. LOVELACE: Yes, there will have to be
15 changes to pumping to solve the saltwater intrusion
16 issue. There's no question about that.

17 Saltwater has been moving since -- was first
18 noted in the late 1940s in the 600-foot sand, and since
19 then has been showing up in the other sands. So
20 there's really no question that there are will have to
21 be some changes, reductions, the reductions in pumping,
22 or movement of wells further from the fault to address
23 the issue, or use of scavenger wells to pump the salt
24 out.

25 CHAIRMAN ANGELLE: Thank you.

1 MR. MCKINNEY: Mr. Chairman, since we're
2 talking hypothetically, the Sparta Commission has been
3 there, done that some twenty years. This question is
4 for Mr. Welsh.

5 Are you prepared to declare a critical or an
6 area of concern? Would that be ultimately what it will
7 come down to before something is done on this
8 particular issue?

9 MR. WELSH: Well, what we are doing, we've
10 put a program in place; actually we're waiting on USGS
11 models to move forward. We fully intend as best we can
12 to recommend operating the aquifer according to
13 science, sound science. And, you know, I would urge
14 USGS to move forward as quickly as possible to get this
15 model where it's operating. And all the scenarios that
16 can be worked out with the model excite me because that
17 gives us, working with sound science, to have a good
18 management program for the aquifer.

19 MR. MCKINNEY: But would it not ultimately
20 require that you declared one of those two designated
21 areas to probably get something done?

22 MR. WELSH: We have not, we have not done
23 that, no, sir.

24 MR. MCKINNEY: You haven't addressed that?

25 CHAIRMAN ANGELLE: And I would just respond

1 that I've seen some of the comments. I think folks
2 here will be responsible and responsive to sound
3 science. I have been impressed when science is rolled
4 out that folks want to do the right thing.

5 So I'm going to offer myself in a leadership
6 role to try to work with impacted users as we go
7 forward in, you know, receiving this information. But
8 none of us want to be a generation that says, We had
9 the information and we didn't demand change. We're
10 going to have to be part of that.

11 Okay. Mr. Snellgrove, do you have any other
12 comments or opportunities for Mr. Lovelace?

13 MR. SNELLGROVE: No, sir, I don't at this
14 time.

15 Thank you, John.

16 CHAIRMAN ANGELLE: Thank you, Mr. Lovelace.
17 Appreciate the cooperation from your agency.

18 Okay. We'll pick up from where we were?

19 MR. SNELLGROVE: Yes, sir.

20 And we were moving into another major
21 component of the report recommendations, which is
22 registration.

23 Okay. First item, first recommendation under
24 registration was to use some management things here
25 that would give us the best opportunity to achieve one

1 hundred percent compliance with water well registration
2 or notification and agency evaluation as it's required
3 by our law, by Conservation's law and of course
4 codified in the regulations.

5 So with that being said, we discussed earlier
6 about the regulation that was passed, promulgated on
7 November 20 for water well drillers to now play a role
8 in achieving that. So we look forward to improving our
9 abilities to audit that new requirement, and of course
10 take whatever necessary enforcement actions are needed
11 to ensure that drillers are complying and so that we
12 can achieve that one hundred percent compliance rate
13 and get as close to it as possible.

14 Another item was to integrate the water well
15 driller registration and the water well owner
16 notification databases into one. I mentioned that
17 earlier, that we were in discussions with our IT group
18 in-house and have been, and hope to have something
19 implemented by June of 2013 on that item.

20 As well as we had another item under
21 registration that recommended that the agency look at
22 innovative ideas to have water well registration for
23 owners, well owners that were in existence -- wells
24 that were in existence prior to the regulations that
25 required drillers to register them with the state. So

1 that was one of the aspects that we were looking to our
2 marketing representative to assist with coming up with
3 some creative ideas, maybe visiting with other
4 agencies, or just moving in a direction to brainstorm
5 and come up with as much opportunity there that we
6 could pursue. And we looked for Matt to provide us
7 some guidance on that and hope to have something by
8 June 2013 that maybe we can have implemented to start
9 filling in some data gaps on water well existence
10 that's still out there prior to the regs.

11 The next major component of the
12 recommendations in the plan, in the interim report is
13 Item 5, which is evaluation. And again we're starting
14 to cross over on topics, but of course it's all
15 comprehensively related.

16 But in notifying the state, what happens
17 there is that the staff evaluates proposed water usage
18 at areas where new installations are proposed, looking
19 at existing conditions of the aquifer, reviewing what's
20 going on around, who is using what nearby, and
21 providing calculations and modeling to determine
22 whether or not there's any potential for adverse
23 impact.

24 Part of the recommendations, you know, that
25 we looked into was this idea of not just looking at the

1 effect of one nearby water well and pumpage or usage
2 and drawdown, but looking at multiple wells in an area,
3 say an area of review, to look at the multiple well
4 effect. So although we were taking these multiple
5 water well withdrawal effects into account in our
6 evaluations, it wasn't clearly documented in our
7 evaluation documentation or in our checklist that we
8 have.

9 We have a four-page evaluation checklist that
10 our staff completes and goes through a process to keep
11 them on task and providing good, clear public record on
12 our evaluation procedures. So we added that -- one of
13 the recommendations was to add that aspect to it, and
14 we did that, we updated that evaluation checklist and
15 began implementation of that effective June 5 of this
16 year.

17 Another item that was recommended was that we
18 update or revise our water well notification form,
19 which is the form that well owners complete and submit
20 to the agency, which is our starting point for our
21 evaluation process. And the recommendation was that we
22 include some type of disclosure or acknowledgment that
23 water well owners have contemplated use of alternatives
24 to ground water, and in particular focused on the
25 irrigation and public supply and industrial well usage,

1 you know, where there's certainly greater opportunity
2 for larger volumes of withdrawal and the like.

3 This has been somewhat -- we've contemplated
4 it, we're looking into it, we intend to provide
5 something to our legal staff for consideration before
6 we update and revise that form to make sure that we're
7 within our regulatory right and statutory right to have
8 a well owner disclose that information. And if it
9 comes to be that that is acceptable -- if we can get it
10 to a point where it is acceptable for us to request
11 that information -- it may not be a requirement, but it
12 may have to be a request -- then whichever way is the
13 best for us to gather the information, we will pursue
14 it and hope to have it implemented here by January.

15 CHAIRMAN ANGELLE: And if you can't, if Legal
16 finds that you can't ask that question, I would like to
17 know, so I would like to work with Senator Long to see
18 if we can get the authority.

19 I think it's absolutely critical for you to
20 know when somebody is moving, coming forward, and
21 especially a large volume user, that you have the right
22 to ask the question: Have you considered surface
23 water?

24 You know, we talk about excess surface water
25 and a finite ground water, so we need to be able to get

1 that question out there. If we don't have the
2 authority to do it, I think we need to get that
3 authority.

4 MR. SNELLGROVE: Okay. Yes, sir. I won't
5 wait, I'll send notice to you at such time we get
6 clarification on that.

7 CHAIRMAN ANGELLE: Thank you.

8 MR. SNELLGROVE: And then we had another item
9 that was recommended that we look at.

10 We take the USGS data -- which they have
11 electronically out on their website, and so it's
12 electronically available to the agency -- but to
13 integrate that data into the agency's Sunrise and GIS
14 systems, such that it could be available to both staff
15 internal, but also to users who visit our website and
16 go to the portal and access Sunrise and our GIS
17 systems, they can get it under one package.

18 And so we're going to again continue our
19 discussions with our IT group, and we look to hopefully
20 have something in place by June 13 on that. Certainly
21 we'll be in coordination with USGS staff as we pursue
22 that recommendation.

23 The sixth item that we have, major item is
24 incentives that was recommended as a category. And so
25 moving down that list, I will say just globally,

1 glancing down at the update, these are dominated by
2 ability to have staffed up with Matt, education and
3 marketing representative, as this will require moving
4 around various agencies. And in contacting different
5 folks in different positions statewide, we believe that
6 that position -- and Matt certainly will serve very
7 well in that capacity as he's already gotten some
8 experience on a statewide level with his previous
9 work -- and so I'll just go through this pretty
10 quickly.

11 You know, the first one there was to come up
12 with, investigate feasible and effective ways to
13 provide incentives, such as stewardship programs and
14 et cetera.

15 We are targeting June 2013 to allow Matt a
16 little time to go ahead and get some of the priorities
17 that he's already implemented here with the Baton Rouge
18 Water-Wise campaign and some of these things and move,
19 get to a point where he's maintaining that, and not
20 developing and creating that, so that he can spend much
21 more time and have more opportunity to visit on the
22 majority of these items on this list.

23 CHAIRMAN ANGELLE: So for all of these items
24 on this particular page or chart which deal with the
25 incentives, that would be something Matt would be

1 working on towards a 2013 situation, I would urge you
2 all to reach out to Senator Long's staff, J.W. Wiley,
3 and to representative Gordon Dove's staff, Sue King
4 there; and we may want to have just kind of, just get a
5 few folks around the table and start to brainstorm on
6 these ideas.

7 When we talk about the previous conversation
8 by Mr. Lovelace where he indicated that in his opinion
9 something is going to have to change on pumpage, goes
10 directly to, you know, evaluating fiscal policy to
11 reward high volume ground water users to switch to
12 surface water. I mean, it just seems like the science
13 is going to say we have an issue -- Mr. Spicer and I
14 were just having a conversation. The answers to some
15 of these questions are going to I think put us in a
16 position to lead and incentivize where we need to
17 incentivize folks if the science dictates that, as he
18 says it does. And I think a variety of things that are
19 on here that are going to be critical for us to be able
20 to provide that leadership -- and while I know you've
21 got a thousand things going on, this is going to be I
22 think as critical as anything, and I would suggest
23 trying to identify -- I'm sure Mark Davis would be
24 willing to attend -- and just look at what we might be
25 able to do as a state to incentivize where science says

1 we need to move.

2 SENATOR LONG: Mr. Chairman, may I comment on
3 that?

4 CHAIRMAN ANGELLE: Sure.

5 SENATOR LONG: Thank you, Mr. Chair.

6 I do think that the Chair is right on target,
7 that preplanning before we go into the legislative
8 session is absolutely critical.

9 As you know, legislators are limited, for
10 example, to only five bills, and there are numerous
11 requests. As I was driving here yesterday from
12 Natchitoches I had two phone calls asking me to sponsor
13 particular legislation.

14 But I think if we work with you prior to the
15 session, we can deal with some of the issues that the
16 Chairman spoke of.

17 The other thing too, much of what you have
18 alluded to certainly fits the general description of
19 the soil conservation people when it comes to public
20 awareness. And I would suggest that we look outside
21 the parameters of the traditional and begin to think of
22 those organizations that are already in place that may
23 well be players for us.

24 But as the Chairman mentioned, if you'll call
25 either I or the Chairman or J.W. Wiley, we need to

1 begin to plan some meetings so that the concerns that
2 you've expressed become things that we can address
3 legislatively.

4 MR. SNELLGROVE: We very much appreciate the
5 leadership from both the Commissioner and you, Senator.
6 I will change the expectation there and reword these
7 items so that we'll push it up further and at least
8 begin those discussions as soon as possible with staff,
9 with your staff, and certainly look forward to working
10 with you and your staff.

11 CHAIRMAN ANGELLE: And I might suggest, we
12 may need some revenue in Ways and Mean, Senator Long,
13 because obviously this has a fiscal impact.

14 SENATOR LONG: It does.

15 CHAIRMAN ANGELLE: And as we kind of build
16 the intellect around what we're trying to solve, I
17 think we need to bring some of those folks to the
18 table.

19 SENATOR LONG: And we can identify members of
20 those particular committees, including chairmen as well
21 as members who, as Scott alluded to, will become
22 participants in this.

23 So I would say the sooner that we can start
24 on this, and obviously once we get through the
25 Christmas holidays, I think January starts a new point

1 that we can begin to work on this.

2 MR. OWEN: Mr. Chairman, on this latter
3 point, just as important to incentives is removing the
4 disincentives which are already existing to using
5 surface water in lieu of ground water. This is the
6 disincentive of the threat of having to pay fair market
7 rights in streams that you really aren't affecting, and
8 I would suggest that this is just as important as
9 incentives is removing disincentives.

10 CHAIRMAN ANGELLE: Right. And I recall that
11 the conversations and the leadership that you brought
12 on that issue kind of provided leadership in how we
13 address that issue to the Legislature --

14 MR. OWEN: Correct.

15 CHAIRMAN ANGELLE: -- in our report --

16 MR. OWEN: Yes.

17 CHAIRMAN ANGELLE: -- and the need to bring
18 some legal minds, because of the prohibition in the
19 Constitution; but yet certainly wouldn't make sense for
20 us to let that be an obstacle to solve when it's
21 obviously a very quick issue.

22 MR. LEGGETT: Mr. Chairman, this is a huge
23 opportunity and we would really like to see a lot more
24 discussion. This is where we could take a problem, and
25 if we expanded it out, look at some of these -- we have

1 wastewater streams now -- that if we can figure out a
2 way to incentivize those to be treated to the next
3 level, not only do we make our streams cleaner, but we
4 now have a water source that we don't have to pump from
5 the ground and we don't have to treat for surface
6 water. So I think if we can be broad like that, I
7 think we really have an opportunity to find some
8 solutions in this state that we've not found in the
9 past.

10 So I'm very excited about this and offer all
11 the cooperation of the folks that I represent and
12 really look forward. And I think we have an
13 opportunity here to solve a lot of problems in this
14 state related to a variety of water issues, and it's a
15 win-win.

16 CHAIRMAN ANGELLE: Good. So when we do set
17 up that meeting, make sure that every member here is
18 invited. And what you might want to do is go ahead and
19 we may even want to notice it as a meeting, in the
20 event that we do have a quorum, that we're not
21 violating the open meetings law there. We can have
22 that meeting over at the Capitol once we, you know,
23 contact Mr. Wiley.

24 I'll work with you on that to make sure that
25 every member gets invited. You know, whether or not we

1 have a quorum or not, we just want to make sure that we
2 don't have a problem there.

3 MR. SNELLGROVE: All right. Thank you.

4 I'll make that change certainly.

5 CHAIRMAN ANGELLE: With that in mind, I'll
6 let you move on to seven, because six I think just kind
7 of --

8 MR. SNELLGROVE: It is. It's all packaged
9 together. And I will make the appropriate update and
10 target December 2012 to engage that meeting.

11 Yes, sir.

12 So number 7 is Enforcement. And under
13 enforcement a recommendation was provided that we look
14 at possibilities of implementing more progressive
15 enforcement techniques similar to LDEQ's program, which
16 would provide for, in lieu of the agency receiving a
17 civil penalty, perhaps there would be some other
18 in-kind activity that would be beneficial to the cause
19 or the agency's efforts.

20 And so with that being said, we again will
21 have our education and marketing representative to
22 pursue those opportunities and interact with the other
23 agencies and work towards implementing this
24 recommendation, targeting June 2013.

25 The next item was emergencies. And basically

1 under the recommendation there was, in an effort to
2 establish responsive actions by the agency with regard
3 to ground water emergencies, or in the case now we're
4 probably going to expand that to water emergencies, the
5 recommendation was to go visit with GOHSEP to make sure
6 that -- you know, they already have a robust system in
7 place in the state at a statewide level that deals with
8 all emergencies; and what we wanted to do was to see if
9 it was practical, feasible within their jurisdiction to
10 recognize our emergencies so that we would dovetail
11 into their already existing structure, not to duplicate
12 that effort in the state.

13 And again, we'll have -- Matt will pursue
14 that as well and liaise with GOHSEP and work towards
15 action on that recommendation.

16 The next item is collaboration, and looking
17 at collaboration -- I'll go through them, try to go
18 through them pretty quickly here. There are several of
19 them.

20 But the first one there was to set up for the
21 agency to go ahead and hold annual multi-agency,
22 multi-stakeholder conferences. And of course if you
23 read that in more detail, it lists -- you know, our
24 stakeholders, you know, are very wide and very broad.
25 Water touches everyone. So obviously we've got many

1 interests and many stakeholders, and it's going to be a
2 major task.

3 But I believe what we're focused on at the
4 moment is -- certainly, if there's some interest in
5 maybe moving the date, we're open to any suggestions --
6 but what we're targeting right now is we're working
7 towards establishing this conference. And I mentioned
8 it to be a one-day, maybe half-a-day type of workshop
9 type of conference in March of 2013. And that's
10 tentatively where we're going to hold -- the date, the
11 time period that we're holding to to focus in on
12 holding this conference to meet that recommendation.

13 The second item was to, for the -- let's see.

14 Okay. Mr. McKinney's comment earlier, this
15 is the recommendation that requires certain
16 commissions, and this commission, to provide reports,
17 annual reports on their activities and what have you.
18 So the Legislature actually passed legislation and the
19 Governor signed Act 790 that now requires that these
20 annual reports be filed.

21 So these reports will be filed with our
22 agency, and whatever -- John, does the Act provide for
23 also the reports to be filed with the Senate and
24 Natural --

25 MR. ADAMS: Yes, it does.

1 MR. SNELLGROVE: So it will also be filed
2 with the appropriate legislative committees.

3 MR. McKINNEY: Let me ask a question on that,
4 Gary. Again who within your agency is going to be the
5 point person on that?

6 MR. SNELLGROVE: I think at this point I
7 would ask John Adams, our attorney, to assist with
8 understanding of what it is that is required to be
9 submitted in the annual reports. And then, based on
10 what that need is that you may have, then perhaps you
11 can visit with either myself or with Matt; and
12 depending on which aspect of -- I would expect that a
13 lot of what you're going to be reporting on would be
14 your activities with regard to education with your
15 statutory authorities, you know, with your -- so, if
16 that's the case, then I would probably look to Matt,
17 you know, to give some guidance.

18 MR. McKINNEY: Well, given that it's a new
19 requirement, obviously you would want to do something
20 that gives you some benchmark to go forward with.
21 Because what's the purpose of doing it if you're not
22 going to see whether you're making progress or not?

23 So that's the reason I asked the question
24 because, as a voluntary organization, you're probably
25 looking at the one that's going to do it. So that's

1 the reason why I asked the question.

2 MR. SNELLGROVE: It's fair.

3 Well, yes, sir.

4 CHAIRMAN ANGELLE: Is that in response to
5 Senator Claitor's bill?

6 MR. ADAMS: Yes, sir.

7 CHAIRMAN ANGELLE: So what I think, what I
8 would suggest is I think what Senator Claitor had in
9 mind was to begin a practice of having the various
10 subgroups of the state report.

11 And there's no -- you know, I would hope that
12 Conservation could kind of provide some template for
13 you on what ought to be in there. But I think it's an
14 incredible opportunity, quite frankly, for especially
15 the Sparta Commission that is very active in what it is
16 that you are doing to provide, to file a report that
17 will be -- you know, certainly won't get a letter grade
18 on it, okay -- but it will be an opportunity to create
19 a public document that will be able to be part of a
20 report that goes to the Legislature on: These are our
21 issues and this is what we're doing; these are our
22 needs and these are the resources that we have, and
23 these are the resources that we are short in.

24 So I would view it as an opportunity to
25 provide almost for you guys to tell the rest of us on

1 how to get it done, because you have in a lot of ways
2 been doing that.

3 MR. McKINNEY: Well, see, you're reading
4 things that I don't read in the actual --

5 CHAIRMAN ANGELLE: My wife tells me that.

6 MR. McKINNEY: -- legislation.

7 It says: The report shall include, but not
8 be limited to, the amount of water used for residential
9 or commercial or industrial or agricultural purposes,
10 respectively actually projected saltwater intrusion, so
11 on, so forth.

12 So we're talking about actual physical
13 properties of things here that we're reporting on.

14 And in a memo that you sent me way back in
15 March of this year, you said basically what you said
16 there. But then when I get the actual document and
17 read it, well, that don't say that.

18 CHAIRMAN ANGELLE: Well, I think it's
19 included, but not limited to. I think they are
20 interested in some of those things. And I think, if
21 you don't have the resources to gather all that
22 information, I think it's appropriate for you to report
23 that, that this request is above the ability of your
24 resources; but to provide what you can to the
25 Legislature and I think -- or to the commission I think

1 is a good first step. And I wouldn't, I wouldn't at
2 all be concerned that you're going to get a letter back
3 from anybody saying that it didn't meet expectations.
4 I think whatever we get will be better than we have now
5 and will again help manage the resources.

6 MR. MCKINNEY: Okay. According to you.

7 CHAIRMAN ANGELLE: Absolutely. Absolutely.

8 MR. MCKINNEY: Thank you.

9 CHAIRMAN ANGELLE: That and \$2 will get you a
10 cup of coffee.

11 MR. MCKINNEY: Yeah, I know.

12 CHAIRMAN ANGELLE: Okay. Next.

13 MR. SNELLGROVE: Okay.

14 The next item was to engage legal scholars to
15 research and explore the potential non-compensated
16 consumption of surface water when used as an
17 alternative to ground water.

18 This is probably an item that we may want to
19 put on the agenda for the meeting with the legislative
20 folks. But in the interim, we are, you know, focused
21 on having Matt liaise with the legal scholars, if you
22 will, or Tulane Law Institute and folks at LSU,
23 Southern and Loyola and all the other institutions that
24 are involved, and see if we can't come up, you know,
25 brainstorm.

1 And this again is another thinking process
2 and coming up with and developing, and so it's going to
3 be somewhat a work in progress for some time. Perhaps
4 we'll have some good insight from the legislative
5 process that we'll look into here later this month.

6 The next item was to engage experts to
7 research and explore consequences of out-of-state sales
8 of water resources. That process had a lot of debate
9 earlier this year; and I think, you know, we can
10 certainly build off of the decisions that were made in
11 that debate as well.

12 We certainly would look to Mr. Pratt to, and
13 Matt would liaise with Toledo Bend, Sabine River
14 Authority and all the other river authorities that may
15 be on the border there that would be impacted, Red
16 River Compact and those folks as well, and start having
17 some discussions. There again, we may move that into
18 our legislative event as well; certainly open to that.

19 But we're focused on June 2013 otherwise to
20 come up with some action on that item, or at least the
21 results of our discussions and debate.

22 And moving on to the 10th item,
23 recommendations -- governance is the heading, the
24 topic, the category. And the first item there, we had
25 a lot of debate and discussion over the years, and it

1 was a recommendation that was provided in the interim
2 report that the agency draft and pursue implementation
3 of regulations to establish a statewide regional
4 network of advisory panels composed of local
5 governments, interested groups, interested stakeholders
6 and of that nature. And then where regions would cross
7 over, capital area, then Sparta aquifer, commissions,
8 they would serve concurrently in that panel.

9 Currently, as far as agency goes, there have
10 been rules that have been drafted. They are currently
11 under review. There's a typo on this handout,
12 item number 10, where it says that, you know, the draft
13 regulations are available for the commission to review
14 and comment, and it says, at such time the
15 commission -- and it stops. But I would say at such
16 time review is complete.

17 The next item that was recommended was that
18 there be perhaps legislation or some type of resolution
19 that would affirm the authority of local governments to
20 adopt ordinances to protect the quality of other ground
21 water supply wells.

22 The agency -- John is our legislative
23 overseer of acts and what have you, and he's reported
24 to me during session time and thereafter. But he's
25 reported that the agency is not aware of any

1 legislation or any action that was taken to address
2 that comment or that recommendation.

3 The next item was to explore the possibility
4 of drafting new regulations to improve upon recent
5 on-site and off-site E&P waste fluids recovery,
6 remediation, recycling, reuse, all in an effort to
7 encourage greater use of fluids.

8 Frac fluids are returned E&P waste fluids
9 that could be recoverable as an alternative to
10 potential use of ground water for drilling,
11 exploration, stimulation-type of operations.

12 The agency did meet with its own staff
13 internally that oversee the requirements for on-site
14 management of E&P waste. Those discussions were
15 beneficial. We think that we can do some things, that
16 we can perhaps make it, promulgate in a regulation or
17 update or advisory that we put out, like the
18 Haynesville Shale. But we haven't concluded that
19 process and we look to finalizing something by February
20 of next year.

21 And the last item was to engage legal
22 scholars to research and explore the potential -- that
23 looks like a typo there. Hold on.

24 Well, I'm going to go ahead and proceed with
25 it, but I think there is somewhat of a different twist

1 to it. But it does, it says, engage legal scholars to
2 research and explore the potential non-compensated
3 consumption of surface water when used as an
4 alternative to ground water as an aid to economic
5 development, job creation and job retention.

6 CHAIRMAN ANGELLE: That's in response to the
7 very point that Mr. Owen mentioned. Inasmuch as the
8 Constitution provides this prohibited donation issue,
9 how do we -- hopefully without having to pass a
10 Constitutional amendment, how do we work around the
11 Constitution in an appropriate way that says, when
12 surface water can be made available for economic
13 development, for job creation, for job retention and
14 perhaps for public water supply, whatnot, how can we
15 use that in a way that is not prohibited by the
16 Constitution? So that's what that issue is addressing.

17 In fact, at the meeting that we have with the
18 incentives that we're talking about, we probably need
19 to have those legal scholars there as well.

20 MR. SNELLGROVE: Yes, sir. I'll add that one
21 as well to the agenda for that meeting.

22 So, well, the agency updated in that regard
23 was, on that item was to continue to work towards
24 understanding it and shoot for June. But we'll include
25 that, make that an update as well.

1 And I believe the last -- actually, no, a
2 continuance of governance. We've got more, a couple
3 more: Engage experts to research and explore
4 consequences of out-of-state sales of water resources.

5 Again I think that may be duplicative, but
6 that's something that we are looking towards and we can
7 put this into that agenda as well and we'll liaise with
8 the appropriate entities that would be stakeholders in
9 that recommendation.

10 Another item here was to extend the sunset of
11 Act 955 of 2010, which was the act that was created on
12 the Attorney General's opinions on surface water and
13 compensation of use of surface water under certain
14 conditions. The Legislature did act upon that. They
15 created Act 226 of 2012, and basically that act
16 extended the provisions of Act 955 for surface water
17 management.

18 The next item was to add surface water
19 fact-gathering responsibilities without management or
20 regulatory authority to the mission of the Ground Water
21 Resources Commission, basically expending its role, the
22 role that is currently in place today. Legislation was
23 passed that created Act 471, and so that recommendation
24 was implemented fully.

25 CHAIRMAN ANGELLE: So, if we could, just

1 address that for a second.

2 So certainly the Legislature acted upon that
3 request to add surface water fact-gathering
4 responsibilities and expand this particular group and
5 change the name. And so obviously the name change and
6 adding membership is kind of an easy thing. And the
7 fact-gathering responsibilities, without management or
8 regulatory authority -- and I realize that, you know,
9 you all have a lot going on. One of the things that
10 we're going to have to do is come up with a game plan
11 that allows us to respond to that fact-gathering
12 responsibility.

13 And so, you know, at a certain point, after
14 some of these things are gone, there's going to be an
15 expectation that we would report to the Legislature
16 what it is that we found; again just, you know, what
17 are those facts. And those facts exist out there
18 somewhere. We have to get them, put them together in a
19 user-friendly way with an idea and a concept I think
20 that we're trying to find ways to help solve ground
21 water problems.

22 So the surface water information is necessary
23 to be collected as we try to again bring about a
24 comprehensive solution. That's this research and
25 putting stuff together. And so we'll need to talk

1 about that, you know, maybe after the first of the
2 year.

3 Very good. Appreciate your report on this
4 update. Again, a lot of meat on the bone; very
5 impressed on what you guys are doing on trying to get
6 some of this stuff implemented.

7 With that in mind, I'll go to Item 6-D, which
8 is a legislative report update.

9 MR. REONAS: The legislative report update:
10 We here at the agency would like to put together a
11 report touching on all these subjects that we could
12 provide to the Legislature in preparation for the
13 upcoming session in 2013. I would like to have that in
14 place by the end of January.

15 A lot of the -- probably a lot of what we
16 report, stuff we went over, material we went over
17 today, but also probably some recommendations dealing
18 with some of the other issues that need to be I guess
19 cleared up.

20 I will say that, on some of these points,
21 especially dealing with, you know, the research side,
22 that I think it does come into issue of doing
23 comparative work with what other states have done; even
24 taking an international perspective on some of the
25 water management issues.

1 And I've started some of that. We've had
2 some consultations in-house, talked with some of our
3 legal staff and all, and so that is under way. But it
4 does become, as you noted, an issue of research and
5 then, you know, of course that research usually
6 translates into policy at some point down the road.

7 But our goal is to have obviously not a
8 document quite as large as the original
9 hundred-plus-page piece, but a ten- to twenty-page
10 report that would address a lot of these specific
11 issues and give the commission an opportunity, sort of
12 a game plan or framework to move ahead in the future
13 touching on all these major points: The recommendation
14 status or the status of the recommendations, where we
15 are with our accomplishments and achievements, and then
16 continuing and ongoing challenges, and then the long
17 term management strategy. And we think that could be a
18 useful document in terms of planning for the
19 Legislature, in terms of shaping policy down the road.

20 CHAIRMAN ANGELLE: Very good. Thank you very
21 much.

22 And that's not a required report; is that
23 correct?

24 MR. REONAS: That's correct. It's one we'd
25 like to have out in terms of I guess a good faith

1 effort on our part to keep moving forward.

2 CHAIRMAN ANGELLE: Got it.

3 Is there anything under Item 7?

4 MR. SNELLGROVE: I would just, one note here:
5 Might be an opportune time to report that, in your
6 packages we also provided -- since we have some new
7 members and we're crossing now over to just -- we're
8 leaving ground and now we're going to water
9 comprehensive -- we thought it would be good to go
10 ahead and provide each of you a list of website links
11 where you can visit different aspects of the ground
12 water resources program, coastal program, DEQ, DHH. We
13 provided some website links where you could go and look
14 at what's going on in those agencies as well.

15 We certainly are open to adding more links,
16 you know, perhaps putting this out on our website as a,
17 you know, an area where we can have water resources
18 information. Kind of we already have a little of that,
19 but most of it is focused on ground water. So we did
20 put that in your package, didn't have time to put it in
21 the Power Point.

22 And I'll say this too: We will be following
23 up to all of you via email. We'll send you a .pdf copy
24 of the Power Point. We always post these on our
25 website after the meetings are completed, and as well

1 as the transcript. That will be all followed up to you
2 once we get this information and we'll package it and
3 send it out.

4 CHAIRMAN ANGELLE: Good. Thank you very
5 much.

6 Can we go to item number 8, public comments,
7 and we would open the floor up for anyone who wants to
8 make a public comment.

9 If you would just -- if we can get a chair
10 over here, gentlemen, and make sure the microphone is
11 hot.

12 And if anyone wants to speak, if you would
13 just please step forward to the table and identify
14 yourself for the record, and we're happy to have you.

15 Can you just walk one of those mics over?

16 MR. FONTENOT: Hello.

17 My name is William Fontenot. I live here in
18 Baton Rouge. And Mr. Ross, as you know, and some of
19 the others, I'm retired from the Attorney General's
20 office where I worked for 27 years. My job there was
21 basically to help people try to figure out how to deal
22 with environmental problems.

23 There's clear -- you have a clear basis for
24 moving forward in a very progressive way, in a very
25 effective way, and that's the Louisiana Constitution.

1 And I would direct you to look at Article IX of the
2 Louisiana Constitution of 1974. And what that article
3 says, it deals with mineral resources and resources of
4 the state: Mineral resources, mining, agriculture,
5 that sort of thing, forestry. But you need to look at
6 Section 1 of Article IX.

7 And I don't remember it exactly, but I'll
8 kind of give you -- it says, The important natural
9 resources of the state, including air and water, and
10 the healthful, scenic, esthetic and historic qualities
11 of the environment shall be protected, replenished and
12 restored as much as possible consistent with the
13 health, safety and welfare of the people.

14 There's a second sentence. It says, "The
15 Legislature shall adopt laws to implement this
16 provision."

17 Now I think that's pretty clear stuff.

18 In 1984 the Louisiana Supreme Court gave us a
19 unanimous decision in May of '74 [sic]. It's from a
20 case called Save Ourselves versus the Louisiana
21 Environmental Control Commission, which was then the
22 agency set up in the Department of Natural Resources
23 which was dealing with permitting of commercial
24 hazardous waste disposal facilities.

25 But the SOSDECC decision -- citation is 452

1 So. 2d at 1152, 4512 So. 2d at 1152; 1152 is the page
2 number. And I remember that one -- don't remember that
3 many decisions but I remember that one.

4 And it was you a unanimous nine-oh decision.
5 And what the Supreme Court said -- and there have been
6 a lot of interpretations of what they said, and this is
7 from a non-attorney telling you this -- the Supreme
8 Court said that, according to Article IX, Section 1 of
9 the Louisiana Constitution, all officials in the state
10 of Louisiana, when they are making a decision which may
11 adversely impact human health and its environment, they
12 must make sure that they have considered alternative
13 sites, alternative projects and alternative processes;
14 and that the ones that are the most protective of human
15 health and the environment are the ones that should be
16 selected -- or shall be selected.

17 So basically you've got two documents to work
18 with: Article IX Section 1 of the Constitution of '74,
19 and the Supreme Court decision in '84. And that
20 decision has been cited in more than a hundred other
21 cases by the Supreme Court, Louisiana Supreme Court,
22 appeals courts and others in every judicial district in
23 the state. So this is not some minor thing. It's very
24 significant. And it gives you basically a
25 steppingstone or a couple of steppingstones to work

1 with.

2 The ground water hearing across Louisiana,
3 but particularly in Baton Rouge, is not a problem of
4 saltwater intrusion. It's a problem of overuse and
5 misuse of the ground water; no question about it.

6 I worked with Mr. A.N. Turkan (phonetic) who
7 was head of Capital Area Groundwater Conservation
8 Commission in the 1970s and 80s and with the U.S.
9 Geological Survey. And when the Georgia-Pacific paper
10 mill about ten miles up here in Port Hudson, when they
11 went and started production, their use of ground water
12 caused every Artesian well within 40 or 50 miles of
13 Baton Rouge or Port Hudson to quit flowing. So
14 everyone that had -- because there were lots of them,
15 all of those water wells, people had to drill new wells
16 because what used to flow, they now had to pump.

17 And the U.S. Geologic Survey and Capital Area
18 Ground Water Conservation Commission -- and these are
19 discussions that I had with them back in the 70s and
20 80s -- when Georgia-Pacific went on line, they measured
21 a drop in that 1500-foot water sand all the way over to
22 Hattiesburg, Mississippi -- and that's a few miles from
23 here -- but they measured a two-inch drop at
24 Hattiesburg from the use of the ground water.

25 Not to pick on Georgia-Pacific, but they were

1 using this as their ground water, and they weren't
2 looking at how they might adversely impact anybody
3 else, whether it was Baton Rouge Water Company or any
4 private wells or other industries. And there were a
5 bunch of other industries that had real serious
6 problems because they had to redrill and set up new
7 water systems.

8 And about a month ago I went up to the Port
9 Hudson Cemetery -- it's a national cemetery where
10 people in the service are buried -- and between there
11 and the Mississippi River, Georgia-Pacific has
12 thousands of trees sitting on the ground cut up that
13 they are planning on using in their paper mill. And
14 not all of them, but many of them were being sprayed by
15 a water system that was keeping them wet. Now,
16 different reasons why they keep those wet.

17 But that's water, a water use that clearly
18 the Mississippi River is right there, just a short
19 distance from the Georgia-Pacific paper mill. They
20 could be using river water for that kind of use. It's
21 not a high quality use; it's just keeping those logs
22 wet.

23 So I think it's not just a matter of looking
24 at whether or not the Baton Rouge Water Company or
25 Exxon or Georgia-Pacific can reduce their water, but to

1 look at how it's being used.

2 I mean, Baton Rouge Water Company -- I have
3 been here in Baton Rouge since 1975. I don't know how
4 many times -- because my wife does, you know, handles
5 most of the bills -- but I don't think we've gotten too
6 many things from the Baton Rouge Water Company about
7 how we can reduce our water use and water consumption,
8 how we can use it more effectively.

9 And I think everybody that's using the system
10 needs to look at that and do a better job. It's not
11 being done right now. It's a disaster. It's like
12 watching the Livingston train derailment happen in slow
13 motion where you're getting, not 16 second -- 16
14 pictures per second, but you're getting half a picture
15 per day, and you can see this whole thing happening.
16 It's just flowing out in front of you and it's a
17 disaster. What's happening to our ground water here is
18 a disaster.

19 I'll give you an example of a use up, with a
20 friend up near Monroe, lives about 20 miles west of
21 Monroe. He moved on this property, he built a house
22 and they drilled a well. It was about 185 feet, I
23 think. And what they got instead of freshwater was
24 highly saline water. And it turned out about half a
25 mile from their house was an oil well sitting on top of

1 a little hill from their house where they had a big
2 waste pit about the size of this room, and that waste
3 pit was getting saltwater down into the near surface
4 aquifers.

5 Their solution was to get the driller to come
6 back and see if he could find some other water. And he
7 went down I think 350 feet, and they have been using
8 that water for the last 35 years. But that's one where
9 you've got these things for looking at how big an area
10 around a water well you should have a protection zone.
11 It's not adequate.

12 What is it, Jim? How far about out are you
13 folks supposed to look at public commercial water well,
14 whatever? How big is the zone? Quarter mile? Half
15 mile? Two thousand feet or something?

16 MR. WELSH: When we permit such a well,
17 depending on the type, it's normally a quarter of a
18 mile review, something like that.

19 MR. FONTENOT: If you have -- and that's very
20 important, very significant. A quarter of a mile is
21 totally inadequate. You should have another zone
22 that's two miles or ten miles or whatever it is where
23 that well is going to change the water flows in the
24 ground water.

25 And Georgia-Pacific paper mill -- not to pick

1 on them, but that's one that I know a little bit
2 about -- their withdrawal caused all of the Artesian
3 wells within 40 or 50 miles of Baton Rouge to quit
4 flowing within two years of their going on production.
5 I mean, there's a very significant -- and they were
6 able to track it back to that well, that well system
7 that they have.

8 That, to me, is a significant thing. It's
9 not some minor -- sorry to repeat -- but there are
10 several other things I could talk about, but I'll send
11 you a letter or something.

12 SENATOR LONG: Mr. Fontenot, I want to
13 personally thank you. You've come before my committee
14 and have given sound advice. And we're going to find
15 as we work through this that there are a lot of
16 situations, some which you described, that will need
17 public attention.

18 But I think the good news is that you have
19 members of this committee who understand and know that
20 we have to get this right and it has to be
21 comprehensive, and yet it must be such that it allows
22 industry, commercial industry, as well as private
23 homes -- but at the same time your point is well
24 made -- that we can regulate and still allow business
25 to grow and expansion to take place. And you certainly

1 have my word as Chairman of Natural Resources that
2 you're welcome back at any time at my committee
3 hearings because we welcome your comments.

4 And I thank you for being here.

5 MR. FONTENOT: Okay. Well, thank you very
6 much.

7 Anything else?

8 Okay.

9 CHAIRMAN ANGELLE: Thank you, sir.

10 MS. TRICHE: May I speak briefly?

11 CHAIRMAN ANGELLE: Yes, ma'am.

12 MS. TRICHE: I am Rebecca Triche. I'm the
13 Executive Director of the Louisiana Wildlife
14 Federation.

15 On behalf of our members and our board, I
16 wanted to commend Senator Long and the other
17 legislators who expanded this commission. I think our
18 name "wildlife" gives it away; that we were really
19 concerned about the unintended consequences and impact
20 of moving ground water use and expanding it into
21 surface water use. So we really wanted to see that as
22 a part of the purview of this group and to broaden
23 that.

24 First of all, we're concerned about clean
25 drinking water and access for citizens; and second, for

1 protection of habitat for wildlife and fish. So we're
2 watching this very closely.

3 And I was really glad to hear the update on
4 the modeling and the research that you're going to do
5 to get that information. So we just urge you to really
6 think comprehensively.

7 And finally I would like to say that many of
8 our members were alarmed about the sale, proposed sale
9 from Toledo Bend, and we really believe that Louisiana
10 needs all its water for economic and future use.

11 So thank you.

12 CHAIRMAN ANGELLE: Thank you.

13 Any other public comments?

14 Okay, hearing none, we thank you all,
15 members, for your service today, and we would entertain
16 a motion to adjourn.

17 Motion by all. Seconded by Long.

18 Any objection?

19 Hearing none, that motion is adopted.

20 Thank you very much.

21 * * *

22 (Whereupon at 1:53 PM the meeting
23 concluded.)

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STATE OF LOUISIANA
PARISH OF EAST BATON ROUGE
REPORTER'S CERTIFICATE

I, ESTELLA O. CHAMPION, Certified Court Reporter and Registered Professional Reporter in and for the State of Louisiana, Certificate Number 76003 (in good standing), as the officer before whom this proceeding was taken, do hereby certify that on December 5, 2012, the foregoing 120 pages were reported by me in the Stenotype reporting method, that said transcript was later prepared and transcribed by me or under my personal direction and supervision and is a true and correct transcript to the best of my ability and understanding; that I am not related to counsel or to the parties herein, nor am I otherwise interested in the outcome of this matter.

Baton Rouge, Louisiana, this 11th day of December, 2011.

ESTELLA O. CHAMPION, CCR, CRR