WATER RESOURCES COMMISSION

Report of the third regular meeting held by the Water Resources Commission on Tuesday, December 3, 2013 in Baton Rouge, Louisiana.

1:00 P.M.

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

The Department of Natural Resources
Office of Conservation

IN ATTENDANCE:

MEMBERS OF THE WATER RESOURCES COMMISSION:

VINCE SAGNIBENE, LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY, ACTING CHAIR
HON. JAMES WELSH, COMMISSIONER OF OFFICE OF CONSERVATION
KYLE BALKUM, LOUISIANA WILDLIFE & FISHERIES
HON. GLENN BRASSEAU, MAYOR OF CARENCRO
JONATHAN "JAKE" CAUSEY, LOUISIANA DEPARTMENT OF HEALTH & HOSPITALS
PAUL FREY, LOUISIANA LANDOWNERS ASSOCIATION
KAREN GAUTREAU, LOUISIANA LEAGUE OF WOMEN VOTERS, LOUISIANA WILDLIFE FEDERATION, AND THE COALITION TO RESTORE COASTAL LOUISIANA
EVE K. GONZALEZ, LOUISIANA PUBLIC SERVICE COMMISSION
JERRY V. GRAVES, LOUISIANA PORTS ASSOCIATION
CHARLES KILLEBREW, PH.D., THE GOVERNOR'S OFFICE OF COASTAL ACTIVITIES
CHRISTOPHER KNOTTS, PE, F.ASCE, LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

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IN ATTENDANCE: (CONTINUED)

MEMBERS OF THE WATER RESOURCES COMMISSION:

PAUL "JACKIE" LOEWER, THE GEOLOGICAL AREA OF THE STATE UNDERLAIN BY THE CHICOT AQUIFER
SENATOR GERALD LONG, CHAIRMAN, SENATE COMMITTEE ON NATURAL RESOURCES
EUGENE H. OWEN, THE CAPITAL AREA GROUNDWATER CONSERVATION DISTRICT
JIM PRATT, EXECUTIVE DIRECTOR OF THE SABINE RIVER AUTHORITY
PAUL SAWYER, LOUISIANA DEPARTMENT OF ECONOMIC DEVELOPMENT
JIM WELSH, OFFICE OF CONSERVATION
LINDA G. ZAUNBRECHER, LOUISIANA FARM BUREAU

WATER RESOURCES COMMISSION STAFF:

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

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SPEAKERS:

MATTHEW REONAS – DNR EDUCATION AND MARKETING REPRESENTATIVE

JONATHAN "JAKE" CAUSEY – NEW WATER SYSTEM REQUIREMENTS

PUBLIC COMMENTS BY:

JOHN HILLMAN

REPORTED BY:

ESTELLA O. CHAMPION, CRR,

BATON ROUGE COURT REPORTERS

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CHAIRMAN SAGNIBENE: I'd like to call this Water Resources Commission meeting into order, please.

Commissioner Chairman Angelle asked me to sit in for him today. He has been under the weather, and that's a change for Scott because he's usually here, a tough guy.

Without further ado, I would like to call roll, please.

MR. ADAMS: Yes, sir.

Let me know if you're here when I call your name.

Commissioner Scott Angelle?

Kyle Balkum?

MR. BALKUM: Here.

MR. ADAMS: Glenn Brasseaux?

MR. BRASSEAUX: Here.

MR. ADAMS: Jake Causey?

MR. CAUSEY: Present.

MR. ADAMS: Mark Davis?

Representative Gordon Dove?

Paul Frey?

MR. FREY: Here.

MR. ADAMS: Kerry Gautreaux?

MS. GAUTREAUX: Here.

MR. ADAMS: Eve Gonzalez?

MS. GONZALEZ: Here.
MR. ADAMS: Jerry Graves?
Charles Killebrew?
MR. KILLEBREW: Here.
Christopher Knotts?
MR. KNOTTS: Here.
MR. ADAMS: Hal Leggett?
Jackie Loewer?
MR. LOEWER: Here.
MR. ADAMS: Senator Gerald Long?
SENATOR LONG: Here.
MR. ADAMS: Ted McKinney?
Eugene Owen?
MR. OWEN: Here.
MR. ADAMS: Jim Pratt?
MR. PRATT: Here.
MR. ADAMS: Michael Rooney?
Vince Sagnibene?
CHAIRMAN SAGNIBENE: Here.
MR. ADAMS: Paul Sawyer?
Brad Spicer?
Commissioner Jim Welsh?
COMMISSIONER WELSH: Here.
MR. ADAMS: Linda Zaunbrecher?
MS. ZAUNBRECHER: Here.

MR. ADAMS: Mr. Chairman that is sufficient for a quorum, so we do have a quorum.

CHAIRMAN SAGNIBENE: Thank you very much.

I would like to introduce our newest member of the Groundwater Commission, Ms. Karen Gautreaux.

Karen?

MS. GAUTREAUX: Thank you.

CHAIRMAN SAGNIBENE: I would like to move for an adoption of the previous minutes.

Jim?

MR. PRATT: So moved.

CHAIRMAN SAGNIBENE: Thank you.

Our next item on the agenda is Review of the 2013 Workshop Commitments.

Matthew?

MR. REONAS: Yes. Thank you, Mr. Chairman.

If we can get somebody to run the slides real quick?

Again, I would like to I guess start with this, with giving a recap of the workshop we had back in October.

Overall we thought that was a very good program. We had approximately 80 people in attendance. We took all those comments, posted the combined

comments, the workshop summary, and all the relevant documents online; and they are still online at the Groundwater Resources Program website.

We forwarded that link to approximately 700 interested parties on the Water Resources Commission distribution list that we maintain, and we took additional comments for the next two weeks. We received about a half dozen additional comments, both written and by electronic communication.

Overall there was a real strong consensus for an inventory of available data. That was one of the major points that came through very loud and clear, that we needed to understand what resources, what information we had available, what data was available and what was missing.

There was also a great interest in what the projected, current and projected demand would be, so that too we took into consideration, and also what are the available water resources. There was also strong interest in regional and watershed issues, understanding individual needs; also strong interest in expanded review of the legal and management matrix of water resources here in Louisiana. As well there was an emphasis on including a stronger focus on environmental and wildlife conservation, as well as the

need to take into account sort of emergency situations, such as floods or drought years, and having a flexibility in any kind of management program that could account for those issues.

So after reviewing all the compiled comments, including from the Water Resources Commission, the advisory task force, private citizens, interested parties, we revised a proposed scope of services. And you should have a copy, should have received a copy of that by email, each member, but there's also a copy in your file folder. And what I would like to do here is run through sort of the relevant changes that we made in preparation of basically finalizing this document for consideration.

CHAIRMAN SAGNIBENE: Matthew, this was a result of the comments, the changes you made?

MR. REONAS: Yes, sir.

Overall there was -- in looking at the comments and taking the comments from the workshop, I think there was a strong consensus that this document was pretty close. And so really, what I focused on, and in consultation with other staff members what we looked at was really focusing the language to be much more specific and including some different points that were brought to our attention, so that's really what we

did with this document. And I want to go through those sort of piece by piece and explain sort of the changes in language and any additional points that were especially relevant.

And I apologize, we usually have an extra screen here, but we seem to have lost one of our cables. So I do apologize for the commission members having to turn around. But you should have a copy of it right here in your folders as well.

So as we began, the changes overall were fairly minor. Here we wanted to provide a stronger emphasis on stewardship and sustainability, which came through in many of the comments that we took over and over again. "Stewardship" and "sustainability" were words that were utilized, so we really wanted to emphasize that any sort of planning scope should focus on those points: Stewardship of the resource and sustainability of the resource.

Further down -- and these again are sort of the background, the purpose, sort of introductory paragraphs to the water document -- we included a note on environmental and wildlife conservation as being a major goal. That was I think a more oversight on our part, certainly we didn't mean to leave that out; but we were reminded of the importance of conserving the

environment and conserving wildlife, so that definitely needed to go in there and we made that change as well.

And then down here, the last sort of the introductory paragraph is a new one. We just basically gave sort of a recap of the workshop itself and the comment period and what sort of gave us the impetus to revise this Draft Scope of Services.

Next slide, please.

Next, Phase I, which again, this Draft Scope of Services would have been more of an assessment of Louisiana's water budget.

"Water budget" or the term "budget" seemed to cause some discomfort or a sense that it was too vague, not clear enough; and so I really, in revising this document, I looked strongly at that and we talked about it a good bit, about whether a "water budget" is the right term. So we struck that. I put: Planning Tools, Water Resource Demand and Water Resource Viability in Louisiana, which seemed to cover all the major points without getting into the technicalities of what exactly a budget was and what of the budget could be balanced. And that was something that was brought to our attention in many of the comments about whether or not a water budget applied specific balancing of these different needs and demands

and whether or not that could actually be accomplished. So perhaps in this Draft Scope of Services, it was better just to focus more on the planning tools that were available, what the demand was currently, what the demand was going to be, and what the resource availability is and will be in the foreseeable future. So that's essentially Phase I.

One of the other key points that was brought up quite repeatedly was the need for an inventory of the water data that's currently available and any gaps in that data: What's missing, what information is out there, how can we sort through it, how can we collate it, make it relevant, and what is not available, what are the major gaps in our knowledge of water resources in the state, what data is unavailable to us or simply missing.

And so that was something that we put as number one and added a new point in this Draft Scope of Services: Point number one, to identify sources of water quality and quantity information, and any gaps in data that may have a substantial impact on planning, and to provide recommendations on how to account or project for the absence of such data or otherwise remedy such deficiencies.

And I think that met the need that a lot

of the commission members and task force members and citizens had brought to our attention; that, look, we need to know what the information that is available is; we need to have a firm understanding of what data we have before we can really even begin the process of planning.

Further down we included again a note on the need to focus a lot of this research and planning on region and watershed. There was a lot of commentary from commission members, from task force members, from private citizens and interested parties, on the need to maybe not look at a statewide program, but to have a stronger regional focus -- which of course would probably be by watershed or by aquifer -- and so consistently throughout this document we added additional language that focused on region and watershed, to try and break that down a little bit further than by state, and that seemed to again sort of fit that need that was pointed out to us.

Further down, 2b, Assess the projected impact of these coastal restoration demands on the allocation of the state's water resources for all projected uses. We also added some language on, "for economic development or navigation needs, and for sustaining ecological systems" -- which again sort of

fit the need from a language perspective of some of the commentary we have received -- that not all of the demands for water were going to be able to be met, and we needed to have a clear understanding of what those demands, conflicts were going to be, including for a variety of different activities: Economic development, navigation of rivers, and then of course for environmental or ecological issues. So we added that language as well.

Next slide, please.

Again, here we added some additional language on sustainability issues and the impact of sustainability issues upon demand, or of demand on sustainability; that is, Can this demand be sustained into the future? What are those issues, areas where sustainability is a major issue? And can that demand be sustained into the future? We thought that was again something we needed to refocus some of the language upon to make it a little bit more clear.

And then here we added some additional language, looking at projections of supply, oversupply and undersupply, by region and/or watershed to again maybe take the focus a little bit away from the state and focus a little bit more on regional issues and watershed issues within sort of a larger state

framework.

Again region, region was a big, a big -- region was something that came up frequently in the commentary, so we figured we probably needed to address that a little bit more robustly in the Draft Scope of Services.

We added some additional, an additional point here on planning for economic growth in emergency situations. That was a point that was brought up to us, the need to plan for contingency issues, contingency planning -- years of drought, flood years, any kinds of major sort of economic booms that might disrupt what an otherwise normal water use situation -- that any sort of planning needed to have that kind of flexibility in place to address availability and sustainability issues.

And then in Section 3d here, again there was a considerable amount of commentary on the need to expand and review the legal and management framework. We had sort of I think initially in the language -- the initial language for this Draft Scope of Services had just focused more on planning within the current legal structure. But over and over again in the commentary there was a need, there was interest in looking at the big picture of the state's water law and water

management programs; and so we added that language in there to try and meet that need.

4e, again what was pointed out to us -- this is dealing with understanding our water resources that are shared with other states -- we just added some language to clarify that, to clarify the availability of Louisiana shared water resources. I think the initial language had basically focused on what Louisiana's rights to that water were. And one of the commissioners had pointed out that we should probably try to understand what the availability of that water resource is as well as understanding Louisiana's rights to it, so again some language to try and clarify the meaning.

Next page please, Gary.

Phase II, Planning and Allocation. Really only one major change to point 1 there: Provide recommendations on developing a -- I have "strategic interface." I kind of chuckled. It was probably a little vague, and that was pointed out to me as being too vague. And so we changed it to being a flexible prioritization or budgeting program.

I don't know if that makes it any more precise, but I feel like it provides a little more definition at the very least. And again this section 2

was really all about planning and allocation, and that focus again should be on stewardship and sustainability. And so we hit that point again as well in sort of conceiving of a flexible program, prioritization or budgeting program.

Beyond that, that was really the gist of the changes that we made to this document. And again, they were all compiled -- Mr. Chairman, as you know, as I commented earlier -- from the comments that we took at the workshop, from the commission's advisory task force, very good comments all around, and very strident, many of the comments, and passionate, and then of course from the comments that we took after the workshop, as well on this document and the workshop and the summary of the documents associated with it.

So at this point again, you all should have a copy of the original resolution from June, along with a copy of this Revised Scope Of Services again as the commission support and staff agency were here to pursue this as needed.

CHAIRMAN SAGNIBENE: Matt, seemed like you did a very good job in incorporating comments and making this document user friendly.

I suggest that we finalize this as something and submit it to the Chair.

MR. REONAS: We can certainly do that, yes, sir.

CHAIRMAN SAGNIBENE: Thank you.

Karen?

MS. GAUTREAUX: I just wanted to take a minute to thank Matt and the staff that put such a tremendous effort into preparing for the workshop and the great participation that we had from many of the members of the commission, the advisory task force and the public.

I think it was a very good overview of where we were, where we are now, where we need to get to. I think embedded, especially our two elected officials, among those elected officials there, Senator Long and Commissioner Angelle mentioned how incredibly important the public outreach component is going to be to accomplish all of these things that you've listed.

And to that end, as a reminder and a request to all of the representatives we have from our different sectors, that we're going to be needing to work hard throughout this process to make sure we're engaging who we're representing. And what I would suggest -- and we can discuss it later or before -- is that we actually maybe form a working group to help as you are moving along in terms of implementing things,

to make sure we're getting that outreach throughout the process, so that we all understand how important water policy is. And it will be very helpful and useful to have input from the public and support throughout the state by the time we get ready to pass something.

Thank you.

CHAIRMAN SAGNIBENE: Thank you, Karen.

I think that was some good comments. I know you put a lot of hard work in this matter, and I appreciate it and thank everybody else who helped you along.

Next item, house bill -- House Resolution No. 150.

MR. REONAS: Yes, sir, I can get to that.

Could we go through the regular progress report? I guess that's at the end of it, HCR 150.

CHAIRMAN SAGNIBENE: Yeah.

MR. REONAS: Okay. Excellent.

Really I would like to just sort of go through a review of some of the, or progress report of some of the major issues that we've been dealing with and that are out there and that are relevant really to the Water Resources Commission. Many of these were highlighted, of course, in the 2012 Interim Report to the Legislature, and then we went through these; and to

update, we provided this past June on many of those issues.

The first one that I would like to sort of give an update on is the USGS Department of Natural Resources Groundwater Monitoring Network. As you know, earlier this fall there was a federal government shutdown, but that doesn't appear to have impacted the monitoring program at all or in a very minimal way. I talked with USGS. I think in some cases the sampling regime was moved back a little bit, but overall it's still very much on track. I'm meeting actually later on this week to review the most recent quarterly update, and so I'll provide sort of an update on that to the commission after that meeting.

I would like to point out that the current, the current data is all available at these assorted websites. You can actually go by parish, search by well, search by parish or well or resource, water resource. It will provide data on groundwater levels, on chloride and other water quality data.

And most interesting, the 2012 water use numbers that are available -- which is sort of point 3 right up here, point 3 right there (indicating) -- the water use data for the state has just been posted. Evidently there was about a 4 percent increase in water

use in 2012 over 2010. And this is part of the larger project, to do annual water use summaries instead of every five years. So I think this will be a very useful part of the program in terms of keeping a little bit better tab on what water use is on a year-to-year basis. So again, about 4 percent increase in 2012 over the 2010 numbers in groundwater. That translated to about a 5 percent increase; in surface water, about a 3.6 percent increase.

I went through and looked at numbers. Again you can go, commissioners and task force members, interested parties can all go there and pull it down by parish, by source, by groundwater or surface water. So it's very user friendly in that regard.

But I guess some key stats or key highlights: Rice irrigation, use of groundwater was down from about 486 million gallons a day to 412.

General irrigation using groundwater was up from about 183 million gallons a day to 234.

Groundwater aquaculture up from about 197 to 282, and use in industry of groundwater was up from about 244 to 253 million gallons a day.

It looked, it appeared that most of the surface water increase came in power generation, about 400 million gallons a day increase from 2010 to 2012.

And you can go to the next one.

The network is available online as well. You can go to the --

I'm sorry, Teri, could you go back one more.

The groundwater level network is available at this website (indicating). And then it will bring you basically to this screen shot right here, which is sort of an interactive map of the state showing the expanded network.

As you'll see, a lot of the wells are colored gray. That simply means that there aren't enough data samples, water level measurements for USGS to rate these wells at this point. So again, to me, that points out really the extreme need in this state for an expanded network. I mean, if you look at large swaths of the state where these wells are located, these wells that are colored gray were basically unrepresented or underrepresented in previous years. So really we have a greatly expanded water level measurement network in place now.

And again you can go -- it's actually neat if you go to the website. It will pull up all the information. In some cases I was looking at some of the wells. Some of the wells are actually measured as

early as the 70s or 80s, but then there are big gaps in the years. So you can actually see the 1970s or 1980s' measurements and a huge gap throughout the 90s and most of the 2000s before this program began measuring again. So it's really a fascinating sort of look at each one on an individual basis.

And of course something to point out, they will have a map showing you where the well is and of course all the relevant data to go along with it. So all this stuff is again online, available for search or to look at.

Okay. I would like to kind of give a brief overview of where we're at in the Office of Conservation with our education program.

We're continuing to work with the Baton Rouge Area Foundation on the Water Monitor BR Effort. We actually were able to work with the Department of Environmental Quality utilizing their Beneficial Environmental Project Program. We were able to get some additional funding through that resource, which I think is a great, great way that shows cooperation between the agencies on sort of common goals.

And this spring we're going to expand our curriculum. We're going to have some additional training workshops for teachers, and we're going to do

some expanded public outreach on water issues here in East Baton Rouge, particularly the importance of groundwater, saltwater encroachment, those sort of issues. Again that's sort of a follow-up of a lot of the work we did earlier this year.

Statewide, I'm developing a science teacher survey. One of the things I would like to try -- and I've had several conversations with different people to date. One of the things I would like to do is try and get a much more comprehensive water resource management curriculum in place, but what I really feel like I need is a survey. I need to understand what's being taught in the classroom right now.

I've done a lot of work here in East Baton Rouge and have sort of a feel for what's going on here locally, but I'm really not sure what's going on at the state level. What I would like to get is a survey that kind of gives me some data, some measurements on what's being taught statewide; and then perhaps from there I can make a case for a much broader program and tap into some funding utilizing those numbers.

We also were looking very strongly at doing two, two similar campaigns to what we did here in

East Baton Rouge: One in west Louisiana, in Caddo Parish and those surrounding parishes, and then the other in the Sparta area, Sparta district.

Sparta in particular has done a lot of hands-on work with elementary school kids. What we would like to do is perhaps try to work with them and collaborate with them on doing a curriculum and some training at the middle school and high school level, which is where we sort of focused our efforts to date.

Of course Caddo is interesting -- we're in the midst of sort of raising money to do some work there when --

We'll go to the next slide, Teri.

This past spring and summer, when we started actually seeing the pretty major declines in groundwater levels -- of course the Carrizo-Wilcox aquifer in South Caddo was the primary source for many households, primary source of drinking water for many households in that area. And beginning in late June, July, August, basically that area had no rain at all. And we actually had moved into, by early September I think it moved into like a level 3 or extreme drought on the U.S. drought monitors, drought watch website by their rating.

So we actually had some funding in

place. And again you can see the declines here in August -- beginning in late June, July, into August, very steep declines. And that's what we were staring it. I know that Caddo Parish also had a burn order in place. But we were very concerned because, again, although this was very normal in terms of its cyclical nature -- kind of up and down, up during the winter months, down during the summer -- this was a very steep decline.

We were talking very closely with Gary Hanson with the Red River Watershed Management Institute who has a set of wells that he monitors, as well as USGS wells right here (indicating). Again we were seeing very steep declines. And we went ahead and utilized some of the funding that we had available to do an outreach effort into South Caddo --

Teri.

-- which included a mail-out, this mail-out which you have a copy of in your folder, a mail-out to approximately 4500 homes in the area, a media outreach to TV, radio, newspaper. We revamped our South Caddo website, and then we emphasized particularly education about the resource. Much of this material that we sent out was educational about the groundwater emergency order that's been in place

going on over two years now in that area; but we also wanted to educate people about the nature of the resource itself, the Carrizo-Wilcox aquifer, to provide people some understanding that this is an issue that's probably going to be continuing into the future.

In wet years it's not going to be an issue. In particularly dry years or years of drought -- which we've had two pretty serious droughts the past 15 years -- it's probably going to be an issue and will continue to be an issue.

It also gave us the opportunity to investigate the Office of Community Development over in the Division of Administration. They have a couple of programs, the Local Government Assistance Program and the Community Water Enrichment Fund, which provide funding to local parishes and municipalities for water infrastructure projects. And so we did some research with those guys over there. It's actually a really great program, provides about $150,000 per parish. It's basically free money; there's no match, although a lot of parishes and municipalities use is at a match for larger federal grants. And both of these programs, the LGAP and the Community Water Enrichment Fund, both of these can used for water infrastructure projects.

In particular, when we were looking at

South Caddo, there were two communities -- Mount Pleasant community and then the Mayo Road community -- which are really close to Shreveport, the city of Shreveport's water system and could be linked in fairly, fairly easily -- this was pointed out to us by Gary Hanson, again with the Red River Watershed Management Institute at LSU Shreveport -- that these areas, that these communities could be linked in very easily. So we provided all this information to Gary, and we provided all of it to the Caddo commission as well just to try to keep them in the loop.

I believe they had some water enrichment fund projects underway. I don't believe they had any Local Government Assistance Program projects underway. But again, it was educational for us in terms of what this money is and what it can be used for. And again, the Community Water Enrichment Fund actually has an emergency, an emergency pod of money that can be tapped. It has to meet a certain -- situations have to meet certain emergency criteria; but in case of, you know, a pump on a well goes out or several other criteria that could be met, communities can tap into that emergency fund as well; which again, 30 or 40 or $50,000 could be a lifesaver for many small communities.

Okay, Teri.

And then I would like to kind of give a recap on where we are with issues here in East Baton Rouge, in particular Capital Area aquifers and saltwater encroachment.

Primarily the Office of Conservation has been working with the Capital Area Groundwater Conservation Commission. We've been monitoring their work very closely. There has been a lot of, there has been a lot of activity, a lot of action this past year. We would like to extend our thanks to outgoing Chairman Joey Hebert for all his hard work. Office of Conservation and the Capital Area District, we signed a memorandum of understanding earlier this year to provide -- so did the Office of Conservation and DNR, to provide technical and communication assistance if needed in the future.

In response to a letter we sent earlier this year, Capital Area formed a subcommittee to begin a long term planning based on the USGS models, the greatly anticipated USGS models that also came out this summer.

I just was at a meeting this morning and those models were officially cleared for publication last week it was reported. So of course the USGS

models on the 1500 and 2000-foot sands were released earlier this summer for use, but they didn't have -- they weren't okayed for official publication until evidently this past week, which is normal. So those models are in place now and work is continuing to expand those models.

Capital Area secured additional funding for modeling the remaining sands in the Baton Rouge area, the remaining aquifers in the Baton Rouge area over the next ten years. So there's a lot of work that's been done over this past year.

Still our interest from the Office of Conservation standpoint is in sustainability. You have in your files a recent letter we sent to the Capital Area outlining our continued interest and concern in finding a long term solution to saltwater encroachment. Again, this is a problem that's evolved over the past 50 years. It's not a problem that's going to go away tomorrow or steps that we can take today that will solve the problem immediately; but again, from our standpoint, there is a need to have an aggressive management timetable in place that we can move forward with. And that's really our interest in working with Capital Area as we go into the next year.

Okay, Teri.

And last on this list is sort of a progress report on HCR, House Concurrent Resolution No. 150. We sent out to the Commission members a copy of this report, this draft report because, in the resolution, the resolution asked that the Office of Conservation consult with the Water Resources Commission to study, report and make recommendations on the availability of well drillers, water well driller licensing requirements, and the impact on rates charged for drilling water wells.

Primarily much of this research centered on: We ran a survey, we ran a survey with water well drillers in the state. We did some additional research with the USDA. We consulted with the advisory committee, the water well drillers advisory committee, gave them updates in two of their meetings.

Teri, go to the next slide.

Two of the key findings of course centered on really the demand for water wells in the state and the number of licensed water well drillers. These in some ways are the two most key stats in that whole report, which is about 50 pages. If you all have had a chance to review it, again we have a lot of graphs and charts and all that. But these are, these are really key.

What we saw was that, since 2006, the demand for water wells in the state has declined approximately 50 percent. A lot of that has to do with the decline of the demand for domestic wells as community water systems have expanded since Hurricanes Katrina and Rita in recent years.

Demand for other types of wells -- rig supply wells, irrigation wells -- has sort of been up and down, but relatively constant. As you can imagine, there have been years where demand has been above average, and then in the following year demand for those types of wells has fallen back to the norm or below the norm, so really what you would expect on a year-to-year basis.

More importantly for us, the number of licensed and active water well drillers in the state has remained over the past ten years almost, almost constant. We had about 257 in 2003-2004, and this past year we had 246. So it's really a decline of ten over the past ten years. It's a very minimal decline, hardly has had an impact in terms of availability of licensed water well drillers in the state.

So the conclusions and all were in that report. We would like to go ahead and --

We did ask for comments. That date

yesterday has passed. And unless there are any additional comments, we would like to sort of move to go ahead and close this and finalize the report and submit it on to the legislature, if that's acceptable to the Commission.

CHAIRMAN SAGNIBENE: Matt, you sent this to all commission members; correct?

MR. REONAS: Yes, sir.

CHAIRMAN SAGNIBENE: Any comments?

I move to finalize.

MR. REONAS: Okay. Thank you, sir.

And I guess, on that note, that's --

Teri.

COMMISSIONER WELSH: What's the date -- what's the deadline, what's the deadline for submitting it to the legislature?

MR. REONAS: February 15. But if he can clear it out in the next couple of weeks, maybe before Christmas.

COMMISSIONER WELSH: Right. You all did a good job on that and I appreciate it very much.

MR. REONAS: Thank you. Thank you.

CHAIRMAN SAGNIBENE: Thanks for your hard work, Matt.

MR. BALKUM: If I could make a

recommendation?

Within the Department of Wildlife and Fisheries, we have an Environmental Education Commission. You might want to reach out to them. Maybe they can partner with your department doing some of your outreach or education opportunities that may help what's being taught currently, what the demands are on teachers, what opportunities there could be to expand water education, water conservation and water science.

MR. REONAS: Yes. I talk with Denise a good bit, Denise Ortego, and I've got to -- I know the workshop or symposium this year I think is in Shreveport. I would like to go up there and present and see if I can reach out and expand my reach into that group as well.

MR. BALKUM: So you've already been there?

MR. REONAS: A little bit. There's a lot of work to do.

I think the biggest issue right now, in terms of education, sort of science education in the state is, where Common Core is going. I just was reading this morning in the news, I think the superintendent of education made a recommendation to delay implementation of that for two years.

Of course recently at the national level, the Next Generation Science Standards were adopted. So there's a little bit of flux right now in education, and I think teachers are probably feeling that as well.

I feel like we had a very good response here in East Baton Rouge. And of course we were working under an order that sort of mandated that we do some public outreach in education, so that was really the impetus for what we were doing.

Of course also in Caddo Parish and the Sparta, we have sort of a vested interest in those areas.

From a statewide perspective, I think the emphasis is really going to be on water resource management. I think there's an opportunity for curriculum based on those issues, and you can break it out by region and watershed. I've talked a good bit with the Nature Conservancy. I've met with Karen, and I think there are some really big opportunities to secure funding to do a statewide curriculum based on those water resource management issues.

Of course that's going to be bigger and bigger than me, and I realize that.

MR. BALKUM: Thanks again for the update.

MR. REONAS: Thank you.

CHAIRMAN SAGNIBENE: Matt, have you tapped into DEQ's Wellhead Protection and Outreach Program?

MR. REONAS: Yes. I talked with John, Tiffany and Mary a good bit. That's another group I would like to bring in.

I think the opportunities are there for a lot of hands-on, I like to call them virtual field trips or digital learning-type opportunities that you can actually -- kids that in many cases probably couldn't get out of the classroom, because again that's tough, harder and harder for teachers to get kids out of the classroom -- but if we can bring these outside experiences to them through digital learning or virtual field trips, things like that, that's where the real opportunity is. And kids I think will understand it a little bit more if they can tie in the book learning with the hands-on aspect of it.

CHAIRMAN SAGNIBENE: Yeah, because they impact a lot of communities, so you can pull them in.

MR. REONAS: That's it.

CHAIRMAN SAGNIBENE: Thank you.

MR. REONAS: Thank you.

CHAIRMAN SAGNIBENE: Next item on the list is the New Water System Requirements. Mr. Causey?

MR. CAUSEY: All right.

Thank you, Matthew.

So I'm just going to give you all a sort of a brief overview of our experience with recent detection of Naegleria fowleri amoeba in our water systems -- and you'll see it spelled in the slide -- and then even a little snapshot of what, some other recent events outside of Louisiana for a little perspective. And I believe the presentation will be circulated via email afterwards, so you'll have the slides.

But basically in 2011 there were two deaths.

Go ahead to the next slide.

So we had two cases of PAM, Primary Amebic Meningitis, one in DeSoto and one in St. Bernard, and that was in the summer of 2011. Both of those cases were associated with the use of a netty pot that's used to irrigate nostrils for sinus issues.

But in 2013, this past summer, we had a 4-year-old that was diagnosed with PAM, again in St. Bernard Parish; and the exposure pathway there was that the child was on a Slip and Slide all day, and so Naegleria fowleri was determined to be the cause of the PAM in all three cases.

In 2011 we did do some investigative sampling

in conjunction with CDC within the premise plumbing systems, and also, in the case of St. Bernard, in the water supply system. A lot of the premise plumbing samples did come back positive, including the netty pot.

In the case of St. Bernard, the water supply samples were one liter grab samples, and those were all negative at that time. And then more recently in 2013, when we did the first round of premise plumbing samples and a few water supply samples, CDC had actually implemented sort of an experimental sample technique utilizing ultrafilters from kidney dialysis machines, and so we actually found some sort of discrepancy in the results.

One tap would be negative in the grab sample but positive in the filtered sample. So we felt like the filtered samples were giving us more representative results. And so we went back into the St. Bernard water system and did additional filtered samples in the system -- I believe it was about ten -- and four sites came back positive in St. Bernard.

So a few weeks later the only other case of PAM we had in the state recently was in DeSoto, so we did additional follow-up sampling in DeSoto, ten sites with the filters, and five of the ten sites came back

positive for the Naegleria fowleri amoeba.

And just for everyone's benefit, the water is safe to drink. The risk with this amoeba is it being forced up your nose, and then it can make its way up to the brain, and it feeds on the brain and really has a 99 percent fatality rate. So definitely an issue.

This is the first case of Naegleria fowleri detections in a treated drinking water system in the United States. So this is very groundbreaking, not only for us, but for CDC, EPA as well.

Arizona had some cases of PAM related to some untreated groundwater exposure I believe in the early 2000s.

So when we started looking at responding to the detection of PAM in two of our water supplies, CDC put us on to western and southern Australia as they had I believe maybe 20 years ago, about 19 deaths associated with this amoeba in their drinking water system; and so they had implemented some response protocols, specifically increasing the minimum disinfectant residual concentrations throughout the distribution systems to at least a half milligram per liter. And so that is what we immediately recommended to public water systems to implement --

And you can go to the next slide.

-- and then subsequently just recently issued an emergency rule mandating water systems achieve and maintain a half milligram per liter disinfectant residual throughout their distribution systems.

Certainly there were a lot of questions about: Well, you know, we don't know if we have this amoeba. Why do we have to do this? Can we just test?

And so the reality is there are no standard approved methods, no commercial labs, et cetera. These are research methods that we're using for identifying Naegleria fowleri and so -- let's see.

We can move on to the next slide.

So to get into really the emergency rule requirements, we issued the emergency rule on November 6 and specified several things. One was that public water systems increase their disinfectant residual monitoring in their distribution systems by 25 percent of what their current residual monitoring is based on their total coliform rule requirements.

And then so beginning, effective February 1, all public water systems have to achieve the half milligram per liter throughout, and as well as establishing the number of sites that they are monitoring as one and a half sites times the number of coliform and chlorine residual samples they do each

month, so that they can alternate each month, get more representative monitoring throughout the distribution system.

And so this bottom chart really kind of shows you the monitoring that is now required under the emergency rule. You have continuous or daily monitoring in point of entry, and the maximum resident time; and then monthly there's total coliform samples, which is really bacterial. But there's chlorine residuals that are required to be collected in conjunction with that activity, and then 25 percent additional chlorine residual monitoring.

Go to the next slide.

So as part of this effort, all systems are being required to revise and update their coliform and chlorine residual monitoring plans. And we are, you know, communicating frequently with water systems on this effort. Basically we are going to have a web application that these are going to be submitted to us through that will go live on December 9.

We can go to the next slide.

And so this was a chart just indicating per system, public water system, so they can readily determine what their new -- how many monitoring sites they have got to have and what their monitoring

frequencies are for these different parameters.

Turn to the next.

Now we did put in a provision that systems that may need to make significant infrastructure improvements to achieve the highest effective residual throughout their system can submit a request for additional time, you know, based on, you know, there would be a time for design and permitting and construction, and so we did make a provision for them to request additional time.

The next bullet is just the minimum.

So these are the new residuals: A half milligram per liter of free chlorine; or systems that disinfect with chloramines, which is really chlorine combined with ammonia, they monitor total chlorine residual, and their minimum is also a half milligram per liter.

Now as part of this effort, we did identify that we still had about 31 public water systems currently under waivers from disinfectants, not disinfecting their water at all, and those waivers were granted back in '95 when the mandatory disinfection rule was promulgated. And it was done based on having no coliform violations for three years, for a three-year period. But going forward, if they are

having an issue with bacteria, then that waiver is revoked. And so certainly probably hundreds were granted back then, and the list has kind of whittled down to 30 since then.

As part of the rule, it was a few concerns of some industrial sites as far as the significant impact to their processes and other things, so we made some provisions in the rule to address some of those concerns.

Move on.

Now in addition to this, the other things I mentioned, systems that use chloramines for disinfection also are required to develop and submit an Nitrification Control Plan by March 1, 2014. And that is one of the concerns that we had with both DeSoto and St. Bernard. Both systems were using chloramine disinfection, and we did identify multiple locations throughout their system where they were not maintaining a residual at all. And we suspect that Nitrification had a significant, was a significant reason for that, and so there are different strategies to control that. And that really only applies to chloramine systems, so that's another aspect of the emergency rule.

So we clarified the monitoring equipment to measure chlorine residuals, the records retention, and

also again the monthly monitoring of the TCR sites that, you know, if your schedule is 75 a month, and all of a sudden the mods are coming from different sites for that month, and the chlorine monitoring is part of that.

So when that was released, we had been holding a series of webinars with public water systems about every two weeks, so we did create a website where we could put all that information for water systems to access. They can download the emergency rule. We have a PowerPoint where it gives them a brief overview, some charts and other things to help them readily determine what their new requirements are.

And this, where it says, "PWS Monitoring Plan Portal coming soon," that's where the revised plans that are due January, there's going to be a link there where they can go online and submit those.

You can go to the next slide.

This is just a brief overview of the timeline. The emergency rule we're currently under, again it was issued November 6. First deadline January 1st to submit the revised monitoring plans; February 1st, deadline to begin, to be in compliance with the new minimum disinfectant residuals throughout; and then March 1st on the nitrification plans.

So as part of our efforts -- this is on the website -- we have a series of workshops set up across the state throughout the month of December, so systems can go online, click on one of these locations and register to attend. And we're going to provide basically one-on-one assistance to help them submit their monitoring plans via the website again which goes live on December 9th.

Additional assistance: We do have contracts in place -- Louisiana Rural Water Association, Thornton, Musso & Bellemin -- to provide technical assistance. So we're going to fully utilize those to assist water systems in this emergency rule, and then some other forums and things on our website with respect to public water systems.

And so, you know, certainly the brain-eating amoeba was very big news for Louisiana. And also I wanted to mention, CDC did also just release information on a case of PAM in the U.S. Virgin Islands. It was a ritual thing with water going up the nose type situation, and so it's -- Naegleria fowleri is basically what the EPA is considering an emerging pathogen, something that they are looking at. There has not been any monitoring for this amoeba in public water systems in the country at all, except what we

have done in response to events here and what Arizona has done in response to what they have seen. So this is going to be a major sort of national effort I think in years to come to look at this on a nationwide issue; but unfortunately, we've got to address it here and now.

But so, just looking at other things, you know, happening outside of Louisiana, just for some perspective, you know, we haven't had any real waterborne disease outbreaks here in Louisiana for a long time. I don't necessarily know or believe that PAM -- because it's really going up the nose -- would fall into that category.

But just some perspective: Colorado, Salmonella outbreak 2008 in a non-disinfectant water system; Pennsylvania, Legionella outbreak 2012, again a non-disinfectant water system; and Oregon, Crypto outbreak just this past summer.

This water system really was in compliance with everything; but basically the quality of their source water changed. And the treatment processes, though they were in compliance, still didn't provide safe water. So there are kind of a few slides on these.

You can go to the next.

This was the Alamosa event in Colorado, Salmonella.

Go to the next slide.

Basically people started showing up at the ER, and as more cases come in sort of the concern and investigations expand.

You can go to the next slide.

So this was the early case summary, quite a few people affected.

Go to the next slide.

And so these were some of the strategies that water systems were looking at back in 2008. It's interesting. You have the disinfection waiver issue, which we're dealing with; storage tanks and distribution system issues, that's part of the issue we're dealing with with this amoeba here; regulatory revisions, you know, disinfectant-residual requirements. It's really all these same elements. Different contaminant, but really the same elements of the water system are being evaluated.

Next slide.

This is the Pennsylvania, 2012 Legionella outbreak. It's at a hotel, but this hotel is a public water system, has its own well, not disinfected. And basically there was, I guess sort of the case developed

over time. The top is just basically a news clip.

You can go not next slide.

So again, Pennsylvania's experience. Looking at design standards, permit conditions, distribution system issues, as well as revisions to disinfection requirements, considering half milligram per liter free being maintained throughout the system and one milligram per liter for total chlorine maintained throughout the system, this is what those guides are going through currently.

And then the last. In Oregon, with the Crypto outbreak -- go to the next slide -- again you can see the dates here. They just recently have been dealing with this issue. Quite a few people affected.

Crypto is something that recent -- the long term two and a half surface water treatment rule is now mandating additional treatment for crypto sporidium in certain water systems who had levels in their source water at, you know, certain concentrations.

For this system there was a dramatic change in their source water, a lot of investigation; but what's interesting is that their monitoring data each day didn't specifically reveal any issues.

So still a lot of risk in providing public water systems and the need to stay on top of our

infrastructure, distribution systems; maintain chlorine residuals throughout, very, very important.

I'm not sure what the last slide is going to be.

Yeah, so that was the source of water. That's a very super high crypto count there.

So that's it.

CHAIRMAN SAGNIBENE: Thank you, Jake. I would like to thank you for all the help and involvement you had in this. You have a big job before you, help pull everybody together.

Thank you, Jake.

MR. CAUSEY: Thank you.

CHAIRMAN SAGNIBENE: Next agenda item is public comment. Anybody from the public wish to comment, come on up.

Please state your name for the record, please.

MR. HILLMAN: John Hillman, H-I-L-L-M-A-N.

Where do you want me?

I'm coming down here, got a bunch of my neighbors. Being I'm a Louisiana citizen, I've got some questions. I couldn't get them to come, so I said I would come.

I have been around here a long time and

I see more and more of our water resources biting the dust, and I see it with contamination, and contamination from our local oil and petroleum industry, and it just seems like it just grows on.

I can tell you a few -- back in the 80s I had some property over in, north of Sulphur, Louisiana, the little town of Beulah up there, south of DeQuincy; had about 15 acres, and we were doing something, trying to make an orchard four or five years. Well, in there they had an injection well several miles from us. A lot of homes in there, people living on four and five acres with their own private well. But I guess in that four or five-year period, they must have stopped those people from injecting in there by court-ordered injunction. That lasted about two or three days. They're right back there. That's West Lake, Lake Charles. You know what that chemical business is over there. You can't hardly breathe when you go through there.

So anyway, pretty soon got to notice that the groundwater was polluted, can't drink it. But that was okay for a water company up in DeQuincy. They ran a pipeline down there about 12, 15 miles back through those roads, so they had their water. Now that's just one instance. That was back in the 80s.

Now I have to speak to probably our biggest water source loss just here just recently, and that is our Bayou Corne sinkhole. And you know, it's 21 of you people sitting up there and every one of you got good intentions I believe of wanting to protect the Louisiana citizens.

Well, we began to wonder if these agencies are allowed to do that or whether you all are inhibited or intimidated from doing that.

Now what happened at Bayou Corne bothers a lot of us because we have not seen a thing that would prevent this happening again. My neighbors, there are several of us; we talked and said, Why is it that Texas Brine can mine that thing for 30 years seems like, and then I guess they reached their limit, and they requested from DNR a permit to expand their mine.

Now I ask you, Mr. Welsh, because I know you will answer this: We have never seen what criteria was used for you to approve that permit that allowed this God-awful thing to happen to our water source down there.

Is there anything in place? Are you obligated to give them a permit when they make the request, or Mr. Angelle who was there at the time? Because it can happen again.

COMMISSIONER WELSH: Sir, we're talking about the cavern that --

MR. HILLMAN: Yes, sir.

COMMISSIONER WELSH: Number three?

THE WITNESS: Yes, sir, Bayou Corne, where Texas Brine Company requested a permit to extend their mining operation and DNR approved it.

And shortly after that, a few years, they notified DNR formally with documentation that the cavern test had failed and they suspected a wall breach. Of course that was kept secret -- I guess there was some reason for that -- until The Advocate came out with it and big headlines in our paper, that, Hey, DNR keeps this secret.

I guess there must have been a reason for that. But it would help those people who were trying to figure out what was happening down there.

COMMISSIONER WELSH: I understand what you're saying.

And Mr. Adams, would you …

MR. ADAMS: Yes, sir.

Mr. Hillman, I'm not exactly sure what permit you're speaking of. But if you would like to provide me additional information on it, I'll be glad to look it up.

All of DNR's records are public information, so there's nothing that's being hidden from anyone; and I'll be glad to make any of those records available to you for your review.

MR. HILLMAN: Well, let's ask The Advocate reporter that wrote the article and is following Bayou Corne very good that had this front-page headline that DNR had kept this secret.

MR. ADAMS: I can't speak to The Advocate's headline.

MR. HILLMAN: This is documentation, so I'm surprised you don't know about it.

My question is, there must be some criteria where, when Texas Brine or these other companies -- and there are hundreds of them out there -- come and say, Look, we're going to have to expand our mining operation. You all don't say, just go ahead, do you?

CHAIRMAN SAGNIBENE: Mr. Adams said he would make those records available to you.

Correct, Mr. Adams?

MR. ADAMS: Yes, sir. There's a tremendous amount of criteria and regulations that go into each and every one of those. And if you would like for me to go through our entire case history on any of those

caverns, I'll be more than happy to do that.

MR. HILLMAN: Don't need it. Don't need it.

I'm just talking about this one cavern where we've got all this water loss and everything else down there. And the paper, I'm sure that they knew what they were printing, and that's that great reporter that's following it, Mr. Mitchell, you know, he documented it, what date you all received the letter from the president of Texas Brine Company and --

MR. ADAMS: Once again, Mr. Hillman, I'm not familiar with the article that you're talking about. But again, if you would like to sit down with me and go through the article, I'll be glad to identify any documents or information that they referred to and make that available to you.

MR. HILLMAN: Well, maybe I should send you that Advocate and let you read that article; because when they put that print across there, the document, that's good enough for me. That's what I'm speaking from.

My fear is, will this happen again?

CHAIRMAN SAGNIBENE: Excuse me. I think Mr. Adams is saying that he's available at any time.

MR. ADAMS: Yes, sir.

CHAIRMAN SAGNIBENE: Okay?

MR. HILLMAN: One more question.

Watched the news this morning at 6:00. Did any of you all see that?

Well, our little thing up near Monroe, up there in north Louisiana, here's this poor old guy talking to the Channel 9 reporter showing how he can light his faucet.

Now we knew that was coming when you started fracturing because we've seen the pictures of Pennsylvania, Texas and all this. So here is this old boy lighting his water. He said, Well, we've got a well about half a mile that way and one about half mile this way. And his wife said, And one of my daughters just got sick and fainted.

And they said they were told that they will provide them bottled water -- and I guess that's the company up there, Anadarko -- but leave your windows open.

It was 26 degrees. And that's really addressing something.

Now would you, DNR, be up there, or DEQ or somebody checking that out?

CHAIRMAN SAGNIBENE: Correct me if I'm wrong, DNR people, but I think you all are currently evaluating that situation. Correct?

MR. SNELLGROVE: That's correct. That situation has been brought to the agency's attention and it is under investigation.

CHAIRMAN SAGNIBENE: And I assume you all have some report forthcoming on that?

MR. SNELLGROVE: That's correct, there will be inspection reports provided and some conclusion as to what the findings are as to the source.

MR. HILLMAN: Well, obviously his water is gone. He has got a private well.

I mean, we can't do this. I have been in this state a long time and it's just one after another. I feel like our people are not protecting us as much as they should be. That's the way I feel. And I guess it's political.

You know, we've got a lot of influence here, you know; and it's a shame, but we have to have water to drink. That water comes in DeQuincy I guess is all right. They got really expanded there.

Well, I just wanted to ask those questions. And I hope you all let it sink in. I appreciate what you're doing. But I see 21 people on the commission, I just hope one of you doesn't take the position that our wonderful governor is going to tell you to get off, take a hike.

CHAIRMAN SAGNIBENE: Thank you for your comments.

Anyone else like to approach the mic?

Okay. Do I hear a motion for adjournment?

MR. GRAVES: So move.

MR. PRATT: Second.

CHAIRMAN SAGNIBENE: This meeting is adjourned. Thank you.

(Whereupon at 2:19 PM the meeting adjourned.)

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STATE OF LOUISIANA

PARISH OF EAST BATON ROUGE

REPORTER'S CERTIFICATE

I, ESTELLA O. CHAMPION, Certified Court Reporter and Registered Professional Reporter in and for the State of Louisiana, Certificate Number 76003 (in good standing), as the officer before whom this proceeding was taken, do hereby certify that on June 5, 2013, the foregoing 58 pages were reported by me in the Stenotype reporting method, that said transcript was later prepared and transcribed by me or under my personal direction and supervision and is a true and correct transcript to the best of my ability and understanding; that I am not related to counsel or to the parties herein, nor am I otherwise interested in the outcome of this matter.

Baton Rouge, Louisiana, this 8th day of January, 2014.

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ESTELLA O. CHAMPION, CCR, CRR