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STATE OF LOUISIANA
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION

WATER RESOURCES COMMISSION
SIXTH REGULAR MEETING
MONDAY, AUGUST 17, 2015,
BATON ROUGE, LOUISIANA
11:00 A.M.

LASALLE BUILDING
LABELLE ROOM
617 NORTH THIRD STREET
BATON ROUGE, LA 70802

REPORTED BY:

KARLA H. MAYERS, CCR

BATON ROUGE COURT REPORTERS

Water Resources Commission Meeting
August 17, 2015

1 COMMISSION MEMBERS IN ATTENDANCE:

2 BRAD SPICER
3 VICE-CHAIRMAN AND DESIGNEE OF THE
4 COMMISSIONER OF LOUISIANA DEPARTMENT OF
5 AGRICULTURE & FORESTRY

6 KYLE BALKUM
7 LOUISIANA WILDLIFE & FISHERIES

8 HONORABLE GLENN BRASSEAU
9 MAYOR OF CARENCRO
10 LOUISIANA MUNICIPAL ASSOCIATION

11 JONATHAN "JAKE" CAUSEY
12 LOUISIANA DEPARTMENT OF HEALTH & HOSPITALS

13 HONORABLE GUY CORMIER
14 ST. MARTIN PARISH PRESIDENT
15 LOUISIANA POLICE JURY ASSOCIATION

16 DAVID D. CULPEPPER
17 ENGINEER WITH EXPERTISE IN GROUNDWATER
18 RESOURCE MANAGEMENT

19 MARK S. DAVIS
20 TULANE INSTITUTE ON WATER RESOURCES LAW AND
21 POLICY

22 PAUL D. FREY
23 LOUISIANA LANDOWNERS ASSOCIATION

24 KAREN GAUTREAUX
25 LOUISIANA LEAGUE OF WOMEN VOTERS
LOUISIANA WILDLIFE FEDERATION AND
THE COALITION TO RESTORE COASTAL LOUISIANA

EVE KAHAO GONZALEZ
LOUISIANA PUBLIC SERVICE COMMISSION

JERRY V. GRAVES
PORTS ASSOCIATION OF LOUISIANA

CHRISTOPHER P. KNOTTS, PE, FASCE
LOUISIANA DEPARTMENT OF TRANSPORTATION &
DEVELOPMENT

BENJAMIN MALBROUGH
LOUISIANA RESIDENTIAL CONSUMERS

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COMMISSION MEMBERS IN ATTENDANCE (CONTINUED):
CHANCE McNEELY
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

MANDI D. MITCHELL
LOUISIANA DEPARTMENT OF ECONOMIC DEVELOPMENT
DAN MORGAN
SPARTA GROUNDWATER CONSERVATION DISTRICT

JIM PRATT
THE SABINE RIVER AUTHORITY
CHARLES SUTCLIFFE
THE GOVERNOR'S OFFICE OF COASTAL ACTIVITIES

JIM WELSH
COMMISSIONER OF CONSERVATION, OFFICE OF
CONSERVATION

FRED ZAUNBRECHER
THE GEOGRAPHICAL AREA OF THE STATE UNDERLAIN
BY THE CHICOT AQUIFER

ALSO PRESENT:

GARY SNELLGROVE
EXECUTIVE DIRECTOR
ENVIRONMENTAL DIVISION

MATTHEW REONAS
EDUCATION AND MARKETING REPRESENTATIVE
SCOTT HEMMERLING
WATER INSTITUTE OF THE GULF

RYAN CLARK
WATER INSTITUTE OF THE GULF

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1 MR. SPICER:

2 Good morning. I'm Brad Spicer with
3 Louisiana Department of Agriculture & Forestry,
4 Office of Soil & Water Conservation. I'm
5 Vice-Chair of the Commission, and I'm substituting
6 for Scott Angelle, Chairman, this morning.
7 Welcome to the commission meeting.

8 And Matt, if you would, would you do roll
9 call?

10 MR. REONAS:

11 Yes, sir. Mr. Balkum.

12 MR. BALKUM:

13 Here.

14 MR. REONAS:

15 Mr. Brasseaux.

16 MR. BRASSEAUX:

17 Here.

18 MR. REONAS:

19 Mr. Causey.

20 (NO RESPONSE)

21 MR. REONAS:

22 Mr. Cormier.

23 MR. CORMIER:

24 Here.

25 MR. REONAS:

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Mr. Cramond.
(NO RESPONSE)
MR. REONAS:
Mr. Culpepper.
MR. CULPEPPER:
Here.
MR. REONAS:
Mr. Davis.
MR. DAVIS:
Here.
MR. REONAS:
Mr. Dove.
(NO RESPONSE)
MR. REONAS:
Mr. Frey.
MR. FREY:
Here.
MR. REONAS:
Ms. Gautreaux.
MS. GAUTREAU:
Here.
MR. REONAS:
Ms. Gonzalez.
MS. GONZALEZ:
Here.

1 MR. REONAS:
2 Mr. Graves.
3 MR. GRAVES:
4 Here.
5 MR. REONAS:
6 Mr. Knotts.
7 MR. KNOTTS:
8 Here.
9 MR. REONAS:
10 Mr. Leggett.
11 (NO RESPONSE)
12 MR. REONAS:
13 Mr. Long.
14 (NO RESPONSE)
15 MR. REONAS:
16 Mr. Malbrough.
17 MR. MALBROUGH:
18 Here.
19 MR. REONAS:
20 Mr. McNeely.
21 MR. McNEELY:
22 Here.
23 MR. REONAS:
24 Ms. Mitchell.
25 MS. MITCHELL:

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Here.
MR. REONAS:
Mr. Morgan.
(NO RESPONSE)
MR. REONAS:
Mr. Owen.
(NO RESPONSE)
MR. REONAS:
Mr. Pratt.
MR. PRATT:
Here.
MR. REONAS:
Mr. Spicer.
MR. SPICER:
Here.
MR. REONAS:
Mr. Sutcliffe.
MR. SUTCLIFFE:
Here.
MR. REONAS:
Mr. Welsh.
MR. WELSH:
Here.
MR. REONAS:
Mr. Zaunbrecher.

1 MR. ZAUNBRECHER:

2 Here.

3 MR. REONAS:

4 Ms. Zaunbrecher.

5 (NO RESPONSE)

6 MR. REONAS:

7 Yes, sir, we do have quorum, 18
8 count, and so we're good to proceed.

9 MR. SPICER:

10 Okay. Thank you, Matt. Let's see.
11 I'd like to welcome some new members to the
12 commission. Chance McNeely, DEQ; Mandi Mitchell,
13 Economic Development. Where is she at? There you
14 are. Charles Sutcliffe with the Governor's
15 Office; Dan Morgan with the Sparta Groundwater
16 Commission.

17 MR. REONAS:

18 He's not here.

19 MR. SPICER:

20 He couldn't make it?

21 MR. REONAS:

22 No, sir.

23 MR. SPICER:

24 And Fred Zaunbrecher with Chicot
25 Aquifer Regions in Southwest Louisiana.

1 Okay. The next order of business will be to
2 adopt the minutes of the last meeting or a summary
3 of the minutes. Has everyone had an opportunity
4 to review the minutes and, if so, if there's no
5 amendments to the minutes, entertain a motion to
6 accept the minutes?

7 MR. BRASSEAUX:

8 I motion.

9 MS. GONZALEZ:

10 (Indicating)

11 MS. GAUTREAUX:

12 (Indicating)

13 MR. SPICER:

14 Karen approved and seconded by --

15 MS. GONZALEZ:

16 Eve Gonzalez.

17 MR. SPICER:

18 Okay. Thank you. All right. The
19 next item of business is a status review of the
20 water resources assessment for sustainability and
21 energy management project. Scott Hemmerling will
22 make a presentation with the Water Institute of
23 the Gulf. Scott.

24 MR. HEMMERLING:

25 Good morning. I'd like to thank you

1 for having us here today. Again, I'm Scott
2 Hemmerling with the Water Institute of the Gulf.
3 This is my colleague Ryan Clark, also with the
4 Water Institute.

5 I know a lot of you weren't here at our
6 previous meeting, so we'll give you a little bit
7 of background on the project. The purpose of this
8 project is to develop a water budget for the state
9 of Louisiana. It's a project with CPRA and the
10 Office of Conservation funded by the US Department
11 of Energy.

12 A part of the goals of the project is to
13 establish a set of measures to evaluate regional
14 water supply. As part of this, we want to set a
15 baseline water budget. And what we mean by "water
16 budget" here is we want to maintain that the
17 change in water stored in an area, such as a
18 watershed, is controlled by the rate at which
19 water flows in and out of an area. So, again,
20 we're looking at the rate of water flow within and
21 out of the water units.

22 And part of the reason for doing this, we
23 want to identify the areas that are at risk of
24 losing some of the sustainability. We want to
25 establish a process to take a wide array of data

1 across the state and really get it into a format
2 that we can use and that can be replicated to look
3 at different areas across the state. We want to
4 be able to look at potential impacts in the
5 future. We want to look at the impacts of
6 population growth and what that can do over
7 certain areas.

8 And part of this -- because this is what --
9 there is a Department of Energy part of this. We
10 want to look at the cost of withdrawing water, and
11 part of the costs, which could go to the
12 consumers, could be passed on to government, is
13 dependent on water availability and the depth that
14 water has to be pulled from.

15 Now, again, like I said, we want to take the
16 wide array of data that's available and develop
17 useful framework that can be used to analyze water
18 throughout the state. We want to gauge the
19 sustainability. And again, by "sustainability,"
20 we mean we want to establish the balance between
21 use and supply that causes no further impairment
22 to water resources and maintains or improves the
23 current health of these systems.

24 And we want to develop a system to analyze
25 and communicate these facts and figures to the

1 public and key water managers around the state.
2 We want to make it easy for the public to
3 understand and something that can be used across
4 the state and by different stakeholders.

5 Now, the project is moving forward in four
6 activities. First activity which we're talking
7 about today -- we'll cover Activities 1 and 2
8 today -- is to develop a framework for appraising
9 the health and sustainability of the water
10 resources. So we will talk about the framework
11 itself, and I believe each of you has a printout
12 of the draft framework. Also, the second activity
13 is to review the data sources and available data
14 for the hydrologic units for the details
15 assessment. There will be data gaps, and there
16 will be some assumptions that have to be made to
17 fulfill the data framework.

18 And the portion where we are now, Activity 3,
19 is conducting the appraisal of the hydrologic
20 units. Activity 2, part of that is selecting a
21 couple of piece study areas that we'll look at
22 over the course of the project. And the last
23 activity will be to prepare a final report of the
24 analysis.

25 So just to give you an idea of where we are

1 in the time line, we've completed Activity 1 and
2 Activity 2. That's the framework and the data
3 review, and we're in the midst of the hydrologic
4 unit appraisal.

5 So part of Activity 1 -- we went over this at
6 an earlier meeting back in the spring -- is we
7 reviewed the existing data frameworks, so other
8 frameworks that states had, other smaller projects
9 that companies did for the certain states. We
10 looked at the key component of these plans, and we
11 gathered together a technical coordination team,
12 which would assist us throughout this whole
13 process. The coordination team includes David
14 Borrok from University of Louisiana at Lafayette,
15 Gary Hanson from LSU Shreveport, and Charlie Demas
16 and John Lovelace, also, both with USGS. And then
17 we have to develop the components of the draft
18 framework, and that's what we're going to talk
19 about today.

20 So part of what we have to look at is what
21 are the data needs to conduct a water budget. The
22 framework has to enable the calculation within the
23 hydro units. We need to be able to quantify the
24 inflows and outflows and changes of storage within
25 each hydro unit of analysis. The water budget

1 maintains that the change in volume of water
2 stored within the unit of analysis is balanced by
3 the volumes of water that flows into and out of
4 the area.

5 Looking at, for example, the groundwater
6 availability model -- which the state of Louisiana
7 does not have. That's outside the scope of this
8 project. Looking at the -- that is one of the
9 data needs, so when we talk about sustainability,
10 we are talking about that balance of the inflows
11 and outflows. So we're looking at groundwater and
12 surface water, the conjunctive management of the
13 two together; so again, input, output, and
14 movement of water within the unit of analysis.

15 We're looking at the quantity available for
16 various uses, both natural and human. There are
17 ecological needs for water, but there's also
18 industrial needs and rural needs for communities
19 for water. And then current and future uses, we
20 want to establish what might the future needs be
21 for fresh drinking water, where will population
22 growth occur, and really be able to identify areas
23 within the state where sustainability is at risk.

24 So again, here's a graphical version of the
25 water budget framework, and you have a printed

1 copy in front of you. Now, when we constructed
2 the framework, the water units were categorized as
3 surface water, as the lakes, the streams, the
4 rivers, et cetera; the surface alluvial and
5 unconfined groundwater; and the confined or deep
6 water storage. The inputs and outputs for each of
7 these units were identified, and linkages between
8 them were made.

9 So when we talk about surface alluvial or
10 unconfined groundwater aquifers, we can see here
11 we're talking -- there's more inflows of water
12 with the surface alluvial. The unconfined
13 groundwater aquifers that contain the water table
14 are generally recharged via precipitation that
15 percolates through the unsaturated zone to the
16 water table and also from losing streams, lakes,
17 and wetlands. That limits the extent that
18 groundwater drawdowns can occur as a result of
19 pumping.

20 Now, the confined in the deep water --
21 groundwater storage, that's recharged almost
22 entirely by precipitation within that aquifer's
23 recharge area; therefore, we have larger drawdowns
24 throughout time in response to pumping.

25 So again, if we look at some of the other

1 inputs, we talk about water transfers, so movement
2 of water from one water body to another. We can
3 also talk about transfers being from groundwater,
4 and then it can be taken into the city's water
5 system and then, as wastewater, go from
6 groundwater into a surface water body. And,
7 obviously, with any water budget, we want to look
8 at direct precipitation. We look at runoff. We
9 look at the stream flow in, the stream flow out to
10 establish the amount of water that's flowing in
11 and out of an area.

12 And, again, if anyone has any questions at
13 any point during the presentation, feel free to
14 interrupt, and we can discuss any of the different
15 portions we see in the budget. Yes.

16 MR. WELSH:

17 I'm Jim Welsh, Commissioner of
18 Conservation. Something I think would be good
19 would be to try to define, on a statewide basis,
20 sustainability. That term, over the last few
21 years, has been defined in some -- by some bodies,
22 but some other bodies -- regulatory bodies do not
23 have such a definition, and it's pretty awkward.

24 It's awkward not having a statewide
25 definition when you explain to the public about

1 groundwater usage and historic use and
2 restricting. You have to say which types of uses
3 are going to be restricted, what's historically
4 used.

5 But sustainability has a lot of implications,
6 and I just -- if anybody wants to discuss this, I
7 just think that would be a good idea to try to
8 come up with a uniform definition of "sustain," or
9 "sustainability."

10 MR. HEMMERLING:

11 That is a great idea, and the
12 definition that we took for sustainability here is
13 really kind of the nuts and bolts. It's
14 sustainable if your inputs and your outputs are
15 balanced. If we start to -- you know, if the
16 outflows exceed the inflows, then we have an
17 unsustainable process going on, but there's also,
18 with the data limits, no groundwater availability
19 models.

20 You know, we can still -- if we're pulling
21 more than is being withdrawn, then that's clearly
22 unsustainable, but then we're getting into the
23 degrees of sustainability there. If we -- you
24 know, we can say it's unsustainable if it's a
25 small amount over.

1 But I think a definition from a legal
2 perspective would probably -- you know, especially
3 if it's -- if we already base policy on it, I
4 mean, I would say a balance of your inputs and
5 outputs, and, you know, the no data mining, which
6 is one of our constraints we had in that input is
7 that the outflow shouldn't exceed the inputs. So
8 that's how we approached it here. Again, it's
9 a --

10 MR. WELSH:

11 I'm not saying you don't have a great
12 definition or anything. I'm just saying let's put
13 it in the law so all agencies can use that. See,
14 our attorney is not here today, but we could try
15 to look into that, the feasibility of doing that.
16 I'll volunteer that.

17 MR. DAVIS:

18 Mr. Chairman -- or, Mr. Commissioner,
19 without getting ahead of where we are in the
20 program, one of the things that we're doing in
21 conjunction with the development of a water code
22 is looking at how other states and other agencies
23 have determined that, you know, because you're
24 right. The term by itself is not self-defining,
25 but it is a term of art often in resource

1 management, but it's not always a common term of
2 art.

3 So we'll certainly have some things we could
4 share with the commission, you know. It needs to
5 be a policy determination first and then probably
6 put into law, but, you know, that is one of the
7 things that we'll be, you know, making sure the
8 commission and the State have available.

9 MR. HEMMERLING:

10 And I did go back to one of the
11 previous -- the other side of the water budget
12 here. Just when we talk about sustainability with
13 your inputs and outputs, that's purely the
14 mechanistic view of it. But if we look at some of
15 the constraints, we need minimum ecological flow.
16 What do we need for the sustainability of the
17 wetlands? What do we need for the wildlife in the
18 areas, in addition to what do we need for industry
19 and public use?

20 So the sustainability has to take those into
21 its -- so it is beyond simply the inputs and
22 outputs when we start talking about the
23 constraints and what we need the water for. So we
24 really -- I think if we look at the constraints,
25 especially where we have surface water storage,

1 where what's the minimum regulatory flow, what's
2 the minimum ecological flow, what's the coastal
3 demand for water.

4 So all of that has to be in this final
5 definition of sustainability, besides the balance
6 has to take those needs into account to where,
7 regardless of your inputs and outputs, if we drop
8 below a certain level, it's just -- it's not
9 sustainable for water coastal processes.

10 MR. WELSH:

11 Well, we'll -- the Commission, we'll
12 try to put something together. Mark, we can send
13 what you have, and I'm kind of talking for John
14 Adams, our lawyer, you know, but he'll probably
15 put something together maybe for the next meeting.

16 MR. HEMMERLING:

17 Yeah.

18 MR. SPICER:

19 Matt, the next meeting will be?

20 MR. REONAS:

21 Probably in December. It will
22 probably have to be between Thanksgiving and the
23 Christmas holidays, yes, sir.

24 MR. SPICER:

25 Thank you.

1 MR. WELSH:

2 Okay. Thank you.

3 MR. HEMMERLING:

4 You're welcome. Okay. So back on
5 the output side, we kind of have a lot of your
6 standard water budget, you know, water that has
7 lost direct evaporation from the surface water.
8 We have evapotranspiration from the crops and
9 evaporation from the impermeable surfaces within
10 the cities.

11 We also have transfers out where water is
12 taken from one hydro unit and transferred to
13 another and then simply the outflow of the water,
14 the streams that, you know, the water comes in one
15 side of your hydro unit and comes out other side.
16 It might not be the same amount on both ends.

17 But we also are talking about there is a
18 change in the quality of the water at some point,
19 especially when you start talking about coastal
20 processes and saltwater intrusion. There's
21 portions of our groundwater that could become
22 unusable through saltwater intrusion. We also
23 have impaired waters that we could take into
24 account and a change in capacity, just the
25 subsidence and the compaction of the water units

1 themselves. We lose some of our storage area
2 through compaction.

3 And then the big part really is the
4 withdrawals, and that's for public, industrial --
5 here we have public, industrial, and agricultural
6 use that we've broken it down into. So you have
7 public, domestic, world public use. We have
8 energy sector. We have oil and gas extraction.
9 There's a lot of industrial uses of water, then
10 the agricultural, livestock crops. Aquaculture is
11 really big, particularly in Southwest Louisiana.

12 You know, each of those consumptive uses --
13 we can't see at the bottom, but if you look at the
14 bottom of the screen, the lines that come out, we
15 have some of those -- some of the water is lost
16 through leakage. We have some that's agricultural
17 runoff and wastewater.

18 So each one of those consumptive uses,
19 there's portions of the water that is returned to
20 the system, and there's portions that are
21 completely consumed, whether that's through, like
22 I said, evaporation or just use.

23 So part of what we're taking into account
24 with this is the consumptive uses and how much of
25 this water that is withdrawn is actually returned

1 to the system through, like I said, wastewater or
2 agricultural runoff.

3 Wastewater, I mentioned earlier, could be
4 when water is pulled out of the groundwater unit.
5 It's used. It goes through the wastewater
6 processing plant, and then it's sent into the
7 river. So we have water that's pulled from one
8 unit and transferred into another, but it's within
9 the same study area.

10 So the next step, once we laid out the
11 framework, was to determine -- well, what data is
12 out there? Can we quantify each of these
13 variables that's in that framework? And then
14 using that data, we looked at the existing data
15 and then determined a couple of case study areas.
16 We chose three case study areas around the state
17 that we're going to look at and pull all the data
18 for and look at how the water budget works in
19 those areas.

20 So again, that's part of Activity 2, and the
21 first thing we did was inventory the initial
22 inspection of the data. We also identified data
23 gaps. As I mentioned earlier, without groundwater
24 availability models, we don't know exactly how
25 much water is in our aquifers. With some of the

1 surface water units, it's easier to quantify the
2 volume of water there, but the volume of water
3 within each of our aquifers, that's never been
4 accurately assessed within the state. So that's
5 definitely a data gap.

6 And some of them, I mentioned the consumptive
7 use coefficients. We have USGS data from 1987.
8 We assume there's probably not much change in how
9 much water is pulled out for agriculture, how much
10 evaporates away, and how much is actually used,
11 but we are looking at older data.

12 There's some more recent data that the
13 Argonne National Laboratory has, also, on
14 consumptive use coefficients. So for this, we're
15 going to make use of the data that's there, with
16 the realization that there's been some improved
17 technology, so the leakage factor from some of
18 these facilities might not be the same as it was
19 back in 1987.

20 And again, we met with our technical
21 coordination team to kind of go over some of the
22 initial data and help us determine what hydro
23 units would really allow us to capture a lot of
24 the issues that face the state.

25 So again, the initial inventory of data

1 sources, and here's just an example of some of the
2 things that we've pulled. Obviously, we need to
3 know where our aquifer recharge areas are, but
4 we've looked at the average water capacity or the
5 available water capacity for our soils, elevation
6 data, precipitation data, evapotranspiration,
7 temperature, solar radiation.

8 Now, part of the difficulty with some of
9 these units is that we really have to standardize
10 some. In some cases, the precipitation measures
11 are in inches, so they need to be converted to
12 another -- to something -- or the
13 evapotranspiration, which is in millimeters, needs
14 to be converted to inches. So there's a lot of
15 data compatibility issues we've got to take care
16 of to really pull the data together and allow it
17 to plug into our framework.

18 As I mentioned earlier, part of this is the
19 water demand in energy requirements. And again,
20 because this was partially -- this was funded by
21 the Department of Energy, they really -- that's an
22 important component here.

23 So some of what we have to do is estimate the
24 daily household water demand, and for this, we use
25 the EPA standard of 400 gallons per day for a

1 family of 4, and we're able to look at where the
2 hot spots of demand are across the state.

3 Now, in some cases, we might want to look at
4 families per square mile or things like that, but
5 when we're trying to get an overall usage of data
6 by certain areas of the state, we can adapt the
7 census data and look at where the greatest water
8 needs are today. And then, as we'll mention later
9 in the presentation, when we start talking about
10 projections and where growth will occur, then we
11 can see where some of these hot spots will occur.

12 So another thing we need to look at is the
13 groundwater levels. When we're talking about
14 energy costs and the costs of withdrawing water,
15 the deeper the well the higher the cost, I mean,
16 of withdrawing the water. So we can look at, you
17 know, the water levels for all groundwater wells,
18 but then we can look at depth for domestic, for
19 public supply, industrial, agriculture, livestock
20 wells. And as we can see in the maps here, the
21 domestic and public supply wells tend to be a lot
22 deeper than the agricultural, the livestock, the
23 irrigation wells.

24 So if we take our population map, which we
25 saw earlier on the left, and then we use the water

1 depth, then we can make some assumptions on -- if
2 we look at the wells -- the domestic wells, we
3 made some assumptions on B. And the energy -- a
4 well pump uses 1.16 kilowatt hours per day for
5 each 10 foot of water lift. We can go and we can
6 look at how many wells there are. We can look at
7 the population, and we can figure out how much
8 energy it takes to withdraw the water from the
9 domestic wells.

10 So that's part of what we're looking at is
11 combining that population data with the well depth
12 data to give us the amount of energy. And then
13 when we note the cost of energy, then we can
14 assign a dollar value to the cost of pulling the
15 water.

16 And one other thing we have to look at,
17 obviously, is the individual water uses. So here,
18 we left this at -- these maps here are a mixture
19 of the parish and the individual water units and
20 the aquifers. But we have this data down to the
21 HUC 8 levels. But for these maps, we just want to
22 show where some of the areas of total withdrawals
23 are highest and what portion of that is
24 groundwater and surface water.

25 So if we look up in Caddo Parish, for

1 example, in Northwest Louisiana, we see a real hot
2 spot of withdrawals up there, and a lot of that is
3 due to the surface water withdrawals, whereas in
4 Chicot in the Southwest, we see more groundwater
5 withdrawals. Obviously, in the New Orleans area,
6 there's a lot more surface water withdrawals.
7 Actually, the whole Mississippi River corridor
8 from New Orleans to Baton Rouge shows really high
9 surface water withdrawals.

10 So part of when we're deciding what study
11 there is we want to look at is we want to see
12 where the water uses are. We want to look at
13 where we have surface water issues and groundwater
14 issues and try to determine study areas where we
15 can capture the most amount that we can.

16 And again, just if we break it down by the
17 individual aquifers, we can see really the
18 groundwater withdrawals from Chicot are extremely
19 high and Southern Hills, whether it's -- we have
20 the Jasper Equivalent and the Evangeline
21 Equivalent. We see Baton Rouge has a really high
22 amount of groundwater withdrawal. So these are
23 some of the factors that we examined when we were
24 trying to figure out what areas we wanted to look
25 at.

1 And again, if we look at groundwater density,
2 I think this really -- where are the most amount
3 of wells? And we can see most of the surface
4 really is driven by domestic wells. There's far
5 more domestic wells than any other type, but we
6 also want to look at where are the industrial
7 wells.

8 We can see, as we mentioned, Caddo Parish up
9 in the Northwest. We see a large amount of
10 domestic wells, but we also see a lot of
11 industrial wells. Obviously, the Haynesville
12 Shale comes into play when we're talking about
13 Northwest Louisiana. So that's the kind of issue
14 that we're looking at -- that we might want to
15 look at for our different study area.

16 If we look at the eastern portion of Chicot,
17 we can see a large amount of aquaculture wells,
18 irrigation wells, livestock wells, and domestic
19 wells; so we really have a lot of different issues
20 in that area. And again, if we look in the
21 Southern Hills area, Baton Rouge, the Florida
22 Parishes, we really see a large amount of domestic
23 groundwater wells in that area.

24 So kind of analyzing that data with the
25 technical coordination team, we identified our

1 three hydro units that we were going to look at.
2 And again, just to reiterate, we wanted to look at
3 areas that had both surface water and groundwater
4 issues. We wanted to look at the conjunctive
5 management of these areas. There's some areas in
6 the state that are almost entirely dependent on
7 groundwater and others that are almost entirely
8 dependent on surface water. We wanted to look at
9 where we could kind of see that interplay between
10 the two.

11 And we also want to look at what water demand
12 is in those areas. So we want to be sure we have
13 people, where we can see population growths. We
14 want to be able to identify, you know, the world
15 needs in some cases, the urban needs in other
16 cases. And, of course, one constraint on us is
17 the data availability. We want to make sure we
18 pick some areas where we have enough data to
19 fulfill what we have in the framework.

20 So the pilot study area that we're working on
21 right now is the eastern portion of the Chicot
22 Aquifer. So we're looking at the Chicot Aquifer
23 within the Teche-Vermillion Water Basins. That
24 gives us our coastal aspect.

25 And part of the CPRA being involved in this,

1 also, we want to make sure that we are addressing
2 some of the coastal issues, and coastal issues are
3 some of the driving factors behind a lot of
4 development in Louisiana now.

5 So part of why we chose this area was that
6 coastal aspect to it, but there's also the
7 agriculture, including a lot of rice, which is a
8 water-intensive operation, livestock, industry,
9 and then the urban and rural domestic. So
10 Lafayette is included in this area as we cover the
11 urban, also, and that is an area that is growing.

12 Now, our Northwest study area focuses largely
13 on the Carrizo-Wilcox Aquifer. Portions of
14 Sparta -- as you can see on the map in the upper
15 left, Sparta also overlaps with this, but part of
16 why we -- and that was -- we went back and forth
17 on Carrizo-Wilcox or Sparta, but the Haynesville
18 Shale in the energy exploration portion of it
19 really adds something to -- a lot more to the
20 Carrizo-Wilcox area. So that's part of why we
21 went with that really new use of water that, you
22 know, in past decades really has not been a big
23 need.

24 There's been a lot of surface water basins
25 that you can see that are included up here. Also,

1 we were able to include the Toledo Bend Reservoir,
2 which brings a whole other issue to what we're
3 looking at. And again, as we saw with Chicot,
4 there is a mix of demand uses: agriculture,
5 livestock, industry, urban, and rural domestic.

6 And the third study area we're looking at is
7 the western portion of the Southern Hills Aquifer,
8 and that includes the Baton Rouge area. Again,
9 there's several surface water basins, but within
10 Baton Rouge, there's a lot of issues with the
11 different sands and the industrial use at some
12 levels of the sands and rural -- or the public use
13 and other levels of the sands.

14 There's a lot more -- there's a lot of
15 complicating issues in the Baton Rouge area, which
16 we wanted to make sure we covered a really
17 urbanized area, and Baton Rouge gives us that, and
18 it gives us the industrial area, also. We also
19 have issues of saltwater intrusion in this area,
20 especially across the fault line where saltwater
21 is being pulled by both industry and public usage.
22 So this really gives us our urban, industrial, and
23 our water quality issues that we wanted to try to
24 cover within the framework.

25 So again, our three -- our three study areas

1 we chose for data availability, mix of uses,
2 existing supply and demand imbalances, and we
3 wanted to make sure we covered different parts of
4 the state and some unique issues that are specific
5 to certain portions of the state.

6 So the next step is Activity 3, which is to
7 conduct the appraisal, that's where we pull the
8 data. We plug it in for our study areas. We want
9 to apply the framework to our pilot study area --
10 we're in the process now with the Chicot area --
11 and then move to our other two study areas.

12 Also, part of this, we want to incorporate
13 future supply and demand scenarios and see what is
14 population growth. How does that impact what we
15 see in our framework? How does that impact the
16 future growth and sustainability of the water
17 resources?

18 So again, we've, within the Lafayette area,
19 Vermillion River Basin, gone through -- we've
20 pulled a lot of our data, and we're fairly close
21 to pulling the complete suite of data and now
22 getting down to merging it together and coming out
23 with our concrete inputs and outputs.

24 The last thing I want to mention is our
25 future projections. Now, as these slides here

1 show, there's population growth and urbanization,
2 and there's two different processes going on here
3 that affect supply and demand. If we look at the
4 maps in the upper left, and this is projections of
5 urbanization in the future, and in 2020, we can
6 see where the urban areas are. And then if we go
7 out to 2060, the areas we see in red are new
8 predicted -- or projected to be newly urbanized
9 areas.

10 Now, this is important because an urbanized
11 area adds that impervious surface where your
12 precipitation can't make it down into your
13 groundwater. When you have that impervious
14 surface, you have a lot more evaporation. Some of
15 the water ends up going into storm drains and into
16 the sewage system, and then that ends up in the
17 surface water. So the more impervious surface we
18 have, we're reducing our overall supply of water.

19 But with that urbanization, we also have
20 projected population growth. Now, the graph on
21 the bottom shows a slow but steady climb in all
22 the zip codes in Lafayette Parish, and this is
23 projected out to about ten years. So we can
24 project it further on different scenarios where we
25 assume -- we can make the assumption that

1 population will grow at the same rate. We can
2 make an assumption that the population will grow
3 at a higher rate or that population growth
4 stabilizes.

5 We can operate under a number of different
6 scenarios with this, but with the projected
7 population growth, there's going to be heightened
8 demand on our ground or surface water usage
9 depending on how that water is used today. So we
10 would make the assumption that additional
11 population growth would draw from the same water
12 sources. So if it's a groundwater usage and we
13 increase population by several thousand, then we
14 can show that as additional demand on the water.

15 And we're going to talk about sustainability.
16 That population growth could shift us from a
17 sustainable situation without taking that into
18 account. We could go into an unsustainable
19 situation just based purely on additional needs
20 for water.

21 And that is where we are currently on the
22 process. If anyone has any questions, I'd be more
23 than glad to answer them.

24 MR. SPICER:

25 Thanks. Any questions?

1 MR. FREY:

2 I've got a question. That last slide
3 you showed, the population increase in Evangeline
4 Parish puzzles me. That's around Ville Platte and
5 Mamou, and I don't know of any huge increases in
6 population expected in that area. I wouldn't
7 argue with the Lafayette and New Iberia area,
8 but . . .

9 MR. HEMMERLING:

10 A lot of these -- and these
11 urbanization projections are going by --

12 MR. FREY:

13 Take a look at that.

14 MR. HEMMERLING:

15 Right.

16 MR. FREY:

17 That's highly suspect.

18 MR. HEMMERLING:

19 And I've looked at a lot of them, and
20 what they are projecting, looking at the results,
21 is it's going to be growth along the
22 transportation corridors. So it's going to be
23 growth on 90. It's going to be growth along the
24 I-10. It's going to be growth along the I-12. So
25 it's, you know, looking at past -- they look at

1 past project growth, and they're projecting it
2 largely along the transportation corridors.

3 MR. FREY:

4 Again, take a look at it.

5 MR. HEMMERLING:

6 We have that written down.

7 MR. SPICER:

8 Any other questions? Mark.

9 MR. DAVIS:

10 Scott, when you're looking at -- when
11 you mentioned gaining and losing streams, that's
12 when, essentially, surface water and groundwater
13 share a hydrologic connection.

14 MR. HEMMERLING:

15 Right.

16 MR. DAVIS:

17 Are you going to be able to have at
18 least some kind of inventory of, you know, what
19 bodies -- surface bodies of water are gaining and
20 losing bodies of water so we'll know where, if we
21 encourage groundwater use or surface water use,
22 that we're not going to have unintended
23 consequences of essentially negatively impacting
24 the other?

25 MR. CLARK:

1 We are using a technique that does
2 coupling, so we should be able to get a lot of
3 those answers.

4 MR. DAVIS:

5 Because I know if you look at other
6 states, you know, Georgia had an experience back
7 in the '80s where they encouraged people to get
8 into groundwater to relieve surface water
9 pressure, and they went into it saying these were
10 essentially connected bodies of water where they
11 had to drain the rivers anyway.

12 MR. HEMMERLING:

13 Well, that's going to be -- that's
14 part of why we show Carrizo-Wilcox in the
15 Northwest, because there was a -- I mean, there
16 was a specific effort to get people off of using
17 the groundwater and going to using surface water.
18 So that was one that we can look back, you know,
19 2000 -- prior to 2008 and post-2008 in that area
20 and see what those impacts were based on kind of
21 that push to shift to surface water.

22 MR. DAVIS:

23 And my second question is -- because,
24 obviously, you're going to have to work with the
25 data you've got, but many of these waters we're

1 talking about are interstate waters. You
2 mentioned, you know, Toledo Bend, some of these
3 aquifers. And, you know, what we look at is
4 inputs, you know, and uses are not exclusively,
5 you know, those within Louisiana's jurisdiction or
6 control.

7 I don't, you know, currently expect you to,
8 you know, figure out what those should be, but I
9 would very much, you know, welcome, you know, kind
10 of a list of, you know, variables or unanswered
11 questions, because the real problem, as we know,
12 with sort of groundwater availability, we don't
13 have data for a lot of things. Some things are
14 beyond our power to generate the data, but it's
15 also incredibly difficult to manage things you do
16 not measure.

17 MR. HEMMERLING:

18 Right. That's where a lot of it --
19 and that is -- that is definitely a data gap, but
20 a lot of it, when we look at the inflows and
21 outflows between -- the different river gauges,
22 you can see that some change has occurred. And,
23 you know, when we do it in the balance, there
24 probably will be some unidentified change in
25 storage that just -- it's not accounted for in

1 these variables, and that's the kind of --
2 probably exactly the kind of thing that you're
3 talking about.

4 MR. SPICER:

5 Fred.

6 MR. ZAUNBRECHER:

7 Is there any data that supports the
8 effects of the phenomenal rainfall that we've had
9 this year on the recharging zones on the aquifers?
10 Because it seems like, with the amount of rain
11 that we had at least for the first six months of
12 the year, that there would be a substantial
13 increase or a gain of water resources in the
14 aquifers themselves.

15 And it would just be interesting to know what
16 happens there because of the fact that when we do
17 have a drought, that's when you hear all of the
18 naysayers complaining about, you know, drawdown to
19 the aquifers. And I'm just -- I'm just interested
20 in trying to find out what effects a phenomenal
21 rainfall year or an abnormal rainfall year would
22 have on the recharging areas and the position of
23 the water in the aquifer.

24 MR. HEMMERLING:

25 Well, I think that's a part of -- a

1 lot of what we're working on with, you know, how
2 much infiltrates and how much runoff do you have.
3 And, I think, in some of the models that we're
4 looking at, I think -- especially when you have a
5 tremendous amount of water, a lot of it will run
6 off, and it won't actually -- if it rains too
7 much, it can't percolate fully down.

8 But I will say that we do average -- was it a
9 30-year average on rainfall?

10 MR. CLARK:

11 Yeah.

12 MR. HEMMERLING:

13 So we are running it on an average,
14 which would -- I guess it would chop off, you
15 know, that really high end that you're talking
16 about that -- the actual percent of -- well, we
17 could look at rainfall events and determine how
18 much runoff and how much of that is runoff from a
19 large rainfall.

20 MR. ZAUNBRECHER:

21 I understand that the effects of a
22 lot of rainfall in a short period of time, --

23 MR. HEMMERLING:

24 But if it's extended over a long
25 period of time.

1 MR. ZAUNBRECHER:

2 -- that will lead to a lot of runoff,
3 but, I mean, this was basically the first six
4 months of the year. And, I guess, it would also
5 be a function of the size of the recharging area
6 that would make that difference, too. So thank
7 you.

8 MR. HEMMERLING:

9 Right. And like we mentioned with
10 the urbanization, how much of that recharge
11 area -- how much of that has impervious surface on
12 it now versus how much of that recharge area is
13 available actually for recharge.

14 MR. SPICER:

15 All right. Any other questions?
16 Kyle.

17 MR. BALKUM:

18 I have a question on the minimum
19 meteorological flow, and certainly the variable
20 had to be challenged when we did that. It's
21 species-specific, habitat-specific. How are y'all
22 addressing that this time?

23 MR. HEMMERLING:

24 Part of that, we are actually talking
25 with The Nature Conservancy for their freshwater

1 assessment and trying to get their data to plug
2 into this, but they take a lot of that --
3 especially with the surface water, they take a lot
4 of that into account. And then that's kind of
5 where some of the ecology expertise within the
6 Water Institute is going to come into play to
7 assist us with that portion.

8 I know there were studies on -- within the
9 Southwest when they talked about taking water into
10 Texas and what impact would that have, so there
11 are some preexisting studies that we will kind of
12 base some of that on, so . . .

13 MR. BALKUM:

14 So a lot of it is going to be expert
15 opinion?

16 MR. HEMMERLING:

17 Yeah, and depending on some of the --
18 you know, the data sources that -- because The
19 Nature Conservancy has their freshwater
20 assessment, and what they're using for their model
21 inputs and outputs could really help us plug that
22 gap in our model.

23 MR. SPICER:

24 Since there's no more questions,
25 thanks, Scott. I appreciate it. And Matt

1 mentioned earlier that we're going to have a
2 public comment period at the end of the meeting,
3 so anyone attempting to make any comments, please
4 fill out a card. You can get a card, I think,
5 outside the door there on the registration table.
6 Is that right?

7 MR. REONAS:

8 Right.

9 MR. SPICER:

10 Thank you. All right. The next
11 presentation is going to be an update on the road
12 to a water code for Louisiana, Mr. Mark Davis.

13 MR. DAVIS:

14 Good afternoon. I'm Mark Davis,
15 fellow commissioner, but I'm also the Director of
16 the Tulane Institute on Water Resources Law and
17 Policy. One of the things this commission has
18 been asked to look into is what changes to
19 Louisiana law governing water should be put on the
20 table. Also, there is another body in the state,
21 Louisiana State Law Institute, that has been asked
22 by senate resolution to develop a -- you know,
23 some kind of a water code for Louisiana.

24 So we have two efforts at the state level
25 that ultimately need to be harmonized. And just

1 so you'll know, we have been working with both the
2 commission and the Law Institute to make sure that
3 that does happen. I'll give you a little coverage
4 about where those things sit right now.

5 Let's begin by taking a quick look at, you
6 know, what's going on in the water, because, you
7 know, a water code that is unrelated to water
8 management is not really of much use. It doesn't
9 mean that that's not the way we've traditionally
10 done it. It, in fact, is.

11 But what we're seeing is that around the
12 United States and around the world that change in
13 water availability, some climate-driven, some
14 weather-driven, and some just too much demand for
15 limited resources. And these headlines I'm
16 putting up are all from within the last couple of
17 weeks.

18 Just to give you an idea, and this is one
19 where you can actually now buy bottled water for
20 \$26 on the pound, which tells you that we're
21 looking at water as an amenity. And the people
22 are stealing water now, including -- at least
23 there was a little story about Tom Selleck's, you
24 know, land manager perhaps using a little water
25 that they weren't entitled to.

1 But it's getting to the point, and in some
2 ways -- you know, Paul Frey's point, I think,
3 makes this apt that we can't assume that places
4 that people and activities have been is where
5 they're going to be. There are places that are
6 running out of water, at least affordable water,
7 and those folks and the businesses will be looking
8 to relocate. Whether we're on the receiving or
9 losing end of that here in Louisiana depends in
10 large part on how we manage our future.

11 But this is -- this is something that we're
12 seeing where water management is becoming
13 something that is no longer just for water
14 managers, and people are starting to realize that
15 the costs of not having an available usable water
16 supply is dramatic.

17 So I think that's the other thing that -- you
18 know, we almost all worked under the assumption
19 that we're working with very limited resources.
20 What we're seeing from our neighbors is that, you
21 know, when it becomes -- gets to this level, not
22 only are they looking at creative ideas, but
23 they're looking at expensive ones. So I just want
24 to point out that that's happening.

25 And there's one other headline I didn't put

1 up there but does get to, I think, the point that
2 Mr. Zaunbrecher just made that -- you know, there
3 was a headline in Texas a week ago that there is
4 not a single county in Texas that is currently
5 under drought conditions. Do not think that means
6 they don't have a water problem. Just because
7 they are no longer in drought does not mean their
8 water supply issues have gone away.

9 And again, I think all the members of the
10 commission have been, you know, told about the
11 pending permit application in Arkansas to take
12 Mississippi River water and deliver it to Texas
13 for sale. Those things are part of the future.

14 And the real challenge is that we're playing
15 a game, you know, but we're playing a game of
16 risk, and Louisiana is playing with checkers
17 rules. And so I think we're going to have to
18 really understand how whatever kind of legal
19 system we set up is matched -- you know, matches
20 the scale of what we're managing and what we're
21 managing for.

22 As I mentioned earlier, this commission has
23 been charged to develop recommendations for the
24 legislature and is certainly well underway in
25 doing that. The Louisiana State Law Institute is

1 in the process of creating a water code committee.
2 That has not progressed to the point where they
3 have begun work and partly because the Law
4 Institute member who is identified to lead that
5 effort has not been able to, you know, step into
6 that role, but they will be doing that, and they
7 have some resources.

8 The other is really our institute down at
9 Tulane. We don't have the legal mandate from the
10 legislature to do anything, but it is our mission
11 to facilitate this kind of work, and so we are
12 actually working very closely with this commission
13 and the Law Institute, and we're putting, you
14 know, our resources into the reconnaissance work,
15 and that's really what I'm going to focus on
16 today.

17 Getting back to, I think, you know,
18 Commissioner Welsh's point about sustainability,
19 which by itself is not a defined term, that we're
20 largely taking the view that whatever laws that
21 we're a part of, putting together, you know, the
22 law should follow the function and purpose that
23 you need water for, and they should relate to the
24 real world, not merely tradition, and that it has
25 to be predictable enough that we can build

1 governance and economic expectations around it but
2 flexible enough to realize that water is dynamic
3 and so are its uses, and that it needs to
4 integrate science, policy, management with law.

5 In our case, you know, we certainly could
6 have done, you know, what lawyers are very prone
7 to do, which is start writing, looking at what
8 other people have written and put together
9 something that looks extremely coherent on paper
10 but, at the end of the day, is absolutely
11 unrelated to use. And, quite frankly, that's the
12 water system that we have in Louisiana right now.

13 A lot of the work that we've been doing has
14 been involved with working with The Nature
15 Conservancy and the Water Institute of the Gulf
16 and the Army Corps of Engineers to both better
17 understand what they understand about water, but
18 to see where this water budget idea is going,
19 because we believe that that is fundamental to
20 writing laws that will work for us. And that,
21 again, I want to caution, you know, is not the way
22 we've normally written laws in this field.

23 I mean, water law in America, around the
24 planet really, and certainly still in Louisiana,
25 is absolutely divorced from hydrology. It is

1 absolutely divorced from ecology, and it is
2 largely removed from the uses that we now need to
3 put water to. And that's really our challenge is
4 having, you know, to respect those transitions but
5 put ourselves in the role where we can, in fact,
6 manage it.

7 So we're working right now with The Nature
8 Conservancy, the Water Institute of the Gulf, and
9 others to make sure that we understand where our
10 hydrology is, what we know, what we don't know.
11 But I would once again emphasize that it is
12 extraordinarily difficult. You can write perfect
13 laws, but if you do not have the ability to
14 implement them because you don't have the
15 resources, it's no one's jurisdiction, or you
16 don't have the basic information, they will not
17 serve you.

18 So we've already done -- we're largely
19 finished, and we're just updating a review of what
20 Louisiana water law is currently, and that, you
21 know, from the narrowest standpoint, talks about
22 who can use groundwater and surface water for
23 what, but it also touches on things such as
24 drainage law, navigation servitudes, levee
25 servitudes, what happens when rivers change

1 course, as they're still doing. All of those
2 things come with public rights, public duties,
3 private rights, private expectations. So we are
4 updating our work on that.

5 We've also been looking at, you know, how our
6 sister states are handling water, particularly the
7 same waters that we share. For example, we've
8 already reviewed what water law is in Arkansas,
9 Missouri, Mississippi, Tennessee, Kentucky, and
10 Florida, and we're also looking at the model
11 riparian water code and how it was developed.

12 Similarly, having law on paper but not
13 knowing how they're administered isn't terribly
14 useful. So we're looking at those same states to
15 see how you would administer it, because some of
16 them have elaborate and very expensive
17 administrative structures. And if we were to copy
18 the laws from one State or use that as our
19 inspiration, we have to understand what kind of
20 administrative set up the case.

21 And Louisiana isn't currently set up for much
22 administration. We need to understand what data
23 you have and also what drives water use. Most of
24 the states we're looking at share what we would
25 call a riparian tradition, and that is one where,

1 you know, water use is driven by the needs of
2 those who live next to the water or near it.

3 There's nothing perfect about that, but that
4 is the system that our civil code is based upon,
5 and the alternative in American, you know, legal
6 traditions is one where you're treating water as
7 more of a property right. There's nothing wrong
8 with that. I can accept when push comes to shove,
9 as, I think, we're now seeing in California, you
10 find out you may have had one set of values, you
11 know, when you created rights 100 years ago that
12 do not match your current demands, economic
13 activities and expectations, and they're
14 extraordinarily difficult and expensive to undo.

15 We're also looking at how all those states
16 handle surface water and groundwater, because
17 those things are increasingly being managed in a
18 unified fashion elsewhere. And Arkansas is
19 probably the best model that we have that is
20 applicable to us, which is useful since we also
21 share a number of rivers and aquifers.

22 And even if Louisiana says no to things like
23 interstate transfers of water, as we already see,
24 it doesn't take a terribly creative person to say,
25 well, what if I step across the border and make

1 my -- you know, propose my idea there? And they
2 start mining. And that's what we're really
3 worried about here is mining. We've seen water
4 beyond the ability to sustain, you know, necessary
5 activities, because one day mines close, and then
6 what happens? So that's really where we are in
7 this process.

8 We'll also be looking at federal law, because
9 while water law is primarily a state law matter,
10 it's important to realize what we -- where we put
11 federal law into the management equation.

12 For example, if you ask the Federal
13 Government to build you a reservoir, Federal Law
14 is going to have a big role in determining how
15 that reservoir can be used. This is what we're
16 learning very clearly from California and
17 elsewhere and, you know, Georgia.

18 And, also, when you're looking at ecologic
19 function, the Endangered Species Act is not
20 designed to be a water budgeting act, but it does
21 set certain minimum management requirements when
22 you're managing flows. We need to know what those
23 are.

24 So those are the kinds of things we're
25 looking at, so we hope that within a matter of

1 months, we'll have, you know, essentially this
2 matrix together that will match up with the work
3 that's being done on a science and hydrological
4 side, that we'll be able to make some strong
5 recommendations both to this organization and to
6 the State Law Institute.

7 Law in this view -- in this context, should
8 reflect policy. Policy is not going to let
9 everyone get exactly what they want all the time,
10 and that's why I think it's going to be very, very
11 important for bodies like this to help chart
12 those -- those courses, indeed.

13 The definition of sustainability in water for
14 most places is not necessarily matching inflows to
15 outflows, because groundwater, generally, when you
16 start getting to confined aquifers, you may have a
17 very large confined aquifer. There's no reason
18 not to use it, but there's no way that it will
19 ever recharge on a, you know, human society scale.
20 It doesn't mean you shouldn't use it, but you
21 should know that's more akin to a coal mine than a
22 river. And those are the kinds of things that we
23 need to be focusing on.

24 So we look forward to updating you as this
25 goes along. We look forward to working with you,

1 and I do think for the next meeting we can
2 certainly give you some information about how
3 others are defining and managing, or wishing they
4 could manage, terms such as sustainability. And I
5 think we're going to find this is going to be
6 quite an adventure. I'd be happy to answer any
7 questions.

8 MR. SPICER:

9 Any questions for Mark?

10 (NO RESPONSE)

11 MR. SPICER:

12 Thank you, Mark, for your
13 presentation.

14 MR. DAVIS:

15 There's one thing I would like to
16 point out, and that is that this is going to be
17 very resource-intensive. I mean, one of the
18 reasons, I guess, we're able to do some of this is
19 that we're able to write grants and take gifts and
20 do partnering arrangements. We have a minimal
21 understanding with The Nature Conservancy, and
22 that's about \$3 million worth of work we wouldn't
23 have access to otherwise. And I'd like to thank
24 the folks at the LSU Sea Grant Program, because
25 they've been a very important partner with us in

1 all of this.

2 And finding the resources to do this well on
3 the front end is going to be critical, and so I
4 think, as you heard from Scott, we'll -- I would
5 anticipate at the end of this first level of
6 activity, we may have a number of questions that
7 we have to find the resources to address. And we
8 shouldn't expect it to come in, you know, at a
9 bargain basement price. And that's a tough thing
10 to put forth to the legislature or anyone right
11 now, but I just wanted to prepare you for that.
12 Whoever is going to do this work, this has to be
13 produced at an extremely professional level.

14 MR. SPICER:

15 Kyle.

16 MR. BALKUM:

17 Mark, you mentioned the Arkansas
18 water plan is a particularly good example?

19 MR. DAVIS:

20 It's a good example of how they're
21 doing it. I'm not saying it will work for
22 Louisiana but the things that they've been going
23 through, because they've just gone through a
24 reevaluation of -- and a water plan is not the
25 same as a water code. You need a water code

1 generally to build a plan upon. I'm just saying
2 that we are looking out there.

3 We have not found anyone that we can say, ah,
4 they've done our work for us. There are places
5 that have done a better job and that we can learn
6 more from, but I would also throw out one
7 additional caution, and, that is, we are the only
8 civil law jurisdiction in the United States.

9 Even if we found a state that we thought had
10 done it perfectly, their approach to law is so
11 fundamentally different than we would -- like, we
12 would have to be doubly thoughtful as to whether
13 or not it's something we could just drop into
14 place, because the roles of courts and
15 legislatures are different in every other state
16 than they are here, so . . .

17 MR. SPICER:

18 Any other comments?

19 (NO RESPONSE)

20 MR. SPICER:

21 All right. Thank you, Mark.

22 MR. DAVIS:

23 My pleasure.

24 MR. SPICER:

25 Next, we're going to have an update

1 on the groundwater management across the state.
2 Matt with Office of Conservation.

3 MR. REONAS:

4 Mr. Spicer, if you would give me a
5 minute to get it loaded up.

6 MR. SPICER:

7 Okay. (Complying with request) Are
8 you ready, Mr. Reonas?

9 MR. REONAS:

10 Yes, sir. Thank you, Mr. Spicer.
11 Recognizing that we do have some new members here
12 today, primarily, I want to use this talk as a
13 refresher or as an introduction to some of the
14 groundwater management issues that we've been
15 dealing with around the state, along with kind of
16 a refresher for the members that have been here
17 awhile.

18 First off, I'd like to recognize our new
19 Administrative Coordinator for the Office of
20 Conservation and particularly for this Water
21 Resources Commission that will be working with us,
22 Stacey Dykes in the back. Stacey, if you want to
23 give us a little wave.

24 MS. DYKES:

25 (Complying with request)

1 MR. REONAS:

2 And, of course, the rest of our
3 staff, Teri Tharp, -- Teri was just down here --
4 Christen Willis and, of course, our Executive
5 Director, Gary Snellgrove, and some of the other
6 staff that are out today but that have certainly
7 helped us in the past.

8 But, first off, I did want to go through a
9 quick legislative recap. If you recall back in
10 June -- well, throughout the legislative session,
11 we would send out periodic updates on potential
12 bills that were working their way through the
13 legislature, and I did want to kind of go through
14 a quick recap of those.

15 And you should have in your packets a copy of
16 the last recap we did in June. Since then, all
17 those -- most of these bills have passed on and
18 have been signed by the governor and have passed
19 into becoming acts. There were a number of
20 resolutions as well -- water resource resolutions.
21 I'm not including those particularly in today, but
22 they are in the recap, if you want to go back and
23 look through those.

24 Act 34 expanded the regulatory power and
25 authority of the Bayou Lafourche Freshwater

1 District. You do have their Executive Director of
2 that district here, but it was -- we thought it
3 was an important piece of legislation in that the
4 Bayou Lafourche District provides drinking water
5 to, roughly, 300,000 people in that particular
6 area. It's also a key part of the energy highway
7 down to the coast and the infrastructure, and so
8 it moved through the legislature very quickly and
9 efficiently.

10 Act 401 removed the legislative references
11 and provisions, so basically, the legislative
12 authorization for the Allen Parish and Ouachita
13 Parish Reservoir Districts. It's basically
14 deleting those from the record.

15 Act 402 defined the definition between
16 state-owned and privately-owned land around False
17 River and Pointe Coupee Parish.

18 Act 442 reauthorized the work of the Bayou
19 Vermillion District and changed the name of it to
20 Bayou Vermillion District in Lafayette Parish.

21 And then Act 450, which is particularly
22 relevant for this commission, it provided an
23 exemption or an exception for financial
24 disclosure. So everybody on the commission that
25 had to fill out their financial disclosure, it

1 exempted that requirement for members of
2 commission boards and commissions, including this
3 one, that do not handle an annual budget of
4 \$50,000 or receive per diem compensation for their
5 service.

6 So going forward, any of the commission
7 members should not have to fill that out, to our
8 understanding, because again, this commission
9 doesn't handle a budget. And then, of course,
10 there's no provisions at this point for per diem
11 reimbursements and such. And we do appreciate
12 y'all's service in that situation.

13 So those were the -- again, in terms of water
14 resources, a pretty light legislative session and,
15 you know, especially compared to recent years. So
16 those are the main acts that passed through, and
17 again, there were some resolutions, and those are
18 included in the legislative recap.

19 Moving on -- and this touches on a point that
20 Mark made about the need for resources going
21 forward. This is -- I want to provide an update
22 on the expanded groundwater monitoring network,
23 and as some of our long-standing commission
24 members will remember, this group started out as
25 the Groundwater Resources Commission before

1 changing to the Surface Water -- or to the Water
2 Resources Commission after the 2012 session. So
3 really its basis was in groundwater and the need
4 for some oversight and understanding of
5 groundwater needs and resources in the state.

6 So one of the key things that that commission
7 did, an ultimate accomplishment of that commission
8 was, in 2012, a pretty substantial report to the
9 legislature, which Mr. Angelle was very proud of
10 and I know all the commission members that
11 participated in that are very proud of as well.
12 So our new members should have this in their
13 packet.

14 Stacey, do we have some in the back as well?

15 MS. DYKES:

16 (Nodding head)

17 MR. REONAS:

18 So for some of the commission members
19 that perhaps have misplaced theirs over time or
20 any members of the audience, we do have some
21 copies in the back and can provide those for you.
22 They're also available online, as are the past
23 three years, 2013, 2014, and 2015. The Office of
24 Conservation has put together short recaps of the
25 major recommendations and some of the key issues

1 and kind of where things are.

2 So that's just something we've taken on
3 ourselves to update, the big commission document
4 that was put out in 2012 just to update it with
5 these annual recaps, and we do have copies. The
6 2013, the 2014, and 2015 are online as well, and
7 we can provide those. You know, just let us know,
8 or you can go to the Groundwater Resources website
9 and access them that way.

10 Getting back to the main point here, really
11 the number one priority that was highlighted in
12 this report -- in this 2012 report to the
13 legislature was the need for groundwater
14 monitoring, the creation of a substantial and a
15 robust network.

16 What had happened really since the 1980s -- a
17 peak of monitor wells, observation wells, in the
18 1980s that the groundwater network had essentially
19 degraded or deteriorated over time, to the point
20 where we only have about 250 or so monitor wells
21 around the state. And in large portions of the
22 state, we didn't really have a good understanding
23 of groundwater levels, saltwater intrusion, water
24 quality in aquifers that provide, roughly, half of
25 the state's population of their daily drinking

1 water and nourish about two-thirds of the state's
2 agriculture.

3 And this is the point I've hit on in the past
4 at these commission meetings was that we just were
5 basically blind, that we didn't really have a good
6 sense of what was going on in our state's
7 aquifers. And the commission at that time, again,
8 recognized that, and that was really the number
9 one priority -- the number one priority
10 highlighted in this report. There were a whole
11 list of other recommendations, but that was really
12 at the top of the list, the need for an expanded
13 monitoring network.

14 The Department of Natural Resources working
15 with the Office of Conservation, we ended up going
16 out and were able to find approximately
17 \$3 million, three years of funding, 2013, 2014,
18 2015, to expand the groundwater monitoring
19 network. And this was through the Federal
20 Petroleum Violation Escrow Account, and so we were
21 able to, some of the key accomplishments of that
22 funding, add about 350 water level, water quality,
23 and chloride monitoring wells across the state.
24 We were able to provide annual water use
25 statistics and an annual water use report instead

1 of the usual five-year report that had been
2 previously published.

3 So for 2013, 2014, and coming up into 2015,
4 we will have, like, annual statewide water use
5 statistics, which to me are some of the most
6 user-friendly and readily accessible information
7 that's out there; of course, on the technical
8 side, the water -- the observation wells and
9 monitor wells provide a tremendous amount of data
10 up-front.

11 And then we were able to put together -- again
12 working through USGS -- US Geological Survey, were
13 able to begin revising some of the potential
14 potentiometric maps of aquifers around the state.
15 And all of that was part of this DNR contract,
16 again, funded through the Petroleum Violation
17 Escrow Account; some funds were also -- we were
18 able to update some of our surface water
19 monitoring through the Louisiana Geological Survey
20 as well.

21 As noted in previous meetings, there is a
22 need for funds beyond fiscal year 2015. The
23 contract is up this year. We were able to work
24 with USGS to extend the bare bones of the project
25 through the end of the calendar year -- the end of

1 calendar year 2015 to provide essentially to keep
2 the monitoring of the monitor wells in place and
3 focus on that work, which we consider the core of
4 the program.

5 We have put in four separate applications for
6 an extension of funding through June 2016 for this
7 project in the hope that if we can get an
8 extension of that funding that -- coming up in the
9 next fiscal year, we can look to the legislature
10 or some other source to continue this network,
11 because at this point, right now, the program will
12 be winding down. This expanded network program
13 we've basically sort of -- that we've beefed up
14 over the past three years will be coming to an
15 end. There are no more funds available.

16 Like I said, we've put in four separate
17 applications, the PVE. We're waiting to hear back
18 on the last one definitively whether or not they
19 will fund our request for additional monies to
20 carry the bare bones of this network project
21 through June 2016. That's kind of where it sits
22 right now.

23 But beyond that, there are no funds
24 available, and as Mark noted, this research, this
25 data collection, and Karen you can attest to this,

1 it does not come cheap. You want it
2 professionally done, and somewhere, somehow, you
3 know, it needs to be funded. Now, of course,
4 where that money is going to come from and whether
5 or not that's a priority at this point in the
6 state, that's beyond my pay grade, but that's
7 essentially where it is right now.

8 This program will end -- right now as we're
9 speaking, will end at the end of this calendar
10 year. If we can secure some funds through 2016 --
11 through June 2016 from the feds, then we'll carry
12 it through then, but at that point, even if we do
13 get the funds, it will end at that point if there
14 are no other funding sources available.

15 We, basically, really wanted to put that on
16 the record for the commission to understand in
17 their capacity as an advisory body to the
18 legislature and the governor and in their capacity
19 as, you know, members of different state agencies,
20 to understand that this network, that the
21 Groundwater Resources Commission, the precursor to
22 this one, made the number one priority back in
23 2012 in a report to the legislature.

24 DNR was able to go out and find some money
25 and was able to build this network, but that will

1 come to an end, and again, we will be back at a
2 point where, in large portions of the state, we
3 don't have sort of eyes on the ground of what's
4 going inside of our aquifers.

5 And I want to stress this very strongly, I
6 suppose, that in a state that where half the
7 population relies on groundwater for their daily
8 drinking water and two-thirds, roughly,
9 thereabouts, of the state's agricultural districts
10 or agriculture production relies on groundwater,
11 especially Northeast Louisiana and the Chicot
12 Region in Southwest Louisiana are the bread
13 baskets of the state -- it's something that needs
14 to be a high priority. It really falls on this
15 commission, I think, as, you know, the state's
16 body, to provide comment and oversight of water
17 resources in the state, to consider that.

18 And again, we will keep you posted on the
19 outcome of the PVE requests, and that's
20 essentially where we are right now with it. And,
21 again, like, I guess, if there are any comments, I
22 can take those as we go through.

23 MR. DAVIS:

24 How much do you need?

25 MR. REONAS:

1 I think our request for -- our
2 current request through PVE is for about -- is for
3 a little over 300 and -- about \$370,000 is what
4 we're requesting for the bare bones through June
5 2016. And, again, we're kind of in a waiting game
6 right now to hear the final disposition of our
7 most recent request to that fund.

8 But they've been very explicit in saying that
9 no matter what happens, if they grant the request
10 or not, that this is not a source that we can look
11 to in the future for funding. So, I mean, that's
12 a source that -- although their interest is in
13 energy and the energy-water nexus, that this is
14 not the -- I guess they feel like they've given us
15 enough rope here to get us -- or given us enough
16 of a leg up to get started, and at some point, the
17 State needs to pick up the tab in going forward.

18 MR. DAVIS:

19 On a state level, what options do we
20 have? Because I realize that, you know, you get
21 to go to, you know, various mysterious parts of
22 the budgeting processes and different agencies
23 that might do this, that, or the other. But, you
24 know, what alternatives have you identified, if
25 any, for not only getting us through this bump but

1 the next one?

2 MR. REONAS:

3 Well --

4 MR. DAVIS:

5 I share your concern that -- I mean,
6 if we can't fund \$300,000 to do something that's
7 just absolutely vital to the well-being of the
8 future of this state, then I can promise you there
9 are people around this country who are making
10 plans for our water resources that we are not the
11 beneficiaries of.

12 MR. REONAS:

13 I'll go back to the resolution that
14 this commission passed in June 2013. I think at
15 that time, there was a lot of interest in a water
16 plan, and that's sort of the genesis of the
17 current project with the Water Institute that
18 Scott and Ryan talked about earlier, again, sort
19 of putting together sort of an understanding of
20 sustainability and water use around the state and
21 how that is managed.

22 But that resolution in June of 2013, was
23 looking towards -- striving to mesh the coastal
24 master plan with a statewide water resources plan.
25 As you know, Mark, I mean, you can't really get

1 away from the coast in talking. And, certainly,
2 Louisiana is in a different position than really
3 any other state, maybe some of the other Gulf
4 States, but certainly a very different position
5 than in Mississippi or -- maybe perhaps the most
6 relevant would be Florida, but somehow mesh those
7 two together. And I think at that time, the
8 commission was looking towards some of the BP
9 settlement funds. But again, that's sort of still
10 up in the air and that was a resolution that came
11 through this commission -- from this commission in
12 June of 2013.

13 I mean, the other source, of course, would be
14 you know, the State, the legislature, but again,
15 that's a level above me in terms of that --
16 putting that together. But that is where things
17 lie with this groundwater monitoring network and
18 going forward, so . . .

19 MR. SPICER:

20 Matt, Gary, do you think we ought to
21 redo that resolution?

22 MR. REONAS:

23 You know, I'm not sure. I mean, I
24 guess that's up for the commission for debate.

25 MR. SPICER:

1 Karen.

2 MS. GAUTREAUX:

3 You know, I'll echo the words that
4 have been said here today. This is an incredibly
5 important investment for so many sectors across
6 our state. And I want to highly recommend we do
7 that resolution, and I would recommend that we add
8 on even to seeking just -- and I understand the
9 purpose at the time. It was a very good idea,
10 through CPR, especially, I think it was, if I
11 recall correctly, linked to Deep Water Horizon
12 funds at that point.

13 But I'll recommend that we tweak the
14 resolution to reflect the State seeking funds
15 wherever appropriate, and I'm thinking
16 appropriations is one avenue, and I know that
17 there are constraints with state agency staff
18 recommending that, but I highly recommend that we
19 pursue wherever that money can come from, that
20 we -- that the State makes this investment.

21 MR. SPICER:

22 Will you make that in the form of a
23 motion?

24 MS. GAUTREAUX:

25 I'll make it in the form of a motion

1 if someone can say it nicely, yes, that the Water
2 Resources Commission makes a motion, and I'm not
3 sure exactly how it should unfold functionally,
4 that the State of Louisiana pursue continued
5 funding for the monitoring program as prescribed
6 today.

7 And I'm wondering -- and I don't know if this
8 is a separate question, that we look at the other
9 recommendations that are going to be made in terms
10 of that investment. I don't know if you need the
11 break amount or make it one, but we certainly want
12 to encourage funding sufficient to reflect the
13 investment that's needed for sustainable future
14 water resources in Louisiana.

15 MR. DAVIS:

16 I second the motion, whatever it was.

17 MS. GAUTREAUX:

18 Yes. So I guess I would like sense
19 of the commission. Do you want to have a limited
20 motion relative to the groundwater monitoring
21 network at this point and then work on something
22 for the longer term? I mean, I think we need both
23 levels.

24 MR. SPICER:

25 Okay. Yeah, that's fine. Mark, is

1 it agreeable to you that you are seconding the
2 motion she just made?

3 MR. DAVIS:

4 Yes.

5 MR. SPICER:

6 All right.

7 MR. CORMIER:

8 And I just want to put on the record
9 that I think it would be -- in light of the recent
10 announcement of the BP settlement monies, this
11 would probably be a good place to pull some
12 funding for this particular cost.

13 MS. GAUTREAUX:

14 And I don't think I would say don't
15 look there. I would just say if we don't get it
16 there, let's look to other sources as well. Yeah,
17 I agree.

18 MR. CULPEPPER:

19 I would also recommend that it be
20 ongoing so we don't have to do this every year or
21 every few years, so if we can look to some kind of
22 dedicated funding source, I think, we can really
23 definitely work with.

24 MR. REONAS:

25 Well, for that resolution --

1 MS. GONZALEZ:

2 I believe that was in your motion,
3 though, because you said continuous fundings.

4 MS. GAUTREAUX:

5 Right. I was thinking maybe
6 dedicated funding. I think we should look at all
7 potential paths of funding to make this
8 investment, whether it's appropriations, if it's
9 Deep Water Horizon, that, basically, the
10 commission acknowledges that our water resources
11 require an appropriate investment and, you know,
12 we need to find that funding.

13 And I think that my only question was, do we
14 want to open it up to everything we need in the
15 future or specifically with request to this -- I
16 think we do for the future, but specifically with
17 regard to the request for the monitoring. That's
18 all I was asking. Do we need a big one to cover
19 everything, or do you want to go -- and I think we
20 need both.

21 MR. SPICER:

22 Okay. Gary, would you like to --

23 MR. SNELLGROVE:

24 Yes, sir. Yes. I just would like to
25 offer -- or the commission to maybe clarify.

1 Certainly, the Office of Conservation can meet the
2 effort on researching and investigating these
3 opportunities. Would it be appropriate for the
4 commission to authorize the commissioner to -- and
5 his staff to investigate this instead of having --
6 it sounds like it's -- you guys are probably not
7 going to sit around today and come up with a
8 resolution that you could probably vote on, but it
9 would be great if you could, but I'm just
10 imagining that the level of details that would be
11 there are needed to collectively, as a body, look
12 into that.

13 So maybe, what I'm suggesting, of the
14 commission would be to maybe look at the Office of
15 Conservation to -- you've tasked us to take that
16 lead, and let us go out and get something back to
17 you guys, you know, within a reasonable time
18 frame.

19 MS. GAUTREAUX:

20 Well, what I'd like to suggest is,
21 number one, that we make a motion to support
22 pursuing funding for this -- the monitoring
23 network and make it a priority. And I think the
24 second idea is a good one in terms of having a
25 little better wordsmith on the long-term

1 dedication just so everyone is comfortable with
2 the language.

3 MR. SPICER:

4 What would be great, then, also, is
5 that we would have that available to us for the
6 December meeting. That would give us time for the
7 legislature to --

8 MS. GAUTREAUX:

9 So do we want to -- on the
10 short-term, do we want to vote on that today, just
11 the short-term funding, that the State prioritize
12 continuing to fund the monitoring network? I
13 think that --

14 MR. SPICER:

15 Well, if we do the resolution to ask
16 the commission staff to develop a proposal or a
17 resolution for us to vote on in December, and I
18 don't know if we need any --

19 MS. GAUTREAUX:

20 I guess that's my question. Is it
21 helpful for the purposes at hand to have an
22 expression from the commission on that monitoring
23 network at this point, or is there something that
24 can be blended in to make it more nicely worded by
25 our December 18 meeting, which I don't object to.

1 MR. DAVIS:

2 Well, if I heard correctly, the
3 current arrangement runs out at the end of this
4 calendar year. That would give us essentially one
5 week in a holiday period, you know, for that
6 resolution to have effect and mean much. I mean,
7 I would very much prefer, you know, to go on
8 record today saying -- at least I, as a
9 commissioner, believe that, you know, it is
10 imperative that we find the resources from
11 whatever source to continue that monitoring
12 program. That would be my first thing.

13 Then I would be very, you know, interested in
14 directing, you know, the commission staff through
15 the Office of Conservation to develop a more
16 comprehensive resolution for future resource, you
17 know -- resourcing of this work for consideration
18 in December, where we can actually have
19 wordsmithed it, thought it through, and then
20 really be aiming at the next administration and
21 legislature.

22 But it really -- I would not feel that I was
23 doing my job as a commissioner if I waited, you
24 know, on that first piece. I think that it -- you
25 know, not only is it vital to have that

1 information, but I think the message that we would
2 send to others -- and if we were to allow this
3 effort to even pause for lack of \$300,000 --
4 370,000, I don't want to be part of that message.

5 MR. SNELLGROVE:

6 I'll clarify for the record. I did
7 get word from our grant folks that the BP funding
8 will be available for our use, this 370, through
9 the end of June of 2016, but again, that is a --

10 MR. DAVIS:

11 We are extraordinarily effective, are
12 we not?

13 MR. SNELLGROVE:

14 So good news on that front, so -- but
15 not to water down the sense of urgency. I respect
16 that. And, certainly, I want to make sure that
17 you guys understand that we will be out of the
18 PVE, but as Matt had stated earlier, we do not
19 expect to be able to have any opportunity in the
20 future beyond this -- this fiscal year -- to the
21 end of this fiscal year to use that PVE funding
22 for this purpose.

23 MR. SPICER:

24 So then I guess it's appropriate to
25 do a short-term resolution? Anybody?

1 MR. DAVIS:

2 I like it. I mean, I just think it's
3 important to make sure that we're on the record
4 showing that we think, you know, that effort goes
5 forward. And, quite frankly, you may find out you
6 need more resources. I don't know, but I'm saying
7 I'll yield to the rest of you. I'm glad to hear
8 that information, Gary. That makes me feel a
9 whole lot better but not enough to, you know,
10 trust that future.

11 MR. SPICER:

12 Well, it's up to the commission,
13 whatever you want to do. It's nice to know we do
14 have time, and if we do it in December, then
15 that's gives the opportunity to work with the
16 legislature, so -- Ms. Mitchell.

17 MS. MITCHELL:

18 Yeah, I was just going to ask if the
19 370 -- if you believe that it's sufficient to get
20 you through June of '17 -- of '16.

21 MR. REONAS:

22 That would cover the core monitoring.
23 We didn't drop them off the water use reporting,
24 which again, DOTD had been compiling that for USGS
25 every five years. Again, a lot can happen in the

1 span of five years. We can miss a lot. Then you
2 would also -- we had also cut out the
3 potentiometric map revisions. A lot of stuff
4 hasn't been really revised since the 1980s, 1990s,
5 so a lot of it is out-of-date.

6 But you get the -- you keep the
7 core monitoring program, the groundwater network,
8 and the surface water network improvements that
9 were a part of this whole package, so you keep
10 that intact.

11 And that's really the key part of it in terms
12 of having that consistent record over time of
13 water levels and trying to understand what's going
14 on inside our aquifers. Is it just sort of a
15 temporary drawdown, is it a recharging, or is it
16 something more serious that we're seeing in terms
17 of a water level decline in specific aquifers?

18 And that was the real issue is that some
19 areas in the state, in particular -- as I'll talk
20 about here in a minute, some areas of the state
21 have a very detailed and long-scale history --
22 monitor history, East Baton Rouge Parish and the
23 Capital -- Capital Area Groundwater Conservation
24 District, because there's certain issues here
25 locally. There is a strong, consistent record

1 going back. Other parts of the state, it's just
2 not the case, and that was really what this was
3 trying to improve, monitoring those areas that
4 really hadn't had a consistent record. But so
5 that will keep the program intact into -- the core
6 program intact into June 2016.

7 MR. SNELLGROVE:

8 I would add that that knowledge of
9 you mentioning bare bones, as Matt has put it,
10 it's nowhere near the level of the first three
11 years that we had pursued and were able to fund
12 with USGS and LGS. That was more like a million a
13 year.

14 MS. MITCHELL:

15 Sure.

16 MR. SPICER:

17 Thank you. Any other questions or
18 comments?

19 MS. GAUTREAUX:

20 Well, I'm just wondering now, FY
21 '16 -- I was thinking December. I don't know. I
22 certainly think we have affirmation that there is
23 concern that this should be a priority. We're not
24 running out of money on December, and so I would
25 be -- if people are more comfortable with having

1 it researched by staff and coming back at our
2 December meeting, understanding that we all agree
3 this is a priority, I withdraw my motion, if
4 that's --

5 MS. MITCHELL:

6 And that's where I was going with the
7 question, to follow up on Karen's comment, is that
8 if it's not as urgent and if we can still get
9 through carrying out the core function, that we do
10 come back in the December time frame with a more
11 thought-out and thorough and detailed resolution
12 that we can all look at.

13 MR. SNELLGROVE:

14 I'll mention this, too. The December
15 date, the next commission meeting, is very
16 tentative, you know. If needed, we could convene
17 definitely before then. We can come back in
18 October. I would recommend sometime, you know,
19 well in advance of Thanksgiving. And then again,
20 if there is another need thereafter, we can meet
21 again in December to polish things up. But that's
22 very flexible, and we're here to administrate that
23 and whatever the will of the commission is.

24 MR. WELSH:

25 Gary, this must be pretty new

1 information, the availability of the PVE.

2 MR. SNELLGROVE:

3 It came in 10:00 a.m., earlier this
4 morning. There was some discussion as to whether
5 or not what was reported was definitive, and we
6 had gotten clarification, and it came in just --

7 MR. WELSH:

8 That's great. For you that don't
9 know, this was a very tight thing going on. We
10 weren't getting very favorable responses, but this
11 is very good. I'm glad to hear it. I'd like to
12 thank the Department of Natural Resources staff,
13 the secretary and his staff, for working hard on
14 that to get that PVE money approved. So I thank
15 y'all very much.

16 MR. SNELLGROVE:

17 Yes, sir.

18 MR. WELSH:

19 Good.

20 MR. SPICER:

21 Any other comments?

22 MR. REONAS:

23 So just to clarify, is the commission
24 staff, Gary, myself -- y'all would like for us to
25 put together a resolution -- a short resolution

1 that could be considered at the next meeting?

2 That's the case?

3 MR. SPICER:

4 Yes.

5 MR. REONAS:

6 Fair enough. Okay. Well, staying in
7 the realm -- staying in the realm of data and its
8 importance, the Agency also wanted to update the
9 commission on its efforts to improve water well
10 registration and ownership data in the state.

11 As most of you are aware, the State did
12 not have a comprehensive new water well
13 registration requirement until the mid-1980s,
14 1985. So many private domestic wells at that time
15 that were already in existence were grandfathered
16 in. And as we have noted in some of the previous
17 updates for the commission, there are essentially
18 an unknown number of unregistered, undocumented
19 water, private -- mostly private domestic wells
20 that are out there.

21 Now, currently in our database, which we took
22 over from DOTD and continue to update and make
23 accessible, we have more than 200,000 water wells
24 around the state in our database right now, but we
25 do know that there are ones that are not

1 registered, and that's something that we have
2 tried to work through and tried to determine ways
3 to get those registered or provide education to
4 people that own those wells as to why it would be
5 beneficial for them to register their wells.

6 And going back to this 2012 report to the
7 legislature, the then Groundwater Resources
8 Commission encourages our agency, Office of
9 Conservation -- I'll just do a direct quote
10 here -- quote, to pursue innovative ideas to
11 encourage well owner registration of any water
12 well still in existence but previously not
13 required to be registered with the State under
14 Louisiana Administrative Code Title 56, our water
15 well codes.

16 The registration program is working
17 efficiently. Again, we're digitizing records all
18 the time, providing that online, updating the
19 records as they come in, and being very proactive;
20 however, one of the issues that we've encountered
21 and that we know is a problem that's out there is
22 the failure of water well owners to properly
23 transfer well ownership when they sell their
24 particular property, whether that's -- whether
25 that's, you know, a residence, a farm. So we

1 encountered this particularly in the South Caddo
2 groundwater emergency situation where a lot of our
3 contact information for well owners was not
4 up-to-date.

5 So, basically, a well owner will, you know,
6 provide registration to us with their contact
7 information, name, you know, address, phone
8 numbers, that kind of information. The problem --
9 we have a well transfer document, the problem
10 being that a lot of private well owners were
11 not -- when they sell their property, were not
12 providing that well transfer -- well ownership
13 transfer documentation to us so that we can update
14 our information on that particular well as to who
15 the contact is. And during the groundwater
16 emergency in South Caddo, that came to our
17 attention, and it's something that we know is out
18 there and know is an issue.

19 One of the things we highlighted, again going
20 back to the Groundwater Resources Commission
21 recommendation, was potentially an avenue to reach
22 out through the Louisiana Real Estate Commission,
23 which oversees the transfer, buying, and selling
24 of residential properties. And again, we know
25 that one of the areas that probably where most of

1 these unregistered wells are and probably where a
2 lot of these out-of-date ownership documents are
3 is in the, you know, domestic -- private domestic,
4 residential sector.

5 Really, what we're talking about is an
6 education and awareness issue. A lot of owners
7 really don't -- once they put in the well, they do
8 some operation and maintenance, and once it's
9 registered with the State, in their mind, it's
10 probably the end of the line. That's the last
11 they'd have to think about it; of course, in the
12 regulations, what we require of them is a transfer
13 of the ownership of that well when they sell the
14 property. And again, like we said, you know,
15 that's an area where we realize there needs to be
16 an improvement.

17 We reached out to the Real Estate Commission
18 after doing some research on them and as a
19 potential partner in creating an avenue for
20 education and awareness with well owners. They
21 had, on some of their non-mandatory forms -- they
22 have, of course, mandatory forms and then
23 non-mandatory forms.

24 The non-mandatory forms -- and, Jake, you
25 could probably comment on this if you wanted to,

1 but they had some non-mandatory disclosure forms
2 on package sewer systems, basically, home sewer
3 systems, as well as water wells come up from a
4 water quality and drinkability point of view, not
5 so much from a registration or sustainability
6 point of view that the Office of Conservation is
7 interested in.

8 Recognizing that those forms are online and
9 available, we thought it would be probably a smart
10 idea to reach out to the Real Estate Commission to
11 see if we could have our well owner transfer
12 document and some educational information on well
13 owner responsibilities provided as well through
14 that forum, through the Louisiana Real Estate
15 Commission.

16 So Gary and I went over to their meeting in
17 April. We laid out a presentation, which, I
18 believe, is included in the packet, a PowerPoint
19 presentation, which is included in your packets.
20 If not, I can make it available as well.

21 One of the questions they raised, and this is
22 probably a good one from their perspective, was
23 whether or not, if we provided them these well
24 owner transfer forms, would realtors be liable for
25 enforcement. And, of course, we wanted to make

1 clear to them that we weren't interested in making
2 them liable for, you know, Office of Conservation
3 enforcement actions or anything of that nature.
4 We were just really wanting them to see if they
5 could assist us in fulfillment of our mission.

6 And they were amenable to creation of sort of
7 some non-mandatory forms, the well registration,
8 well owner transfer forms, as well as an education
9 document, and even working with some of the
10 realtor schools to provide some awareness on well
11 owner responsibilities.

12 They did ask us to investigate two specific
13 options. The first was reviewing conveyance
14 records at the Parish Clerk of Court Offices --
15 for us to go back and look at conveyance records,
16 property transfer documents as they take place.
17 And that was the first recommendation, and just
18 from a staff and time perspective, that is just
19 unfeasible. I mean, we just don't have the time
20 or staff to go back through every Parish Clerk of
21 Court and look at every property transfer that's
22 out there for one that matches up with our files
23 for having a well.

24 The second would be reviewing any parish
25 health office water well quality report. So the

1 parish health offices at the local level, the
2 parish sanitarians will sometimes get calls to go
3 do water quality tests before a property is
4 transferred, you know, between a buyer and a
5 seller. Those are public record documents, but
6 from talking with Office of Public Health, they're
7 not really kept in a standardized database that
8 would be useful in terms of searching and
9 cross-referencing, nor are they complete in
10 terms -- in the sense that it's sort of haphazard.

11 So a particular buyer or seller would say,
12 "Hey, I want a certification that this well water
13 is of good quality," and so they would contact the
14 parish health office. The parish sanitarian would
15 run, you know, a quality water test, but that's
16 not for every property transfer, by any means; so
17 it's really sort of a haphazard process. Maybe
18 that's the wrong word. I don't mean to cast
19 dispersion on the parish health offices, but it's
20 an incomplete database in that sense.

21 So really what we ended coming up with was
22 to -- our goal, our next step, is to complete --
23 you know, provide them with the document -- the
24 well owner transfer and registration documents, an
25 educational piece that can be put online along

1 with those documents and also distributed to some
2 of the realtor schools to let the realtors at
3 least have an understanding of what they're
4 dealing with when they come across water wells.

5 It was a real interesting meeting, as Gary
6 can attest to. They had some very sharp
7 questions, and one of the commissioners even noted
8 that she had a couple of unregistered wells out
9 there. And I asked her if we could register them
10 that very day, and she's like, "I don't think my
11 husband would appreciate us doing that."

12 So in some ways, that was an interesting
13 back-and-forth and, I think, shed some light on
14 some of the issues that we do have in dealing with
15 private well owners, especially domestic well
16 owners, that, once they get the well in, they've
17 done their minimum requirement of notifying the
18 State. That's as much as they want to have to do
19 with the State. They want to leave it at that.

20 But again, it's very important for us from an
21 emergency communication standpoint to know who
22 owns those wells so that in a situation, as I'll
23 discuss in a minute, with the South Caddo
24 groundwater emergency situation, we know who to
25 contact, and we know who to reach out to and

1 advise as to specific issues and specific
2 restrictions. So that's kind of where that's at.

3 They did also mention -- provide us another
4 useful outreach opportunity, and that was to the
5 Home Inspectors Board, again doing some education
6 with them as well on well owner responsibilities.
7 So that's something we're pursuing, also, in
8 trying to meet that recommendation from the
9 Groundwater Resources Commission to pursue
10 innovative means, to reach out to registered and
11 unregistered wells.

12 Well, I must have the wrong PowerPoint. Let
13 me -- and I apologize for that. The correct
14 PowerPoint is in your packets. My next point I
15 wanted to talk about -- and this is not following
16 the lead here -- the slide here, but I want to
17 talk about the Sparta Aquifer in North Louisiana.

18 Sparta is one of our key management
19 priorities. We have three groundwater areas of
20 concern in that regional overlay, and that came
21 about in 2005. Those areas of concern were
22 authorized by the commissioner.

23 MR. SNELLGROVE:

24 Is this it?

25 MR. REONAS:

1 Yeah. Great. Fantastic. We must
2 have gotten the wrong draft loaded up.

3 So the Sparta Aquifer, again, North Central
4 Louisiana, approximately 200, 250,000 people that
5 utilizes Sparta for their drinking water. The
6 issue that had been highlighted to us and
7 highlight by the Sparta Commission, the
8 Groundwater Conservation Commission in North
9 Louisiana again was declining water levels.

10 The Commission of Conservation created three
11 areas of concern -- groundwater areas of concern
12 in 2005. In those areas, the consumers are -- the
13 large consumers provide monthly reports on their
14 water usage to make sure that we're trying to meet
15 our sustainability goals in that area. What we've
16 seen since the Sparta Commission got involved and
17 since the creation of those areas of concern has
18 been a -- has been an improvement in water levels
19 pretty much across the board through the monitor
20 wells that USGS has collected.

21 Since the creation of -- there's been a lot
22 of work in South Arkansas, which is also -- which
23 has also helped the deficit situation. Also, you
24 have the West Monroe Water Reuse Project that came
25 online recently, and they're still using -- that

1 basically took three to four million gallons of
2 groundwater that they had been using every day,
3 and moved that to surface water use. So that was
4 a very creative and innovative solution to that
5 problem for which they received national
6 recognition, I will add.

7 So what we've been following again is, across
8 the board in the Sparta, strong -- well, strong
9 increases in water level improvement. Again, in
10 terms of sustainability, you're still running a
11 deficit in terms of your overall use versus
12 recharge. The water levels are still lower than
13 they have been right after historic highs, but
14 they've improved from their lows that they hit in
15 the late 1990s and early 2000s. So the Sparta
16 situation is something, again, we continue to
17 monitor, continue to work with the Sparta
18 Commission in North Louisiana and their projects.

19 The next slide, which, again, we'll wait for
20 a minute to get to this one, was dealing with the
21 groundwater area of concern in South Caddo Parish.
22 What you saw following the drought situation in
23 2010, 2011 was pretty severe water level declines.
24 That was an area where we, in fact, didn't have a
25 lot of eyes in the ground, a lot of observation

1 wells in the ground, to really understand what was
2 going on beforehand. Only in the situation when
3 water wells began to run dry did it become sort of
4 an emergency situation, and the Commissioner of
5 Conservation, under his authority, issued an
6 emergency order that restricted use and restricted
7 the creation or installation of new wells -- water
8 wells in the two areas of concern South of
9 Shreveport, the Keithville area and the Ellerbe
10 Road, South Shreveport area.

11 What we've seen, and, Fred, this goes back to
12 your note from earlier, all that rain -- our last
13 update that we provided in May of this year, back
14 in the spring. Through the first four months of
15 the year, the cumulative rainfall in that neck of
16 the woods was almost eight inches above the
17 historic average, so a tremendous amount of rain
18 that had come through.

19 And once you started to see -- and again,
20 we're working very closely with USGS and the Red
21 River Watershed Management Institute out at LSU
22 Shreveport. What you're really seeing there, the
23 shallow wells, you're seeing that recharge very
24 quickly. That rain is having a pretty strong
25 impact. The deeper wells, the recharge obviously

1 takes much longer.

2 The Office of Conservation, looking at all of
3 that information, seeing those improvements, will
4 be -- as we updated the commission previously, we
5 ended up relaxing the order, the restrictions and
6 the use, last year. Actually, last summer, last
7 June, we ended up relaxing that order to allow for
8 normal use again.

9 Although we did keep the order in place, we
10 want people to, again, continue to conserve water
11 and be aware of it. And we did maintain that any
12 installation of new wells had to come through the
13 Office of Conservation. We had to do an
14 evaluation process. So the order is still in
15 place, but in terms of regular use, that has been
16 sort of allowed again under the amendment to the
17 original groundwater emergency order. And so
18 that's essentially where Caddo is right now South
19 Caddo.

20 And for us, what we ran into, going back to
21 the need for contact information on those wells,
22 again, South Caddo was really sort of a -- sort of
23 a first for us in terms of trying to reach out to
24 local well owners in a specific district and a
25 lot -- in many cases, the well owner information

1 we had did not match up with the current owner.
2 And that's, again, an issue that we know was an
3 ongoing subject of concern going forward,
4 something that we need to continue to work towards
5 and provide education on and try to provide some
6 outreach to keep that -- to keep well owners
7 understanding what their responsibilities are
8 under state law.

9 Now, I guess, moving on to the slide we have
10 here, another area of interest with the Office of
11 Conservation, the Baton Rouge area, and all of
12 y'all have heard updates, are from the Capital
13 Area staff, from USGS over the years. I want to
14 just kind of provide an update on the current
15 situation from our perspective. I actually sit as
16 the commissioner's representative on that board --
17 on the Capital Area Groundwater Conservation
18 Board. And what we're seeing is a lot of
19 action -- positive action in the past couple of
20 years.

21 In particular, it's an important issue
22 because you're talking about, roughly, 10
23 percent -- 10, 11 percent of the state's
24 population that is within this five-parish
25 district, Pointe Coupee, East and West Feliciana,

1 West Baton Rouge and East Baton Rouge. About 10
2 percent of that population -- 10 percent of the
3 state's population here, right in East Baton Rouge
4 alone, 440-and-some-odd thousand, and across the
5 district -- that five-parish district, it's
6 500-and-some-odd thousand. So a pretty
7 substantial portion of the state's population --
8 and, of course, you're talking about economic
9 interests here in the Baton Rouge area,
10 population, all that is -- or the vast majority of
11 that is dependent on groundwater -- utilizes
12 groundwater for public supply, for industrial use
13 in the parishes on the periphery, outside of Baton
14 Rouge, for agriculture use as well, so a huge
15 issue from an economic and public supply concern.
16 The issue, in particular, in Baton Rouge is
17 saltwater encroachment across the Baton Rouge
18 fault, as Scott mentioned earlier.

19 Again, what you're -- let's see. Let me skip
20 on to the next one. What we're seeing is that the
21 Capital Area Groundwater Commission is moving
22 forward with its plans -- its management plan that
23 was passed just this past year in terms of its new
24 management plan. The Groundwater Commission
25 includes representatives of state government

1 agencies, local parish -- local parish
2 governments, industry, public supply.

3 The commission is moving forward in its
4 management plan. Again, what it's authorized in
5 the past several years has been restrictions in
6 use in the 1,500- and 2,000-foot sands, a cap on
7 the amount of water -- groundwater that can be
8 pumped out of those two sands. And those are the
9 two -- essentially, the two problem sands in Baton
10 Rouge. You have one, the 1,500-foot sand.

11 You have a large cone of depression around
12 the public supply center of Lula Street Station.
13 Roughly, 20 percent of Baton Rouge Water Company's
14 production comes out of that well field. The
15 2,000-foot sand, the cone of depression is in the
16 Industrial District. And so those are two really
17 crucial sands at this point in time that
18 management action is being pursued.

19 Probably one of the most important things
20 that this commission has done is to contract with
21 USGS and find the funding to do comprehensive -- a
22 ten-year comprehensive modeling program in each of
23 the aquifers underneath the city -- in each of the
24 aquifers or sands underneath the city to
25 understand groundwater levels and flow, as well as

1 saltwater intrusion into those sands and, from
2 there, pursue management actions for each of those
3 sands.

4 So the two crucial ones, the 1,500- and
5 2,000-foot sands, the management actions have been
6 caps on the production. In the 1,500-foot sand,
7 the commission authorized the installation of a
8 scavenger well system by the Baton Rouge Water
9 Company, which has been in operation for going on
10 a year and a half, going on two years, I guess,
11 now, at this point in time, which is, again,
12 geared towards -- geared towards removing
13 saltwater, remediating at least the saltwater flow
14 towards those crucial -- that crucial well from
15 the Lula Street Station.

16 In the 2,000-foot sand, the commission is
17 moving forward with its plans to install a
18 scavenger well in that sand as well. Again, at
19 the recommendation of the US Geological Survey,
20 and I'll quote from one of their most recent
21 documents from June of 2015, the modeling results,
22 quote, suggest that installation of scavenger
23 wells are more effective in controlling saltwater
24 intrusion than reductions to industrial and public
25 supply withdrawals.

1 So, again, utilizing science, as seen in
2 those models from the USGS, the commission is
3 moving forward with the installation, the
4 funding -- the funding process first and then the
5 creation of observation wells to figure out the
6 best place to put that scavenger well and then,
7 ultimately, the installation of a scavenger well
8 in the 2,000-foot sand as well to scavenge that
9 saltwater away from the main well fields. And
10 that's essentially where things are at right now.

11 I did enclose in the packets the letter that
12 went out in July to the district users, the users
13 in the Capital Area statutory rules -- Capital
14 Area Statute defines user as a well owner
15 producing 50,000 or more gallons a day out of a
16 specific well. So, mostly, that's -- primarily,
17 that's your public supply and industrial users,
18 not small-scale domestic -- domestic well owners.
19 And that was to gauge the users' understanding of
20 the need for a 2,000-foot scavenger well and the
21 funding options that were available to the
22 commission to move forward on those plans.

23 And so, essentially, that's where the
24 situation is at right now. There will be a
25 September meeting. I'm sure we'll get an update

1 on that -- on that process at that meeting. And
2 on that note, I'll take any questions or comments.

3 MR. SPICER:

4 Any questions or comments? Fred.

5 MR. ZAUNBRECHER:

6 Matt on your Sparta Aquifer
7 presentation, your last bullet point stated that
8 the water levels have been improving since 2005.
9 Has there been less usage from there, or why have
10 the levels improved?

11 MR. REONAS:

12 Well, on one hand, I think you're
13 seeing a more conscientious effort towards
14 conservation and understanding water use.
15 Certainly, having to fill out the water use
16 reports on a monthly basis, I think, probably
17 draws water managers' attention to that, but then
18 you're seeing a lot of reuse efforts.

19 Just right across the border in Arkansas,
20 Union County Water Conservation Board has been
21 very active. El Dorado, that neck of the woods,
22 they've been very active, basically, huge
23 increases, and some of that has trickled down into
24 Louisiana as well since that's a major recharge
25 area for the Sparta.

1 And then, of course, in the Monroe area --
2 West Monroe area, you're seeing -- when the water
3 use plan with graphics packaging came online, I
4 think the estimate was maybe up to 10 million
5 gallons a day that you're pulling out of that
6 groundwater used that's going to get switched over
7 to surface water. I don't think it's ever hit
8 that number. I think that the average has been
9 more in the three to four million gallons a day.
10 But still that's a substantial amount of reduction
11 in groundwater use, and so that's really what
12 you're seeing.

13 And, again, you're talking about -- from here
14 you're still talking about a deficit, but you're
15 seeing an improvement in those levels, which is,
16 again, managing the situation from our point of
17 view. You know, not doing any more damage in some
18 ways it's how we gauge sustainability, not doing
19 any more -- we've already had a situation. How do
20 we prevent doing more damage going forward, and
21 how do we start to improve the situation, if
22 possible?

23 And again, the Sparta Commission has been
24 very active in their neck of the woods, Rick Holt
25 and the commission as a whole. They've been very

1 active in education, awareness, and working with
2 local industry to, again, be more conscientious
3 about their use.

4 One of the other -- and I don't really have
5 an update on this. One of the more interesting
6 findings we've been monitoring up that way was the
7 Union-Lincoln Regional Water Supply Initiative,
8 which the goal of that was to pull -- move
9 Farmerville and Ruston -- move them from
10 groundwater to surface water, pull from Lake
11 D'Arbonne.

12 And that was a project that was kind of
13 getting some traction last year. As I understand
14 it, I think they put in for some funding through
15 Capital Outlay. Like this previous year, I think
16 maybe Senator Landrieu, before she left office,
17 had tried to secure some federal funds, but I
18 don't really know where that's at right now, but
19 that's something we were kind of monitoring in
20 terms of another source that -- for surface water,
21 replacement of groundwater resources.

22 MR. MORGAN:

23 I can give you an update on that.

24 MR. REONAS:

25 Hey, Dan. A pleasure to have you.

1 We've got you a seat right over here.

2 MR. MORGAN:

3 Well, I know. The one-way streets
4 and can't find a parking spot, I'm late. I'm
5 sorry.

6 MR. REONAS:

7 That's okay.

8 MR. MORGAN:

9 But anyway, concerning the
10 Union-Lincoln Water District, --

11 MR. REONAS:

12 Yes, sir.

13 MR. MORGAN:

14 -- right now we're trying to -- I'm
15 not on that commission, but presently, I'm the
16 Secretary-Treasurer of the Union Police Jury. So
17 presently -- so I hear about it all the time.
18 They're still trying to negotiate or finalize the
19 deal to buy a piece of property in the Old State
20 Park --

21 MR. REONAS:

22 Right.

23 MR. MORGAN:

24 -- is where they want to put that.
25 That's what's holding them up is to get that piece

1 of property. And then they're trying to get the
2 Capital Outlay, and they go -- they're going to
3 Washington lobbying hard trying to get the money,
4 which is going to be billions of dollars to build
5 that plant, --

6 MR. REONAS:

7 Right.

8 MR. MORGAN:

9 -- the new pipeline to Ruston.

10 MR. REONAS:

11 Right. So that's very good
12 information. That's kind of how we understood
13 it -- as to my information, that's kind of where
14 it stood, that they are taking some Old State
15 Park's property, which, I believe --

16 MR. MORGAN:

17 Part of it -- the biggest part of it,
18 they're going to develop, we assume, a
19 subdivision. We really don't know.

20 MR. REONAS:

21 Right. Lake Front Property?

22 MR. MORGAN:

23 Uh-huh. Right.

24 MR. REONAS:

25 Right.

1 MR. MORGAN:

2 Right. But we got -- or they got up
3 the hill, and they're going to have to come down
4 with a pipeline and put a pump. They've got a
5 little area right down at the water to put a pump
6 so they can go under the lake and then head toward
7 Ruston.

8 MR. REONAS:

9 Well, that's another project we've
10 kind of been keeping our eyes on just, you know,
11 again that would be a pretty substantial reduction
12 in groundwater use out of the Sparta and, again,
13 from a pretty robust source, Lake D'Arbonne,
14 which -- great bass fishing, so . . .

15 MR. MORGAN:

16 And I'm not an engineer. I don't
17 understand. I'm an accountant by trade, so
18 engineering kind of goes over my head, but they
19 say that it won't take that much water off that
20 lake a day for Ruston and Lincoln. They lose as
21 much in evaporation as what it's going to do,
22 according to them.

23 MR. REONAS:

24 Right.

25 MR. ZAUNBRECHER:

1 Thank you.

2 MR. REONAS:

3 Yes, sir.

4 MR. SPICER:

5 Any more comments or questions?

6 (NO RESPONSE)

7 MR. SPICER:

8 Okay. Thank you, Matt.

9 MR. REONAS:

10 Yes, sir. Thank you.

11 MR. SPICER:

12 Excellent report. Appreciate it.

13 Next on the agenda is I'm going to give a brief
14 report on the Southeast Arkansas/Northeast
15 Louisiana Boeuf-Tensas Feasibility Study. Thanks
16 to DOTD and Chris Knotts, a member of our
17 commission, we've got the funding for that through
18 their Capital Outlay Program.

19 That money was moved to the Morehouse Soil &
20 Water Conservation District, which is the
21 responsible local unit of government for -- the
22 local sponsor for Louisiana. The cost of the
23 study is 300 -- \$300,000, and Louisiana is putting
24 up half of it, and the Arkansas Natural Resource
25 Commission is putting the other half up.

1 We've drafted a final draft for the scope of
2 work for the Corps of Engineers, and we'll be
3 reviewing that with the Corps Wednesday afternoon
4 in Greenville, Mississippi. So, hopefully, at
5 that point, maybe by late September, we might have
6 work started on the project.

7 And for those that are not familiar, the
8 purpose of this study is to see if there's
9 sufficient water and a way to convey it out of the
10 Arkansas River near Pine Bluff, and then go into
11 Corps of Engineer canals and then move on through
12 the system and to furnish water for the Ouachita
13 and Boeuf Rivers and Bayou Macon and bring water
14 in to Northeast Louisiana.

15 We have, roughly, 800,000 acres that's
16 irrigated up there -- cropland irrigated, and we
17 have another 700,000 acres that's not. So it's
18 pretty important to get the -- if you have an
19 opportunity to move water in the area, it's
20 critical to get it there.

21 In recent years, they've had issues with
22 saltwater in the alluvial aquifer up there and
23 also right on the edge in Macon Ridge all through
24 the alluvial plain, so it's critical to try to get
25 more water in that area. This is -- that's the

1 Fifth Congressional District. That has more row
2 crop agriculture than any other district in the
3 US; so it's an important area. And, of course,
4 we'll be looking at water for industry and
5 agriculture in the Southeast and servitude.

6 But if any of you are familiar with the
7 district and some of the streams up there, there's
8 some beautiful streams that, over the years, have
9 really deteriorated. So we're trying to look at
10 the ecological functions of those streams to make
11 sure we can get those reestablished to something
12 that will be beneficial to the area.

13 So we've formed a committee. The Morehouse
14 Conservation District, as I said, is the local
15 sponsor, but they didn't want to move out on this
16 on their own, so they formed a committee made up
17 of eight members, one is a farmer. The at-large
18 selected him. Then the State Soil & Water
19 Conservation Commission has a member on the
20 committee, and then each of the seven districts --
21 or six districts have a member.

22 So it's well represented throughout the area.
23 There's eleven parishes involved in the area, all
24 of those parishes between the Ouachita River and
25 the Mississippi River. So, hopefully, by December

1 we'll have some work completed.

2 So any questions you would like to try to
3 answer? Yeah.

4 MR. REONAS:

5 Most of those irrigated acres, would
6 that be out of groundwater out the Mississippi
7 River alluvial, or do they --

8 MR. SPICER:

9 Yeah, most of it is groundwater. So
10 that's the other thing. If you have surface
11 water, it's so much cheaper to pump surface water
12 than it is groundwater.

13 MR. REONAS:

14 Yeah.

15 MR. SPICER:

16 And there's no issue with salt, so a
17 lot of advantages.

18 MR. SPICER:

19 Any other questions?

20 (NO RESPONSE)

21 MR. SPICER:

22 If not, did we get any public
23 comments?

24 MR. VANDERSTEEN:

25 Mr. Acting Chairman, good afternoon,

1 members. My name is Buck Vandersteen. I'm with
2 the Louisiana Forestry Association, and I'll fill
3 out a white card in a minute, but this discussion
4 has been very informative.

5 As we talk about the recharge areas, I think
6 about the millions of acres of forest and farmland
7 that cover the state, and every drop of water that
8 hits the ground runs through the forest and runs
9 through our agricultural lands.

10 The best management practices that farmers
11 and foresters do are to protect our water
12 resources, to keep the water from running quickly
13 away, to soak into the ground, to recharge our
14 aquifers, or to run slowly into our streams so
15 that it's accessible later on for use.

16 I hope that Scott and his team that are
17 putting together the sustainability of the
18 resource don't forget to look at what the private
19 landowners are doing, farmers, the forest
20 landowners, through best management practices to
21 safeguard the water resources of Louisiana.

22 And I hope we find some way to recognize them
23 for their contributions, more than half a million
24 people dealing with farm and forestry in the
25 state, and I think it's worthwhile to recognize

1 the contribution that they make to Louisiana.

2 MR. SPICER:

3 I certainly agree with that. By the
4 way, The Nature Conservancy is using land use in
5 their model -- in the freshwater model, land use,
6 as well as soil. It will make a big difference in
7 the outcome. Did you want to make any comment?

8 MS. GAUTREAU:

9 No. I just think it's a point
10 well taken, and thank you, Brad. That's very
11 true. That's part of the perimeters for our work.
12 Thank you.

13 MR. DAVIS:

14 Thank you.

15 MR. SPICER:

16 Any other comments?

17 (NO RESPONSE)

18 MR. SPICER:

19 If not, do I have a motion to
20 adjourn? Chris Knotts. Mark Davis. So we are
21 adjourned.

22 MEETING ADJOURNED AT 1:18 P.M.

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REPORTER'S CERTIFICATE

I, Karla H. Mayers, Certified Court Reporter in and for the State of Louisiana, do hereby certify that the foregoing is a true and correct transcript of Water Resources Commission Meeting held on the 17th day of August, 2015, as set forth in the forgoing 115 pages.

I further certify that said testimony was reported by me in the Stenotype reporting method, was prepared and transcribed by me or under my direction to the best of my ability and understanding.

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